

No: 6/88

Ref: EW/G88/03/14

Category: 2c

Aircraft Type and Registration: Aerospatiale AS 350 B Ecureuil, G-NIAL

No & Type of Engines: 1 Turbomeca Arriel 1B turboshaft

Year of Manufacture: 1984

Date and Time (UTC): 28 March 1988 at 1255 hrs

Location: Lochgair, Strathclyde, Scotland

Type of Flight: Aerial Work (lifting)

Persons on Board: Crew - 1 Passengers - None

Injuries: Crew - None Passengers - N/A

Nature of Damage: Damage to tail rotor blades and drive train, tail cone and one horizontal stabiliser

Commander's Licence: Airline Transport Pilot's Licence (Helicopters)

Commander's Age: 40 years

Commander's Total Flying Experience: 3792 hours (of which 320 were on type)

Information Source: Aircraft Accident Report Form submitted by the pilot and further telephone enquiries by AAIB

The helicopter was being used to transfer fish between two sites using a bucket on the end of a 15 foot strop. On this occasion the more usual 'Liverpool Hook' had been replaced by a lighter weight hook which was less prone to self release the load when submerged in the act of recovering the fish bucket. The bucket was deposited at a site where it was to be sterilised and then the helicopter flew to the pick up point with the strop alone hanging from the aircraft. Having disembarked his only passenger the pilot took-off once more and flew towards Otter Ferry, climbing to 700 feet and accelerating to 70 kts. The wind was westerly at 15 to 20 kts with gusts up to 30 kts. The visibility was generally good but reduced in wintry showers. As the pilot approached the western shore of Loch Fyne, the turbulence which he had previously experienced intensified and the helicopter encountered a particularly severe gust. The pilot then became aware of a high frequency vibration that he judged to come from the rear of the aircraft. He diagnosed a tail rotor problem and decided to make an emergency landing. He was able to land in a field with no forward speed and found that yaw control was still available although the vibration had become so severe as to affect the aircraft's handling. The pilot closed down the helicopter and inspected the damage from which it was evident that the strop had contacted the tail rotor.

The operator has since modified his procedures in order to prevent a recurrence of the accident. The strop attached to the aircraft is shorter and extra length is added at the bucket attachment. Company instructions included the advice to reduce air speed if the load or hook moved outside the pilot's view of it in the rear facing mirror that is routinely fitted and which is considered essential for the safe conduct of such aerial work.