

AS365N2, G-BTEU, 29 January 1999 at 0829 hrs

AAIB Bulletin No: 4/99 **Ref:** EW/G99/01/20 **Category:** 2.2

Aircraft Type and Registration: AS365N2, G-BTEU

No & Type of Engines: 2 Turbomeca Arriel 1C2 turboshaft engines

Year of Manufacture: 1990

Date & Time (UTC): 29 January 1999 at 0829 hrs

Location: Loggs Platform, North Sea

Type of Flight: Public Transport

Persons on Board: Crew - 2 - Passengers - None

Injuries: Crew - None - Passengers - N/A

Nature of Damage: Base of 9û frame trim pierced

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

Commander's Age: 42 years

Commander's Flying Experience: 8,425 hours (of which 6,005 were on type)
Last 90 days - 135 hours
Last 28 days - 36 hours

Information Source: Aircraft Accident Report Form submitted by the pilot

After take off from the 'Audrey X' offshore satellite a control restriction was felt as the aircraft climbed away. On levelling at 500 feet, the controls were moved to ascertain the extent of the restriction. Both the cyclic and the collective were severely restricted, such that the aircraft was difficult to control. A diversion to the 'Loggs' platform was carried out, with the restriction getting progressively worse. In the latter stages of the flight, both pilots were on the controls to achieve a landing.

On shut down it was observed that the starboard rear door gas strut was detached at the forward end, and had pierced the "9û frame" trim. This trim base also forms part of the heater diffuser for the rear of the cabin and has an inner wall which forms the back of the diffuser box. The strut was restrained by this inner wall, which was displaced and had contacted the roll control rod that is routed in close proximity. Contact pressure was sufficient to impair control harmonisation by increasing the friction in the roll control channel. A survey of the MOR database showed that an identical incident had occurred in September 1997.

The gas strut end is located by a ball fitting that is subject to wear, and is normally locked in its receptacle by a clip. The clip obstructs the door jettison function, and has therefore been deleted to accommodate this aircraft's role. After this second occurrence, the operator developed an interim modification to provide a protective plate to prevent the gas strut penetrating the trim panel. A second modification, to prevent inadvertent disconnection of the door restraint strut whilst retaining the release capability during door jettison, will be produced before the end of March 1999.