No: 7/86 **Ref: 1b**

Aircraft type and registration:	Wallis WA116 Series 1 G-ARZB	
No & Type of engines:	1 McCulloch 4318A (Modified) piston engine	
Year of Manufacture:	1962	
Date and time (GMT):	7 June 1986 at 1535 hrs	
Location:	Newtownards Airfield, Northern Ireland	
Type of flight:	Air Display	
Persons on board:	Crew — 1	Passengers — None
Injuries:	Crew — None	Passengers — N/A
Nature of damage:	Substantial	
Commander's Licence:	Private Pilot's Licence (Gyroplane)	
Commander's Age:	70 years	
Commander's Total Flying Experience:	4005 hours (of which 1642 were on type)	
Information Source:	Aircraft Accident Report Form submitted by the pilot.	

The accident occurred shortly after take-off on a demonstration flight using Runway 04 with the wind from 010° Magnetic at 12—15 knots. After a climb to approximately 150 feet a right turn downwind was made. The pilot reported that the engine did not seem to be producing full power and shortly after turning, it suddenly cut at about 100 feet above the ground. As height and airspeed seemed inadequate for a 180° turn into wind, a downwind landing was attempted on to an area of unprepared ground covered with long grass.

Ground speed was excessive for the type of surface and the aircraft pitched tail over nose immediately upon touchdown. The pilot was uninjured and evacuated the aircraft without difficulty. Major damage resulted to the rotor blades, the propeller, the aft keel tube, the left undercarriage and the nosewheel.

The pilot reported that checks after the accident indicated that engine failure was caused by a small piece of debris lodging between the magneto contact-breaker points. This had disabled the single magneto ignition system provided. A single ignition system was permitted because of the benign forced landing characteristics of the aircraft. Possible over-oiling of the lubrication pad for the contact-breaker arm cam was considered to be a possible contributory factor. By producing a sticky deposit on the contact-breaker points this may have helped to retain the debris between the points.