

AIRPROX REPORT No 2010037

Date/Time: 27 Apr 2010 1315Z

Position: 5139N 00105W (009° Benson
A/D 2.3nm - elev 75ft)

Airspace: Benson MATZ (Class: G)
Reporting Ac Reported Ac

Type: Puma HC1 Untraced Ac

Operator: HQ JHC NK

Alt/FL: 2500ft NR
QFE (1023mb)

Weather: VMC Haze NR

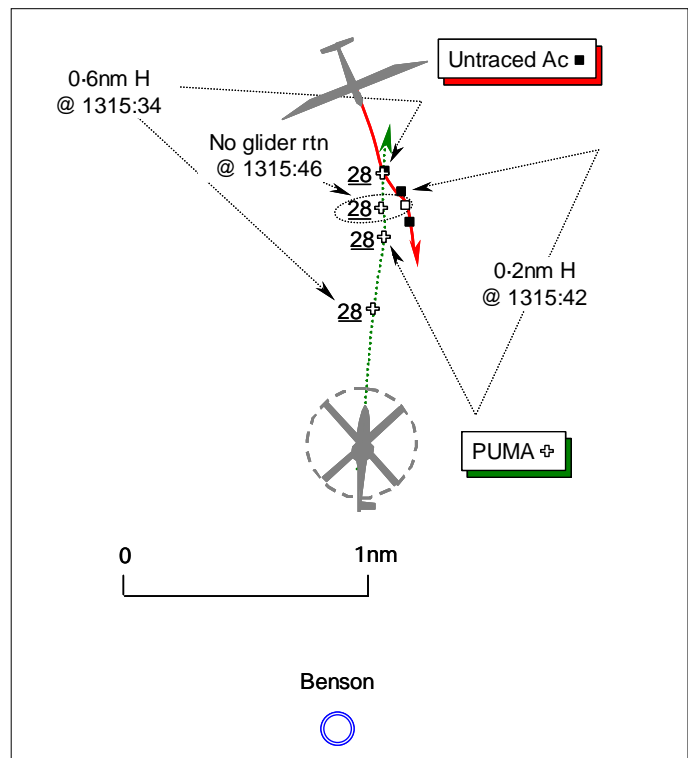
Visibility: 8km NR

Reported Separation:

150ft V/nil H

Recorded Separation:

<0.1nm H - see UKAB Note (1)



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE PUMA HC1 HELICOPTER PILOT reports that the Airprox occurred during an IFR training sortie whilst flying the Benson COPTER TACAN [BSO] procedure for RW19 and in receipt of a TS from Benson APPROACH (APP) on 376.65MHz. The assigned squawk of A3617 was selected with Mode C; Mode S is not fitted. The helicopter is coloured olive green, but the white HISSL and landing lamp were on.

Flying outbound at 120kt from the BSO in VMC, level at 2500ft QFE (1023mb), heading 006° about 2.5nm from the overhead a white glider was first seen as it was passing 150ft above his helicopter on a reciprocal heading. Horizontal separation was 'nil'; no avoiding action was taken as the white glider was already passing overhead in a wings level attitude. ATC was informed on RT that the glider was close to the aerodrome and the sortie was continued uneventfully thereafter. He assessed the Risk as 'high'.

UKAB Note (1): Analysis of the Heathrow 10cm and 23cm radars shows the Puma identified from its A3617 squawk, overhead Benson tracking N with a slow moving southbound primary contact 3.2nm N of Benson that may, or may not be, the reported ac as its altitude cannot be determined. At 1315:34, the Puma indicates 2800ft Mode C London QNH (1027mb) some 1.8nm from the overhead, and maintains this altitude throughout the encounter, with the unknown contact at 12 o'clock – 0.6nm range. A slight L turn SSE'ly is discernable in the contact's track and at 1315:42 the contact is shown in the Puma's 1 o'clock – 0.2nm drawing to starboard. No return is apparent from the unknown ac on the next sweep, which is perceived to be the CPA, at a position 009° Benson aerodrome 2.3nm, with the Puma indicating 2800ft London QNH and thereby clear to the N and above the Benson ATZ. Horizontal separation of 0.2nm is again apparent as the primary contact draws aft into the Puma's 5 o'clock as the helicopter maintains its course and altitude.

