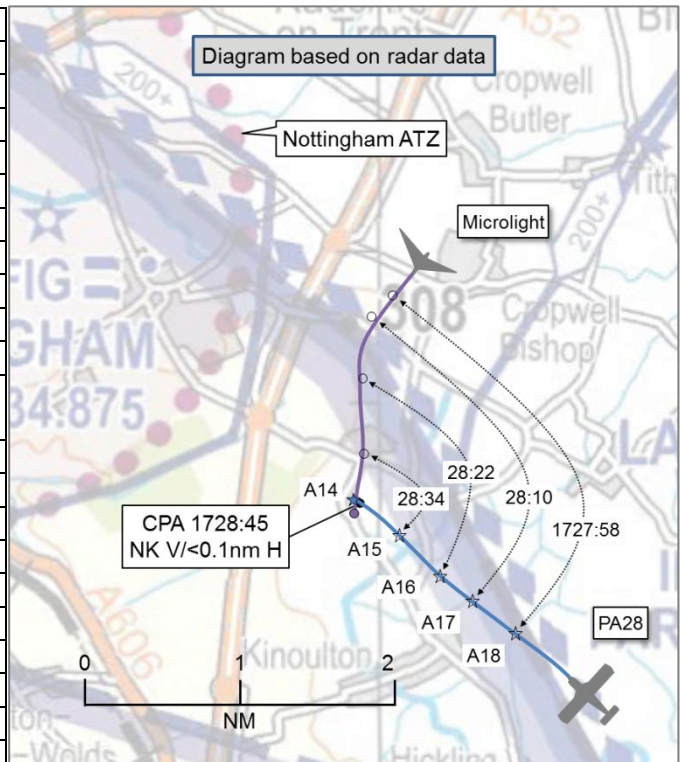


**AIRPROX REPORT No 2015065**

Date: 13 May 2015 Time: 1729Z Position: 5253N 00100W Location: IVO Nottingham

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

Recorded	Aircraft 1	Aircraft 2
Aircraft	PA28	Microlight <sup>1</sup>
Operator	Civ Pte	Unknown
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	None
Altitude/FL	1400ft	~1400ft
Transponder	A, C, S	None
<b>Reported</b>		No Report
Colours	White/burgundy	
Lighting	Nav, strobe, landing, beacon	
Conditions	VMC	
Visibility	>10km	
Altitude/FL	1300ft	
Altimeter	QNH (1016hPa)	
Heading	310°	
Speed	110kt	
ACAS/TAS	Not fitted	
<b>Separation</b>		
Reported	30ft V/20m H	
Recorded	NK V/<0.1nm H <sup>2</sup>	



**THE PA28 PILOT** reports approaching Nottingham airfield, outside aerodrome operating hours, descending at 200ft/min passing 1400ft QNH (1016hPa). The pilot had switched from a Traffic Service provided by East Midlands Radar to Nottingham Radio. Whilst looking towards the airfield in the 10 o'clock position the passenger noticed approaching traffic in the 1-2 o'clock position, same height, opposite direction. The pilot took immediate avoiding action, turning to the left and pitching down away from the traffic. The PA28 pilot provided video footage of the encounter<sup>3</sup>.

He assessed the risk of collision as 'High'.

**THE MICROLIGHT PILOT:** Despite extensive tracing action, the microlight pilot could not be found.

**Factual Background**

The weather at East Midlands was recorded as follows:

METAR EGNX 131720Z 08008KT CAVOK 15/05 Q1017

**Analysis and Investigation**

**CAA ATSI**

The PA28 pilot was inbound to Nottingham under VFR. At 1726:10, the PA28 was shown 8.1nm southeast of Nottingham airport at FL023, displaying an East Midlands radar squawk of 4552. The

<sup>1</sup> Identified as a flexwing microlight trike on cockpit video footage provided by the PA28 pilot.

<sup>2</sup> The microlight radar track was subject to significant jitter and as such the assessment of horizontal separation has been taken from PA28 cockpit video footage.

<sup>3</sup> The encounter occurs at about 1:08 on the clip at: <https://www.youtube.com/watch?v=H4TuJM3uuzY>

unknown microlight was shown as an area radar primary contact passing 4.3nm to the east-northeast of Nottingham Airport on a southerly track, see Figure 1.

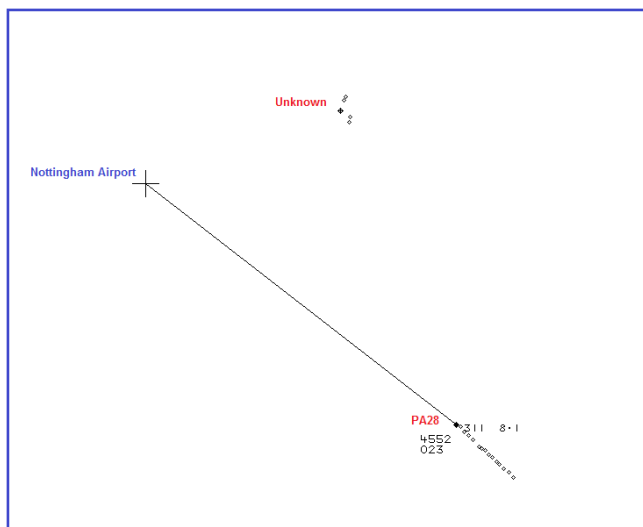


Figure 1: Swanwick MRT at 1726:10

The two aircraft continued to converge and, at 1728:26, the PA28 was shown displaying the general conspicuity code 7000 with the unknown contact in the PA28's 1 o'clock at a range of 1.2nm, see Figure 2.

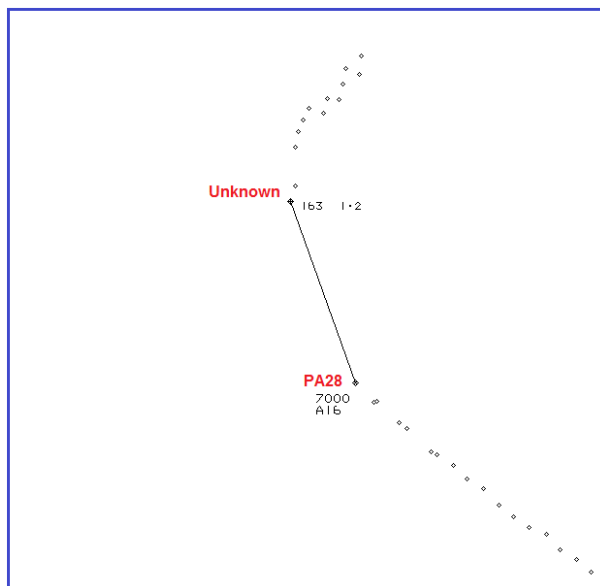


Figure 2: Swanwick MRT at 1728:26

The PA28 pilot's written report indicated that he had changed frequency from East Midlands Radar to Nottingham Radio. The PA28 was inbound to Nottingham after the official aerodrome operational hours and Nottingham ATSU confirmed that the PA28 was a locally based aircraft. The Air/Ground frequency would not have been manned outside the official opening hours.

At 1728:44, the distance between the two aircraft was 0.2nm and the PA28 was indicating 1500ft as shown in Figure 3.

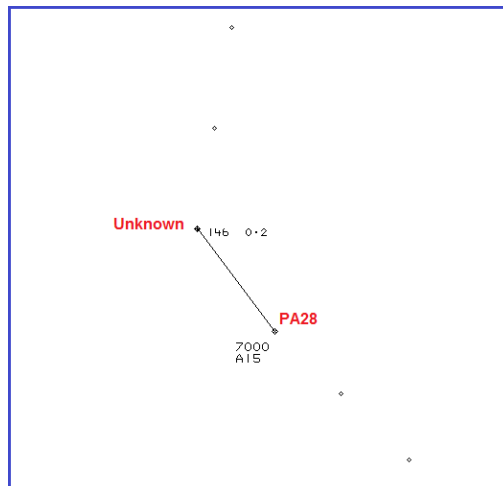


Figure 3: Swanwick MRT at 1728:44

CPA occurred between radar updates at about 1728:46. At 1728:48, the two aircraft had passed abeam and the PA28 was indicating 1400ft, see Figure 4.

