Australian Government
Australian Transport Safety Bureau

Collision on ground involving Cessna 150F, VH-ICE

21 km SW of Mittagong (ALA), NSW, 9 February 2013

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Aviation Occurrence Investigation
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Addendum

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What happened

On 9 February 2013, at about 0730 Eastern Daylight-savings Time,[1] a Cessna 150F, registered VH-ICE (ICE), landed on the 11th fairway[2] of the Mt Broughton Golf Club, New South Wales after the initial leg of a return flight from Robertson. The pilot was the only person on-board and had been authorised and pre-arranged with the Golf Club to use the fairway as a landing area.

VH-ICE

Source: Insurance representative

After landing to the south, the pilot backtracked along the landing area[3] to conduct a short field take-off in the same direction (Figure 1).

The pilot reported that the aircraft accelerated as normal, however during the take-off run he realised the aircraft would not clear the trees at the end of the landing area and elected to reject the take-off. The pilot reduced the power to idle and applied the brakes, however the remaining distance was insufficient and the left wing impacted a tree, the aircraft turned over and came to rest inverted. The pilot was uninjured and the aircraft sustained substantial damage (Figure 2).

Figure 1: Landing area

Source: Google earth

View of the landing area from point of takeoff

Source: Insurance representative

[1] Eastern Daylight-saving Time (EDT) was Coordinated Universal Time (UTC) + 11 hours.

[2] The 11th hole is advertised to be 440 m long (1,443 ft).

Figure 2: VH-ICE damage to the left wing

Source: Insurance representative

Pilot comments

The pilot reported that the landing area had short grass that was wet from dew. He had previously landed and taken off at the landing area in ICE without incident and had prior permission from the Golf Club to use the landing area[4]. He also stated that he did not know the available take-off distance.

The pilot commented that it was a clear day, with a 2 to 3 knot wind from the south.

The pilot reported that the aircraft had been modified with the installation of a 160 hp engine (Lycoming 0-320 D3G) from the 100 hp engine and the installation of vortex generators on the wings and horizontal stabiliser in accordance with supplemental type certificates.

Accident site

An insurance assessor attended the accident site and reviewed the landing area. The landing area had a hard surface with short grass and 50 ft high trees at the southern end of the fairway. The assessor determined that the effective available take-off length of the landing area was 1,180 ft. Based on performance charts in the approved Cessna 150F owner's manual, the take-off distance required by the unmodified Cessna 150 F was 1,583 ft. There was no available performance data that took into account the installation of the 160 hp engine.

Safety message

This accident highlights the importance of following the published performance data for your aircraft and knowing the performance requirements, physical characteristics and dimensions of the landing area that you are intending to take-off and land on. Other factors, such as

[4] See *Civil Aviation Regulation (CAR) 93*.

environmental conditions, may affect the usable landing area length needed for a safe take off, landing or rejected take-off.

The Civil Aviation Safety Authority publication Civil Aviation Advisory Publication 92-1(1) *Guidelines for aeroplane landing areas* contains guidance for determining the suitability of the intended landing area for approved aircraft to take off and land on safely. It is available at www.casa.gov.au/wcmswr/_assets/main/download/caaps/ops/92_1.pdf

General details

Manufacturer and model:	Cessna 150F	
Registration:	VH-ICE	
Type of operation:	Private	
Occurrence category:	Accident	
Primary occurrence type:	Collision on ground	
Location:	21 km SW of Mittagong (ALA), NSW	
	Latitude: 34° 34.07' S	Longitude: 150° 19.30' E
Persons on board:	Crew – 1	Passengers – 0
Injuries:	Crew –Nil	Passengers – Nil
Damage:	Substantial damage	

About the ATSB

The Australian Transport Safety Bureau (ATSB) is an independent Commonwealth Government statutory agency. The Bureau 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.