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**Australian Transport Safety Bureau**

# Near collision on ground involving Jetstar Airways Airbus A320, VH-VGJ and a dispatcher

Newcastle (Williamtown) Airport, New South Wales, 25 January 2017

**ATSB Transport Safety Report**  
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#### **Addendum**

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# Near collision on ground involving Jetstar Airways Airbus A320, VH-VGJ and a dispatcher

## What happened

On 25 January 2017, a Jetstar Airways Airbus A320-232, registered VH-VGJ (VGJ), taxied for a scheduled passenger transport flight from Newcastle (Williamtown) Airport, New South Wales, to Brisbane Airport, Queensland. There were six crewmembers and 165 passengers on board the aircraft. The captain was the pilot monitoring and the first officer was the pilot flying.<sup>1</sup>

The aircraft parked at bay 4 at the Newcastle Airport terminal for passenger disembarkation and boarding (Figure 1). Bay 4 was a 'pushback' bay, which means that when the aircraft is ready for departure, the aircraft is pushed backwards from the parking bay by a tug under the supervision of a dispatcher. Another operator's aircraft was parked on bay 5, to the left of VGJ. Bay 5 was a 'power-out' bay which means that on departure, aircraft taxi from the bay under their own power by turning sharply away from the terminal.

At about 1836 Eastern Daylight-savings Time (EDT), the crew of VGJ received a clearance from the surface movement controller to pushback, which placed VGJ to the right rear quarter of the aircraft parked on bay 5, and facing towards taxiway H (Figure 1). The dispatcher was walking beside the aircraft and was connected to the nose of VGJ by a headset for communications with the flight crew. The flight crew started the engines during the pushback in accordance with standard procedures. After the pushback was completed, the flight crew set the brakes, the tug disconnected and the dispatcher removed the nose wheel steering pin.<sup>2</sup> The flight crew then started their 'after start flows' (see: *After start flows*). After the tug disconnected from VGJ, the tug driver moved it to a position adjacent to the left wingtip of VGJ, facing towards the aircraft on bay 5.

At about 1838, the crew of the aircraft on bay 5 requested a clearance to taxi for departure. The surface movement controller questioned whether the aircraft could taxi to taxiway J and avoid VGJ.<sup>3</sup> The flight crew responded that they could. At this stage, the flight crew on board VGJ interrupted their 'after start flows' to monitor the other aircraft. The captain, seated in the left seat of VGJ, did not believe there was sufficient clearance for the other aircraft to turn around for taxiway J without a collision. The aircraft started to taxi from bay 5 in a right power-out turn, but stopped within a few metres.

When the tug driver observed the aircraft on bay 5 move towards them,<sup>4</sup> they moved the tug away from VGJ over to the terminal side of the apron, near bay 4, to remain clear of the other aircraft. Meanwhile the dispatcher assisting the aircraft on bay 5, had also moved from bay 5 towards bay 4 in order to monitor and signal wingtip clearance for the left wing of the aircraft conducting the power-out from bay 5.

