Aviation Safety Investigation Report 199603387

Cessna Aircraft Company 182E

17 October 1996

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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.

Aviation Safety Investigation Report

199603387

The Bureau did not conduct an on scene investigation of this occurrence. The information presented below was obtained from information supplied to the Bureau.

Occurrence Number: 199603387
Occurrence Type: Accident
Location: 55km NE Meekatharra, Aerodrome
State: WA
Inv Category: 4
Date: Thursday 17 October 1996
Time: 1330 hours
Time Zone WST
Highest Injury Level: None

Aircraft Manufacturer: Cessna Aircraft Company
Aircraft Model: 182E
Aircraft Registration: VH-RHJ
Serial Number: 18253687
Type of Operation: Non-commercial Aerial Application/Survey etc
Damage to Aircraft: Substantial
Departure Point: Mulgul Station WA
Departure Time: 0530 WST
Destination: Wonca Wol Station WA

Crew Details:

Role	Class of Licence	Hours on Type	Hours Total
Pilot-In-Command	Private	7000.0	7000

Approved for Release: Wednesday, December 4, 1996

The pilot reported that he was conducting sheep spotting operations at 500 ft above ground level when the engine suddenly lost power. He was forced to complete an emergency landing in rough terrain, damaging the aircraft in the process.

The pilot had refuelled the aircraft to full tanks and conducted a water drain test 45 minutes flying time prior to the power loss.

The carburettor was removed, tested and inspected. On the test bench, the carburettor flooded each time it was tested. The inspection disclosed some faults that probably led to the flooding. The float level had been incorrectly set, there was significant wear in the float attachment pin and the floats had been making contact with the carburettor body and the head of the needle valve had been repaired using silver solder. Additional tests also indicated that it was possible for the needle valve to jam in the closed position, starving the carburettor of fuel. The head of the needle valve was badly worn. This permitted it to become jammed in a corresponding wear mark on the carburettor body. Other faults, such as the use of locking wire instead of a split pin to secure the float pin and disintegration of the accelerator pump leather plunger were also evident.

An inspection of the aircraft log books indicated that the carburettor float level had been adjusted by a LAME 12 flying hours prior to the power loss. Float adjustment requires the carburettor to be opened. Some of the faults, which the inspection indicated had been present for a considerable time, should have been apparent during the adjustment. They were not corrected.

It is probably that the faults in the carburettor caused it to be starved of fuel or to flood and one of these situations led to the power loss.