



Australian Government

Australian Transport Safety Bureau

Safety Advisory Notice

To pilots of canopy-equipped aircraft

Number: AO-2014-164-SAN-012

Is your canopy secured?

Detecting an unsecured canopy prior to take-off could prevent in-flight control issues resulting in injury or aircraft damage.

What happened

On 14 October 2014, a Van's Aircraft Inc. (Van's) RV-6A departed Moorabbin Airport, Victoria on a local flight. Shortly after reaching 2,900 ft, the aircraft descended rapidly and a witness reported observing objects falling from the aircraft. The aircraft collided with the ground next to a house 8 km south of Moorabbin. The pilot was fatally injured and the aircraft was destroyed. Members of the public found a number of items away from the accident site that belonged to the pilot.

Why did it happen

The liberation of the items from the aircraft's interior indicated that the tip-up (forward-hinged) canopy likely opened in-flight. While the ATSB was unable to determine how the canopy opened and the effect on aircraft control, there were indications the pilot was attempting to respond to the situation. However, for reasons undetermined, recovery did not occur before the impact with the ground. The ATSB found that, in a number of Van's models, the in-flight opening of a tip-up canopy may potentially result in a significant pitch down tendency that may affect aircraft control.



Tip-up canopy open (Source: Supplied)

Safety advisory notice

AO-2014-164-SAN-012: The consequences when an aircraft canopy opens in-flight, including on other than Van's aircraft types, can vary from being relatively benign to significant, such as a sudden pitch down. In any event, in the first instance, pilots should expect an element of startle and distraction. The detection of an unsecured canopy prior to take-off could prevent in-flight control issues resulting in injury or aircraft damage. The ATSB advises pilots to be vigilant and to confirm the security of their aircraft's canopy prior to take-off.

Check the security of your canopy

The in-flight opening of canopies in a number of Van's aircraft models highlights the varying consequences in the case of such occurrences. The result can vary from being relatively benign to significant. While this investigation focused on Van's aircraft, the implications are applicable to all aircraft fitted with a canopy, in particular, a tip-up canopy. Such occurrences serve as a reminder for pilots to check the security of their aircraft's canopy prior to take-off. Additional measures, such as the incorporation of a specific pre-flight checklist item, and/or the installation of a canopy-open warning device, have the potential to assist pilots detect an unintentionally-open canopy.

The ATSB encourages pilots who experience a canopy opening in-flight to notify the aircraft manufacturer and, in the case of difficulty controlling their aircraft, the ATSB in accordance with the reporting requirements of the *Transport Safety Investigation Act 2003*. This will allow for a greater understanding of the safety implications of these types of occurrences.

Read more about this ATSB investigation: [AO-2014-164](#)

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