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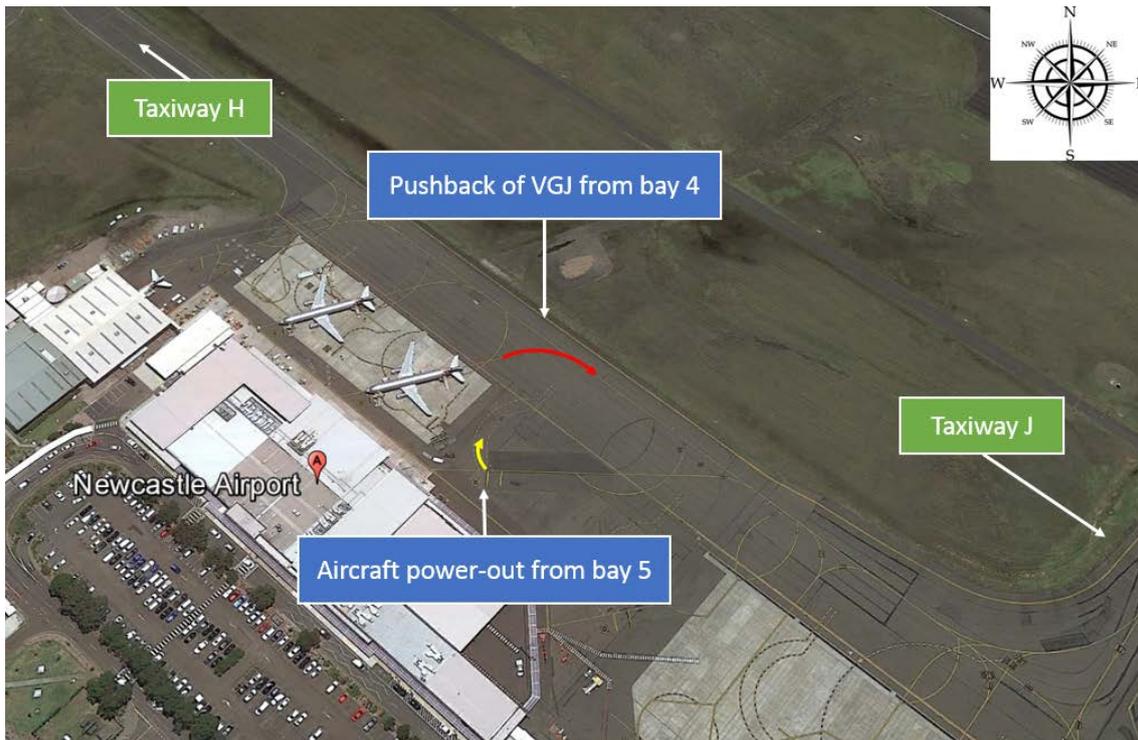
<sup>1</sup> Pilot Flying (PF) and Pilot Monitoring (PM): procedurally assigned roles with specifically assigned duties at specific stages of a flight. The PF does most of the flying, except in defined circumstances; such as planning for descent, approach and landing. The PM carries out support duties and monitors the PF's actions and the aircraft's flight path.

<sup>2</sup> The nose wheel steering pin is inserted in the nose gear to enable the tug to steer the nose wheel.

<sup>3</sup> The air traffic control tower is located on the opposite side of the runway to the civil terminal apron.

<sup>4</sup> Gender-free plural pronouns: may be used throughout the report to refer to an individual (i.e. they, them and their).

**Figure 1: Newcastle Airport apron**



Source: Google earth, annotated by ATSB

Radio communications continued between air traffic control and the aircraft departing from bay 5, until it was confirmed that the aircraft would wait for VGJ before taxiing any further. The captain of VGJ, who was looking out the left window of the flight deck towards the bay 5 aircraft and the terminal, sighted their tug and a dispatcher near bay 4. They assumed that the dispatcher near bay 4 was their dispatcher, who had disconnected from their aircraft while they were monitoring the bay 5 aircraft movements and radio communications. At about 1840, the flight crew on board VGJ requested and received a clearance to taxi for runway 12 via taxiway H. The flight crew selected their taxi lights on, released the brakes and increased power.

The dispatcher for VGJ was still connected to the aircraft nose with their headset and waiting for their clearance from the flight crew to disconnect. They observed the taxi lights for VGJ illuminate, then they heard the engine noise increase, and then the aircraft started to taxi. They immediately disconnected their headset from the aircraft and moved clear to the left of the aircraft towards the terminal with the headset and the nose wheel steering pin. Once the dispatcher was clear of the aircraft, they turned around to display the nose wheel steering pin to the flight crew, but the captain was not looking towards them.

**After start flows**

On completion of starting both engines, the flight crew conduct their ‘after start flows’, which are memory item checks split between the pilot flying and pilot monitoring (Figure 2). The second-to-last item for the pilot flying is the announcement to the dispatcher that they are clear to disconnect. After the dispatcher disconnects their headset from the aircraft, they walk clear of the aircraft and provide a ‘thumbs-up’ signal to the flight crew while holding up the nose wheel steering pin for the flight crew to sight. During the ‘after start flows’, the attention of the flight crew on board VGJ was diverted to the radio communications between the aircraft parked on bay 5 and the surface movement controller.

