



Australian Government

Australian Transport Safety Bureau

Traffic conflict involving Cessna 208, VH-SJJ and Robinson R22, VH-MFH

Ballina Byron Gateway Airport, New South Wales, 19 September 2017

ATSB Transport Safety Report
Aviation Occurrence Investigation
AO-2017-097
Final – 5 September 2018

Released in accordance with section 25 of the *Transport Safety Investigation Act 2003*

Publishing information

Published by: Australian Transport Safety Bureau
Postal address: PO Box 967, Civic Square ACT 2608
Office: 62 Northbourne Avenue Canberra, Australian Capital Territory 2601
Telephone: 1800 020 616, from overseas +61 2 6257 4150 (24 hours)
Accident and incident notification: 1800 011 034 (24 hours)
Facsimile: 02 6247 3117, from overseas +61 2 6247 3117
Email: atsbinfo@atsb.gov.au
Internet: www.atsb.gov.au

© Commonwealth of Australia 2018



Ownership of intellectual property rights in this publication

Unless otherwise noted, copyright (and any other intellectual property rights, if any) in this publication is owned by the Commonwealth of Australia.

Creative Commons licence

With the exception of the Coat of Arms, ATSB logo, and photos and graphics in which a third party holds copyright, this publication is licensed under a Creative Commons Attribution 3.0 Australia licence.

Creative Commons Attribution 3.0 Australia Licence is a standard form license agreement that allows you to copy, distribute, transmit and adapt this publication provided that you attribute the work.

The ATSB's preference is that you attribute this publication (and any material sourced from it) using the following wording: *Source:* Australian Transport Safety Bureau

Copyright in material obtained from other agencies, private individuals or organisations, belongs to those agencies, individuals or organisations. Where you want to use their material you will need to contact them directly.

Addendum

Page	Change	Date

Traffic conflict involving Cessna 208, VH-SJJ and Robinson R22, VH-MFH

What happened

On 19 September 2017, the pilot of a Cessna C208 aircraft, registered VH-SJJ, was operating from Toowoomba, Queensland to Ballina, New South Wales (NSW) then onwards to Nambucca Heads, NSW. The C208 pilot landed at Ballina Byron Gateway Airport (YBNA) and was clear of the runway at 1055 Eastern Standard Time (EST). Two Robinson R22 helicopters were also operating at YBNA at this time.

YBNA is a certified, non-controlled aerodrome utilising Common Traffic Advisory Frequency (CTAF) procedures¹. A Certified Air/Ground Radio Service Operator (CA/GRO)² had been on duty since around 1030.

At 1104, the C208 pilot transmitted to the Brisbane Centre Air Traffic Control, announcing his intention to taxi to the runway for departure. Brisbane Centre advised that traffic was an inbound Airbus A320 aircraft due at YBNA at 1109 with additional VFR traffic³ in the circuit. The C208 pilot responded: 'copied the inbound Airbus and helicopters in the circuit.'

At about the same time, one of the R22s, registered VH-JKH (JKH), was operating clear of the runway strip in an area known as the southern grass (Figure 1). The other R22, registered VH-MFH (MFH), was being used for circuit training on runway 06 with approach and landing to a point about two thirds along the runway. At 1105, the instructor in MFH broadcast on the CTAF that they were on a left base for runway 06 to the runway.

At 1106:24, the C208 pilot broadcast on the CTAF that they were taxiing for departure on runway 06. The CA/GRO acknowledged that the C208 pilot already had traffic information on the inbound Airbus and advised, '...on your right hand side there is helicopter JKH, also...'. Following a four-second pause, '...conducting operations runway 06, helicopter MFH'. At 1106:55, the C208 pilot responded 'thanks for that and SJJ is entering and rolling runway 06'.

At this time, MFH was on short final for runway 06 at approximately 200 ft above the runway and approaching a point that was about two thirds of the way along runway 06. The instructor realised that the C208 was departing and transmitted that MFH was 'runway 06 for the runway'. That call partly over-transmitted on the C208 pilot's response to the CA/GRO. The instructor took control of the helicopter and vacated the runway to the north followed by a call to advise their location at the 'northern grass.'

The C208 pilot continued the take-off and departure to Nambucca Heads.

¹ Common Traffic Advisory Frequency (CTAF): A designated frequency on which pilots make positional broadcasts when operating at or in the vicinity of a non-controlled aerodrome. Standard positional broadcasts are made by pilots to achieve 'alerted see-and-avoid', increasing their situational awareness and allow them to self-separate from other traffic in a non-controlled environment.

² Certified Air/Ground Radio Operator (CA/GRO): refer to section below for description.

³ Visual flight rules (VFR): a set of regulations that permit a pilot to operate an aircraft only in weather conditions generally clear enough to allow the pilot to see where the aircraft is going. 'VFR traffic' refers to any aircraft operating under VFR.

Figure 1: Approximate location of aircraft when the C208 pilot called entering and rolling



Source: Google Earth, annotated by the ATSB

Operational Aspects

Certified Air/Ground Radio Service (CA/GRS)

A CA/GRS is an aerodrome radio information service providing traffic, weather and other operational information to all pilots. Its primary purpose is to enhance the safety of air transport operations by the provision of relevant traffic information. A CA/GRO is to maintain a vigilant watch on the changing positions of aircraft so that relevant traffic information can be provided. When the CA/GRS is operating, pilot procedures are unchanged from the standard non-controlled aerodrome operating and communication procedures.

In this case, the CA/GRO immediately responded to the C208 pilot's taxi broadcast but the traffic advice was broken by a four-second pause. He recalled that he hesitated as he attempted to relocate MFH in the circuit area to provide a specific position. The CA/GRO had lost sight of MFH after it turned onto the final approach due to the eaves of the cabin partially obscuring his view, requiring him to move from his desk to the cabin window. The CA/GRO was still able to advise that MFH was conducting operations to runway 06. The CA/GRO sighted MFH as it vacated the runway, which was moments after the C208 pilot called 'entering and rolling'.

C208 pilot comments

The C208 pilot had operated at YBNA for the last 14 years and had always known the helicopters to operate on the grass areas. Although he stated he had a good view of the runway from the holding point, he did not see nor hear the helicopter. The C208 pilot could not recall all traffic information he had received except for the inbound Airbus A320, which was his focus due to a desire to depart prior to its arrival.

ATSB comment

The CA/GRO provided traffic information to the C208 pilot in accordance with standard procedures. This is an advisory service only and a pilot is expected to use that information to supplement standard operating and communication procedures.

The C208 pilot did acknowledge the traffic information provided but had not developed a complete traffic picture prior to entering the runway. This was probably due to his focus on departing prior to the arriving Airbus A320 and based on previous experience, not expecting the helicopters to be on the runway.

The instructor on MFH recognised the potential traffic conflict and took appropriate action.

Findings

These findings should not be read as apportioning blame or liability to any particular organisation or individual.

- The pilot of the C208 entered and rolled on the runway prior to positively identifying the helicopter on short final for the same runway.

Safety message

Pilots are reminded to apply effective see-and-avoid principles when operating at or near non-controlled aerodromes. While broadcasting on and monitoring of the CTAF is the key way for pilots to establish situational and traffic awareness, it is also important to maintain a constant visual lookout to validate any operating assumptions and avoid traffic conflicts.

The ATSB SafetyWatch highlights the broad safety concerns that come out of our investigation findings and from the occurrence data reported to us by industry.

One of the safety concerns relates to [communication and self-separation in non-controlled airspace](#).

Traffic conflicts are among the most common occurrences at non-towered aerodromes. Further information is available in ATSB publication [A pilot's guide to staying safe in the vicinity of non-controlled aerodromes](#) (AR-2008-044(1)).



General details

Occurrence details

Date and time:	19 September 2017 – 1100 EST	
Occurrence category:	Incident	
Primary occurrence type:	Aircraft separation issues	
Location:	Ballina Byron Gateway Airport, New South Wales	
	Latitude: 28° 50.0' S	Longitude: 153° 33.7' E

Aircraft details: VH-SJJ

Manufacturer and model:	Cessna Aircraft Company 208	
Registration:	VH-SJJ	
Operator:	Bontrail Pty Ltd	
Serial number:	2080218	
Type of operation:	Business	
Persons on board:	Crew – 1	Passengers – 3
Injuries:	Crew – 0	Passengers – 0
Aircraft damage:	Nil	

Helicopter details: VH-MFH

Manufacturer and model:	Robinson Helicopter Company R22	
Registration:	VH-MFH	
Serial number:	2266	
Type of operation:	Flying Training – Dual	
Persons on board:	Crew – 2	Passengers – 0
Injuries:	Crew – 0	Passengers – 0
Aircraft damage:	Nil	

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 operations involving the travelling public.

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.