

Aviation Safety Investigation Report 199100125

Aerospatiale AS355

1 May 1991

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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: 199100125

Occurrence Type: Accident

Location: 10 km N Busselton WA

Date: 1 May 1991

Time: 1620

Highest Injury Level: Nil

Injuries:

	Fatal	Serious	Minor	None
Crew	0	0	1	1
Ground	0	0	0	-
Passenger	0	0	0	3
Total	0	0	0	4

Aircraft Details: Aerospatiale AS355

Registration: VH-NJL

Serial Number: 5039

Operation Type: Aerial Work

Damage Level: Substantial

Departure Point: Augusta WA

Departure Time: 1606

Destination: Bunbury WA

Approved for Release: 24th September 1991

Circumstances:

The aircraft was engaged in a medical evacuation flight carrying an injured crewman from a ship located west of Augusta. During the turn around at Augusta the pilot noticed that one corner of the polyurethane covering on one tail rotor blade was lifting. After consulting the company engineer in Perth the pilot cut the loose material from the blade and continued with the flight to Perth. Slight vibration was felt after approximately 30 minutes and 15 seconds later the vibration became severe. The pilot carried out a precautionary landing. An inspection of the tail rotor blades indicated that a significant amount of the polyurethane covering on the blade not modified by the pilot had been lost. The blade's polyurethane covering had been replaced approximately 4 hours before the occurrence. The bonding process used, although in accordance with the manufacturer's recommendations, was defective. The manufacturer had developed a new process prior to the occurrence, however, details of this had not reached the Sydney based overhaul facility at the time the cover was replaced.

Significant Factors:

The following factor was considered relevant to the development of the accident

1. The design of the polyurethane replacement process used on the failed blade was defective.