

AAIB Bulletin No: 10/93

Ref: EW/G93/07/30

Category: 2.2

Aircraft Type and Registration: Agusta A109, VR-CCK

No & Type of Engines: 2 Allison C20B turboshaft engines

Year of Manufacture: N/K

Date & Time (UTC): 20 July 1993 at 0945 hrs

Location: Westland/London Heliport, Battersea

Type of Flight: Private

Persons on Board: Crew - 1 Passengers - 1

Injuries: Crew - None Passengers - None

Nature of Damage: Substantial to one blade tip and minor to the remaining three blades. Substantial damage to tail rotor of a Sikorsky S76 helicopter.

Commander's Licence: Airline Transport Pilot's Licence (Helicopters) with Instrument and FI Ratings

Commander's Age: 46 years

Commander's Flying Experience: 7600 hours (of which 1800 were on type)
Last 90 days - 130 hours
Last 28 days - 45 hours

Information Source: Aircraft Accident Report Form submitted by the pilot

The helicopter arrived at Westland/London Heliport, disembarked a passenger and carried out a rotors running refuel. It was directed by ATC to park facing north on Spot No 4 (see plan attached). Spot No 3 was already occupied by an Aerospatiale Twin Squirrel and spot No 2 by a Sikorsky S76 (VR BNR). These helicopters were facing north and northeast respectively (see photograph). With the refuelling complete the pilot was given departure and taxi clearance. A northerly wind was blowing at 11 kt.

Two marshalls were on the ramp as the helicopter commenced its ground taxi from spot No 4. One marshaller was positioned between Spots No 2 and 3 and the second marshaller was positioned near to the taxiway centreline between spots Nos 2 and 7. The pilot was to ground taxi by moving forward and turning immediately to the right to pass behind the tail of the S76 helicopter parked on Spot No 2. Before the helicopter taxied the first marshaller saw the pilot shaking his head. This he understood to mean that the pilot thought that there was insufficient room to manoeuvre. The first marshaller

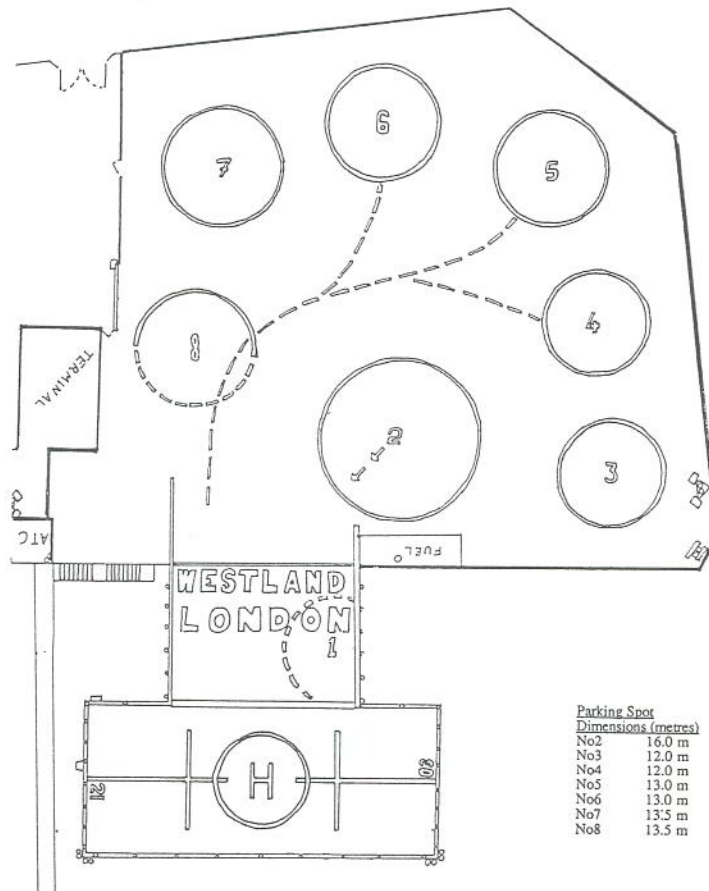
believed that sufficient space existed and signalled to the second marshaller for confirmation. This was confirmed and relayed to the pilot with a 'thumbs up'. Having been given the all clear signal the pilot manoeuvred the helicopter with a tight turn to the right and proceeded to taxi behind spot No 2. The marshalls reported that "at no time did it look as though the main rotor of the A109 would overlap the tail rotor of the parked S76". After the widest part of the A109's rotor disc had cleared the tail rotor of the S76 the second marshaller walked towards the S76 to hold down one of the main rotor blades to prevent it flapping in the down draft. At this point the higher left rear quadrant of the A109's rotor disc hit the tail rotor of the parked S76. The pilot, who had heard a bang and felt a slight lateral vibration, shut down, vacated the helicopter, and inspected the damage.

The pilot commented that the positioning of a large helicopter on spot No 2 seriously limited the area available for entry and exit from the rest of the parking area at Battersea. He further believed that, due to the limited space, he must have been marshalled with his main rotor under one of the tail rotor blades of the S76. The tilt angle on the main rotor necessary for ground taxiing caused the collision only when the rear of the rotor disc approached the tail rotor of the S76 and when the pilot and, apparently, both the marshalls considered the obstacle to have been safely passed.

The UK Aeronautical Information Publication entry for Westland/London Heliport (AGA 3-2-9) states that 'air taxiing to and from the parking area may be undertaken only with the permission of the Air Traffic Controller at the Heliport Aerodrome'. There are no special provisions relating to marshalling which is provided and conducted in accordance with normal aviation practise.



Westland (Battersea) Heliport
 showing a Sikorsky S76 parked on spot No2, and an Aerospatiale Twin Squirrel on spot No3.



Battersea Heliport ground markings