Aviation Safety Investigation Report 199402372

de Havilland Canada Dash 8

25 August 1994

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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.

Aviation Safety Investigation Report

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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: 199402372 **Occurrence Type:** Incident
Location: Cairns
State: QLD **Inv Category:** 4
Date: Thursday 25 August 1994
Time: 1405 hours **Time Zone** EST
Highest Injury Level: None

Aircraft Manufacturer: de Havilland Canada
Aircraft Model: DHC-8-102
Aircraft Registration: VH-TNX **Serial Number:** 033
Type of Operation: Air Transport Domestic Passenger Scheduled
Damage to Aircraft: Nil
Departure Point: Cairns QLD
Departure Time: 1406 EST
Destination: Townsville QLD

Crew Details:

Role	Class of Licence	Hours on Type	Hours Total
Pilot-In-Command		1700.0	10000

Approved for Release: Saturday, November 4, 1995

Sequence of Events.

During clearance delivery, the co-pilot noted the level on his Take-off and Landing Data card and read back the cleared level (FL150) correctly. However, the pilot-in-command (PIC) entered FL160 in the Altitude Select Indicator before engine start. The co-pilot was distracted following his recording of the clearance by his perceived need to select the assigned transponder code (the code was unusual as 0756) without delay. This occurred at the time the PIC was manipulating the Altitude Alert Indicator. The PIC was distracted by the co-pilot's involvement with the SSR code and the selected altitude discrepancy was not noticed by either crew member.

Further distractions included a photographic session on the tarmac near the aircraft and an unannounced request by a Flying Operations Inspector (FOI) to occupy the third seat as supernumery crew. The crew were not wearing headsets and the cockpit noise environment was such that the FOI did not hear the cleared level or the readback.

After takeoff, the crew advised the Approach/Departures Controller that the aircraft was on climb to FL160. Although the aircraft's flight strip indicated the correct level (FL150), the controller missed this part of the message, partially due to a high workload. At the next frequency change to Arrivals, the crew again indicated that the aircraft was on climb to FL160. The Arrivals Controller also missed the incorrect level and co-ordinated FL150 in accordance with his flight strip with Townsville Control. The Cairns Arrivals Controller did not have a high workload.

When the crew contacted Townsville Control, the aircraft had levelled at FL160. The controller realised immediately that an error had occurred but gave an ongoing airways clearance at FL160 as there was no conflicting traffic.

Analysis.

A breakdown in the company's Standard Operating Procedures (SOPs) concerning cross referencing the selected altitude was the prime reason the incorrect FL160 in the Altitude Select Indicator was not detected. The distractions on the flight deck may have contributed to this error.

Two separate controllers missed an important portion of operational information at the crew's first contact on their individual frequencies. The workload level of the Approach/Departures controller probably contributed to his error. However, no reason was found to explain the omission by the Arrivals controller. ATS co-ordination procedures requires the controller receiving the information to cross check the data against the aircraft's flight strip.

Factors

1. Both crew members were distracted for a short time.

2. Flight crew pre-flight check procedures were not followed.

3. The Approach/Departures controller was under a high workload.

4. ATS coordination procedures were not carried out properly by the Approach/Departures or the Arrivals controllers in that the altitude discrepancy was not detected.