Aviation Safety Investigation Report 198803456

Cessna A188-A1

10 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: 198803456 Occurrence Type: Accident

Location: 70 km SW Tara QLD

Date: 10 May 1988 **Time:** 845

Highest Injury Level: Serious

Injuries:

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

Aircraft Details: Cessna A188-A1

Registration: VH-IRG
Serial Number: 18801562
Operation Type: Aerial Work
Damage Level: Destroyed

Departure Point: ALA 60 km SW Tara QLD

Departure Time: 0815

Destination: ALA 60 km SW Tara QLD

Approved for Release: February 23rd 1989

Circumstances:

The pilot was to spray weeds in four areas marked 1-4 on the plan of the property he had been given. He conducted an airborne inspection during which he noted a single power line, running east west, along the northern side of area 1. Adjacent to the power line was an area of seed lucerne which the property owner emphasised was not to be sprayed. Area 1 was immediately south of area 2 while areas 3 and 4 were some distance away and well clear of the power line. There was sufficient daylight remaining for the pilot to spray areas 3 and 4 and to partially complete area 2 flying runs parallel to the wire. That evening, there was some disagreement between the pilot and the property owner as to whether the correct ratio of chemical had been used, and the property owner again emphasised that he did not want any spray to fall on the seed lucerne. The following morning, without conducting a further aerial inspection, the pilot sprayed the remainder of area 2 and, while waiting for the markers to position themselves in area 1, he decided to do a clean-up run from north to south along the western edge of area 2. He recalled that, as he flew the run, foremost in his mind was the need to avoid spraying the seed lucerne. The aircraft struck the power line at the completion of this run. The wires became caught in the engine upper cowl and rolled the aircraft so that it impacted the ground right wing first. The right wing was torn from the fuselage as the aircraft cartwheeled. The pilot, who was wearing a helmet, received serious facial injuries in the accident. It was found that the left hand lap toggle in the safety harness buckle had failed on impact, allowing the pilot to be thrown forward and to the right into the instrument panel/coaming. Metallurgical examination showed that the toggle failed due to insufficient strength caused by inadequate heat treatment during manufacture.

Significant Factors:

The following factors were considered relevant to the development of the accident

- 1. The pilot perceived that he was under pressure regarding the chemical ratio and the instruction not to spray the seed lucerne.
- 2. The pilot did not conduct an aerial inspection of the clean-up area prior to the run as specified in the Company Operations Manual.
- 3. During the clean-up run, the pilot's attention was channelised towards keeping spray off the seed lucerne.
- 4. The pilot did not see or avoid the wire.

Reccomendations:

That the Civil Aviation Authority continue to publish periodic warnings on, the dangers powerlines pose to agricultural flying, and the importance of thorough aerial inspections before the clean-up run.