Aviation Safety Investigation Report 198801393

Aerospatiale AS350B

29 July 1988

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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 <u>www.atsb.gov.au</u>.

Occurrence Nu	umber: 198801393	198801393			Occurrence Type: Accident	
Location:	Grass Tree	Grass Tree Hill (11 km NW of Cambridge) TAS				
Date:	29 July 19	29 July 1988		Time: 1113		
Highest Injury	Level: Nil	Nil				
Injuries:						
Ū		Fatal	Serious	Minor	None	
	Crew	0	0	1	1	
	Ground	0	0	0	-	
	Passenger	0	0	0	0	
	Total	0	0	0	1	
Aircraft Details:	Aerospatiale AS35	0B				
Registration:	VH-AFO					
Serial Number:	1105					
Operation Type:	Aerial Work					
Damage Level:	Substantial					
Departure Point:	Grass Tree Hill TAS					
Departure Time:	1113					
Destination:	Grass Tree Hill TA	S				

This accident was not formally investigated by the Bureau.

Approved for Release: February 21st 1989

Circumstances:

The pilot and the helicopter were involved in a training exercise for trainee fireman. The task was to teach safety around helicopters, especially relating to fire fighting activities. The State Fire Commission provided new sling equipment, purchased from a ship chandler. Experienced fire fighting personnel had prepared several sling loads in advance for the pilot. The strop chosen to lift the 500kg water bladder was 20 metres long. The purpose of the long strop was to enable the helicopter to lower the water bladder to firemen working in low scrub. The strop had been assembled by passing each end of the rope around a metal eyelet and whipping it because the polyester rope was not suitable for splicing. Visually the whipped ends looked satisfactory. The helicopter lifted the load to about 150 feet above the ground and was accelerating through about 20 knots when the pilot heard a loud bang, felt a vibration through the airframe and realised that the load had detached from the helicopter. He made a precautionary landing nearby. The rope of the strop had slipped throught the whipped section at the eyelet where it attached to the water bladder with a shackle. The rope had recoiled, damaged one of the three main rotor blades, ripped the right hand horizontal stabilizer and wrapped around the tail boom. The known safe working load limits for the individual items comprising the strop were more than adequate for the intended sling loads. The new strop had never been proof tested; nor was there any indication that the helicopter company or the Fire Commission had instructed the manufacturer to proof test the strops.

Significant Factors:

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

1. The strop had never been proof tested before operational use.

Reccomendations:

It is recommeded that the CAA considers the implementation of a standard for the construction and testing of helicopter sling equipment similar to standards set for industrial crane use by the Standards Association of Australia.