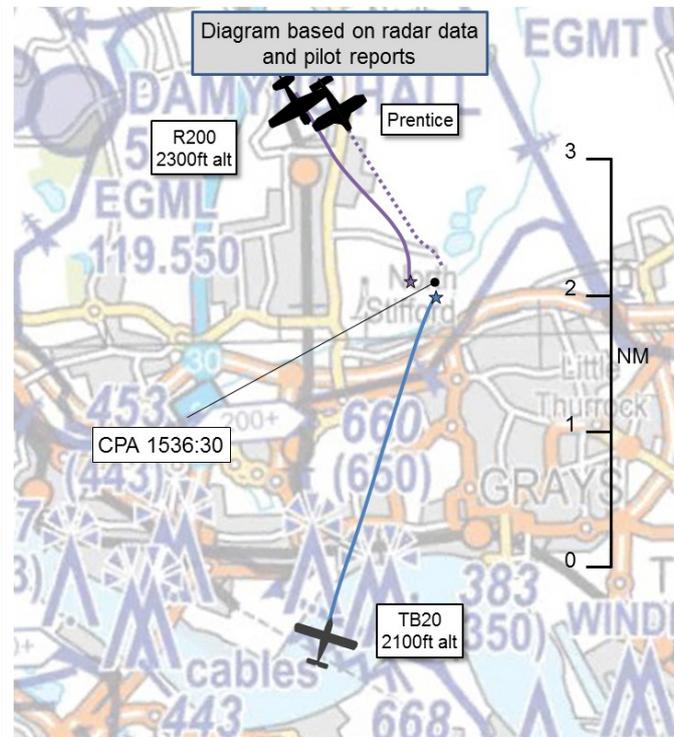


**AIRPROX REPORT No 2016014**

Date: 11 Feb 2016 Time: 1536Z Position: 5130N 00019E Location: E of South Ockendon

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

Recorded	Aircraft 1	Aircraft 2
Aircraft	TB20	Prentice
Operator	Civ Pte	Civ Club
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	Basic
Provider	Farnborough	Farnborough
Altitude/FL	2100ft	2300ft
Transponder	On, S	Not fitted
<b>Reported</b>		
Colours	Blue / White	N/K
Lighting	Strobe, Nav, Landing	N/K
Conditions	VMC	VMC
Visibility	10KM +	10KM +
Altitude/FL	2300ft	2300ft
Altimeter	QNH (1003hPa)	QNH (1002hPa)
Heading	016°	150°
Speed	140kt	100kt
ACAS/TAS	TAS	Not fitted
Alert	N/A	N/A
<b>Separation</b>		
Reported	30ft V/100m H	300ft V/100m H
Recorded	NK	



**THE TB20 PILOT** reports that he was flying on autopilot between HILLY and BEMID north of the Thames. He saw a plane in his 9 or 10 o'clock, heading towards him, 'from the sun'. The plane turned right, some distance away, to avoid and fly behind him. As he moved his head to the front again, a second plane flew in front of him from the left, clearly taking avoiding action because it was banked over with the underside towards him.

He assessed the risk of collision as 'High'.

**THE PRENTICE PILOT** reports that he was in loose formation with an R200 in the Thurrock area, heading SE at 2300ft when he noticed another aircraft approaching from 90 degrees to starboard 'out of the sun'. He took avoiding action by pulling up and slightly banking to the left to present the underside of his aircraft in the hope the other pilot would notice him. The R200 in loose formation also pulled up and banked to the right. The other aircraft flew between them and slightly below, taking no avoiding action, before continuing NE in a wings level attitude. He assumed the aircraft had seen neither of them because no avoiding action had been taken; he was surprised that he hadn't seen them because they would have been illuminated by the sun, which was behind the other aircraft.

He assessed the risk of collision as 'Medium'.

**THE R200 PILOT** reports that he was positioned behind and to the right of the Prentice, maintaining a separation of about 200m so that either of them could manoeuvre unimpeded. He noticed conflicting traffic in his 2 o'clock just below the horizon, which he considered to be on a possible collision course with the Prentice. He performed a positive climbing turn to the right to ensure separation between his aircraft and the conflicting traffic, and watched the Prentice perform an

avoiding climbing left turn. The conflicting traffic passed beneath the Prentice without any apparent change of course or level.

He assessed the risk of collision as 'Medium'.

## Factual Background

The weather at London City was recorded as follows:

METAR EGLC 111520Z 27006KT 220V290 9999 FEW040 08/M01 Q1003

## Analysis and Investigation

### CAA ATSI

The TB20 was on a VFR flight and had first contacted Farnborough Radar to request a Traffic Service at 1509:30. The controller had advised that they were only able to provide a Basic Service due to poor radar coverage in the area because one radar source was out of service.

The report from the pilot of the TB20 stated that the Airprox took place at approximately 1530. A review of the area radar recordings showed the TB20 coming into close proximity to another aircraft, a Robin 2112 (R200), which had reported flying in loose formation with a Prentice, at 1536:30. The Prentice was not fitted with a transponder, and no radar contact was observed which could be associated with that aircraft. The pilot of the Prentice had not contacted Farnborough Radar, but in their report they indicated that they were on frequency. It was not until later, after the Airprox, that the Prentice made contact with Farnborough, this time on behalf of the R200, reporting that they had had some issues with the radios whilst still to the north of Gravesend.

