



Australian Government

Australian Transport Safety Bureau

Aircraft proximity event between a Piper PA-44, VH-MHZ and a Hawker G36, VH-JKL

4 km WNW of Bankstown Airport, NSW, 19 January 2013

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Addendum

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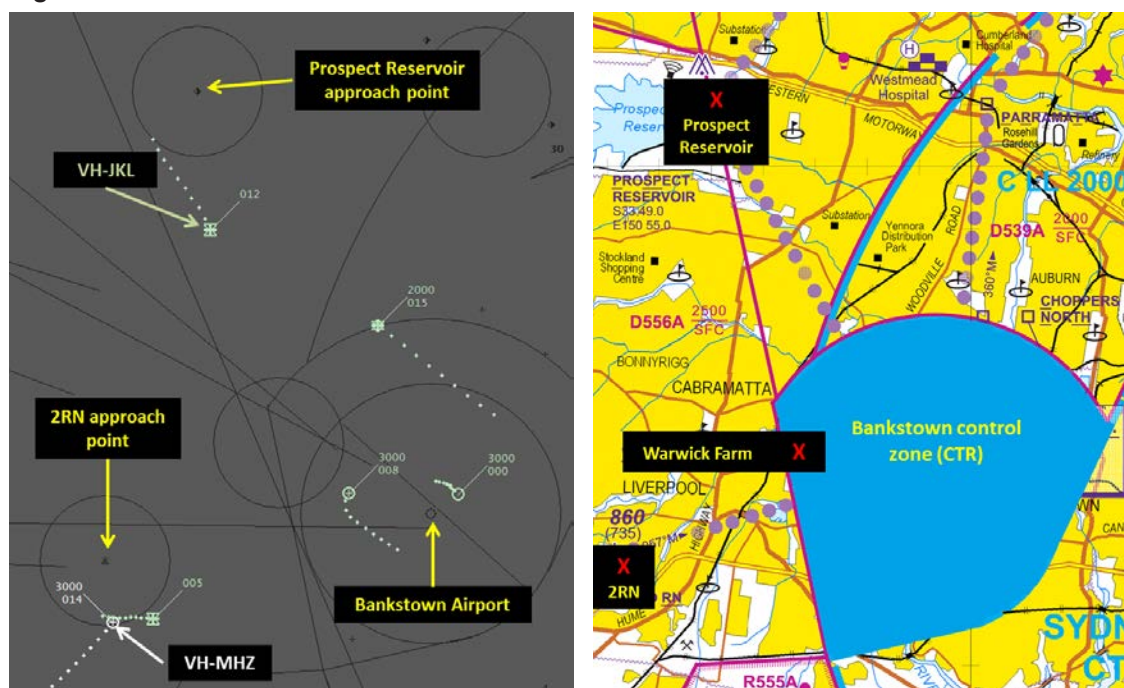
Aircraft proximity event between a Piper PA-44, VH-MHZ and a Hawker G36, VH-JKL

What happened

On 19 January 2013, the pilot and passenger of a Hawker G36 aircraft, registered VH-JKL (JKL), were conducting a private flight from Bathurst to Bankstown, New South Wales (NSW). When at the 'Prospect Reservoir' visual flight rules (VFR) approach point (Figure 1), at about 1025 Eastern Daylight-saving Time¹, the pilot broadcast an inbound call to Bankstown Tower air traffic control (ATC). The pilot was instructed by ATC to join the final leg of the circuit for runway 11 Left and to report when at 3 NM.

At the same time, the pilot of a Piper PA-44 aircraft, registered VH-MHZ (MHZ), was conducting a ferry flight from Wedderburn (NSW) to Bankstown. At about 1026, when at the '2RN' VFR approach point, the pilot attempted to broadcast an inbound call to Bankstown Tower; however, the pilot reported that the call was over-transmitted. Shortly after, a second inbound call was broadcast, which the pilot reported was again over-transmitted.

Figure 1: VH-MHZ and VH-JKL inbound to Bankstown



Source: Airservices Australia

At about 1027, the pilot of JKL advised ATC that he was at 3 NM. About 30 seconds after, ATC attempted to establish communications with an unidentified aircraft (MHZ) observed at Warwick Farm. Airservices Australia surveillance data showed MHZ maintaining 1,100 ft and JKL descending through 800 ft, with 1.3 NM lateral separation (Figure 2). At the same time, the pilot of MHZ determined that communications with ATC could not be established due to radio congestion and he elected to maintain his current heading and altitude. The aircraft subsequently entered the Bankstown control zone (CTR) without an ATC clearance.

¹ Eastern Daylight-saving Time (EDT) was Coordinated Universal Time (UTC) + 11 hours.

Soon after, the pilot and passenger of JKL observed an unidentified aircraft in their 2 o'clock² position at about the same altitude. The pilot and passenger continued to monitor the aircraft.

At about 1028, ATC advised the pilot of JKL of an unidentified aircraft to the south, about 0.5 NM away. The pilot replied to ATC that he would descend and monitor the aircraft. The pilot reported descending 50-100 ft and conducting a slight right turn. As MHZ passed overhead JKL, vertical separation reduced to 200 ft and then increased to 400 ft as JKL descended (Figure 3). The pilot of MHZ did not sight JKL as it was obscured by the nose of the aircraft.

