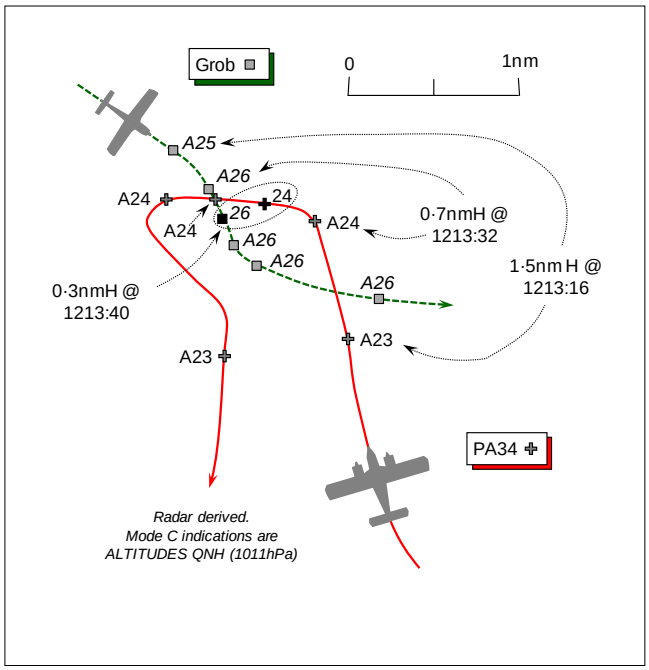
AIRPROX REPORT No 2012124

Date/Time: 14 Aug 2012 1213Z

Position: 5214N 00153W (10nm WNW of Wellesbourne Mountford - O/H Alcester)

Airspace: London FIR (*Class: G*)

	Reporting Ac	*Reported Ac*
Type:	Grob 109B	PA34
Operator:	Civ Pte	Civ Trg
Alt/FL:	2500ft QNH (1010hPa)	2500ft QNH
Weather:	VMC CLOC	VMC CLOC
Visibility:	40km	>10km
Reported Separation:	Nil V/<0·25nm H	0·5nm H
Recorded Separation:	200ft V/0·3nm H	



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE GROB 109B (G109) PILOT reports he was in transit under VFR from Sleap to Wellesbourne Mountford at 80kt and in receipt of a BS from Birmingham RADAR on 118.050MHz. A squawk of A0403 was allocated. Mode C and elementary surveillance Mode S were on; TCAS is not fitted.

Established in a level cruise at 2500ft QNH (1010hPa) in VMC, heading 140° he was informed by RADAR of two ac in his vicinity and the ATS was temporarily upgraded to a TS at the instigation of the controller [this was 10min before the Airprox occurred]. He confirmed that he was visual with one ac - a faster PA38 in his 12 o'clock position flying in the same direction. He did not see the reported ac until just before his turning point O/H Alcester, where he intended to make a L turn for Wellesbourne Mountford. The reported ac, a white low-wing twin [the PA34] was also level at 2500ft ALT and first seen in his 10 o'clock position routeing N about 1nm away, but it then made a turn directly towards his aeroplane before turning to pass within 0·25nm astern with a 'high' Risk of collision.

He did not inform RADAR at the time as he did not want to alarm his passenger; the relative speed of the twin was frightening compared to his 80kt. If he had turned away from the twin he would have lost sight of it and it would have quickly caught them up. The pilot of the other ac was not in contact with Birmingham RADAR. His Grob is coloured white with blue stripes; the HISLs and landing lamp were on.

THE PIPER PA-34-200T (PA34) PILOT reports that in the days surrounding the Airprox, he had flown the same NAVEX twice and was not sure if the incident he recalls corresponds to the Airprox filed by the Grob pilot. He does not recall if he was under an ATS. SSR Modes A and C were on; TCAS is not fitted.

