



Australian Government

Australian Transport Safety Bureau

Runway event involving a Beech 1900C, VH-VNV

Darwin Airport, Northern Territory, 1 October 2013

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Addendum

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Runway event involving a Beech 1900C, VH-VNV

What happened

On 1 October 2013, at about 0530 Central Standard Time,¹ the crew of a Vincent Aviation Beech 1900C aircraft, registered VH-VNV, were preparing to conduct two return flights from Darwin to Jabiru, Northern Territory.

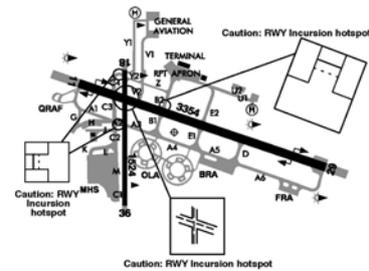
The crew conducted a pre-flight briefing, which involved reviewing the applicable Notice to Airmen (NOTAMS).² This included a NOTAM that advised that the runway 29 threshold would be displaced from 0800 due to works in progress. The crew noted that this would be applicable for the second flight later in the morning but not the first.

The first flight departed Darwin at about 0615 and returned at about 0800, at which time the displaced threshold was in place on runway 29.

For the second flight to Jabiru, the captain was designated as the pilot flying. The crew had received the automatic terminal information service (ATIS) prior to taxiing, which advised of the displaced threshold.

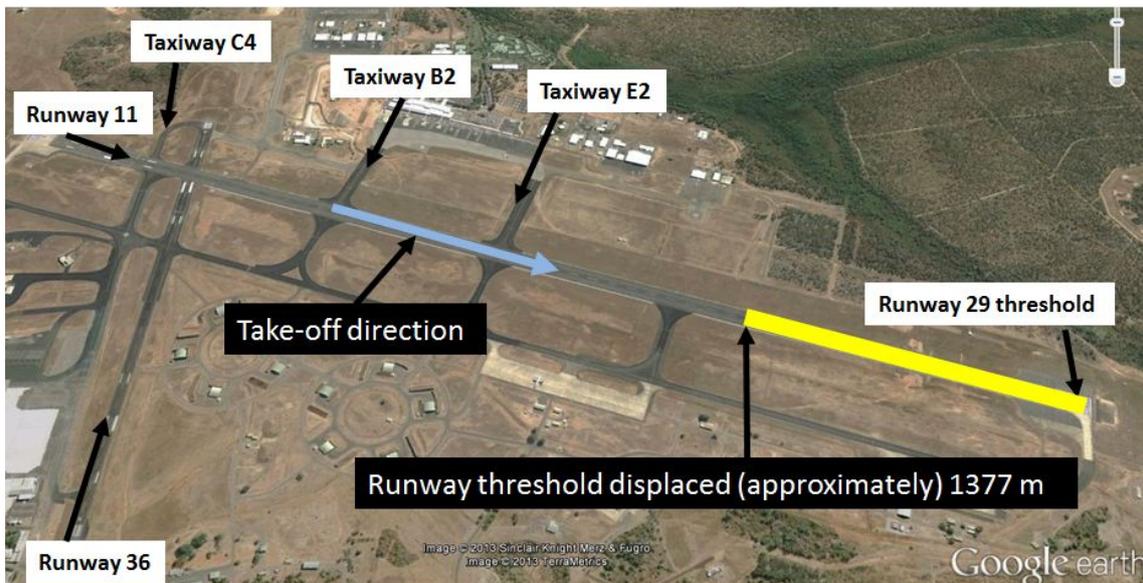
At about 0900, the first officer (FO) requested a clearance from Darwin air traffic control (ATC) to taxi to taxiway 'Echo 2' (E2) for runway 11 (Figure 1). Air traffic control advised the crew that a reduced runway operating length was in effect. The FO then requested and obtained a clearance to taxi to taxiway 'Bravo 2' (B2).

Darwin Airport



Source: Airservices Australia

Figure 1: Darwin Airport



Source: Google earth

¹ Central Standard Time (CST) was Coordinated Universal Time (UTC) + 9.5 hours.

² A Notice to Airmen advises personnel concerned with flight operations of information concerning the establishment, condition or change in any aeronautical facility, service, procedure, or hazard, the timely knowledge of which is essential to safe flight.

While taxiing to B2, the captain asked the FO to check the take-off performance data in the aircraft performance manual regarding the displaced threshold; however, he was unable to locate the relevant section prior to approaching the holding point.

When at the B2 holding point, the captain observed an aircraft on final approach to runway 11. Air traffic control then cleared the crew of VNV to line up on runway 11, ahead of the approaching aircraft, and asked them to confirm that they were aware of the displaced threshold to the east of taxiway 'Echo' (E). The FO replied that he understood.

The crew reported that when they were lined up on runway 11, they could see the tops of vehicles conducting the runway works, but due to a rise in the runway, were unable to see the start of the displaced threshold.

The aircraft was then cleared for take-off by ATC. As the take-off run was commenced, both crew members observed that the displaced threshold was closer than expected and the captain immediately rejected the take-off at low speed. The aircraft on final approach conducted a go-around.

