

Aviation Safety Investigation Report 198902602

Hughes lightwing

19 December 1989

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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: 198902602

Occurrence Type: Accident

Location: Cooranbong NSW

Date: 19 December 1989

Time: 845

Highest Injury Level: Serious

Injuries:

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

Aircraft Details: Hughes lightwing

Registration: 25-225

Serial Number: N/k

Operation Type: Sports Aviation (Dual
Training)

Damage Level: Destroyed

Departure Point: Cooranbong NSW

Departure Time: 0800

Destination: Cooranbong NSW

Approved for Release: 9th August 1990

Circumstances:

The aircraft was being used for dual training and was operating in the circuit, having been airborne for about 45 minutes. During a turn onto the crosswind leg the engine partially lost power. The instructor immediately took control as the power was inadequate to maintain height and initiated a turn for landing on the reciprocal runway. On the approach, the aircraft struck trees bordering the edge of the strip and dived vertically to the ground. The instructor's seat attachment was damaged during the collision with the trees, prior to ground impact. Examination of the engine's spark plugs indicated the front cylinder had ceased to deliver power. The partial loss of power was the result of dirty fuel. Contamination was found in the float bowl of the front cylinder carburettor, in the fuel filter, and in the fuel line between the fuel tank and filter. The contaminated motor vehicle fuel was purchased from a nearby service station on the day prior to the accident. Two stroke oil was mixed with the fuel by the aircraft operator and not adequately filtered before being added to the aircraft fuel tanks.

Significant Factors:

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

1. The engine suffered a partial loss of power during the crosswind turn in the circuit.
2. The engine power output was insufficient to enable the aircraft to reach the airstrip.
3. The partial power loss was due to fuel starvation as a result of contaminated fuel.
4. The fuel was not adequately filtered before it was added to the aircraft fuel tanks.

Reccomendations:

It is recommended that the Australian Ultralight Federation remind all pilots and operators, of the requirements and procedures to maintain stringent fuel quality control.