He reports that the VFR training flight with two students aboard was flown at 2500ft ALT and they were flying on a N'ly heading at 140kt in the vicinity of Alcester, when he noticed a 'plastic' single piston engine aeroplane, high in his 2 o'clock position about 2nm away. He alerted both students to the other ac and assessed there was not any risk of a collision, the student PF maintained his course whilst trying to identify Alcester. He decided to make a L level turn in order to positively identify their destination and also plan a diversion to Northleach roundabout. Both he and the backseat student

maintained the traffic in sight, but 180° into the turn they realised that the pilot of the Grob, now in their 12 o'clock position, was taking some kind of avoiding action. As he had the Grob in sight at all times and the minimum separation was 0·5nm he did not feel either ac was in danger. Therefore, he did not deem it necessary to take avoiding action by asking the student to change his flight path. He might have turned away following the other pilot's actions; however, neither he nor his students are sure on this point. He assessed the Risk as 'none'.

THE BIRMINGHAM RADAR 1 CONTROLLER (RADAR) reports the Grob 109B pilot was under a BS in the FIR routeing from the NW on a SE'ly course. At one point there was another ac heading towards their CTR boundary and looked like it was going to infringe their CAS, so whilst taking precautionary measures against that contact she made a blind RT transmission to see if the other ac's pilot was listening on their frequency. Instead, the G109B pilot replied (the flight was on a similar squawk - A0403) so the controller thanked him for replying but advised it was a different ac that she was calling. The Grob pilot said he was N of Snitterfield and so thought it was his aeroplane that the controller had referred to; in case the Grob pilot was uncertain of his position, she advised the Grob pilot that he was actually 7nm W of Snitterfield and to look for gliders as he continued SE bound because Snitterfield was notified as active. Later, she advised there were other ac in the Grob's vicinity at a similar level and reminded the pilot to keep a good lookout but not just for gliders. No more specific TI was given as the flight was still only under a BS. No further comment was made by the Grob pilot nor was any request made for a change in ATS and she - the controller - believes it was during this time that the Airprox occurred over Alcester. From the point of first RT contact the Grob pilot was under a BS. However, she had allocated a squawk and temporarily upgraded the service to a TS earlier in the flight, when the G109 was further to the WNW, because there was traffic to affect the Grob and she had time available to do so; the ATS was then changed back to a BS with the agreement of the Grob pilot.

ATSI reports that the Airprox was reported by the pilot of the G109 when the ac came into proximity with the PA34 in the vicinity of Alcester at 2500ft ALT. The G109 pilot was on a private VFR flight from Sleap to Wellesbourne Mountford and in receipt of a BS from Birmingham RADAR on 118.050MHz. The PA34 was on a VFR training flight from Oxford and the pilot reports he does not recall if he was under an ATS at the time of the incident. The PA34 was squawking A4520.

ATSI had access to pilots' reports, report of the Birmingham RADAR controller, Unit report, recorded area surveillance and transcription of frequencies 118.050MHz (Birmingham RADAR) and 127.750MHz (Oxford APPROACH/RADAR).

The Birmingham METAR: 1220Z 18007KT 120V220 9999 SCT032 22/14 Q1010=.

The PA34 crew departed Oxford at 1153:00 to the NW, under a BS from Oxford APPROACH. The PA34 pilot reported climbing to altitude 2500ft and was instructed to report back when rejoin was required.

The G109 pilot called Birmingham RADAR at 1200:30 and requested a BS at 2500ft, which was agreed. The Birmingham controller passed the QNH (1010hPa), warned the G109 pilot that Snitterfield was notified as active and to keep a look out for gliders. At 1203:50, [10min before the Airprox occurred] Birmingham RADAR identified the G109 from the allocated SSR code A0403, some 16nm WSW of Birmingham. The G109 pilot's service was then upgraded to a TS by the controller and TI passed on converging traffic – not the PA34 - which the G109 pilot visually acquired. At 1204:10, the G109 pilot's ATS was reverted to a BS by the controller, with acceptance and readback by the pilot. The G109's allocated SSR code of A0403 was retained.

