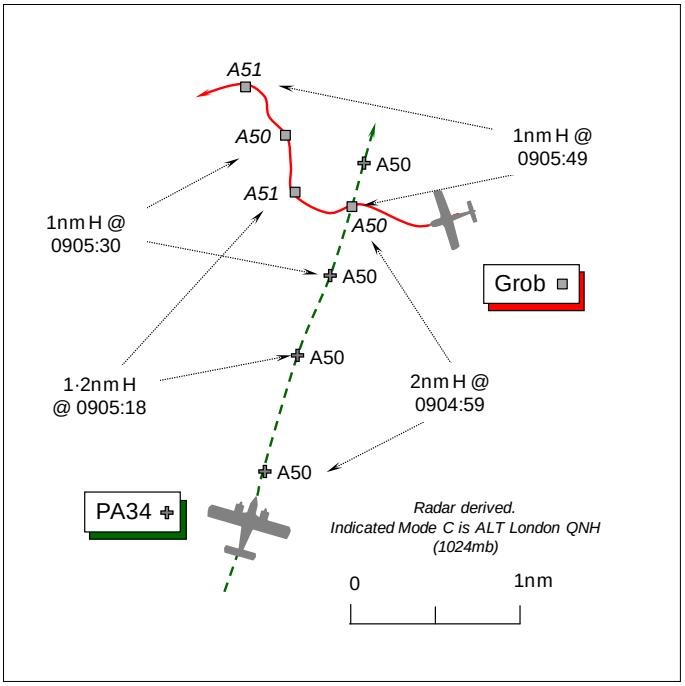
AIRPROX REPORT No 2011033

Date/Time:	13 Apr 2011 0905Z	
Position:	5139N 00123W (10nm SE of Brize Norton A/D	
Airspace:	Oxford AIAA	(*Class: G*)
	Reporting Ac	*Reported Ac*
Type:	PA34-200T	Grob Tutor T Mk1
Operator:	Civ Trg	HQ Air (Trg)
Alt/FL:	5000ft	NR
	QNH (1023mb)	NR
Weather:	IMC IICL	NR
Visibility:	10km	NR
Reported Separation:		
	Nil V/0.5nm H	NR
Recorded Separation:		
	Nil V/1nm H	



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE PIPER PA34-200T (PA34) PILOT reports he was conducting a local IFR training flight from Oxford and was tracking towards the OX NDB whilst in receipt of a TS from Brize RADAR on 124·275MHz. The assigned squawk was selected with Modes S and C on; TCAS is not fitted.

Heading 005° at a position 190° OX 11·5nm, flying level at the cloudbase of 5000ft QNH (1023mb) at 150kt, he spotted a light single-engined ac at a similar altitude within 0·5-1nm dead-ahead also at the base of cloud and in intermittent IMC. He took no avoiding action as the other ac – a Grob Tutor - was seen at the same altitude in a level turn and appeared to roll out on a heading of SW. Visual contact was intermittent and about 15-30sec after sighting the Grob, Brize reported the traffic, which by that time was no longer a risk. The Risk was assessed as 'medium'. An Airprox was not reported on RT, but filed through his company safety management system.

THE GROB TUTOR T MK1 PILOT, a QFI, did not provide a detailed account within his Airprox report, just a narrative. He commented that in response to this Airprox in Class G airspace in the vicinity of Wantage, he was conducting elementary flying training consisting of general handling and practice forced landings with a student, whilst in receipt of a TS from Benson. He has no recollection of the event as it was over 1 month ago and today – 20 May, the date of writing - was the first he had heard of it. He opined that if there had been any threat to his ac he would have remembered it vividly, and being under a TS with Benson APPROACH, they would have alerted him to it.

THE BRIZE NORTON ATC UNIT SUPERVISOR reports that the PA34 pilot experienced an Airprox with what he believed to be a Tutor. He was not the controller at the time and it has not been possible to obtain a report from the controller providing the TS at the time of the Airprox.

HQ 1GP BM SM reports that this Airprox occurred in Class G airspace between a Tutor operating VFR conducting GH and PFLs N of Wantage in receipt of a TS from Benson ZONE and a PA34 inbound to Oxford in receipt of a TS from Brize RADAR (RAD).

