## AIRPROX REPORT No 2010159

<u>Date/Time</u> : <u>Position</u> :	12 Oct 2010 1445Z 5205N 00026W (3nm SSW Bedford Airfield)	
<u>Airspace:</u>	Lon FIR	( <u>Class</u> : G)
	<u>Reporting Ac</u>	<u>Reported Ac</u>
<u>Type</u> :	Grob Tutor	DA40
<u>Operator:</u>	HQ AIR (Trg)	Civ Pte
<u>Alt/FL</u> :	1800ft (RPS 1014mb)	2500ft (NK)
<u>Weather:</u> <u>Visibility</u> :	VMC HZBC 20km	VMC CAVOK >10km
Reported Separation:		



Recorded Separation:

400ft V / 0.2nm (370m) H (See UKAB Note (1))

## PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

50ft V / 200m H 0 V/400m H

**THE GROB TUTOR PILOT** reports flying a dual navigation training flight in receipt of a BS from Cottesmore, squawking 7000 with Modes C and S; TCAS was not fitted. They were heading 100°, out of sun, at 120kt and at 1800ft on the RPS conducting a teaching exercise when the captain saw a white, low-winged, single-engined ac, with a T tail, 300m away in their 12 o'clock position, crossing from R to L at a similar level. He immediately initiated a climbing break to the right to pass behind the ac, which was not seen to manoeuvre.

He assessed the risk as being Medium and reported the incident to Cottesmore Zone.

**THE DA40 PILOT** reports flying solo on the return leg of a private, VFR flight from North Weald to Sywell, in receipt of a BS from Farnborough North and squawking as directed with Modes C&S; PCAS was carried. Approaching Bedford, Farnborough terminated the radar service due to his approaching the edge of their radar cover and instructed him to change squawk from 5036 to 7000. He was heading 305° at 118kt and no immediate traffic had been advised but almost immediately on changing to 122.7 (Sywell) and squawking 7000, he saw a low-wing single-engine ac, 400m away in shallow climb (nose high) in his 10 o'clock. No PCAS warning or alert was given but he disconnected the autopilot and initiated a descending R turn; after a few seconds other ac made a hard R turn and passed behind him. He estimated that the ac passed about 400-500 metres away. He thought that had both ac not reacted there could have been a collision but due to the reaction the risk was low.

ATSI reported that the DA40 had left the Farnborough frequency at the time of the incident.

**HQ 1GP BM SM** reports that the Tutor was in receipt of a BS from Cottesmore Zone at 1800ft, around 3nm SSW of Bedford airfield and the Airprox was declared on their frequency. The Cottesmore investigation showed that although both the reported and reporting ac might have been operating on Zone frequency both ac were operating below the base of Cottesmore radar coverage; consequently, Zone were unable to provide TI.

UKAB Note (1): The recording of the Debden radar shows the incident as depicted above. Both ac are squawking 7000 with Mode C, both are showing an alt of 2000ft in the lead up to the CPA and the ac are on a collision course. The Tutor's right, upwards break and the DA40's descending right turn are both evident on the radar recording and generated a miss-distance of 0.2nm and 400ft.

UKAB Note (2): Since the Grob was squawking with Mode C throughout, it cannot be explained why no PCAS warning was enunciated.

**HQ AIR (Trg)** comments that this was a conflict in Class G resolved by both pilots but contributed to by late sightings. It is noted that the DA40 pilot appears to have expected that his BS would have provided him with TI on the Tutor. As such, he may have had a false expectation that there was no traffic to affect and not prioritised lookout so highly as a result; this may have applied equally to the Tutor crew who were also under a BS from another unit. It is disappointing that the Tutor crew only spotted the confliction when it was in their 12 o'clock, probably after the confliction had been resolved by the DA40.

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

Information available included reports from the pilots of both ac, transcripts of the relevant RT frequencies, radar recordings, reports from the air traffic controllers involved and reports from the appropriate ATC and operating authorities.

The Board noted that both pilots were operating legitimately in Class G airspace where the 'see and avoid' principle applies; the Tutor was in receipt of a BS from Cottesmore and, until no longer practicable, the DA40 had been in receipt of a BS from Farnborough. The Airprox occurred shortly after the DA40 left the Farnborough frequency and, in the absence of a RT transcript, the Board could not know what, if anything, had been said by the controller about traffic to affect when he cleared the DA40 en-route. It was unclear whether the Farnborough controller could see the Tutor on radar; although the Tutor's squawk is visible on the recorded radar, it did not generate a warning on the DA40's PCAS. If there was a reference to traffic, Members thought that the DA40 pilot might have misconstrued the departing call from Farnborough to mean that there was no traffic in the vicinity rather than no traffic showing on the radar in his location, as intended. A pilot Member considered that the DA40 pilot's report could be interpreted to mean that he had an expectation of TI under a BS, but the CAA SRG ATS Standards advisor disagreed. However, in the event both pilots saw the conflicting traffic, although later than optimum, in time to take effective avoiding action thus ensuring that there was no risk of collision. The Board was evenly split regarding the cause, half considering that it was late sightings and the other half a conflict in Class G airspace; the Chairman opted for the latter since the pilots' sightings were such that the resulting avoiding action they took was in time to be effective.

## PART C: ASSESSMENT OF CAUSE AND RISK

A conflict in Class G Airspace resolved by both pilots.

Degree of Risk: C.

Cause: