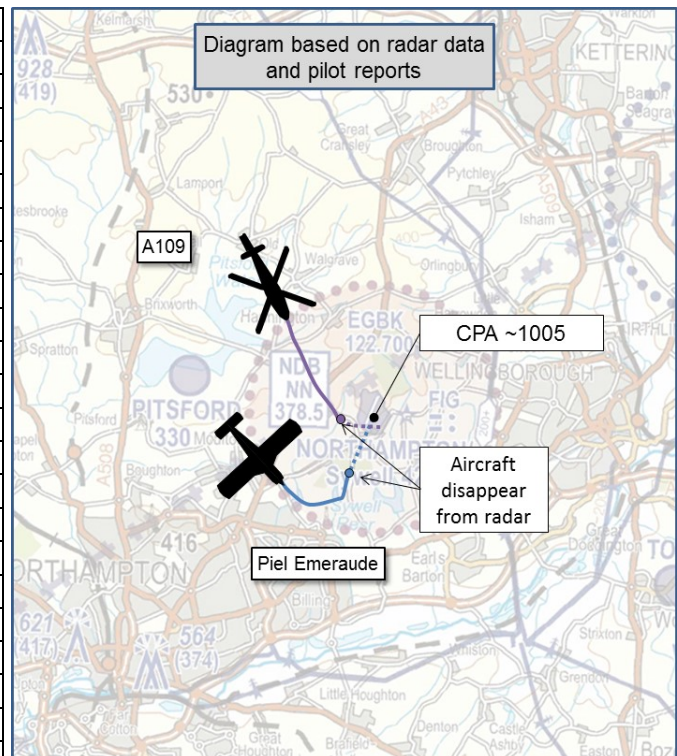


**AIRPROX REPORT No 2018235**

Date: 31 Aug 2018 Time: ~1005Z Position: 5218N 00047W Location: Sywell ATZ

**PART A: SUMMARY OF INFORMATION REPORTED TO UKAB**

Recorded	Aircraft 1	Aircraft 2
Aircraft	Piel Emeraude	A109
Operator	Civ FW	Civ Helo
Airspace	Sywell ATZ	Sywell ATZ
Class	G	G
Rules	VFR	VFR
Service	AFIS	AFIS
Provider	Sywell	Sywell
Altitude/FL	NK	NK
Transponder	A, S	A, C
<b>Reported</b>		
Colours	White, Red	Black
Lighting	Landing	Strobe, Landing
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	200ft	15ft
Altimeter	QFE (1023hPa)	NK
Heading	030°	060°
Speed	55kt	5kt
ACAS/TAS	FLARM	Not fitted
Alert	None	N/A
<b>Separation</b>		
Reported	50ft V/30m H	50ft V/250ft H
Recorded	NK	



**THE PIEL EMERAUDE PILOT** reports that he was on short final to RW03 Grass, as per the airfield instruction during the LAA Rally, when he saw a large dark-coloured helicopter crossing his final approach from the left. He reported the fact to ATC who replied, ‘Helicopter cleared the active’. In fact the helicopter was not clear of the RW03R (Grass) but was clear of RW03L (Hard). The controller then called the helicopter 3 times to check its undercarriage. At this point he was committed to land and in his opinion the effect of the helicopter rotor wash was going to be the same if he attempted to apply full power and go around. He experienced sink from the wash of the rotors but, other than this, completed a safe landing. After he had landed, he went to the FISO to discuss his concerns face-to-face and was told that the helicopter was following an agreed routing.

He assessed the risk of collision as ‘Medium’.

**THE A109 PILOT** reports that he was flying a delivery flight to Sywell from the aircraft’s base. Prior to the flight it was noted that the LAA Rally was due to take place and AIC 074/2018 procedures were in force. Sywell Tower was contacted by phone on Wednesday 29th of August to confirm if a slot was required for the helicopter arrivals procedure contained in the document. It was confirmed that a slot wasn’t required; however, he gave an approximate landing time of 10:00 UTC. With approximately 15mins to run, he changed to the Sywell frequency and listened out for runway details and QFE, as described in the AIC. He followed the procedure for helicopter arrivals and routed around the outside of the RA(T) to the west/north-west before to entering the RA(T) from the north arrival/departure point and descending to 500ft on the QFE to be below any fixed-wing traffic joining the Pitsford Water RW03 Hold/Approach procedure (complying with the ‘not above 500ft QFE’ for entering the RA(T)). Upon reaching the entry point, he contacted Sywell Tower before entry to the ATZ at 500ft on the QFE, and gave brief details of the flight to Sywell Information; at this point there was a slight confusion as Sywell Radio read back the registration and, wrongly, read-back arrival via Heli East, he corrected this to which Sywell Radio confirmed and asked him to report at the western aerodrome boundary. He entered the