It took some time for the Radar Analysis Cell (RAC) to trace the crew of the Tutor and hence the fact that they were in receipt of an ATS from Benson; consequently, Benson ATC were unable to provide any input to the investigation. Due to an internal issue at Brize Norton, the unit did not commence

reporting action until 2 months after the event; consequently, although they could provide an RT tape transcript, the controller could recall little of the event. This situation was exacerbated by the fact that the PA34 pilot omitted to report the Airprox to RAD.

The PA34 pilot reports operating IFR in VMC, albeit intermittent IMC flying at the base of cloud and spotting the Tutor at "a similar level within 1nm dead ahead…the aircraft was seen to be turning and appeared to roll out on a heading south-west. Approximately 15-30 secs after sighting Brize reported the traffic, which by this time was no longer a risk."

CAP774 states that:

> 'Pilots should be aware that a Traffic Service might not be appropriate for flight in IMC when other services are available.'

The Brize Norton Supervisor reports that the controller and unit workload was medium to low, a fact borne out by the RT transcript. That said, RAD's workload in the period leading up to the Airprox was constant. Furthermore, RAD recalls that:

> 'for whatever reason I felt behind the drag curve and the session felt busy/complex [and that] this fact was picked up by one of the other controllers.'

At 0901:12 the PA34 was identified and placed under a TS after which followed a continuous, albeit low-level, work load for RAD involving landline liaison and transmissions to other ac. At 0901:53, (the earliest point of the radar replay), the PA34 was approximately 18nm S of Brize Norton tracking NNE, with the Tutor 9nm N of the PA34, tracking E indicating 5000ft Mode C. At 0903:28, the Tutor commenced a turn, rolling out onto a westerly track at 0904:05, at which point the PA34 is 4·5nm SW, indicating 4800ft.

At 0905:18, the Tutor is just through the PA34's 12 o'clock with 1.2nm lateral separation existing; however, the Tutor commences a R turn onto NW thereby reducing the separation between the 2 ac, exacerbated by the greater airspeed of the PA34.

During the period 0905:07 to 0905:29, RAD was involved in the identification of and passing instructions to another unrelated ac. This unrelated ac does not appear on the replay and further investigation with BZN has suggested that this ac was an Oxford departure, placing it approximately 17nms N of the CPA. Immediately after RAD has completed this liaison with the un-connected ac and co-incident with the CPA, RAD passed TI to the PA34 at 0905:31 stating, "*traffic north 1 mile similar heading similar level*." At this point the Tutor is 1nm NNW of the PA34.

CAP774 states that:

> 'Traffic is normally considered to be relevant when, in the judgement of the controller, the conflicting aircraft's observed flight profile indicates that it will pass within 3nm and, where level information is available, 3000ft of the aircraft in receipt of the Traffic Service. However, controllers may also use their judgement to decide on occasions when such traffic is not relevant, e.g. passing behind or within the parameters but diverging.'

The safety of operations in Class G Airspace is predicated on the ability of aircrews to 'see and avoid' each other's ac, backed up with airborne equipment such as TCAS and the provision of ATSOCAS where pilots opt for a level of ATS appropriate to their task and meteorological conditions. CAP 774 is clear that whilst the provision of TS to ac in IMC is possible, it may not be appropriate when other services are available. In this instance DS was available and may have been more appropriate given the prevailing meteorological conditions.

Given RAD's lack of recall of the event it has proved impossible to state conclusively why TI was not passed earlier. One hypothesis is that RAD assessed the relative speeds of the ac, concluding that the PA34 would pass through the Tutor's 6 o'clock and that TI might not be required: re-visiting that

assessment when the Tutor commenced their turn at 0905:21 reducing separation. An alternative hypothesis is that, although RAD did not have a high taskload, they were consistently engaged in tasks throughout the period prior to them passing TI, thereby delaying the passing of that TI. Moreover, based upon their statement, it is clear that RAD's perceived workload was high with them feeling "behind the drag curve." There are a number of potential psycho physiological explanations for this including pathological, the disruption of Circadian rhythm, fatigue and life-stresses. Although there is no clear evidence to identify a specific factor, RAD's psycho physiological state may have affected their ability to divide their attention between their tasks or to match their workrate to the task load, thereby delaying the identification of the confliction between the PA34 and the Tutor and hence the passing of TI.

