

AIRPROX REPORT No 2013124

Date/Time: 3 Sep 2013 1015Z

Position: 5153N 00300W
(14nm NE of BCN)

Airspace: LFA 7 (Class: G)

Reporting Ac Reported Ac

Type: MC130H 2xHawk Mk51A

Operator: Foreign Mil Foreign Mil

Alt/FL: 1300ft 1140ft
amsl (NK hPa) QNH (1026hPa)

Weather: VMC CAVOK VMC NK

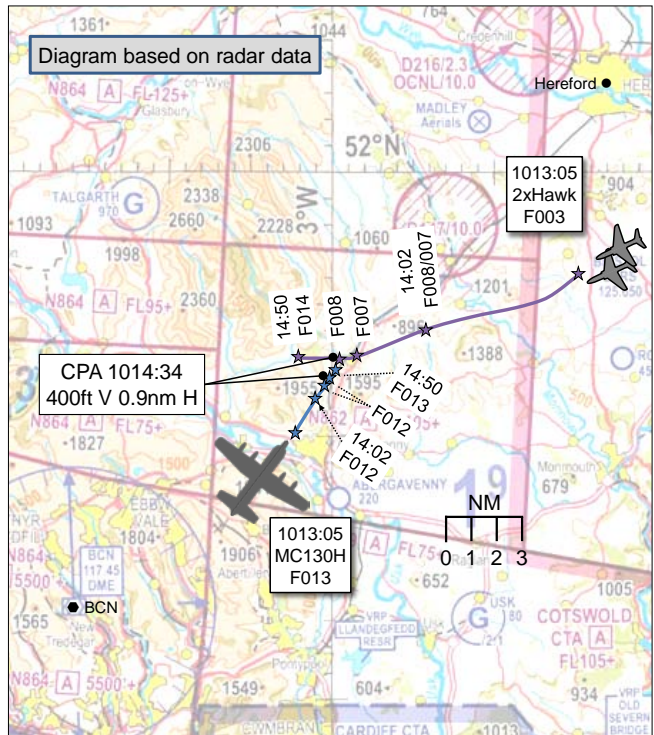
Visibility: NK 40km

Reported Separation:

0ft V/300ft H 500ft V/0.3nm H

Recorded Separation:

400ft V/0.9nm H



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE MC130H PILOT reports flying a grey aircraft, VFR in VMC, at 230kt and 300ft agl, with navigation lights and an occulting red beacon turned on, and monitoring the Low Flying System frequency. The aircraft was squawking transponder Modes 3/A, C and S, and it was equipped with

TCAS¹, but RAs² were inhibited due to the aircraft's height. The crew had been flying a low-level training sortie in LFA³ 7 for around 45min when they turned right on to a heading of 100°, into a valley, and saw the pair of Hawks in their 12 o'clock, co-altitude, on a reciprocal track, around 0.25nm away. At the same time as they saw the Hawks the crew received a TCAS TA⁴; they took avoiding action and saw the Hawks make a climbing right turn at the same time. The MC130H pilot estimated that the lead Hawk passed 'within 300ft' of his aircraft, near to co-altitude; the MC130H crew continued their climb and returned to base. The Pilot submitted Figure 1 with his report.

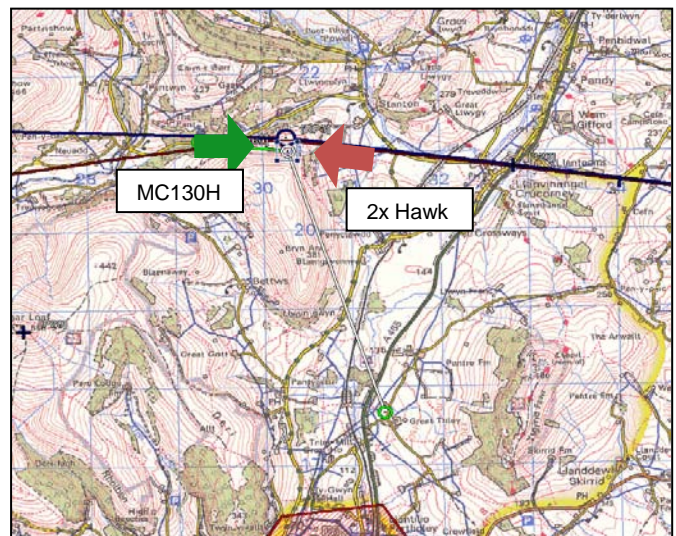


Figure 1

He assessed the risk of collision as 'High'.

THE HAWK FORMATION LEADER reports leading a pair of grey aircraft, with 'strobes, navigation and landing lights' turned on, and squawking transponder Modes 3/A and C. The pilots were aware of the other traffic that had booked in to LFA 7, including the MC130H, and the lead-pilot recalls that they were flying at 1140ft amsl (QNH 1026hPa), VFR in VMC, heading 280° at 380kt, when he initiated a left turn towards a 'pass'. Both Hawk pilots saw the MC130H flying in the opposite direction, around 3000ft away, and they both manoeuvred to avoid it; the lead-pilot climbed his Hawk

¹ Traffic Alerting and Collision Avoidance System

² Resolution Advisory

³ Low Flying Area

⁴ Traffic Alert

slightly and the pilot of the second Hawk 'descended a bit'. The Hawk pilots did not make an assessment of the collision risk but did not believe the occurrence was close enough to warrant an 'anomaly report' under their national flying regulations.

