

**Aviation Safety Investigation Report
198702851**

Avions Marcel Dassault Falcon 20

20 September 1987

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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: 198702851
Location: Sydney NSW
Date: 20 September 1987
Highest Injury Level: Nil
Injuries:

Occurrence Type: Incident

Time: 1535

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

Aircraft Details: Avions Marcel Dassault
Falcon 20
Registration: VH-RRC
Serial Number: 325
Operation Type: Charter
Damage Level: Nil
Departure Point: Wagga NSW
Departure Time: 1448
Destination: Sydney NSW

Approved for Release: April 18th 1989

Circumstances:

Following a normal flight the aircraft was established on final approach for landing. At about 140 feet above the ground the approach angle flattened and the nose pitched up. The co-pilot who was flying the aircraft believed that a windshear situation had been encountered and he initiated a go around. As full power was applied the nose pitched up violently. The crew did not observe any cockpit indications as to the reason for this reaction. The pilot in command took control of the aircraft and initiated a rolling turn. This had the effect of reducing the pitch angle and by manipulating power levers and rolling the pilot was able to regain control of the aircraft at about 6500 feet. A safe landing was subsequently carried out. Witnesses later reported that they observed that the aircraft had reached pitch and bank angles of 60 and 80 degrees respectively. The investigation did not reveal any fault with the aircraft or its systems which might have accounted for the incident. An analysis of the Flight Data and Cockpit Voice recorders indicated that the stabiliser trim had been operated 11 times in the two minutes of flight leading to the call for full power. The trim had been operated in bursts of about one second except that just before full power was applied the trim was operated for almost 10 seconds. The co-pilot had indicated that he had used the trim to reduce the aircraft speed during the approach. It was considered likely that he had either inadvertently kept the trim switch depressed or had experienced a brief electrical relay fault which resulted in full nose-up trim being applied. Shortly after the pilot in command had assumed control the trim was operated for a further 12 seconds presumably as nose down-trim was applied. Neither crew member recalled hearing the trim "clacker" operating. The audio level of this was low and it was likely that the device may not have been heard above the ambient noise level. Because there had been no indication of the cause of the initial pitch-up the crew had difficulty in determining the appropriate course of action. Although the investigation revealed that the initiating factor was probably a full nose-up trim situation the crew believed the problem was caused by a structural failure or a thrust reverser malfunction.