The Puma pilot reports that a white glider passed 150ft above him; it is perceived that at the CPA, the unknown primary contact passed less than 0.1nm [<200yd] to starboard. Whilst it is unlikely, it is feasible that the primary contact shown might not be the reported ac.

The primary contact can be tracked E and S of Benson and eventually disappeared from coverage 15nm N of Lasham Glider launching Site. Extensive tracing action amongst local glider clubs in an

effort to identify the reported ac proved fruitless. Consequently the identity of the reported ac that may, or may not be, a glider remains unknown.

BENSON DIRECTOR (DIR) reports he was Mentor to a controller under training who had been on consul for about 1hour when the Airprox occurred. The trainee was not busy; he had worked only 2 ac during this training session, one at a time, and the workload was low with only one ac under an ATS when the Airprox occurred.

The trainee controlled well, calling any traffic displayed correctly and in good time. The Puma pilot was under his own navigation with a TS at 2500ft QFE, when he reported that whilst leaving the TACAN he had seen a glider 200ft above him. The trainee informed the Puma crew that the ac was not visible on radar as they were working 'SSR only', the pilot having been made aware of this and that it was a 'reduced' service on first contact. Nothing in the pilot's voice caused him concern over how close the ac were to each other. Apart from informing the Supervisor that there was a glider within the MATZ the event didn't prompt much reaction. The Puma pilot did not report the Airprox at the time on RT.

THE BENSON ATC SUPERVISOR reports that the Watchman ASR was OOS and the Airprox occurred on a relatively quiet day whilst operating in CC BLU/WHT weather conditions. Working SSR only, they had no idea of the scale of non-transponder equipped ac in the vicinity. The trainee DIR on console was competent and the DIR mentor very experienced. As stated by the controller, the tone of the Puma pilot's voice did not cause any concern and ATC was unaware he was filing an Airprox against the glider before the shift finished. This was yet another incident caused by a lack of TI due to a lack of primary radar.

HQ AIR BM ATM SAFETY MANAGEMENT reports that this Airprox occurred whilst Benson ATC was degraded due to the loss of their primary Watchman ASR; all radar services were being provided with secondary radar – SSR - only. The Puma crew was being provided with a reduced TS at the time of the incident and because the glider was not operating SSR the controller was unable to see it on the 'SSR only' radar display. The controller acted in accordance with the spirit of TS, with reduced capability due to the unserviceability of the primary ASR.

UKAB Note (2): The UK AIP at ENR 2-2-2-1, promulgates the dimensions of the Benson ATZ as a Circle radius of radius 2 nm centred on longest notified RW01/19, active H24, from the surface to 2000ft above the aerodrome elevation of 226ft.

UKAB Note (3): At 1300:49, DIR advised the Puma crew "*...identified, traffic service reduced service S-S-R only*", which was acknowledged. At 1315:39, DIR reported TI on an unrelated ac "*..traffic right 10'clock 6 miles crossing right-left 6 hundred feet above*". Visual contact was acknowledged by the crew 8sec later, who then added at 1316:04, "*..that traffic was a glider reciprocal heading directly above us.*" DIR responded at 1316:13 that this was "*..unlikely I can see that traffic SSR only, traffic I'm calling to you is now [the unrelated ac] right, 1 o'clock 3 miles crossing right left 5 hundred feet above...working...zone..*". Following the warning from the Puma crew about the glider, DIR queried whether it was above or below, whereupon the Puma crew responded that "*..it was above us by approximately 2-0-0 feet.*"

THE PUMA HC1 HELICOPTER PILOT'S STATION comments that the lack of primary radar must be considered to be a contributory factor. As the crew was flying under simulated IF conditions the PF would have been operating under an IF visor, with the PNF's attention divided between the instruments and lookout. The crewman's ability to lookout would be affected by his position in the ac.

A NOTAM had been issued that the ASR was out-of-service and unit aircrew had been briefed as to the dangers of operating in the vicinity of Benson during this period.

HQ JHC comments that this is a further example (see Airprox 2010 045 and 2010 030) of the difficulties of operating in the vicinity of the Benson ATZ, without a serviceable primary radar. It is

recognised that the crew was flying under simulated IF conditions with one pilot being under an IF visor, which would have reduced the overall quality of the lookout.