Factual Background

The weather at Gloucester Staverton at 0950Z and 1020Z was reported as:

METAR EGBJ 030950Z 00000KT 9999 FEW023 20/14 Q1028

METAR EGBJ 031020Z 00000KT 9999 FEW023 22/14 Q1028

Analysis and Investigation

UKAB Secretariat

Analysis of the Clee Hill radar recording at 1013:05 shows the Hawks tracking southeast, 8nm south of Hereford, indicating Mode C 003; the MC130H is shown about 12.5nm southwest of the Hawks, tracking northeast, indicating Mode C 013. The Hawks manoeuvre a little but maintain the same approximate track; the second aircraft's Mode C becomes visible for a short period and the aircraft indicate Mode C 008 (Hawk 1) and 007 (Hawk 2) at 1014:02, when the MC130H is around 6nm to the southwest, indicating a Mode C of 012. The MC130H and the Hawks continue until the CPA, at 1014:34, with the closest radar returns indicating separation of 0.9nm H and 400ft V on Mode C. Subsequently, the Hawks make a slight right turn and their Mode C indicates a climb to 014 whilst the MC130H's Mode C indicates the start of a climb through 013.

All of the pilots were flying VFR in Class G airspace and had equal responsibility to avoid collision⁵; although the radar tracks indicate that the aircraft were converging, both reporting pilots recalled seeing the other aircraft ahead of them on reciprocal tracks, in which case they were required to⁶, and indeed did, avoid each other by turning right. The closest radar returns were 400ft V and 0.9nm H apart, but the actual CPA occurred between radar returns and so it was likely to have been closer than this and commensurate with the pilots' reports.

Comments

USAFE

While this was an encounter in the UKDLFS⁷ which was resolved by each of the pilots, the CPA was such that the MC-130H crew discontinued their sortie. Indeed, the aircraft commander later said, "This was as close as I've ever been to another aircraft without being in formation with it." As a consequence, the unit is exploring additional risk reduction measures. Given the Hawk pilots' (Foreign Mil) view on what did or did not require an 'anomaly report', thought might be given to the inclusion of Airprox Reporting in the mandatory briefing on low-flying given to foreign visiting aircrew.

Summary

An Airprox was reported between an MC130H and a pair of Hawks in Class G Airspace in LFA 7; none of the pilots was in receipt of an Air Traffic Service. The pilots in all three aircraft saw each other and took avoiding action.

⁵ MAA Regulatory Article 2307, Guidance Material 2307(1), Para 7, Avoidance of Collision

⁶ MAA Regulatory Article 2307, Guidance Material 2307(1), Para 14, Aircraft Approaching Head-On

⁷ UK Day Low Flying System

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from the pilots of the MC130H and the lead Hawk, and radar photographs/video recordings.

The Board noted that all of the aircraft were being flown in Class G airspace and that all the pilots had equal responsibility for collision avoidance⁸. All crews had correctly booked in to LFA 7, and their pre-flight planning was sufficient that they were aware of the other aircraft using the area. Notwithstanding, members agreed that, whilst this planning was essential to maintain safety in the LFAs, it could not replace good lookout when conducting the task and, in this case, all of the pilots had seen each other's aircraft as soon as could reasonably be expected given the terrain. The Board agreed that the cause had been a late sighting by all of the pilots, then went on to discuss the associated degree of risk. Those members with experience of low-flying in this area opined that not only was this type of conflict not uncommon in the LFAs, but that military pilots conducting such operations would be very alert to seeing other aircraft later than might be expected in other environments. With that in mind, it was noted that the MC130H pilot was experienced in the low-level environment and had, nonetheless, reported that the encounter was closer than any he could recall. Some members opined that, given his level of concern, this might indicate a risk of B; others noted though that all of the pilots had, in fact, seen the other aircraft as soon as could be expected and, despite the fact that they were approaching head-on, had had time to avoid each other by correctly altering course to the right⁹, thereby indicating controlled and effective avoiding action and a risk of C. The Board understood why the MC130H crew, in their larger and less manoeuvrable aircraft, had been more concerned than the Hawk pilots but, after considerable debate agreed that, because timely and effective avoiding action had been taken by all, the degree of risk was C.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A late sighting by all of the pilots.

Degree of Risk: C

ERC Score¹⁰: 21

⁸ Rules of the Air 2007, Rule 8, Avoiding aerial collisions & Regulatory Article 2307, Avoidance of Collision, Para 7.

⁹ Rules of the Air 2007, Rule 10, Approaching Head-on & Regulatory Article 2307, Aircraft Approaching Head-on, Para 14.

¹⁰ Although the Event Risk Classification (ERC) trial had been formally terminated for future development at the time of the Board, for data continuity and consistency purposes, Director UKAB and the UKAB Secretariat provided a shadow assessment of ERC.