



Australian Government

Australian Transport Safety Bureau

Airspace related event involving Beech 1900C, VH-KFN and Aerospatiale AS350 B2, VH-VRW

Newman aerodrome, Western Australia, 6 September 2012

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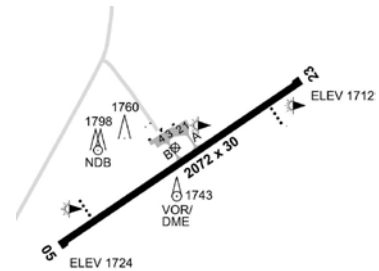
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Airspace related event involving Beech 1900C, VH-KFN and Aerospatiale AS350 B2, VH-VRW

What happened

On 6 September 2012, an Aerospatiale AS350 B2 helicopter, registered VH-VRW (VRW), was being used to conduct aerial work out of Rhodes Ridge, Western Australia. After ferrying personnel from Rhodes Ridge to a survey site about 28 km north-east of Newman, the pilot of VRW flew to Newman aerodrome to refuel and to have a minor unserviceability rectified. On arrival, he was advised that neither the refuellers nor the engineers were available. After waiting some time, the pilot was advised that one of the people at the survey site had been injured and required evacuation. The helicopter was then refuelled at the fuel bowser.

Newman aerodrome



Source: Airservices Australia

At about the same time, the crew of a Beech 1900C, registered VH-KFN (KFN), taxied for departure on runway 05. The crew made all necessary very high frequency (VHF) radio transmissions on the Common Traffic Advisory Frequency (CTAF). At 1300 Western Standard Time¹, as the aircraft commenced the takeoff roll, the pilot in command (PIC) of KFN heard the pilot of VRW transmit a taxi call but did not expect the helicopter to commence a takeoff.

As the aircraft passed about 300 to 450 m down the runway, at a speed of about 80 knots, the PIC of KFN saw VRW tracking across the GA apron towards the runway. As KFN passed a point about 100 m before taxiway Bravo (Figure 1), the PIC of KFN observed VRW enter the runway strip, turn left and takeoff parallel to runway 05. Shortly after, the co-pilot had called V_1 ² and V_R ³ (108 and 109 knots respectively). The PIC of KFN believed the path of VRW could conflict with KFN if they became airborne and, although KFN was at about 120 knots, he elected to reject the takeoff. As the aircraft slowed, the PIC of KFN observed VRW turn right and cross the runway about 200 m in front of KFN and about 200 ft above ground level.

The pilot of VRW only became aware of KFN when he heard the co-pilot transmit 'KFN aborting'. The pilot of VRW made all necessary radio transmissions but heard only one garbled transmission which may have been KFN's 'rolling' call.

Pilot comments

The pilot of VRW later reported that he felt under pressure to get to the survey site and evacuate the injured person. In his haste to transit to the site, he had turned right across the runway when the normal procedures required him to turn left.

The pilot noted that he had been advised by a third party that the patient required an immediate evacuation, however when he arrived at the site there had been a miscommunication and the patient was happy to stay there for the rest of the day.

¹ Western Standard Time (WST) was Coordinated Universal Time (UTC) + 8 hours.

² V_1 – Maximum speed during takeoff at which a pilot can safely stop the aircraft without leaving the runway.

³ V_R – Speed at which the rotation of the aircraft is initiated to takeoff attitude.

