#### **AIRPROX REPORT No 2018230**

Date: 23 Aug 2018 Time: 1537Z Position: 5202N 00015E Location: Little Walden

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

Recorded	Aircraft 1	Aircraft 2	Diagram based on radar data		
Aircraft	AW169	Chipmunk	and GPS track		
Operator	HEMS	Civ FW	Sawston Viscolina Sawston		
Airspace	London FIR	London FIR	INTENSE AFRICAL PROPERTY AND		
Class	G	G	ACTIVITY		
Rules	VFR	VFR			
Service	Basic	None <sup>1</sup>			
Provider	Stansted	N/A	(Supplemental Control of Control		
Altitude/FL	1000ft	NK	Chipmunk		
Transponder	A, C, S	None <sup>1</sup>	SA CARLOS TO THE SAME OF THE S		
Reported			CPA 1537:08		
Colours	Red, yellow	Red, white, grey	Oft V/0.2nm H		
Lighting	Strobes, nav	None <sup>1</sup>	1044ft 2—		
Conditions	VMC	VMC	37:02 1007ft 1041ft NM		
Visibility	10000km [sic]	>10km	36:50		
Altitude/FL	1000ft	1500ft	36:38 36:26		
Altimeter	NK (1011hPa)	NK			
Heading	355°	190°			
Speed	140kt	80kt	RLWY STN		
ACAS/TAS	TCAS II	Not fitted	LES END Mindelle		
Alert	None	N/A	AW169 DEBDEN		
Separation			Wimbish Wimbish		
Reported	0ft V/0.5nm H	0ft V/1000m	Debden Howlett Green		
		(0.54nm) H			
Recorded	0ft V/0.2nm H				

**THE AW169 PILOT** reports that they were in the cruise having departed from a HEMS site, heading toward Addenbrooke's Hospital, when a white-and-red single-engine, low-wing vintage airplane was seen in the 2 o'clock position at a range of 1nm, at the same height and on a collision course. An avoiding action turn to the right was necessary. The other airplane was not transponding or seen on TCAS. He did not think the other pilot saw them or took any avoiding action as the aircraft passed 0.5nm to the left.

He assessed the risk of collision as 'Medium'.

THE CHIPMUNK PILOT reports conducting a 1hr flight as part of a program to 'run-in' the recently serviced engine. During the flight, the avionics failed (later traced to a blown fuse) and he continued non-radio, maintaining a good lookout. When about 5-10 miles from his home airfield, he noticed an orange-and-yellow helicopter at a range of 1-2nm, coming north from the Stansted zone at the same level and tracking down his left side, i.e. to the east of his aircraft. The aircraft passed with a separation of about 1000m. The Chipmunk pilot noted that he felt no need to take avoiding action and, as far as he could tell, the helicopter pilot took no avoiding action either. He noted that his home airfield is difficult to find, especially into sun, and knowing it is on the Stansted boundary he was focussed on locating the strip. He stated that it is unusual for aircraft to exit the Stansted zone at that position, and that that may have contributed to his being late in spotting the helicopter.

He assessed the risk of collision as 'None'.

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<sup>&</sup>lt;sup>1</sup> Fitted but not operating due to electrical failure.

**STANSTED ATSU** reports that there were no logged events for Stansted Tower at the date and time of the Airprox. Having reviewed the recording it appeared that the AW169 routed northbound VFR not above altitude 2000ft. It was transferred to Radar when clear of Stansted traffic at about 2.5nm north. There was a primary-only contact, opposite direction, no Mode A or C information but there was a definite 'jink' in the AW169 track when the two got close. The primary contact then appeared to route inbound to the [destination airfield] overhead.

# **Factual Background**

The weather at Stansted was recorded as follows:

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METAR EGSS 231550Z AUTO 27007KT 9999 BKN040 20/11 Q1011=
METAR EGSS 231520Z AUTO 27008KT 230V310 9999 BKN038 19/12 Q1011=
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## **Analysis and Investigation**

#### **UKAB Secretariat**

The AW169 and Chipmunk 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>2</sup>. If the incident geometry is considered as head-on or nearly so, then both pilots were required to turn to the right<sup>3</sup>. If the incident geometry is considered as converging, then the AW169 pilot was required to give way to the Chipmunk<sup>4</sup>.

## **Summary**

An Airprox was reported when an AW169 and a Chipmunk flew into proximity at 1537hrs on Thursday 23<sup>rd</sup> August 2018. Both pilots were operating under VFR in VMC, the AW169 pilot in receipt of a Basic Service from Stansted and the Chipmunk pilot not in receipt of an ATS, operating non-radio due to an electrical failure.

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

Information available consisted of reports from both pilots, radar photographs/video recordings and a report from the ATSU involved.

Members first discussed the pilot's actions and noted that although the barriers of Traffic Information and Electronic Conspicuity were absent, the weather conditions were good and the barrier of see-and-avoid had worked in both aircraft, with the relevant provisions of SERA being acted on. The AW169 pilot turned right, as he was required to do, and the Chipmunk pilot assessed that his track would result in sufficient separation from the AW169. Members noted that the AW169 pilot had perceived that the Chipmunk pilot had not seen him or taken avoiding action but that this was not the case, the Chipmunk pilot had simply not felt that action had been required. Some members thought that this incident should be described as a sighting report but, because the AW169 pilot had assessed that there was a need for him to turn, the majority agreed that it was best characterised as the AW169 pilot being concerned by the proximity of the Chipmunk. Notwithstanding, with regard to the risk, all members agreed that normal procedures, safety standards and parameters had pertained.

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

Cause:	he AW169 pilot was concerned	by the proximit	y of the Chipmunk.

Degree of Risk: E.

<sup>&</sup>lt;sup>2</sup> SERA.3205 Proximity.

<sup>&</sup>lt;sup>3</sup> SERA.3210 Right-of-way (c)(1) Approaching head-on.

<sup>&</sup>lt;sup>4</sup> SERA.3210 Right-of-way (c)(2) Converging.

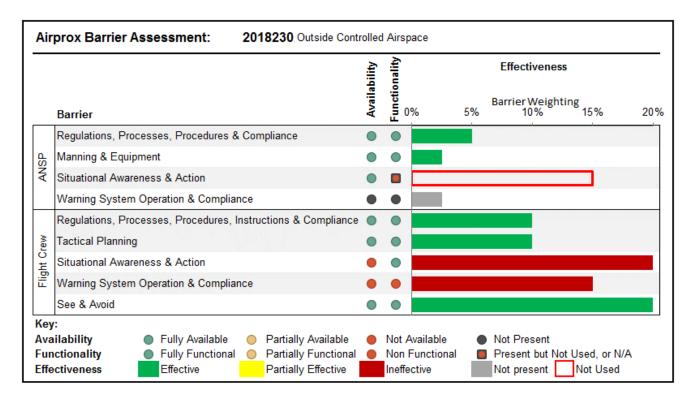
#### Safety Barrier Assessment<sup>5</sup>

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

# Flight Crew:

**Situational Awareness and Action** were assessed as **ineffective** because neither pilot had SA on the other aircraft.

**Warning System Operation and Compliance** were assessed as **ineffective** because the AW169's TCAS II could not detect the Chipmunk due to the Chipmunk's electrical failure.



<sup>&</sup>lt;sup>5</sup> The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the <u>UKAB Website</u>.