At 1205:10 the Oxford frequencies were split and the Oxford APPROACH controller broadcast that several ac, including the PA34, were to remain on 127.750MHz. There were no responses to the broadcast.

The Birmingham RADAR controller made a broadcast to an ac displaying an SSR code of A0243 at 1211:00. The G109 pilot responded [incorrectly] to this call, but was thanked for his vigilance and

informed that his G109 was now 7nm W of Snitterfield. The Birmingham controller also warned, "*you need to keep a good look out for gliders nothing showing on radar though at the moment,"* to which the pilot replied that he would keep a good look out. At 1213:00, the G109 pilot was informed by RADAR, "…*there are..another couple of contacts seen in your current area same or similar level to yourself so do keep a very good look out as well just not just for gliders."* The pilot replied, "..*we're visual one….in our 12 o'clock and..keep looking out for the other one."* The PA34 pilot's Airprox report indicated that the crew had also visually acquired the G109.

Figure 1 below shows the Clee Hill radar picture at 1213:00. The PA34 then commenced a gradual drift to the R, crossing through the G109's 12 o'clock at a range of 2nm, R to L. The G109 maintained 2500ft and the PA34 descended to 2400ft.

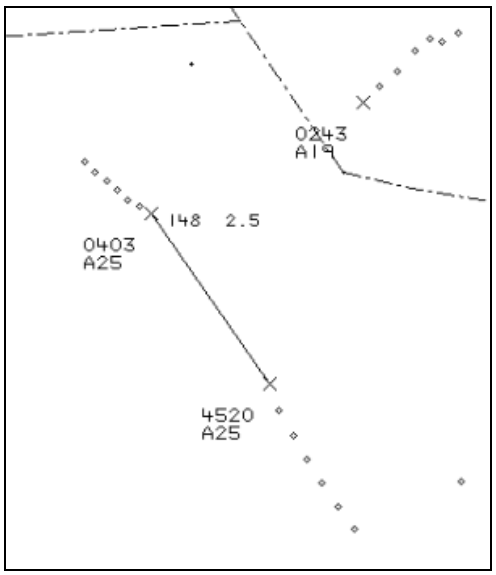


Figure 1: Clee Hill 1213:00 UTC

At 1213:16, the PA34, still in the G109's 12 o'clock has descended to 2300ft at a range of 1.5nm.

Figure 2 shows the Clee Hill radar picture at 1213:32. The distance between the two ac was 0.7nm and 200ft. At this time the recorded GS of the PA34 is 159kt; the G109 is 74kt.

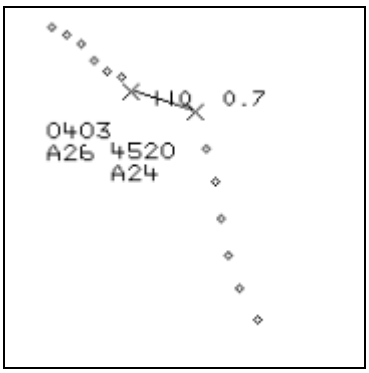


Figure 2: Clee Hill 1213:32

Minimum distance recorded by Clee Hill occurred at 1213:41 (Figure 3 below): 0.3nm/200ft.

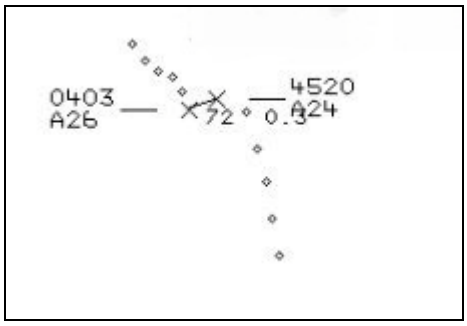


Figure 3: Clee Hill 1213:41

The PA34 then turned L behind the G109, which made a L turn (in the direction of Wellesbourne). Figure 4 below shows the Clee Hill radar picture at 1214:30; the PA34 is now 300ft below, in the G109's 5 o'clock at 1nm. The position of the ac at this time was just N of Alcester, some 10nm W of Wellesbourne Mountford in Class G airspace.