RA(T) at 480ft and followed the route procedure to the western aerodrome boundary. He turned on his landing light and reported at the aerodrome boundary, at which point Sywell Radio [UKAB Note: Sywell Information] told him that now was a good opportunity to cross the runways and informed him of an aircraft which hadn't yet made its call on Final. He confirmed he was visual with the aircraft to Sywell Radio. With the fixed-wing aircraft continually in sight, he then continued to descend and cross the active runways; mindful of the fact that he wanted to create as little downwash as possible, he kept his speed up and expedited the crossing. At this point the fixed-wing pilot called finals and questioned the helicopter he saw with Sywell Radio. Sywell Radio informed the fixed-wing pilot that the helicopter pilot had him in sight. At this point (A on diagram) he was approximately mid-way between RW03L and RW03R with the fixed-wing aircraft still in sight, and still a large distance away as far as he was concerned. He proceeded at speed with his landing gear up at a height of approximately 50ft to clear the active runways, still well clear of the other fixed-wing aircraft. As he cleared the active runways he confirmed this with a call to the Tower, came to a high hover (B on diagram) and, with the fixed-wing aircraft still in sight, selected gear down whilst pedal-turning to the right and descending. He then hover-taxied to the parking area whilst remaining clear of the approaching aircraft and RW03. The approach was performed to give the largest separation from parked aircraft (D on diagram) and a safe transition to a hover, avoiding all parked aircraft and people, and with a possibility to reject the arrival into an open area in the event of a failure. At this point he was descending to about 15ft and was taxiing forward towards the pad, as per the diagram. Sywell Radio called "Check gear" twice, the gear takes a few seconds in transit, and although selected down he presumed it was not visible to the AFISO. He confirmed the gear was down and continued taxiing at about 8-10ft and landed on the Heli-Pad (C on diagram).



He assessed the risk of collision as 'None'.

Figure 1: A109 pilot's diagram

## Factual Background

The weather at Cranfield was recorded as follows:

METAR EGTC 310950Z 07007KT 040V100 9999 FEW028 17/10 Q1024

## Analysis and Investigation

### UKAB Secretariat

The Piel Emeraude and A109 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard<sup>1</sup>. An aircraft operated on or in the vicinity of an aerodrome shall conform with or avoid the pattern of traffic formed by other aircraft in operation<sup>2</sup>.

The Sywell Arrival/Departure procedures for the LAA Rally (AIC Y 074/2018) are reproduced below:

<sup>1</sup> SERA.3205 Proximity. MAA RA 2307 paragraphs 1 and 2.

<sup>2</sup> SERA.3225 Operation on and in the Vicinity of an Aerodrome. MAA RA 2307 paragraph 15.

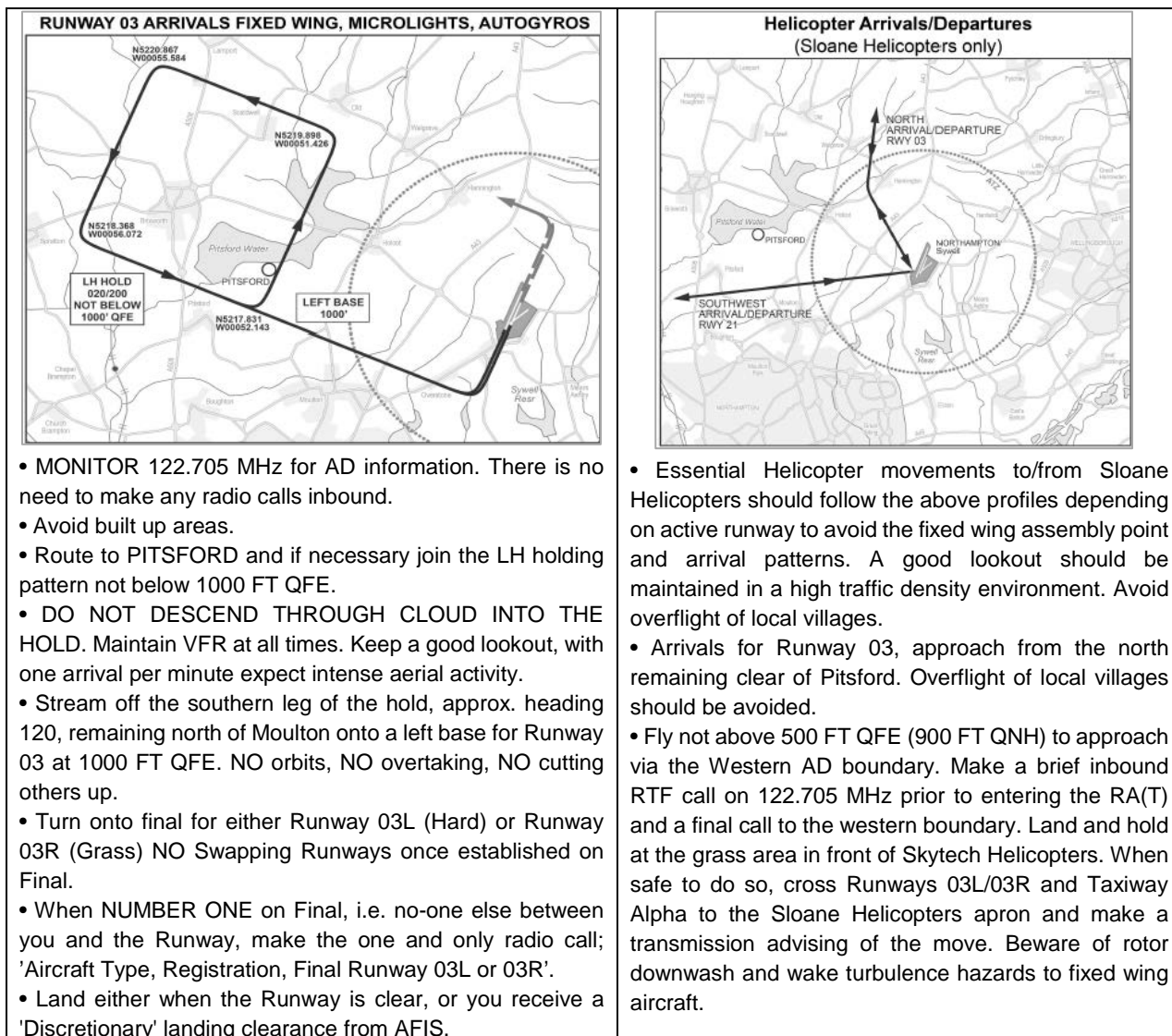


Figure 2: AIC Y 074/2018 Extract

**Summary**

An Airprox was reported when a Piel Emeraude and an A109 flew into proximity during the LAA Rally at Sywell at about 1005hrs on Friday 31<sup>st</sup> August 2018. Both pilots were operating under VFR in VMC and in receipt of an AFIS from Sywell.

**PART B: SUMMARY OF THE BOARD'S DISCUSSIONS**

Information available consisted of reports from both pilots and radar photographs/video recordings.

The Board began by first looking at the actions of the A109 pilot. The Board noted that the LAA Rally is a 3-day event that results in a very busy aircraft environment managed by an AFISO rather than positive Air Traffic Control. FISOs only issue advice and information to aircraft useful for the safe and efficient conduct of flights, they do not issue instructions to aircraft in the air, and pilots are wholly responsible for collision avoidance<sup>3</sup>. Members noted that the A109 pilot had opted to arrive via the Sloane Helicopter procedure, which required him to cross the runways from the north prior to landing and parking on the south side of the airfield. Given the likely traffic density during the LAA Rally, the Board wondered what the imperative was for this choice of route, and some members opined that a

<sup>3</sup> CAP797, Section 1, Chapter 1, 1.12 & 1.13

join from the South/East may have been a better option even if it did result in a slightly extended ground track. Having decided to join from the North, members agreed that the onus was on the A109 pilot to only cross the runways when safe to do so, and that the A109 pilot should not have crossed with an aircraft on final approach. Although the Board did not have access to radio recordings, and whilst it appeared that the AFISO had not instructed the A109 to cross the runways, some members thought that the AFISO may have implicitly inferred a crossing instruction by saying 'now is a good time to cross'; some felt that this may have unduly influenced the A109 pilot to cross the runways. Having decided to cross in a speedy manner, the A109 pilot turned right to avoid parked aircraft and this resulted in him effectively flying in the opposite direction to the Piel Emeraude on final approach to RW03R. Helicopter members noted that the A109 pilot had kept his landing gear-up whilst crossing the runways and they opined that this may have created an unnecessary distraction for the AFISO in an already very busy environment because the AFISO had had to repeatedly request a gear check from the A109 pilot. Noting that the A109 pilot's options for taxiing were likely constrained by parked aircraft (see Figure 3 for a historic photograph of representative LAA Rally parking), the Board nevertheless felt that the A109 pilot had allowed himself to be placed in a rushed situation with few alternative options during his join and approach to the Sloane helipad.



