

## **AIRPROX REPORT No 2014148**

Date/Time: 15 Jul 2014 1110Z

Position: 5049N 00344W  
(Credition)

Airspace: London FIR (Class: G)

Aircraft 1                      Aircraft 2

Type: Jabiru UL                      DA42

Operator: Civ Pte                      Civ Trg

Alt/FL: 2200ft                      1500ft/2000ft  
NK (1019hPa)                      RPS (NK hPa)

Conditions: VMC                      VMC

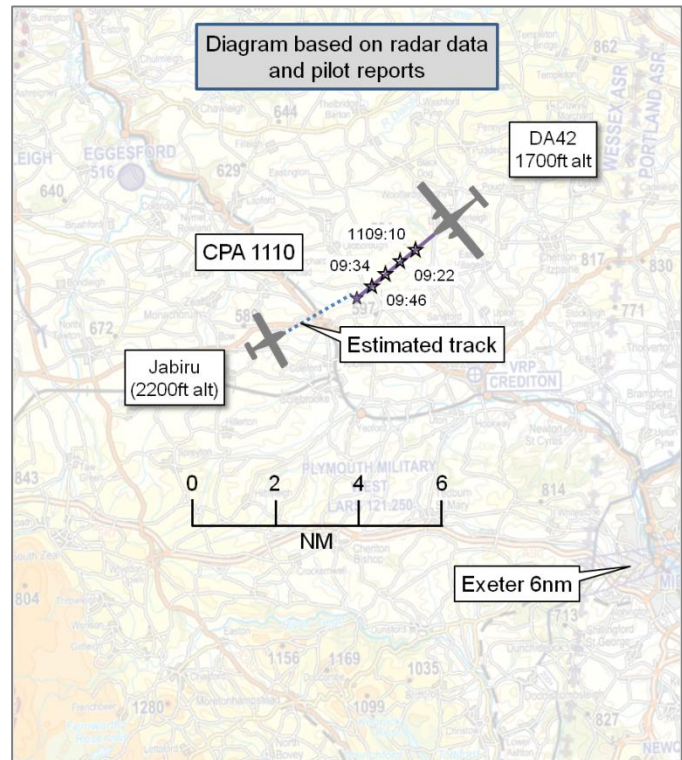
Visibility: >10km                      10km

Reported Separation:

250ft V/150ft H                      500ft V/2nm H

Recorded Separation:

NK



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

**THE JABIRU PILOT** reports flying in a predominantly white aircraft. The lighting state was not reported. The aircraft was not fitted with an SSR transponder or Traffic Alerting System (TAS). The pilot was operating under VFR in VMC, in receipt of a Basic Service from Exeter Radar. Heading about 060° at 80kt in level cruise at 2200ft, he was given Traffic Information, "traffic 12 o'clock, 2 miles, opposite track". He replied "[C/S] looking for traffic" when it 'streaked past' just under and right of his track. He had no time to take avoiding action. The pilot stated that because he was flying an aircraft without a transponder, he was conscious of making regular position and height reports, on current QNH, so the controllers knew exactly where he was and at what height. He contacted the DA42 operating company after landing and spoke with the instructor, who, he reported, was unaware of the Airprox event. The Jabiru pilot noted that the DA42 was west of Exeter but its pilot was in receipt of a service from Yeovilton, which he considered inappropriate.

He assessed the risk of collision as 'High'.

**THE DA42 PILOT** reports conducting a training flight. The predominantly white aircraft's lighting state was not reported. The SSR transponder was selected on with Modes A, C and S. The aircraft was not fitted with an Airborne Collision Avoidance System or TAS. The pilot was operating under VFR in VMC, in receipt of a Basic/Traffic Service, he reported, from Yeovilton. Whilst heading towards Credition, in level cruise at 1500/2000ft, heading 240° at 140kt, his student saw a white, high wing, single engine microlight, 500ft above them and about 2nm away in the right 1.30 position. No action was taken as they were not on a collision course.

He assessed the risk of collision as 'None'.

**THE EXETER RADAR CONTROLLER** reports the Jabiru pilot called Exeter Radar at 1105, east of Oakhampton at 2200ft, no transponder, and was given a Basic Service. At 1110 the pilot was passed Traffic Information on a Yeovilton Squawk, opposite direction, same level, 2nm away. The pilot reported the other aircraft in sight and that it passed close to him. In a later phone call with the SATCO the pilot stated that he wished to file an Airprox and that, very soon after receiving the Traffic Information, the other aircraft was seen in his 2 o'clock about 200ft away and passed about 150ft to his right about 100ft below. He thought it was a DA42.

**THE YEOVILTON CONTROLLER** reports that he did not recall an Airprox at the reported time and was informed of an Airprox 2 days after the event. On the morning of the reported Airprox, the Yeovilton watchman radar was unserviceable and they were operating SSR-only in the area of the Airprox. He provided a Traffic Service to the DA42 pilot, who passed his planned route. His altitude was about 1600ft on the Portland RPS. At 1057, as the DA42 pilot was approaching Taunton, the controller passed Traffic Information to Exeter ATC, stated the DA42 pilot's planned track and suggested to Exeter that he keep the DA42 under his control because its pilot planned to retrace his route shortly [back towards the east]. Exeter agreed and told him they would call if they required to speak to the DA42 pilot. At 1100, he downgraded the DA42 pilot's service to a Basic Service because he was operating outside the Yeovilton radar coverage. At 1116, the DA42 pilot re-called him for a MATZ crossing of Merryfield airfield on his return leg from Crediton.

