Aviation Safety Investigation Report 198800120

Cessna 182H

11 May 1988

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NOTE: All air safety occurrences reported to the ATSB are categorised and recorded. For a detailed explanation on Category definitions please refer to the ATSB website at www.atsb.gov.au.

Occurrence Number: 198800120 **Occurrence Type:** Accident
Location: Mandurah WA
Date: 11 May 1988 **Time:** 1200
Highest Injury Level: Nil
Injuries:

	Fatal	Serious	Minor	None
Crew	0	0	1	1
Ground	0	0	0	-
Passenger	0	0	0	0
Total	**0**	**0**	**0**	**1**

Aircraft Details: Cessna 182H
Registration: VH-PKJ
Serial Number: 18256314
Operation Type: Private
Damage Level: Substantial
Departure Point: Mandurah WA
Departure Time: 1155
Destination: Mandurah WA

Approved for Release: October 28th 1988

Circumstances:

The pilot had limited experience on Cessna 182 aircraft. He planned to carry out some practice circuits at the local airfield. All of the pilot's recent flying had been completed at a licenced aerodrome with a sealed runway. The local airfield consisted of a grassed area with a narrow gravel band running through the middle, and it was on this gravel area where takeoffs and landings were to take place. On the first approach to land, full flap had been selected for a normal landing. As the pilot raised the nose for landing, he over-rotated and allowed the aircraft to climb slightly. When he realised his mistake, he immediately lowered the nose. However, the nosewheel touched down heavily before the resulting descent was detected and arrested. The aircraft bounced a number of times before stopping on the gravel section of the strip. The pilot's restricted experience had not prepared him adequately for operations onto a "bush strip". The narrow gravel band in the centre of the strip was on undulating ground. There were trees close to the approach end of the strip and the surrounding area consisted of scrub. This presented the pilot with a set of visual cues on approach which were different to those to which he had become accustomed during his previous experience. The pilot had been used to closing the throttle over the end of the runway at the aerodrome where he had undertaken his training, and not well beforehand. As a result, the pilot's visual judgement of his approach profile became uncertain and he believed it would be necessary to fly a steeper approach and close the throttle prior to reaching the strip, a deviation from his normal procedure. After descending over the trees and once sure of reaching the strip he closed the throttle, and did not subsequently notice the airspeed. The aircraft was over-rotated at flare point, resulting in a balloon. This was followed by an over-correction downwards which in turn was followed by a hard touchdown and several bounces. A go-around was not attempted from the initial balloon, because the pilot felt that the nose attitude was too high and a go-around might have resulted in a stall. Although he did recognise that the approach was becoming unsafe, he elected to continue because he thought that if he took any different course of action he may have aggravated the situation.

Significant Factors:

It was considered that the following factors were relevant to the development of the accident:

1. The pilot attempted an operation beyond his experience level, in that the type of visual environment experienced during the approach was novel to him.

2. The novel visual environment led the pilot to decide to close the throttle earlier on the last part of the final approach than that to which he was accustomed, in order to steepen the approach angle after passing trees close the approach end of the strip.

3. The pilot did not correctly rotate the aircraft in preparation for landing following this steepened approach.

4. A go-around was not initiated when it was perceived that the final approach was unsatisfactory.

Reccomendations:

1. It is recommended that the Civil Aviation Authority ensures that at the completion of training for a Private Pilots' Licence, that a student will have been exposed to at least some instruction and practice in circuit work at strips other than sealed strips.

2. It is recommended that the Civil Aviation Authority again publish material to remind pilots that there are different approach pictures presented to a pilot when the length and width of strips vary, and that this factor can significantly affect their ability to judge the approach profile correctly.