# Aviation Safety Investigation Report 199603211

**Boeing Co**
**B727**
**Cessna Aircraft Company**
**Skylane**

**03 October 1996**

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# Aviation Safety Investigation Report

# 199603211

**Occurrence Number:** 199603211 **Occurrence Type:** Incident
**Location:** Cairns, Aerodrome
**State:** QLD **Inv Category:** 4
**Date:** Thursday 03 October 1996
**Time:** 1059 hours **Time Zone** EST
**Highest Injury Level:** None

**Aircraft Manufacturer:** Boeing Co
**Aircraft Model:** 727-277
**Aircraft Registration:** VH-ANA **Serial Number:** 22641
**Type of Operation:** Air Transport Domestic High Capacity Passenger Scheduled
**Damage to Aircraft:** Nil
**Departure Point:** Brisbane QLD
**Departure Time:** 0850 EST
**Destination:** Cairns QLD

**Aircraft Manufacturer:** Cessna Aircraft Company
**Aircraft Model:** 182M
**Aircraft Registration:** VH-DAL **Serial Number:** 18259308
**Type of Operation:** Miscellaneous Parachute Jump
**Damage to Aircraft:** Nil
**Departure Point:** Unknown
**Departure Time:** 1045 EST
**Destination:** Cairns QLD

**Approved for Release:** Saturday, November 29, 1997

The Boeing 727 VH-ANA was operating on a scheduled flight from Brisbane to Cairns. The aircraft was third in the arrival sequence and had been positioned on left downwind for runway 15 by the Approach One (APP1) controller. The other two aircraft, a Britten Norman Islander VH-INO, and a Boeing 737 VH-TJU, had been sighted by the crew of ANA who were then instructed to make a visual approach and to follow TJU. The co-pilots of ANA and TJU were the pilots flying, and the pilots-in-command were carrying out the non-flying pilot support duties in each aircraft.

The crew of ANA, having been instructed to sight and follow TJU, extended downwind for about 2 NM to ensure adequate separation from TJU. As ANA was turning onto the base leg of the circuit, the Aerodrome controller (ADC) instructed the crew of ANA to continue the approach.

Meanwhile, the pilot of a Cessna 182, VH-DAL, who had been conducting parachuting operations 3 NM west of the aerodrome, was returning for a landing. DAL was being controlled by the Approach Two (APP2) controller. The APP2 controller noted the position of the other arriving aircraft on the radar display. He judged that there would be sufficient time to land DAL between TJU and ANA if the pilot was assigned runway 12, the non-duty runway.

The ADC was the arbiter for the use of the non-duty runway for 'one-off' landings and the APP2 controller co-ordinated the use of runway 12 with the ADC. The ADC concurred with DAL being processed for landing on runway 12, between the landings of TJU and ANA on runway 15.

As TJU was landing, the ADC requested the pilot of that aircraft to hold short of the Bravo 4 taxiway or roll through to Bravo 5 taxiway and to advise his preference. This was to allow an aircraft stopped on Bravo 4 to cross runway 15. The crew of TJU were unable to acknowledge the request immediately, as the aircraft was still decelerating with reverse thrust, and their priority was to complete the landing roll safely. The pilot in command of TJU had not completely understood the instruction and told the co-pilot to disregard it until they had slowed to a safe speed. The aircraft was stopped short of Bravo 4 taxiway, and the crew then advised the ADC that they would hold in their present position. The ADC's intention was to taxi an aircraft across the runway in front of TJU. The ADC advised the crew that he would 'get the jet away' in front of them and, that once it had passed, they were clear to taxi via Bravo 4.

The pilot of DAL had been instructed by the APP2 controller to make a straight-in visual approach for runway 12. The APP2 controller then confirmed with the APP1 controller that he was aware that DAL was being sequenced for runway 12. The APP1 controller acknowledged the advice of the use of runway 12 for DAL. The APP2 controller observed on the radar display that separation between DAL and ANA was reducing. He then contacted the ADC and offered to take DAL out of the arrival sequence and to re-establish the aircraft behind ANA. The ADC declined the offer and stated that if there was insufficient separation with ANA he would instruct the pilot of DAL to go around. The APP2 controller then instructed the pilot of DAL to contact the ADC. The pilot of DAL acknowledged and changed to the aerodrome control frequency.

When the pilot of DAL contacted the ADC and reported on final he did not state which runway he was making the approach for, nor was he required to do so. Also, the ADC did not provide traffic information to either the pilot of DAL or the crew of ANA about the other aircraft, or that both runway 15 and 12 were in use. The ADC instructed the pilot of DAL to continue approach and to expect a go around due to traffic on runway 15. The ADC then requested the crew of TJU to expedite vacating runway 15. ANA was now established on final approach and the ADC instructed the crew to continue approach and to expect a late landing clearance. The crew of ANA were watching TJU closely and the pilot in command assessed that he would have to go around if TJU remained on the runway for much longer. The crew of ANA then reviewed the missed approach procedure. After ANA had passed through 300 ft, the pilot in command decided to go around and was about to instruct the co-pilot to do so when the ADC cleared ANA to land.

As the co-pilot began the landing flare, the crew were surprised to see DAL passing from right to left in front of them. DAL crossed the runway in front of ANA and was cleared to land when at or near the threshold of runway 12. The crew of ANA were of the opinion that a mid-air collision may have occurred had the go-around been executed.

The incident was a result of inadequate management of the arrival sequence, and inappropriate decisions made by the aerodrome controller.

The investigation revealed that there was a need to evaluate the application of separation standards for all controlled aerodromes with intersecting approach and departure paths and runways. In response to the BASI recommendation R970067, Airservices Australia and the Civil Aviation Safety Authority conducted a review of the applicable standards and procedures.