## **Factual Background**

The weather at Exeter was recorded as follows:

METAR EGTE 151120Z 30011KT 9999 SCT040 21/12 Q1020

## **Analysis and Investigation**

### **Military ATM**

A search of the radar replays could not trace the Airprox position because the Jabiru was not visible. At 1056:27, the DA42 pilot was provided with a reduced Traffic Service as the aircraft was operating below the base of radar cover. At 1057:25, Yeovilton passed Traffic Information to Exeter on the planned DA42 route and altitude of 1600ft. Exeter agreed that Yeovilton could work the track, and Exeter would call if they required to work it. At 1100:41, the service was downgraded to a Basic Service as the track was slightly outside the radar cover. The Airprox was reported at 1110.

It is likely that both pilots were under a Basic Service at the time of the Airprox. Information from Exeter gave traffic at 2nm from the DA42, which corresponded with the separation estimated by the DA42 pilot. The separation estimated by the Jabiru pilot did not match with the description given by the DA42 pilot, and the Jabiru's position could not be established from the radar replays.

As ACAS/TAS was not fitted to either aircraft, it was an absent barrier. Traffic Information could have been a barrier but the Jabiru was not transponding and Yeovilton was working SSR only; furthermore, the DA42 pilot was operating below radar coverage, at times, under a Basic Service. The Jabiru pilot had Traffic Information but this provided limited assistance because the DA42 'streaked past' before action could be taken. Lookout would have been a key barrier to prevent collision, however, the DA42 pilot felt that separation was adequate against the traffic he had sighted. His separation estimate differed significantly from that of the Jabiru pilot and suggests that both may have been unsighted, until the Jabiru pilot saw the DA42 as it was passing.

### **UKAB Secretariat**

Both pilots shared an equal responsibility for collision avoidance and not to fly into such proximity as to create a danger of collision<sup>1</sup>. If the incident geometry is considered as head-on then both pilots were required to turn to the right<sup>2</sup>, notwithstanding their primary responsibility to avoid collision. In the absence of any track data for the Jabiru, the diagram is based on the time of the Airprox, as reported by the Jabiru pilot.

<sup>1</sup> Rules of the Air 2007 (as amended), Rule 8 (Avoiding aerial collisions).

<sup>2</sup> Rules of the Air 2007 (as amended), Rule 10 (Approaching head-on).

## Summary

An Airprox was reported when a Jabiru UL and a Diamond DA42 flew into proximity at about 1110 on Tuesday 15<sup>th</sup> July 2014. Both pilots were operating under VFR in VMC, the Jabiru pilot in receipt of a Basic Service from Exeter Radar, and the DA42 pilot in receipt of a Basic Service from Yeovilton Radar.

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

Information available included reports from the pilots of both aircraft, transcripts of the relevant RT frequencies, radar photographs/video recordings, and reports from the appropriate ATC and operating authorities.

The Board debated the wisdom of Yeovilton ATC keeping control of the DA42 given that they were operating SSR only and the DA42 had faded from radar. The DA42 pilot was not expecting to be in Exeter's area for long, and was intending to turn back towards Yeovilton soon, so the Board acknowledged that Yeovilton ATC's decision to retain the traffic under a Basic Service for a short time, and to pass Traffic Information to Exeter ATC, was reasonable; the Board also noted that Exeter ATC, who were in contact with the Jabiru, had no objection to this plan. Although both pilots were going about their normal business in Class G airspace, the Board noted that the Jabiru pilot had been given Traffic Information on the DA42 when 2nm away. Furthermore, the DA42 pilot reported seeing the Jabiru 2nm away and members thought that both pilots would have been better served to have given the other aircraft a wider berth by making a pro-active course or altitude adjustment. In the end, the Board agreed that the cause of the Airprox was all about perception of the proximity of the two aircraft and decided that, although unconcerned himself at the separation between them, the DA42 pilot had flown close enough to the Jabiru to cause its pilot concern. There was some debate about the degree of risk category because the pilot's assessments of the separation varied so widely; it is unusual for the estimates to be so far apart, and some members thought that this indicated insufficient information to make an assessment, so it should be a category D. Others argued that the separation would certainly lie between the two pilots' reported distances and that, because the DA42 pilot had seen the Jabiru early on, and was ready to take action if he felt that a collision risk emerged, that it should be a Category C. After some debate the Board agreed unanimously that safety had been degraded and that the degree of risk was Category C.

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

<u>Cause:</u>	The DA42 pilot flew close enough to the Jabiru to cause its pilot concern.
<u>Degree of Risk:</u>	C.
<u>ERC Score</u> <sup>3</sup> :	4.

<sup>3</sup> Although the Event Risk Classification (ERC) trial had been formally terminated for future development at the time of the Board, for data continuity and consistency purposes, Director UKAB and the UKAB Secretariat provided a shadow assessment of ERC.