At 1535:30 the pilot of the TB20 reported crossing the Thames at the Queen Elizabeth Bridge and asked again about the possibility of receiving a Traffic Service. The controller again advised that it would be a Basic Service due to how busy the frequency was. Notwithstanding, the controller had on two occasions (once at 1509:30 and again at 1524:10) advised the pilot of multiple contacts ahead of his track. They had also on one occasion passed more specific information to the TB20 on opposite-direction traffic. The Farnborough controller was working two sectors combined, and during this period transmissions were virtually continuous.

Figure 1 shows the relative positions of both the TB20 and the R200 at the time the TB20 reported seeing the first aircraft in their "9 or 10 o'clock". The Prentice was not observed on radar and it was not possible therefore to determine CPA. Neither the TB20, the R200 nor the Prentice made any reference to an Airprox whilst in communication with Farnborough Radar.



Figure 1 – Swanwick MRT – 1536:30

In accordance with CAP774, The UK Flight Information Services:<sup>1</sup>

*Controllers shall make all reasonable endeavours to provide the ATS that a pilot requests. However, due to finite ATS provider resources or controller workload, tactical priorities may influence ATS availability or its continued provision. Therefore, a reduction in traffic information and/or deconfliction advice may have to be applied, and in some circumstances an alternative ATS may have to be provided in order to balance overall ATS requirements.*

<sup>1</sup> CAP774 Ch1 Para 1.5

## UKAB Secretariat

The TB20 and Prentice 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 converging then the Prentice and R200 pilots were required to give way to the TB20<sup>3</sup>, which they effectively did by conducting avoiding turns and climbs.

### Summary

An Airprox was reported when a TB20 and a Prentice flew into proximity at 1536 on Thursday 11<sup>th</sup> February 2016. Both pilots were operating under VFR in VMC, the TB20 and Prentice pilots in receipt of a Basic Service from Farnborough.

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

Information available consisted of reports from the pilots of both aircraft and transcripts of the relevant RT frequencies.

The Board firstly commented that it had been unfortunate that an equipment failure had resulted in a Traffic Service being unavailable to the pilot of the TB20 pilot who had repeatedly asked for such a service from Farnborough. Notwithstanding, although this would undoubtedly have helped to increase the situational awareness of all the pilots involved, and would have therefore reinforced the available safety barriers, they noted that the Prentice was not visible on radar anyway and so it would not have been possible for the controller to provide detailed information on it other than that it was in company with the R200. Members then went on to discuss the perceived problems that pilots report in obtaining a Traffic Service from Farnborough. They wondered whether Farnborough recorded when aircraft requested a service and it was not available; they felt that this would aid in providing a greater degree of transparent evidence regarding the types of service pilots request against the type of service they actually receive. The Board noted that the area of the Airprox was becoming a choke point as traffic levels increase, and continued to advise pilots to request a Traffic Service whenever possible, even if they were subsequently denied, on the rationale that 'if you don't ask you don't get'. Ultimately, although a Traffic Service had been denied to the TB20 pilot, the Board felt that ATC had done their best in the face of limited radar and a busy frequency by warning him of the generic high levels of traffic in the area.

The Board then turned their attention to the pilots involved. They looked at the position of the aircraft in relation to each other and determined from the radar recording tracks (assuming the Prentice was in formation with the R200), that the Prentice and R200 should have given way to the TB20. Members agreed that they had, in effect done so, but that a late sighting, coupled with formation flying with the R200, had resulted in the Prentice pilot having to take an avoiding turn to the left at the last moment. The Board noted that it was this turn that had alerted the TB20 pilot to the presence of the R200. They also noted that the TB20 pilot had only seen the Prentice at a late stage as he turned his attention back to the front of the cockpit. The TB20 pilot would likely not have expected to be faced with 2 aircraft in formation and was focusing on the R200 he had seen; pilot members opined that this reinforced the need to continue with a robust lookout at all times, even when other aircraft had been sighted, in order to ensure that there were not more aircraft that might also be a threat. Whilst the TB20 had TAS fitted the Prentice not having a transponder unfortunately meant that the equipment did not alert the TB20 pilot to the Prentice, this highlights the importance of aircraft transponding whenever possible to ensure other, suitably equipped, aircraft can utilise their equipment to identify the presence of other aircraft in their vicinity.

The Board then looked at the cause and risk of the Airprox. They quickly agreed that the TB20 pilot had seen the Prentice too late to carry out an avoiding action turn, and that the Prentice pilot had similarly seen the TB20 at a late stage, likely due to the effects of the sun in his eyes. The Board

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<sup>2</sup> SERA.3205 Proximity.

<sup>3</sup> SERA.3210 Right-of-way (c)(2) Converging.

therefore determined the cause of the Airprox to be a late sighting by both pilots. Based on the reported separations and the need for the Prentice pilot to conduct an avoiding action manoeuvre, they determined that the degree of risk was B; avoiding action was taken to prevent a collision, but still resulted in safety margins much reduced below the norm.

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

Cause: A late sighting by both pilots.

Degree of Risk: B.