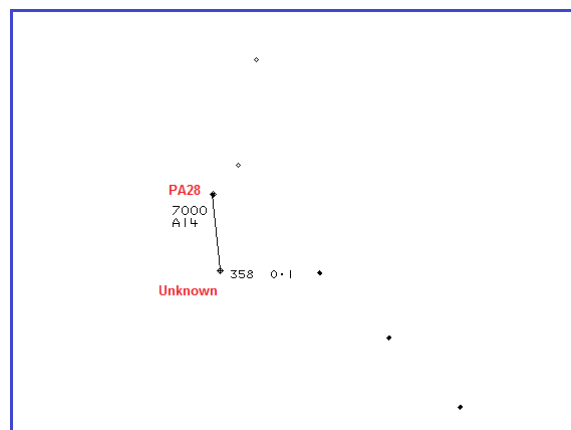


Figure 4 – Swanwick MRT at 1728:48

Neither pilot was in receipt of an Air Traffic Service and in Class G airspace pilots are responsible for their own collision avoidance.

### UKAB Secretariat

The PA28 and microlight 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>4</sup>. The incident geometry was converging and the PA28 pilot was required to give way to the microlight<sup>5</sup>. A screen grab of the situation close to CPA is shown below with the microlight highlighted to the right of the windscreen.



<sup>4</sup> SERA.3205 Proximity.

<sup>5</sup> SERA.3210 Right-of-way (c) (2) Converging.

## Summary

An Airprox was reported when a PA28 and a microlight flew into proximity at 1729 on Wednesday 13<sup>th</sup> May 2015. The PA28 pilot was operating under VFR in VMC, not in receipt of an Air Traffic Service. The microlight pilot could not be traced.

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

Information available consisted of a report from the PA28 pilot, radar photographs/video recordings and a report from the appropriate ATC authority.

Members quickly agreed that the PA28 pilot was required to give way to the microlight, but equally that one cannot give way to that which one does not see. The cockpit video showed that the microlight, initially below the PA28, contrasted poorly with the background terrain, further adding to difficulty in visual acquisition. In the event, it was the PA28 passenger who first saw the approaching microlight and alerted the PA28 pilot to its presence, who was then able to take avoiding action. Some members felt the PA28 pilot may have been concentrating on establishing visual contact with his destination airfield, ahead of him, and that the microlight pilot may have been heading into sun, with attendant difficulty seeing the PA28. Ultimately, the PA28 pilot saw the microlight at a very late stage and, although he took avoiding action, was only able to increase separation marginally. It appeared from the PA28 cockpit video that the microlight pilot did not take avoiding action, or took action after passing out of the camera field of view and hence so late as to be ineffective in increasing separation. Members agreed that this probably amounted to a non-sighting by the microlight pilot, or a sighting so late as to effectively be a non-sighting. After further discussion it was agreed that chance had played a major part in events, and that separation had been reduced to the minimum, only just stopping short of actual collision.

Members also noted that the PA28 pilot had been in receipt of a Traffic Service with East Midlands Radar prior to switching to the Nottingham RTF. He called en-route "if nothing further to affect" about 1min prior to CPA, with area radar recording showing the microlight PSR track converging in his right 1 o'clock at a range of 2.9nm. Members agreed that, ideally, Traffic Information on this track should have been passed to the PA28 pilot prior to him going en-route, but they were unable to ascertain whether the microlight track had appeared on the East Midlands radar console display.

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

Cause: A late sighting by the PA28 pilot and a probable non-sighting by the microlight pilot.

Degree of Risk: A.