Australian Government
Australian Transport Safety Bureau

Wheels-up landing involving a Cessna 210, VH-SKQ

Broome Airport, Western Australia, 9 July 2014

ATSB Transport Safety Report
Aviation Occurrence Investigation
AO-2014-123
Final – 3 December 2014

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

Addendum

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Wheels-up landing involving a Cessna 210, VH-SKQ

What happened

On 9 July 2014, the pilot of a Cessna 210 aircraft, registered VH-SKQ, conducted a scenic charter flight from Broome, Western Australia, to Windjana Gorge, Silent Grove, Mt Hart Station, Cape Leveque and return to Broome, with five passengers on board.

When approaching Broome Airport, the aircraft was cleared by air traffic control (ATC) via a coastal route at 1,000 ft above mean sea level. At about 1716 Western Standard Time (WST), the pilot was cleared for, and turned the aircraft onto, a left base leg for runway 10. Due to another aircraft backtracking on the runway, the pilot was directed by ATC to extend the base leg. The pilot then selected 10º of flap and the landing gear lever to the extended position, and reported that he had observed the green light indicating the landing gear was extended.

When on the final leg of the approach, the pilot was issued a landing clearance later than usual due to the aircraft ahead. He reported that he performed the final checks, however omitted to look outside and visually confirm by sighting the left main landing gear, whether the gear was in the extended position. The pilot flared the aircraft for landing, aiming to touch down about 100 m beyond the threshold. He realised that the aircraft was lower to the ground than normal on touchdown, and heard what he believed were the main tyres contacting the runway, followed by the aircraft belly and propeller. The aircraft sustained substantial damage.

A witness observed the aircraft on the base leg, with the nose landing gear extended and the main landing gear retracted (Figure 1).

Figure 1: Aircraft on base leg

Source: David Sorrell-Saunders

Engineering inspection

An engineering inspection found that a faulty nose gear up lock switch resulted in the nose gear extending during flight. This resulted in the main landing gear failing to extend.

Safety message

While the cause of the main landing gear failure to extend has not been determined, the pilot was unaware that it had not extended prior to landing as the visual check was omitted.

This incident highlights the impact a combination of distraction can have on aircraft operations, particularly during a critical phase of flight.

While experience and familiarity with operations are invaluable, they can also lead to complacency. It is therefore important that pilots with experience, familiarity and comfort with the aircraft and location, continue to do all checks thoroughly. The ATSB publication, *Avoidable Accidents No. 6 - Experience won't always save you,* is available at www.atsb.gov.au/publications/2012/avoidable-6-ar-2012-035.aspx.

Research conducted by the ATSB found that distractions were a normal part of everyday flying and that pilots generally responded to distractions quickly and efficiently. It also revealed that 13 per cent of accidents and incidents associated with pilot distraction between January 1997 and September 2004 occurred during the approach phase of flight.

The Flight Safety Foundation suggests that, after a distraction source has been recognised and identified, the next priority is to re-establish situation awareness by conducting the following:

- *Identify:* What was I doing?
- *Ask:* Where was I distracted?
- *Decide/act:* What decision or action shall I take to get back on track?

The following provide additional information on pilot distraction:

Dangerous Distraction: An examination of accidents and incidents involving pilot distraction in Australia between 1997 and 2004: www.atsb.gov.au/publications/2005/distraction_report.aspx

Flight Safety Foundation Approach-and-landing Briefing Note 2.4 – Interruptions/Distractions: http://flightsafety.org/files/alar_bn2-4-distractions.pdf

The United States Federal Aviation Administration (FAA) *On Landings Part III pamphlet:*

www.faasafety.gov/files/gslac/library/documents/2011/Aug/56411/FAA%20P-8740-50%20OnLandingsPart%20III%20%5Bhi-res%5D%20branded.pdf

General details

Occurrence details

Date and time:	9 July 2014 – 1716 WST	
Occurrence category:	Accident	
Primary occurrence type:	Wheels up landing	
Location:	Broome Airport, Western Australia	
	Latitude: 17° 56.98' S	Longitude: 122° 13.67' E

Aircraft details

Manufacturer and model:	Cessna Aircraft Company 210L	
Registration:	VH-SKQ	
Serial number:	21061243	
Type of operation:	Charter	
Persons on board:	Crew – 1	Passengers – 4
Injuries:	Crew – Nil	Passengers – Nil
Damage:	Substantial	

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.