It is surprising that the crew did not indicate their intention to file an Airprox at the time, considering that they assessed the Risk of collision as 'high'. JHC crews will be reminded of the need to indicate their intention to file an Airprox at the time of the occurrence, in order to capture time-critical evidence. They will also be reminded that they can file an Airprox and then subsequently withdraw it if necessary, once further information has been established.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included a report from the Puma pilot, a transcript of the relevant RT frequency, radar video recordings, reports from the air traffic controllers involved and reports from the appropriate ATC and operating authorities.

It was unfortunate that the reported ac had not been traced and, without the reported pilot's account, the Board's assessment was inevitably incomplete. The speed and the observed track of the unknown contact shown on the radar recording suggested to some Members that it might well have been a powered glider, which could look virtually identical to a conventional glider when viewed from the Puma pilot's perspective below it.

It was evident that this Airprox occurred above the Benson ATZ, but a pilot Member with considerable gliding experience suggested it was unlikely that a glider pilot, with no additional lift from a thermal en-route, would continue to descend towards the ATZ. This reinforced the Board's view that the aircraft had been a powered glider. The MAA Advisor highlighted that there had been a number of occurrences, involving gliders and powered ac, where ac had remained outside the ATZ but flown through the concomitant MATZ - as here. Outside the embedded ATZ, the observation of MATZ procedures is not compulsory for civil pilots. Nevertheless a MATZ Penetration Service is available from military ATSUs to ac flown by civilian pilots for the increased protection of those who wish to fly through this airspace. Guidance for civilian pilots about MATZ penetrations is contained in the AIP (currently ENR 2-2-3-1 dated 11 Feb 2010) and in the Board's view, good airmanship would dictate observance of those procedures.

In the light of this and a number of similar incidents, some Members of the Board considered it to be unfortunate that glider pilots do not communicate more with military ATSUs; the more that ATC knew about ac in the vicinity, the safer for all and the quality of TI correspondingly better. A CAT pilot Member with considerable gliding experience explained that many gliders are not fitted with RT and, even if they are, not all pilots will have an RT licence. He also suggested that, in his experience, the response from some ATSUs was not always helpful, and hence glider pilots' apparent reluctance to communicate. Nevertheless the BGA Member stressed the importance of talking to the respective ATSU where feasible. However, ATC was also handicapped here by a major long-term unserviceability. It was plain that with the ASR out-of-service and no supporting SSR data, DIR was unable to provide any TI about the unknown ac to the Puma pilot at all. As highlighted by the Command, this was yet another Airprox illustrating the difficulties of providing an ATS in Class G airspace without a primary ASR.

Whilst some Members believed that there was sufficient information available on which to base a conclusion as to Cause and Risk, others considered that without a report from the untraced pilot, much was merely speculation. One Member suggested this Airprox was the result of the untraced pilot's poor airmanship in penetrating the Benson MATZ without calling ATC, but others recognised this was unsound as the unknown ac might not have been fitted with RT, the pilot might not have had a RT licence and civilian pilots are legitimately entitled to do so. Furthermore, it was not at all clear if the unknown contact visible on the Heathrow Radar was the ac seen by the Puma pilot. Members suggested that a descending glider pilot was unlikely to overfly the Puma at the separation reported here of 150ft if he had seen it in time to afford it greater separation. Another possibility was that if the unknown contact was indeed the ac seen by the Puma pilot, it seems he might have turned L to try

and afford greater separation, suggesting a late sighting by the untraced pilot at close quarters. Some Members were drawn to a late sighting by the Puma pilot as the Cause but, whilst the other ac was plainly seen by the Puma pilot, he reports that the white glider was already passing a mere 150ft overhead in a wings level attitude when seen and thus effectively, a non-sighting on his part. With such a diversity of views some Members were not convinced that they could draw meaningful conclusions whereas others believed that it was a risk-bearing encounter. Eventually the Board determined by a majority verdict that this Airprox was effectively, a non-sighting by the Puma crew and possibly a non-sighting by the untraced pilot. However, given the scant information available and the uncertainty as to whether the radar recording did illustrate the ac seen by the Puma pilot the overwhelming view of the Members was there was insufficient information on which to base an assessment of the actual Risk that pertained.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: Effectively a non-sighting by the Puma crew and possibly a non-sighting by the untraced aircraft pilot.

Degree of Risk: D.