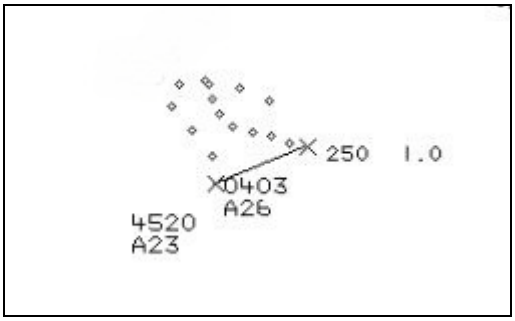


Figure 4: Clee Hill 1214:30

At 1214:50, the G109 pilot reported to Birmingham RADAR that he was approaching O/H Stratford and requested a frequency change to Wellesbourne. The G109's SSR code was changed to A7000 and the frequency change approved.

The PA34 crew called Oxford RADAR for rejoin at 1245:10.

Within Class G uncontrolled airspace, regardless of the ATS being provided, pilots are ultimately responsible for collision avoidance. Under a BS, advice and information useful for the safe and efficient conduct of flight will be passed. This may include general airspace activity information, e.g. the notified activity at Snitterfield.

Controllers with access to surveillance derived information may issue a warning to pilots if the controller considers a definite risk of collision exits. Whilst there is no evidence the Birmingham RADAR controller considered this to be the case, suitable information was passed to the G109 pilot to aid his awareness of the general airspace activity in his area. The G109 pilot acquired the PA34 visually at the time the controller passed this information.

The Airprox occurred in Class G airspace in the vicinity of Alcester when the G109 and PA34 came into proximity at an altitude of 2500ft. Both pilots were visual with each other's ac and the recorded separation was 0.3nm H/200ft V.

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 video recordings, reports from the air traffic controllers involved and reports from the appropriate ATC authorities.

Members had some difficulty reconciling the pilots' reports with the recorded radar picture. If both pilot's recollections were correct, a miss distance of 0.3nm and 200ft was reasonable in good visibility. That said, Member's could appreciate the Grob pilot's concern at the approach of the much faster PA34 in the absence of any indication that his ac had been seen. An experienced pilot Member noted that pilots operating with cruising speeds in the 150kt range need to be aware that the majority of traffic they encounter below 3000ft will be much slower with less capability to manoeuvre; therefore early and robust avoiding action is required. There was some doubt, however, because the PA34 instructor's reported first sighting of the 'plastic' aircraft in his 2 o'clock suggested that it was not the subject Grob that he had spotted; the radar recording suggests that this was a different ac, unrelated to the Airprox. If this scenario was correct, then the PA34 crew had not seen the Grob as they passed behind it, only spotting it after they had completed his 180° turn and after the Grob had made its left turn overhead Alcester. This was a credible scenario since the PA34 crew would have been biasing their lookout downwards to identify their turning point. However, the PA34 instructor reports having the Grob in sight throughout his own turn and seeing it turn away in a possible avoidance manoeuvre. Therefore the Board agreed by a majority that it was most likely that the PA34 pilot had seen the Grob at an early stage and that it was his relatively close approach that had caused the Grob pilot concern.

In discussing the risk associated with the incident Members noted that both aircraft were operating in Class G airspace where pilots are required to 'see and avoid' other ac. The Grob pilot was operating under a BS and therefore could not expect specific TI. He did, however, receive general warnings of contacts in his area and he first saw the PA34 at an estimated range of 1nm. The PA34 pilot, operating under a BS from Oxford, saw the Grob at an estimated range of 2nm. Given these sighting ranges the Board was satisfied that there was no risk of collision associated with the incident.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The PA34 crew flew close enough to cause the Grob pilot concern.

Degree of Risk: C.