After vacating the runway, the crew checked the NOTAM, which advised that the threshold was displaced by 1,377 m. The crew were of the understanding that the runway 29 threshold had been displaced by about 700 m. They subsequently elected to depart from the 'Charlie 4' intersection.

Notice to Airmen (NOTAM)

A NOTAM had been issued stating that the runway 29 threshold would be displaced by 1,377 m due to works in progress for the period 27 September 2013 to 1 October 2013. The works would commence at 0800 and finish at 1200 each day.

Pilot comments

The captain provided the following comments:

- They had briefed for a B2 departure however the FO inadvertently requested a taxi clearance to E2.
- They misread the NOTAM details and did not discuss the displaced threshold in detail as it had been in place for the previous days.
- Maintenance on the arrestor cables fitted to both ends of the runway occurred on a regular basis. For this, a displaced threshold of about 700 m was generally put in place. They had assumed that this was the location of the displaced threshold on the day.
- The crew had calculated the take-off performance data based on a departure from B2, with a 700 m displaced threshold in place. This data had previously been included in the aircraft's performance manual, but was removed to ensure company pilots checked all NOTAMs and obtained the appropriate performance data for each flight.
- He asked the FO to check the data in the performance manual for the reduced runway length, but it had been removed. They then arrived at the holding point before he was able to check the current NOTAM.
- As there was another aircraft on final approach, he felt some pressure to continue to line-up, as instructed by ATC.
- The progression of the runway works had been detailed in a Method of Works document, which had not been distributed to company pilots.

Safety action

Whether or not the ATSB identifies safety issues in the course of an investigation, relevant organisations may proactively initiate safety action in order to reduce their safety risk. The ATSB has been advised of the following proactive safety action in response to this occurrence.

Operator of VH-VNV

As a result of this occurrence, the aircraft operator has advised the ATSB that they are taking the following safety actions:

- A notice was released to company pilots reinforcing the policy regarding planning of the flight by both members of the crew.
- The chief pilot is to be included in the Northern Territory Airports distribution list for notifications regarding runways and airports.

Intersection departures

- The Manual of Air Traffic Services (MATS),³ stated that, when a pilot is offered an intersection departure, the take-off distance remaining is to be included if that information is not readily available to the pilot. While the crew requested an intersection departure, the operator believed that this information should have been provided to the crew.
- Additionally, when a pilot reports ready from a position other than the runway threshold, without requesting an intersection departure or backtrack, ATC should ascertain the pilot's intentions prior to authorising entry to the runway.⁴ The operator has reminded company pilots to state their intentions when broadcasting at the holding point.

Safety message

A report prepared for the ATSB, *The Clarity and Accessibility of NOTAM Information for the Aviation Industry*, www.atsb.gov.au/media/761312/clarity_accessibility_notam.pdf, found that there was a significant potential for oversight of critical information in the NOTAM system. This incident highlights the importance of thorough pre-flight planning and the use of all available information in preparing for flight.

General details

Occurrence details

Date and time:	1 October 2013 – 0900 CST	
Occurrence category:	Incident	
Primary occurrence type:	Runway event	
Location:	Darwin Airport, Northern Territory	
	Latitude: 12° 24.88' S	Longitude: 130° 52.60' E

Aircraft details

Manufacturer and model:	Beech Aircraft Corporation 1900C	
Registration:	VH-VNV	
Operator:	Vincent Aviation	
Serial number:	UC-56	
Type of operation:	Air transport – low capacity	
Persons on board:	Crew – 2	Passengers – 11
Injuries:	Crew – Nil	Passengers – Nil
Damage:	Nil	

³ MATS for ATS Version 23, Paragraph 12-20-565.

⁴ MATS for ATS Version 23, Paragraph 12-20-560.

About the ATSB

The Australian Transport Safety Bureau (ATSB) is an independent Commonwealth Government statutory agency. The ATSB is governed by a Commission and is entirely separate from transport regulators, policy makers and service providers. The ATSB's function is to improve safety and public confidence in the aviation, marine and rail modes of transport through excellence in: independent investigation of transport accidents and other safety occurrences; safety data recording, analysis and research; and fostering safety awareness, knowledge and action.

The ATSB is responsible for investigating accidents and other transport safety matters involving civil aviation, marine and rail operations in Australia that fall within Commonwealth jurisdiction, as well as participating in overseas investigations involving Australian registered aircraft and ships. A primary concern is the safety of commercial transport, with particular regard to fare-paying passenger operations.

The ATSB performs its functions in accordance with the provisions of the *Transport Safety Investigation Act 2003* and Regulations and, where applicable, relevant international agreements.

The object of a safety investigation is to identify and reduce safety-related risk. ATSB investigations determine and communicate the safety factors related to the transport safety matter being investigated.

It is not a function of the ATSB to apportion blame or determine liability. At the same time, an investigation report must include factual material of sufficient weight to support the analysis and findings. At all times the ATSB endeavours to balance the use of material that could imply adverse comment with the need to properly explain what happened, and why, in a fair and unbiased manner.

About this report

Decisions regarding whether to conduct an investigation, and the scope of an investigation, are based on many factors, including the level of safety benefit likely to be obtained from an investigation. For this occurrence, a limited-scope, fact-gathering investigation was conducted in order to produce a short summary report, and allow for greater industry awareness of potential safety issues and possible safety actions.