

**SERIOUS INCIDENT**

<b>Aircraft Type and Registration:</b>	AW109SP Grand New, G-HLCM	
<b>No &amp; Type of Engines:</b>	2 Pratt & Whitney Canada PW207C turboshaft engines	
<b>Year of Manufacture:</b>	2017 (Serial no: 22369)	
<b>Date &amp; Time (UTC):</b>	2 August 2017 at 1514 hrs	
<b>Location:</b>	Private landing site near Clifton Dykes, Penrith, Cumbria	
<b>Type of Flight:</b>	Commercial Air Transport (Non-Revenue)	
<b>Persons on Board:</b>	Crew - 1	Passengers - None
<b>Injuries:</b>	Crew - None	Passengers - N/A
<b>Nature of Damage:</b>	Main rotor blade tip cap detached	
<b>Commander's Licence:</b>	Commercial Pilot's Licence	
<b>Commander's Age:</b>	57 years	
<b>Commander's Flying Experience:</b>	3,900 hours (of which 2,500 were on type) Last 90 days - 112 hours Last 28 days - 26 hours	
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot and further enquiries by the AAIB	

As the helicopter approached the landing site it "shuddered" and the pilot felt a vibration through the cyclic control and airframe. He was able to control the helicopter's attitude and elected to land in an adjacent field to avoid endangering persons on the ground.

After shutdown it was apparent that the tip cap of one of the main rotor blades was missing (Figure 1). The cap was not recovered.



**Figure 1**

Damaged main rotor blade tip (looking towards the main rotor hub)

Investigation by the manufacturer established that the tip cap had detached because of a surface preparation error that had reduced the strength of the bonded joint.

### **Safety actions**

The manufacturer identified the main rotor blades that were potentially affected and issued Service Bulletin 109SP-116 to introduce a periodic inspection.

The EASA issued Emergency Airworthiness Directive 2017-0176-E to mandate the requirements of the Service Bulletin.