



**Australian Government**

**Australian Transport Safety Bureau**

# Flight planning related event involving an Airbus A330, VH-QPD

Sydney Airport, New South Wales, 15 October 2013

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

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# Flight planning related event involving an Airbus A330, VH-QPD

## What happened

On 15 October 2013, at about 0410 Eastern Daylight-savings Time (EDT),<sup>1</sup> the flight plan for a Qantas Airways Airbus A330 aircraft, registered VH-QPD, Qantas Flight 565 (QF 565), was automatically generated and subsequently checked and released by the dispatcher at about 0420. The flight was scheduled to depart Sydney, New South Wales at 0600 on a passenger service to Perth, Western Australia. The first officer (FO) was designated as the pilot flying.

At about 0430, while en-route to the airport, the captain of QF 565 downloaded the weather package and flight plan onto his Qantas issued iPad.

At about 0440, the company meteorologist advised the dispatcher that a new terminal aerodrome forecast (TAF) had been issued for Perth, which required QF 565 to have an alternate destination due forecast fog.<sup>2</sup> The dispatcher then produced a new flight plan for QF 565.

At about 0450, the dispatcher released a new flight plan. He attempted to contact the captain via mobile phone, leaving a voicemail message advising that a new flight plan had been issued due to an amended weather forecast. As it was still prior to the crew's nominal sign-on time of 0500, the dispatcher believed that the crew would see the new plan. The dispatcher appended notes to the flight plan, stating, 'new flight plan due change in weather requirements'.

The captain and FO arrived at the airport before 0500 and both of their mobile phones were switched off prior to this time. The FO initially checked his iPad and the flight plan was not available, but reported that, at about 0504, he was able to download the flight plan and weather (briefing package). The flight plan downloaded by the FO was the original flight plan, despite dispatch having released the new plan prior to this time.

They reviewed the information on their respective iPads and noted that there were no weather requirements for Perth and that they both had the same flight plan. The captain also noted that their initial cruising altitude was flight level (FL)<sup>3</sup> 320. The crew completed the briefing and requested 32.1 tonnes of fuel be uploaded. They then proceeded to the aircraft to commence pre-flight duties (Figure 1).

Each flight plan was issued with a unique retrieval code (RC). The RC identified the flight plan that was downloaded by the crew; the latest plan issued by dispatch; and the plan submitted to air traffic control (ATC). The flight plan downloaded by the crew on that morning had an RC of 4765. The new flight plan released by the dispatcher had an RC of 4794.

When at the aircraft, the FO printed out the deck log (navigation log) from the aircraft communications addressing and reporting system (ACARS) and stowed it. The deck log contained the planned flight route and waypoints, but not the dispatcher notes or other details from the flight plan.

The FO then loaded the flight plan into the flight management computer (FMC). Having completed the walk-around, the captain contacted Qantas Sydney via radio and gave them the fuel order, fuel burn and flight time. He was not advised of any change to the flight plan at that time.

<sup>1</sup> Easter Daylight-savings Time (EDT) was Coordinated Universal Time (UTC) + 11 hours.

<sup>2</sup> Specified weather conditions or facilities for a particular aerodrome such that, if the weather conditions or facilities are less than the alternate minima, the pilot in command must provide for a suitable alternate aerodrome.

<sup>3</sup> At altitudes above 10,000 ft in Australia, an aircraft's height above mean sea level is referred to as a flight level (FL). FL 320 equates to 32,000 ft.

The crew received an ACARS message from dispatch to check that their RC number was 4794. The FO confirmed that this number matched the RC number on the deck log, and the captain also confirmed the two matched.

Prior to pushback, the crew switched their iPads to 'flight mode'<sup>4</sup>. The captain reported that he had not received an alert on the iPad advising of a new flight plan.

The flight departed at about 0600. When at the top of climb, the captain retrieved the deck log and noticed that the initial flight level on the log was FL 360. He recalled that the initial planned cruise altitude downloaded onto the iPad was FL 320. As they had been cleared by ATC to FL 320, he also assumed that ATC were using the original flight plan. He also noted a departure fuel of 45 tonne on the log and realised that something was wrong.

The captain called dispatch via satellite phone and was advised that Perth now required an alternate due to fog. He then contacted the duty pilot and advised that they did not have the minimum fuel required for the flight to Perth (with an alternate) and amended their destination to Adelaide. The forecast was subsequently updated, removing the requirement for an alternate and the aircraft was able to continue to Perth and landed with fuel reserves intact.