Figure 3: Historic photo of LAA Rally light aircraft parking at Sywell

The Board then turned to the actions of the Piel Emeraude pilot. Whilst he had called final in accordance with the AIC, members wondered if he may not have assimilated that there was no direct control being applied to his join procedure. Although it may have been a figure of speech, the fact that he referred to 'ATC' replying rather than 'the FISO' led members to recommend that Sywell review the AIC to emphasise that pilots will not be in receipt of an Aerodrome Control Service and that they are wholly responsible for collision avoidance. Irrespective, members agreed that the Piel Emeraude pilot would have been better placed by making an early decision to go-around from the approach when he became visual with the A109 crossing ahead. GA members opined that there is a perception that going-around in the intense flying environment at the LAA Rally creates problems, but it was agreed that an early decision to do so would have resolved the conflict. As a result, the Board also recommended that Sywell review the AIC to emphasise the importance of going-around if in conflict with other traffic rather than pressing on under the perceived negative implications of going-around during a fly-in.

The Board then looked at the actions of the Sywell AFISO and the content of the AIC. Some members wondered if the intensity of the traffic was such that it required a full Air Traffic Control Service, but

others opined that the intensity of the traffic would saturate the R/T and so an Aerodrome Control Service would not be a viable alternative. Notwithstanding, members agreed that by routing helicopters in from the north, the Sloane Helicopter Procedure was creating the potential for an unsafe situation given the high number of arriving and departing aircraft during the LAA Rally. The Board felt that this procedure should be suspended during the LAA Rally, and that all helicopters would be better served by arriving and departing to the south, away from the fixed-wing pattern. The Board therefore agreed to make a recommendation that Sywell revise the use of the 'Sloane helicopter procedures' during the LAA Rally.

The Board then looked at the cause and risk of the Airprox. Members quickly agreed that by crossing the runways and turning towards the final approach for RW03R, the A109 pilot had flown into conflict with the Piel Emeraude on the approach. The Board also agreed that there had been a number of contributory factors. The first being that the AFISO had suggested that the A109 pilot cross the runways, the second was that the Sloane Helicopter join procedure requires arriving helicopters to cross the runway thresholds, and the third was that the A109 pilot had manoeuvred adjacent to the approach to RW03R creating a perception of an unsafe separation in the Piel Emeraude pilot's mind. The Board then turned to the risk and agreed that although safety had been degraded, both pilots had been visual with the other aircraft at all times and were therefore ultimately able to avoid each other. Accordingly, the risk was assessed as Category C, there was no risk of collision.

### **PART C: ASSESSMENT OF CAUSE AND RISK**

Cause: The A109 pilot flew into conflict with the Emeraude.

Contributory Factors:

1. The AFISO suggested that the A109 pilot cross the runways.
2. The Sloane helicopter join procedure requires arriving helicopters to cross the runway thresholds.
3. The A109 pilot manoeuvred adjacent to the approach to RW03R.

Degree of Risk: C.

Recommendations:

1. Sywell revise the use of the 'Sloane helicopter procedures' during the LAA Rally.
2. Sywell review the AIC to emphasise the importance of going-around if in conflict with other traffic.
3. Sywell review the AIC to emphasise that pilots will not be in receipt of an Aerodrome Control Service.

### **Safety Barrier Assessment<sup>4</sup>**

In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

#### **ANSP:**

**Regulations, Processes, Procedures and Compliance** were assessed as **partially effective** because the Sloane Helicopter procedure in the AIC does not effectively separate helicopters from light-aircraft utilising both the hard and grass runways.

#### **Flight Crew:**

**Regulations, Processes, Procedures, Instructions and Compliance** were assessed as **partially effective** because the A109 pilot did not fully follow the AIC procedure, which states that the helicopters are only to cross the runways when safe.

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<sup>4</sup> The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).

**Tactical Planning** was assessed as **partially effective** because the A109 pilot crossed the runways too close to the landing Piel Emeraude.

**Situational Awareness and Action** were assessed as **partially effective** because the Piel Emeraude pilot continued his approach even though the A109 pilot had not vacated the area and, aware of the Piel Emeraude on final approach, the A109 pilot did ensure sufficient separation.

**Warning System Operation and Compliance** were assessed as **ineffective** because although the Piel Emeraude had FLARM fitted, this was incompatible with the transponding A109.

