

**Aviation Safety Investigation Report
199503974**

**SOCATA - Groupe Aerospatiale
TBM 700**

11 November 1995

Readers are advised that the Australian Transport Safety Bureau investigates for the sole purpose of enhancing transport safety. Consequently, Bureau reports are confined to matters of safety significance and may be misleading if used for any other purposes.

Investigations commenced on or before 30 June 2003, including the publication of reports as a result of those investigations, are authorised by the Executive Director of the Bureau in accordance with Part 2A of the Air Navigation Act 1920.

Investigations commenced after 1 July 2003, including the publication of reports as a result of those investigations, are authorised by the Executive Director of the Bureau in accordance with the Transport Safety Investigation Act 2003 (TSI Act). Reports released under the TSI Act are not admissible as evidence in any civil or criminal proceedings.

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.

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:	199503974	Occurrence Type:	Incident
Location:	Cowl Cowl, (ALA)		
State:	NSW	Inv Category:	4
Date:	Saturday 11 November 1995		
Time:	0945 hours	Time Zone	ESuT
Highest Injury Level:	None		

Aircraft Manufacturer:	SOCATA - Groupe Aerospatiale		
Aircraft Model:	TBM 700		
Aircraft Registration:	VH-ICO	Serial Number:	69
Type of Operation:	Non-commercial Pleasure/Travel		
Damage to Aircraft:	Minor		
Departure Point:	Essendon Vic		
Departure Time:	0815 ESuT		
Destination:	Cowl Cowl Station NSW		

Approved for Release: Monday, October 21, 1996

When the landing gear was selected down the left main landing gear did not extend. All efforts to extend the gear were unsuccessful. When the aircraft was landed the left wing settled to the ground and the aircraft swung to the left. Preliminary investigations disclosed that the left main landing gear door had failed to open.

Because the aircraft was new, having only been in operation for 330 hours, the manufacturer dispatched an investigation and repair team to assist the local maintenance organisation.

It was found that the left main landing gear fuselage door up hook pivot had seized. The initial function of the gear down sequence is to release the hook to allow the door to open. With the hook seized the gear remained in the up and locked condition.

The pivot pin and bush are both steel and were found corroded due to lack of lubrication. As well as the poor design of steel on steel, there was found to be no lubrication period or lubrication method detailed in the aircraft maintenance manual.

The manufacturer's immediate action was carry out a fleet modification to remove all main landing gear doors except for the gear leg mounted door. Subsequent assessment has found the door pivot mechanism to be inadequate and a fixed landing gear fairing has been introduced on a fleet wide basis.