**Figure 1: Airbus A330 cockpit**



Source: Chris Gimmillard

## ***Dispatch procedures***

### **Communications**

- The dispatch procedures stated that, if the crew had 'arrived at briefing', the dispatcher was to create the new flight plan and advise the crew either via telephone, very high frequency (VHF) radio or ACARS, and that 'direct contact must be made'.
- The Flight Dispatch Manual stated that telephone was an approved method for contacting the crew, however, there was no requirement for the crew to have a telephone on, prior to, or during the preparation or conduct of a flight.
- The crew reported that the usual means of communication on the ground was via the company radio frequency.

<sup>4</sup> Flight mode disables all wireless activities.

- The captain reported that there was no formal sign on procedure and no one was advised of the crew's arrival at the airport.

#### **Obtainment of flight plan**

Prior to the introduction of the company iPads, the crew collected a printed briefing package from the briefing office. The dispatcher would then be aware that the crew had retrieved the flight plan. As no response or acknowledgement was generated when a flight plan was downloaded on an iPad, the dispatcher was unable to determine when, or which flight plan had been downloaded by the crew.

#### **Revised flight information**

Prior to introduction of the iPads, if an updated flight plan or weather package was available, a member of ground staff would bring the paper copy to the cockpit. Dispatch could contact the crew via ACARS or satellite phone.

#### **Dispatcher notes**

The dispatcher notes printed on the first page of a flight plan did not display on the deck log or appear on the FMC.

#### ***iPad flight plans and weather information***

The flight plan was obtained by the crew via the 'QPilot' application on the iPad. The application notified the crew when a flight plan was available, however, when in 'flight mode' the notification function was not active. Furthermore, dispatch was not notified when a flight plan or weather package had been downloaded to an iPad.

#### ***Pilot comments***

The crew reported that there were often issues with downloading weather and flight plans and that, on occasion, one crew member was able to partially download the information, while the other crew member was unable to download any information.

The captain reported that the 'check RC matches your flight plan' ACARS message appeared on an ad-hoc basis. The crew also reported that, if the message had advised of a reason for the check, the weather in Perth had changed and a new flight plan was available, they would have checked the flight plan downloaded to the iPad.

The captain also stated that there is limited internet connection on the flight deck and therefore they are generally unable to download data when in the cockpit.

The crew recommended that the message only be issued when a new flight plan had been created and that an explanation for the check should be appended to the message.

#### ***Dispatcher comments***

In hindsight, the dispatcher reported that he could have persisted in attempting to contact the crew via other means. The dispatcher reported that he believed that the 'check RC' message was sent to all crews 20 minutes prior to departure, for every domestic flight.

#### ***RC check message***

The flight plan loaded into the FMC and the deck log were retrieved from the airside computer server once it was released by dispatch. There was no RC number on the FMC. The RC number on the deck log will almost always match the RC number on the ACARS message, as both obtain the RC number from the same server.

## 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.

### **Qantas Airways**

As a result of this occurrence, Qantas Airways has advised the ATSB that the flight technical personnel are working with the dispatch team to review the process. They have also taken the following interim safety action:

#### **Internal Notice to Airmen (INTAM)**

The following INTAM was issued to all crews:

*Whenever the ACARS message – FLIGHT PLAN FILING CHECK – is received, flight crew must ensure the latest flight plan has been uploaded to the iPad and that the fuel order is checked against the new flight plan.*

## Safety message

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 is safety around data input errors [www.atsb.gov.au/safetywatch/data-input-errors.aspx](http://www.atsb.gov.au/safetywatch/data-input-errors.aspx).



Effective operating procedures, improved aircraft automation systems and software design, and clear and complete flight documentation will all help prevent or uncover data entry errors.

This incident highlights the importance of ensuring vital information is relayed to crews in a timely manner. When new information is available on the ground, providing that information to crew prior to departure can reduce the impact on crew workload and any consequences to the operation of the flight.

## General details

### Occurrence details

Date and time:	15 October 2013 – 1600 EDT	
Occurrence category:	Serious incident	
Primary occurrence type:	Pre-flight/planning	
Location:	Sydney Airport, New South Wales	
	Latitude: 33° 56.77' S	Longitude: 151° 10.63' E

### Aircraft details

Manufacturer and model:	Airbus Industrie A330-303	
Registration:	VH-QPD	
Operator:	Qantas Airways	
Serial number:	0574	
Type of operation:	Air transport - high capacity	
Persons on board:	Crew – 10	Passengers – 200
Injuries:	Crew – Nil	Passengers – Nil
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 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.