



Australian Government

Australian Transport Safety Bureau

# Safety Advisory Notice

To industry stakeholders

Number: AO-2017-096-SAN-012

## Is incipient spin training permitted in your aircraft?

**Pilots must learn to recover from an incipient spin and demonstrate recovery from the manoeuvre during flight tests. Evidence suggests that in some cases, this training is being performed in aircraft that are not approved for intentional spins. Depending on the aircraft type, the manufacturer may not have specified whether that restriction applies to an incipient spin or only a developed spin.**

### What happened

On 26 September 2017, an instructor and student conducted a training flight in a Diamond Aircraft Industries DA40 aircraft, registered VH-MPM, from Archerfield Airport, Queensland. The purpose of the flight was a simulated Recreational Pilot Licence flight test to prepare the student for an upcoming flight test.

The aircraft entered a developed spin during manoeuvres consistent with advanced stall recovery training, which likely included incipient spins. The spin continued until the aircraft collided with terrain. The instructor and student were fatally injured and the aircraft was destroyed.



Source: ATSB

### Factors uncovered during the investigation

The ATSB identified concerns relating to the conduct of incipient spin training in aircraft types not approved for intentional spinning.

The DA40 aircraft type is certified to recover from a one-turn spin or a three-second spin (whichever takes longer), and is not proven or certified to be recoverable from a longer spin. The aircraft's manuals state that intentional spins are prohibited. During the ATSB investigation, the aircraft manufacturer clarified that this limitation prohibits any action that is intended to induce a spin, even if the aircraft is immediately recovered.

Aircraft types with similar limitations are currently in use throughout the world for flying training. In Australia, the Civil Aviation Safety Authority requires the demonstration of recovery from an incipient spin during flight tests. However, there is no clear and consistent definition of the point at which a manoeuvre becomes a spin (or incipient spin) for the purposes of flying training.

Crucially, the ATSB found that there can be varying interpretations of an 'incipient spin', and this has led to aircraft not approved for intentional spins being used for incipient spin training and assessment.

### Safety advisory notice

**AO-2017-096-SAN-012:** Operating an aircraft within the stated limitations is essential to the safe conduct of a flight. Training organisations are required to conduct incipient spin recovery training, which includes intentionally inducing a spin and recovering before it fully develops. Some organisations may be conducting this training in aircraft not approved for intentional spinning. The ATSB advises these training organisations to clarify with aircraft manufacturers the extent to which the intentional entry into the early stages of a spin, including an incipient spin, is permissible.

Read more about this ATSB investigation: [AO-2017-096](#)

Released: 22 May 2019