
ACCIDENT

Aircraft Type and Registration:	Eurocopter AS350B2 Squirrel, G-BXGA
No & Type of Engines:	1 Turbomeca Arriel 1D1 turboshaft engine
Year of Manufacture:	1991
Date & Time (UTC):	20 January 2006 at 1530 hrs
Location:	Corrie of Clova, 16 nm north-west of Forfar, Scotland
Type of Flight:	Aerial work (load lifting)
Persons on Board:	Crew - 1 Passengers - None
Injuries:	Crew - None Passengers - N/A
Nature of Damage:	Damage to all three main rotor blades
Commander's Licence:	Commercial Pilot's Licence
Commander's Age:	38 years
Commander's Flying Experience:	4,100 hours (of which 511 were on type) Last 90 days - 7 hours Last 28 days - 6 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot and further enquiries by AAIB

Synopsis

Following a load lifting task the helicopter was hovering beside a steep hillside slope when the main rotor blades struck a nearby boulder.

of 1,900 ft amsl and of limited size. This had a more acceptable surface but was adjacent to a steep slope that included a boulder in the pilot's two o'clock position.

History of the flight

The aircraft had been employed on an underslung load lifting task, transferring bags of stones from a scree slope to a footpath a kilometre away. On completion, the pilot manoeuvred the helicopter to land and pick up the two ground personnel who had been attaching the loads to the helicopter's external hook. The first landing site he considered was deemed unsuitable because of its rocky surface, so the pilot manoeuvred the helicopter to hover over another possible site, which was at an elevation

The pilot stated that the surface wind was from 250° at 20 to 30 kt which, with the helicopter on a heading of about 350°, generated a turbulent crosswind from the left. While assessing this landing site from the hover, the pilot felt a vibration through the cyclic control. He realised that the main rotor blades had struck the boulder and immediately manoeuvred the helicopter up and away from the hover. He considered that the controls felt normal so he selected a third site where he landed successfully. The ground personnel were then embarked,

while the helicopter's rotors remained running, and G-BXGA was flown one nautical mile to the refuelling landing site without further incident.

Noticeable vibration was felt as the helicopter was shut down and an initial inspection revealed damage to the tips of each of the three main rotor blades. Subsequent engineering examination found no other damage.

The pilot attributed the accident to the drift of the helicopter while attempting to land on a small landing site in a turbulent crosswind.

The aircraft flight manual states that:

hovering with wind from any direction has been substantiated over the entire flight envelope up to winds of 17 kt, although this is not to be taken as a limit. For example hover at sea level at maximum weight, for all CG locations, has been substantiated at 30 kt.

The operator has since issued a memorandum to all pilots reminding them that they should land immediately and shut down if they suffer a blade strike. The commander of the helicopter was one week into a contract with the operator, but no longer works for them.