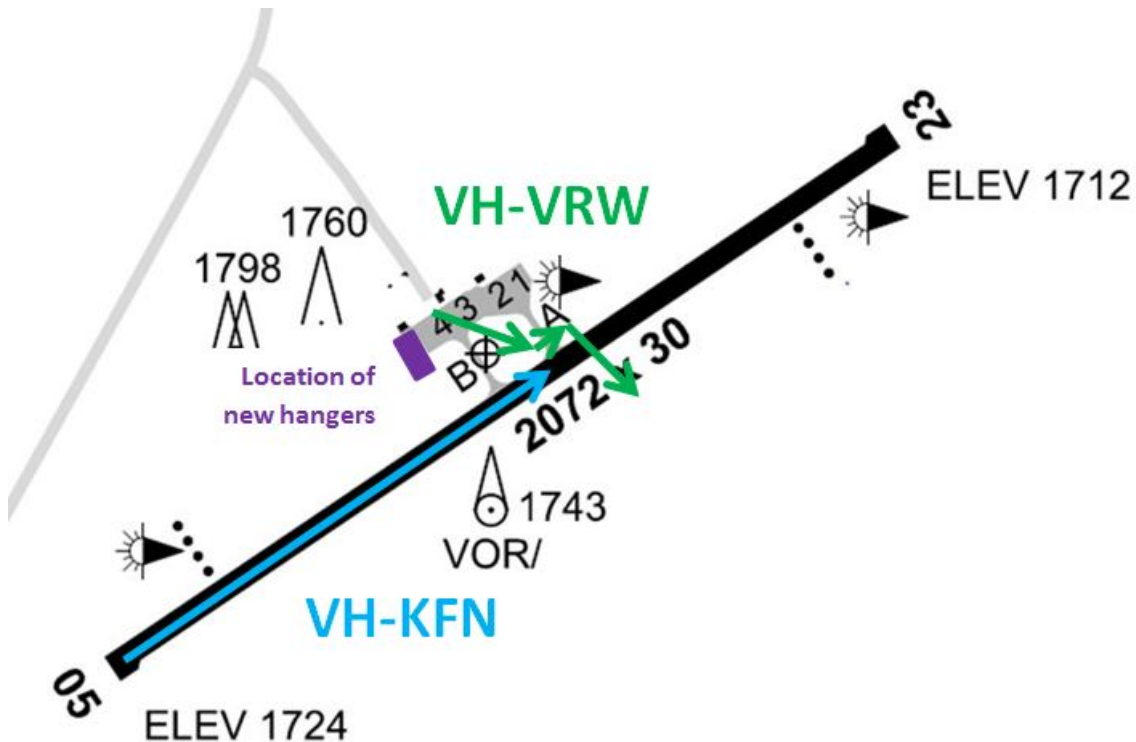
Radio transmissions

VHF transmissions are direct, straight-line (line-of-sight) transmissions and their effectiveness depends upon both the distance between the two stations and whether or not there are obstructions between them. The two stations in this incident were KFN and VRW.

Following the incident, the Newman Airport Manager advised that a number of hangars had recently been built to the west of the GA apron that obscured the view from the GA apron to the threshold of runway 05. The new hangars were also thought to be responsible for blocking radio transmissions between aircraft on the GA apron and those on the threshold of runway 05.

Radio transmissions at Newman are recorded for administrative purposes. A review of the recording for a period immediately before and after the incident showed that both KFN and VRW made all necessary radio transmissions prior to entering the runway. However, transmissions by KFN once on the runway were not recorded, though those made by VRW in the vicinity of the runway were. Recorded transmissions by VRW after the incident were clearly part of a conversation with KFN, though KFN's transmissions were not recorded.

Figure 1: Track of VH-KFN (blue) and VH-VRW (green)



Source: Airservices Australia

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.

Airfield operator

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

Aviation Information Publication

The airfield operator is seeking to have the following information included in the aviation information publication for Newman:

Due to possible shielding effects from aircraft hangars along the south-western edge of the GA Apron, helicopter traffic is to adhere to unmanned airfield procedures during arrivals and departures. The circuit is to be joined as per these procedures for approaches on the runway in use, or parallel on the western side thereof. During departures helicopters are to air taxi onto TWY B for departures on the runway in use, or parallel to and on the western side. Departing turns tracking towards the east are only to be executed once clear of the circuit. No departures to the east across the runways should be executed.

Safety message

A study by the National Aeronautics and Space Administration (NASA) found that perceived or actual pressure can contribute significantly to degradation in human performance and behaviour. The study recommended that pilots be particularly cautious if distraction or time pressure are encountered during the pre-flight or taxi phases of a flight. The NASA study is available at http://asrs.arc.nasa.gov/docs/rs/43_Time_Pressure_as_a_Causal_Factor.pdf

Additionally, when responding to an emergency call-out, pilots should consider requesting additional information to determine how serious the emergency actually is. Though this may not always be possible, the information may enable a pilot to better prioritise their activities.

The Civil Aviation Safety Authority (CASA) on-line store has a number of resources to assist pilots to understand the significance of perceived or actual pressures in the aviation environment. These resources include the following resources to assist pilots recognise and manage stress in the aviation environment:

- *Safety behaviours – human factors for pilots;*
- *Operations at non-towered aerodromes;* and
- *Look out!*

The CASA on-line store is available at www.thomaslogistics.com.au/casa/index.html

The ATSB has released *A pilot's guide to staying safe in the vicinity of non-towered aerodromes* AR-2008-044(1), available at [www.atsb.gov.au/publications/2008/ar-2008-044\(1\).aspx](http://www.atsb.gov.au/publications/2008/ar-2008-044(1).aspx).

General details

Occurrence details

Primary occurrence type:	Airspace related event	
Occurrence category:	Incident	
Location:	Newman Aerodrome, Western Australia	
	Latitude: S 23° 25.07'	Longitude: E 119° 48.17'

Beech 1900C, VH-KFN

Manufacturer and model:	Beech 1900C	
Registration:	VH-KFN	
Type of operation:	Charter	
Persons on board:	Crew – 2	Passengers – Nil
Injuries:	Crew – Nil	Passengers – Nil
Damage:	None	

Aerospatiale AS.350 B2, VH-VRW

Manufacturer and model:	Aerospatiale AS.350 B2	
Registration:	VH-VRW	
Type of operation:	Aerial work	
Persons on board:	Crew – 1	Passengers – Nil
Injuries:	Crew – Nil	Passengers – Nil
Damage:	None	

About the ATSB

The Australian Transport Safety Bureau (ATSB) is an independent Commonwealth Government statutory agency. The Bureau 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.