This Airprox resulted from a late sighting by the PA34 crew, the late provision of TI by RAD and the meteorological conditions hampering their visual acquisition task. It has been impossible to determine conclusively why TI was not passed to the PA34 earlier than 0905:31.

HQ AIR (TRG) comments that both ac appear to have been operating close to the base of cloud cover where visual contact was reported by the PA34 crew to be affected by cloud. Despite this the PA34 sighted the Tutor before TI was given and no avoidance was required. The reporting delay was unfortunate in that it prevented the gathering of accurate data on the Tutor pilot's TI and visual status. It might reasonably be assumed that he received good TI and was visual with the PA34. Whilst the wisdom of operating close to the base of cloud cover even with a TS may be questioned, it may be the only way to complete a particular sortie profile. That said, any factor that reduces the ability to conduct an effective lookout must be given due regard by pilots and the ATC service upgraded or the profile limited accordingly if required.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from the pilots of both ac, a transcript of the relevant Brize RAD RT frequency, radar video recordings, together with reports from the appropriate ATC and operating authorities.

The Board was disappointed that further detail was not available from Brize Norton and here it was evident that the PA34 pilot had not reported the Airprox on the RT to the controller providing the TS. No matter if a pilot subsequently elects to withdraw an Airprox report, which is entirely within their prerogative, reporting the Airprox on RT at the time immediately alerts the controller and the ATSU to take the necessary reporting action. In that way none of the essential detail necessary for a complete understanding of the Airprox is lost. The Board was briefed that the Airprox was received some 5 days after the event; once identified, the RAC had endeavoured to contact the Tutor pilot's unit on 12 separate occasions. All efforts proved fruitless until contact was eventually established through the Station Flight Safety Officer. Unfortunately, therefore, the Tutor pilot's report was not received until over 30 days after the Airprox had occurred. Consequently, the Benson ATC RT recordings were not available.

As the Tutor pilot was not aware of the Airprox until some weeks after the event, he could recall little detail of his sortie and his account contributed little to the understanding of this event; whether he saw the PA34 or not was unclear. Members recognised that the PA34 pilot was teaching an IFR procedure, flying towards the 'OX' beacon intermittently in IMC, just at the base of cloud in Class G airspace. Whilst the PA34 crew had availed themselves of a TS from Brize RADAR, in the GA pilot Member's view, if a DS had been available then this would have been a more suitable ATS whilst flying in IMC. The MAA Advisor suggested that if the PA34 had been flying at an IFR quadrantal level, it would have afforded some separation against other IFR transit traffic in level flight. Similarly, a DS might have assisted the Tutor pilot with his traffic avoidance responsibilities. The Tutor pilot, who was conducting general handling VFR, shared an equal responsibility to see other ac when operating in Class G airspace. Nevertheless, it remained the PA34 pilot's responsibility under the 'Rules of the Air' to 'see and avoid' the Tutor on his starboard side so that he could afford appropriate separation irrespective of whether RAD passed TI or not.

Notwithstanding the controller's relatively low but constant workload and any other higher priority traffic, the Board considered that the TI passed by RADAR at 1nm range had been issued at a relatively late stage. Nevertheless, by the time the TI was transmitted at 0905:31, the Tutor is shown on the radar recording in the PA34's 10:30 position, 1nm away. Consequently, if this TI was passed 15-30 sec after the PA34 pilot saw the Tutor dead-ahead, as he reports, then he had seen it at a range greater than his estimated 0·5-1nm, because the radar data shows the Tutor to be at a range of 2nm when in the PA34's 12 o'clock. Therefore, in the Board's view, there was enough time to avoid the Grob by a greater margin if need be when he saw it. However, avoiding action was not warranted it would seem, as the PA34 pilot reports the Grob was in a level turn and appeared to roll out on a heading of SW flying away from him – as replicated by the radar recording. Controller and pilot Members alike concluded that this had been a relatively benign event and agreed unanimously that this Airprox report had stemmed from a sighting of traffic operating in Class G airspace, where normal standards of safety had been maintained.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: Sighting Report.

Degree of Risk: E.