Figure 2: Aircraft positions at 1028

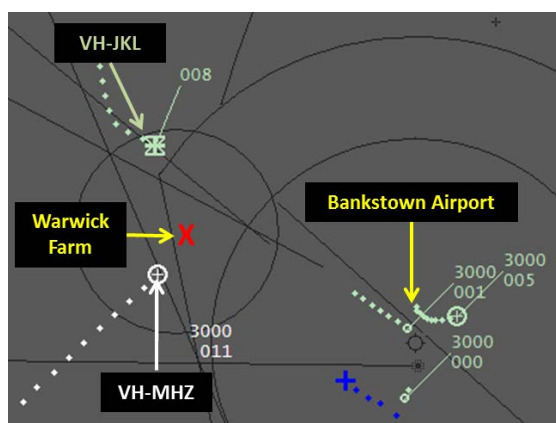
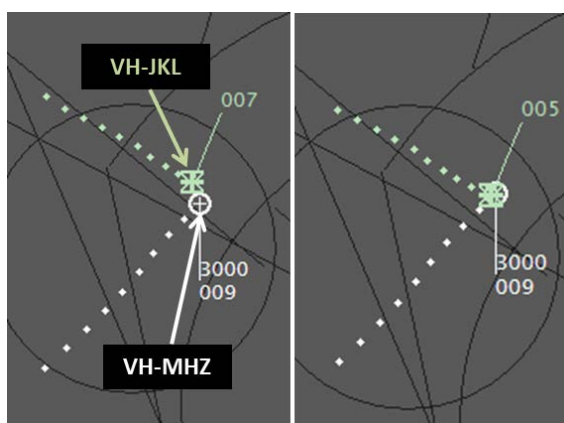


Figure 3: MHZ passing overhead JKL



Source: Airservices Australia

After passing JKL, the pilot of MHZ conducted a left turn and commenced tracking towards 2RN. Once outside the Bankstown CTR, the aircraft was climbed to 1,500 ft. When at 2RN, the pilot broadcast an inbound call to ATC and received circuit joining instructions. Both aircraft landed without further incident.

Pilot comments (VH-MHZ)

The pilot of VH-MHZ provided the following comments regarding the incident:

- There was a considerable amount of radio congestion at the time.³
- As MHZ was a twin-engine aircraft, it operated at a relatively higher cruise speed compared with other aircraft typically operating into Bankstown. Consequently, the time available to establish two-way communications on a congested radio frequency was limited.
- When communications with ATC could not be established as a result of radio congestion, he decided to maintain the aircraft's heading and altitude until past the extended runway centreline. He wanted to remain predictable and not conduct any random manoeuvres. The pilot believed that this would have allowed other pilots in the area to formulate a plan without having to second guess his intentions.
- The pilot contacted ATC via telephone after the incident. The controller indicated that the pilot should have turned around at 2RN instead of continuing. While the pilot recognised that this would have been the most appropriate course of action, he was cognisant that 2RN was a VFR approach point and that aircraft inbound to Bankstown may have been converging to that point. Consequently, he did not want to turn in front of aircraft within the vicinity.

² The clock code is used to denote the direction of an aircraft or surface feature relative to the current heading of the observer's aircraft, expressed in terms of position on an analogue clock face. Twelve o'clock is ahead while an aircraft observed abeam to the left would be said to be at 9 o'clock.

³ The pilot of JKL believed that the traffic density at the time was light.

Safety message

In December 2009, the Civil Aviation Safety Authority (CASA) published a report on the *Utility of General Aviation Aerodrome Procedures [GAAP]⁴ to Australian-Administered Airspace* (Version 2)⁵. Feedback from hazard identification workshops and a safety perception survey, incorporated into the final report, indicated that frequency congestion was a major concern at GAAP aerodromes (including Bankstown) and that 90% of survey respondents reported experiencing congestion problems. It further determined that frequency congestion resulted in delayed inbound reports by pilots, and consequently, a failure to receive control zone entry instructions in a timely manner. This impacted the effectiveness of pilot see-and-avoid capabilities.

The CASA VFR guide recommends that pilots should consider initiating radio contact with ATC far enough away from the CTR boundary to preclude entering Class D⁶ airspace before two-way communications are established. This is particularly important when operating into busy airports such as Bankstown. The following publications provide information on Class D operations:

- VFR guide www.casa.gov.au/wcmswr/assets/main/pilots/download/vfr/vfrg-whole-low.pdf
- Class D airspace booklet www.casa.gov.au/wcmswr/assets/main/pilots/download/classd_booklet.pdf

General details

Occurrence details

Occurrence category:	Serious incident	
Primary occurrence type:	Aircraft proximity event	
Location:	4 km WNW of Bankstown Airport, New South Wales	
	Latitude: 33° 54.67' S	Longitude: 150° 57.78' E

Piper PA-44, VH-MHZ

Manufacturer and model:	Piper Aircraft Corporation PA-44-180	
Registration:	VH-MHZ	
Type of operation:	Aerial work - ferry	
Persons on board:	Crew – 1	Passengers – Nil
Injuries:	Crew – Nil	Passengers – Nil
Damage:	Nil	

Hawker G36, VH-JKL

Manufacturer and model:	Hawker Beechcraft Corporation G36	
Registration:	VH-JKL	
Type of operation:	Private	
Persons on board:	Crew – 1	Passengers – 1
Injuries:	Crew – Nil	Passengers – Nil
Damage:	Nil	

⁴ On 3 June 2010, Class D procedures replaced the Australian-specific GAAP. Changes to the procedures were considered relatively minor.

⁵ The study was conducted by The Ambidjii Group on behalf of CASA.
www.casa.gov.au/wcmswr/assets/main/oar/download/gaap_report_v2.pdf

⁶ Class D: all aircraft must obtain an airways clearance and communicate with ATC. Instrument flight rules (IFR) aircraft are positively separated from other IFR aircraft and are provided with traffic information on all VFR aircraft. VFR aircraft are provided with traffic information on all other aircraft.

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.