Hughes 369HS, G-BPLZ

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Aircraft Type and Registration:	Hughes 369HS, G-BPLZ
No & Type of Engines:	1 Allison 250-C18C turboshaft engine
Year of Manufacture:	1972
Date & Time (UTC):	9 April 2000 at 1649 hrs
Location:	Wolverhampton Business Airport
Type of Flight:	Private
Persons on Board:	Crew - 1 - Passengers - 1
Injuries:	Crew - None - Passengers - None
Nature of Damage:	Damage to tail rotor blades and tail boom
Commander's Licence:	Private Pilot's Licence
Commander's Age:	50 years
Commander's Flying Experience:	71 hours (of which 29 were on type) Last 90 days - 4 hours Last 28 days - 2 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot

The helicopter was being hover taxied towards the airfield fuelling facility for refuelling. As the helicopter touched down on a heading of about 170°, it began to rotate to the left. After completing one complete revolution, the helicopter appeared to become airborne briefly and the rate of turn increased, such that the helicopter spun rapidly through a further half turn before coming to rest upright adjacent to the fuel bowser. After shutdown, the pilot discovered that the tail boom had been severed.

An aftercast from the Meteorological Office indicated that, at the time of the accident, the surface wind was from 060° at 16 kt, with gusts to 25 kt being likely. The landing attempt was being made with a crosswind from the left side.

Engineering inspection found no damage to the main rotor blades. There was no evidence of any mechanical failure in the tail rotor drive system or the tail rotor gearbox mounting. However, the tail rotor flapping stops were found to have been destroyed. The combination of low rotor RPM and high yaw pedal demand could have allowed the tail rotor to flap excessively during the gyration, causing pounding damage to the flapping stops, followed by the blades coming into contact with

the tail boom. The normal clearance between the tail rotor blade tips and the tail boom is about 3 inches.

The engineer reported that the pilot's initial assessment was that the helicopter began to rotate to the right, so he applied left pedal to prevent this. The video recording of the event showed that the helicopter had rotated to the left. The tendency to rotate left was also exacerbated by the crosswind from the left side.