Figure 2: After start flows

AFTER START			
Ident: NP-NP-00010945.0001001 / 12 NOV 15 Applicable to: ALL			
PF		PM	
ENG MODE selector.....	NORM	GND SPOILERS.....	ARM
APU BLEED pb-sw .....	OFF	RUD TRIM.....	ZERO
ENG ANTI ICE pb-sw .....	AS RQRD	FLAPS.....	SET
WING ANTI ICE pb-sw .....	AS RQRD	PITCH TRIM.....	SET
APU MASTER SW.....	AS RQRD	ECAM DOOR PAGE.....	CHECK*
ECAM STATUS.....	CHECK	ECAM STATUS.....	CHECK
N/W STEER DISC MEMO.....	CHECK NOT DISPLAYED		
CLEAR TO DISCONNECT.....	ANNOUNCE		
AFTER START C/L .....	COMPLETE	AFTER START C/L .....	COMPLETE

Source: Operator

The last item on the ‘after start flows’ is for the flight crew to complete the challenge and response ‘after start checklist’, which is as follows:

- ANTI ICE ...AS RQRD
- ECAM STATUS ...CHECKED
- PITCH TRIM ...SET
- RUDDER TRIM ...ZERO
- DISP CLRNC E ...SIGHTED

The last item on the ‘after start checklist’ is confirmation that the dispatcher was sighted clear of the aircraft. The left seat or right seat pilot reports to the other pilot ‘dispatch clearance sighted’. In this serious incident, the terminal was on the left side of VGJ and therefore it was expected that the captain, in the left seat, would sight the dispatcher. The captain reported remembering sighting a dispatcher, but could not recall what was communicated on the flight deck between the flight crewmembers.

On completion of the ‘after start checklist’, the flight crew request taxi clearance and turn on the taxi light.

### Tug movements

After the tug disconnected from the aircraft, the tug driver moved the tug clear of the aircraft and initially waited for the dispatcher near the left wingtip. The tug normally waited beside the aircraft to offer the dispatcher a lift and because the nose wheel steering pin is stowed in the tug when removed from the aircraft. However, when the bay 5 aircraft started to move, the tug moved from the left wingtip to the terminal building near parking bay 4.

### Safety analysis

After VGJ was pushed-back from bay 4 and the flight crew had started their ‘after start flows’, their attention was diverted to a potential risk of collision associated with the taxi instructions and movement of an aircraft parked on bay 5. Following confirmation between the conflict aircraft and surface movement control that they would wait for VGJ, the captain of VGJ misidentified the dispatcher for the bay 5 aircraft as their own dispatcher. At this time, the tug, which would normally wait beside the departing aircraft for the dispatcher, had moved away from VGJ towards the terminal to avoid a conflict with the bay 5 aircraft. Therefore, the dispatcher sighted by the captain, was next to the tug used for the pushback of VGJ. This potentially provided an association between the tug and the dispatcher in the mind of the captain, who assumed the dispatcher had removed the nose wheel steering pin and moved away from the aircraft. The diversion of the flight crew’s attention away from their ‘after start flows’ probably resulted in the pilot flying not completing their memory items. This was not detected in the ‘after start checklist’ because the

captain had misidentified the dispatcher for the bay 5 aircraft as the dispatcher for VGJ. Consequently, the dispatcher connected to VGJ was not cleared to disconnect prior to VGJ starting to taxi.

## Findings

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

- The flight crew on board VGJ were distracted during their ‘after start flows’ by the radio communications between an aircraft parked on bay 5 and surface movement control, and the subsequent movement of that aircraft which had a potential risk of collision with VGJ.
- The captain on board VGJ misidentified the dispatcher for the bay 5 aircraft as their own dispatcher, which resulted in VGJ starting to taxi without clearing the dispatcher to disconnect.

## Safety message

Following this serious incident the captain reported that their most important lesson was distraction management. They considered either slowing down the ‘after start flows’ or re-starting the ‘flows’, before the ‘after start checklist’, as the most practical risk mitigation strategies.

## General details

### Occurrence details

Date and time:	25 January 2017 – 1840 EDT	
Occurrence category:	Serious incident	
Primary occurrence type:	Taxiing collision / Near collision	
Location:	Newcastle (Williamtown) Airport, New South Wales	
	Latitude: 32° 47.70' S	Longitude: 151° 50.07' E

### Aircraft details

Manufacturer and model:	Airbus A320-232	
Registration:	VH-VGJ	
Operator:	Jetstar Airways PTY LTD	
Serial number:	4460	
Type of operation:	Air transport high capacity – passenger	
Persons on board:	Crew – 6	Passengers – 165
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.