

**Aviation Safety Investigation Report
199800541**

**Beech Aircraft Corp
Baron**

20 February 1998

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Occurrence Number: 199800541 **Occurrence Type:** Incident
Location: Avalon, Aerodrome
State: VIC **Inv Category:** 4
Date: Friday 20 February 1998
Time: 1125 hours **Time Zone** ESuT
Highest Injury Level: None

Aircraft Manufacturer: Beech Aircraft Corp
Aircraft Model: E55
Aircraft Registration: VH-OMD **Serial Number:** TE-970
Type of Operation: Charter Passenger
Damage to Aircraft: Nil
Departure Point: Ceres Vic
Departure Time: 1122 ESuT
Destination: Bairnsdale Vic.

Approved for Release: Monday, September 21, 1998

FACTUAL INFORMATION

The pilot of the Beech 55 Baron advised that he made a transmission to Avalon Tower while taxiing at Ceres. This transmission was neither heard nor recorded by Avalon, and no acknowledgment was received by the pilot.

Avalon Tower was staffed by a trainee air traffic controller under the supervision of a rated aerodrome controller. The trainee was performing the aerodrome control tasks at the time.

The Baron subsequently departed Ceres. The pilot remained clear of the Avalon control zone until radio communication was established with Avalon Tower, when he requested an airways clearance to Bairnsdale on climb to 9,000 ft. The reply from the Avalon controller was spoken in a soft voice and was intended only to confirm the details of the request but used the words "...cross the zone, confirming on climb to 9,000 to Bairnsdale ...". The pilot advised that he did not hear the full transmission. He interpreted the communication as an airways clearance and initiated a climb to 9,000 ft. The pilot only acknowledged this perceived clearance with the word "affirmative" and did not read back the full clearance.

This situation resulted in the pilot believing that he had a clearance to enter controlled airspace on track to Bairnsdale and on climb to 9,000 ft, whereas the controllers believed that no clearance had been issued.

The Avalon controllers then coordinated the details of the Baron's intended flight with Melbourne radar control which resulted in an agreed altitude limit of 2,000 ft for the Baron. The coordination included an assessment of the relative position of the Baron with a Boeing 767 conducting training in the Avalon airspace. The radar controller was unable to provide any radar separation between the two aircraft.

During the ensuing radio exchange between the Avalon controller and the pilot of the Baron, the controller did not mention the word "clearance" when instructing the pilot to maintain 2,000 ft and track to Portarlinton. He did, however, specifically instruct the pilot to maintain his own separation with the Boeing 767. The pilot accepted both instructions and proceeded to Portarlinton.

The pilot of the Baron now believed that the original (perceived) clearance was still current but that he had a temporary restriction to maintain 2,000 ft until reaching Portarlinton. This belief was further validated in his mind when he was instructed to Squawk Code 3000, a code used to radar identify aircraft.

During the transit of the Avalon control zone, the pilot of the Baron made radio contact with Melbourne Flight Service and passed his position and departure time.

The Melbourne radar controller had expected the Baron to remain outside controlled airspace but observed the aircraft passing through 4,500 ft after passing Portarlinton. He issued a different squawk code via Flight Service and made a positive identification. A violation of controlled airspace had occurred but there was no breakdown of separation standards.

The use of non-standard phraseology had resulted in confusion between the pilot of the Baron and Avalon Tower. Air traffic control had not specifically mentioned the word "clearance" at any time, leaving the pilot to misinterpret the transmissions as an airways clearance.

Had the pilot read back the perceived clearance in full, the controllers may have realised that the misinterpretation had occurred.

