

FINAL REPORT

AAIU Synoptic Report No: 2006-010
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In accordance with the provisions of SI 205 of 1997, the Chief Inspector of Accidents, on 11 January '06, appointed Frank Russell as the Investigator-in-Charge to carry out a Field Investigation into this occurrence and prepare a Synoptic Report.

Aircraft Type and Registration:	Agusta 109A, N745HA
No. and Type of Engines:	2 x Allison 250-C20
Aircraft Serial Number:	7413
Year of Manufacture:	1988
Date and Time (UTC):	11 January 2006 @ 1900 hrs
Location:	Omega House, Collinstown Cross Near Dublin Airport
Type of Flight:	Private
Persons on Board:	Crew - 1 Passengers - Nil
Injuries:	Crew - None Passengers - Nil
Nature of Damage:	Substantial damage tail rotor area
Commander's Licence:	UK CPL
Commander's Details:	Male, aged 51 years
Commander's Flying Experience:	2,000 hours, of which 300 were on type
Information Source:	Anonymous telephone caller. AAIU Field Investigation.

SYNOPSIS

While carrying out a night landing on the lawn beside Omega House, the tail rotor struck an unlit carpark light pole, leading to substantial damage to the helicopter. The pilot exited the aircraft safely. There was no fire.

1. FACTUAL INFORMATION

1.1 History of the Flight

Following an Instrument Flight Rules (IFR) flight at night from the UK to Dublin Airport the pilot broke off his ILS approach to Runway (RWY) 28 and positioned to land on the lawn area

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of the Western side of Omega House, a large office building on the Old Airport Road. This building, close to the Dublin Airport perimeter, is where the pilot maintains his business office in Dublin. The pilot knew the lawn area and had landed there on previous occasions. He had permission of the building owners to use this landing area.

On this occasion, however, as the helicopter was setting to the ground, the tail rotor struck an unlit car park light pole, approximately 4 ft. in height, destroying it and causing considerable damage to helicopter tail components. The light pole was one of a number of such poles in place around the perimeter of the car park and was painted black. The lawn area is between the car park and the shrubbed western boundary of Omega House. From the broken light to the boundary is approximately 50 feet.

1.2 Damage to Aircraft

Both tail rotor blades were severely damaged. On one of these blades the tip cap weights departed from the blade tip, on impact with the parking lamp, and were propelled forward on to the side of the helicopter fuselage and on to the underside of the left-hand stabilizer.

The tail rotor gearbox (TRG) shifted relative to its mounting and caused fairing rivets to pop on the left and right side. The fibreglass fairing covering the side of the TRG was found cracked. There was an upward movement of the TRG with corresponding witness marks on the fairing. There was slight damage to the LH side fuselage skin forward of the tail boom attachment. There was possible damage to the coupling and tail rotor drive shaft, which only closer examination in accordance with the maintenance manual will confirm.

The Investigation noted damage to a vertical car park lamp standard, which marked one of the corners of the adjacent car park. The lamp was broken, detached from its support, and found lying on the ground. There was no evidence that the lamp had contained a bulb at the time of the incident. Bulbs were also missing from a number of other similar lamps in the car park. The position of deep imprints made by the helicopter tyres on the grass is consistent with tail rotor impact with the lamp.

1.3 AAIU Comment

The Irish Aviation Authority (IAA) issued a comprehensive Operations Advisory Memorandum (OAM, No.08 of 2000, and re-issued in May 2005) entitled, "Heliports-Guidelines for Heliport Site Owners/Occupiers and for Heliport Site -keepers". Its details are practical and self-explanatory.

Paragraph 1.6 of the OAM states, *inter alia*, that "the helicopter operator, in conjunction with the heliport owner/operator/site-keeper, should ensure the provision of appropriate lighting where night operations at that heliport have been specifically permitted by the Authority in accordance with Rule 34 (8) (ii) of the Rules of the Air (unless otherwise permitted by the Authority, flights at night are restricted to special VFR Flights in VMC conditions within a control zone. Normal IFR apply for flight between aerodromes licensed for IFR operations)".

Omega House lies within the Dublin Control Zone and is not an IAA designated heliport for night operations, in accordance with Rule 34 (8) (ii) of the Rules of the Air.

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The investigation also notes that the IAA has only approved one unlicensed heliport in Ireland for night operations and this is located in the dockland area of Dublin Port.

Finally, the pilot did not notify the AAIU of the accident/occurrence, as required by Paragraph 11 of S.I. No. 205 of 1997 Air Navigation (Notification and Investigation of Accidents and Incidents) Regulations, 1997, prior to removing it to a helicopter maintenance facility in Dublin.

Findings

- 1) The helicopter was damaged by striking an unlit obstacle while landing on an unapproved landing site, in contravention of the Rules of the Air.