

Aviation Safety Investigation Report 199002042

Thruster T300

20 August 1990

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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: 199002042
Location: The Oaks NSW
Date: 20 August 1990
Highest Injury Level: Fatal
Injuries:

Occurrence Type: Accident

Time: 930

	Fatal	Serious	Minor	None
Crew	2	0	0	0
Ground	0	0	0	-
Passenger	0	0	0	0
Total	2	0	0	0

Aircraft Details: Thruster T300
Registration: 025-299 (AUF)
Serial Number: 089-399
Operation Type: Aerial Work
Damage Level: Destroyed
Departure Point: The Oaks NSW
Departure Time: 0900
Destination: The Oaks NSW

Approved for Release: 11th February 1992

Circumstances:

The aircraft was engaged in dual instructional circuit training. On what was probably the fourth circuit, the aircraft was observed to land heavily on runway 35 and then to climb away to the N. When the aircraft reached a height of 400-500 ft a witness heard the engine noise cease abruptly and saw the aircraft enter a nose-high, yawing turn to the left. The left wing dropped as the aircraft approached a W heading and the aircraft entered a spiral dive which continued until it collided with the ground. There was no apparent attempt to recover from the spiral. The weather conditions at the time of the accident were fine and cool with a light wind blowing from the N. An examination of the wreckage failed to reveal any pre-existing damage or fault which might have contributed to the accident. However, the left ignition switch was found to be in the 'off' position and propellor damage was consistent with the engine being stopped at the time of impact. This evidence suggested the left ignition switch may have been inadvertently knocked to the 'off' position during emergency actions following a simulated engine failure, resulting in the engine stopping. The initial heading change after the abrupt cessation of engine noise, was consistent with an attempt to turn back towards the runway. There was no evidence found of either pilot having been incapacitated during the flight. It could not be determined who was controlling the aircraft at the time of the power decrease, or why the aircraft was handled in a manner which led to a loss of control. Recovery action may have been impeded by the shoe of one of the pilots fouling the rudder pedal control mechanism.

Significant Factors:

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

1. A loss of engine power during the climb after take-off was consistent with a simulated engine failure.

2. It is probable the engine stopped when the left ignition switch was inadvertently knocked to the 'off' position, following the simulated engine failure.
3. The initial heading change, after the loss of power, suggested an attempt to turn back to the runway.
4. Control of the aircraft was lost during the turn to the left with no apparent attempt to recover from the resulting spiral dive.

Reccomendations:

1. It is recommended that the Australian Ultralight Federation (AUF) remind flying instructors of the necessity to brief students on proper 'handover/takeover' procedures and the need for strict adherence to these procedures in flight.
2. It is recommended that the Note following para 13 b, Section 3.04-3 of the AUF Operations Manual, Issue 2, be withdrawn, and that under no circumstances should an engine be shut down in flight for the purposes of training.
3. It is recommended that the AUF consider requiring modifications to the rudder pedals to minimise the risk of the pilot's footwear fouling the rudder control mechanism.
4. It is recommended that the AUF introduce a design standard for all ultralight aircraft to ensure some form of ignition switch protection to minimise the risk of switches being inadvertently switched off.