

AIRPROX REPORT No 2011114

Date/Time: 31 Aug 2011 2032Z

Position: 5220N 00111E
(15nm NNE Wattisham)

Airspace: UKNLFS NRR4B (*Class: G*)

Reporting Ac Reported Ac

Type: Apache AH1 MC130P

Operator: HQ JHC USAFE

Alt/FL: 800-1000ft 800-1000ft
(QNH 1015mb) (QNH 1015mb)

Weather: VMC CAVOK VMC CAVOK

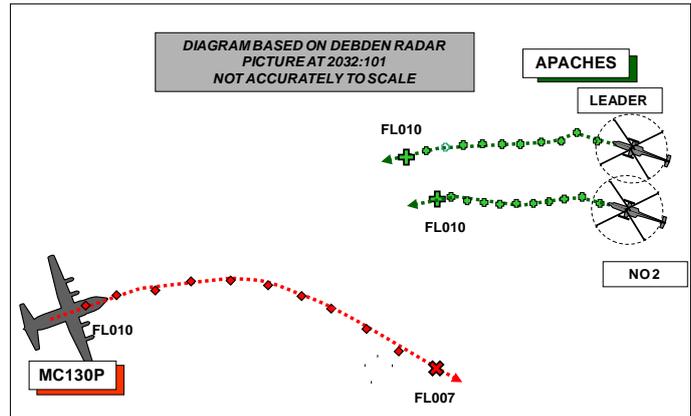
Visibility: 30km Untd

Reported Separation:

200ft V/600m H 200ft V/3nm H

Recorded Separation:

300ft V/ 1.5nm H (abeam)



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE APACHE AH1 PILOT reports conducting ACT (evasion and nav) as a pair of ac in an area NOTAM'd as a 'no lights area' for the purpose of this training. They were in receipt of a BS from Wattisham APP, squawking 4527 (Wattisham) with Modes C and S; TCAS was not fitted. While operating between 800 and 1000ft agl and tracking W at 100kt, ATC reported a fast moving MC130 at 6nm in their 12 o'clock at 600ft [Mode C - London QNH 1015mb]. The leader picked up the ac on radar before they were visual with it, by which time it had closed to about 2nm. His wingman was to their 7 o'clock and would have been blind to the MC130. He assessed that there was a real risk of collision as the MC130 came in between their patrol and he called the wingman to increase altitude to avoid collision, which they then did.

At no time did it appear that the MC130 had seen the Apaches or made any change to their route to avoid them.

UKAB Note (1): The radar recording shows the Apaches are squawking 4527 and 4530; it is assumed that leader is squawking 4527.

THE MC130P PILOT reports that they were conducting night low-level training on NVGs in East Anglia en route to overwater flight, tracking 090° at 210kt in receipt of a BS from London Info in a grey ac with nav and strobe lights switched on and were squawking with Modes C and S; TCAS 2 was fitted. Once they cleared Lakenheath ATC control, they were notified by London Info that a pair of AH-64 Apaches were E of their position and they immediately picked up traffic on TCAS at the alt specified at 20nm. They continued Eastbound maintaining SA on the location of the traffic on TCAS. When the traffic was 5nm away they made a slight right turn to the South to maintain appropriate lateral separation from them. They then became visual with one Apache, 3nm to the North of their flight path.

The crew assumed the formation was in a standard separation of 1nm, so they maintained 3nm away and the helo passed 3nm N visually estimated and verified by TCAS but they did not see the 2nd helo. They continued to the E without any knowledge of an Airprox. If the 2nd helo was greater than 1nm away from the lead, and not squawking, they would not have picked him up on TCAS. [See Diagram above].

The unit conducted an internal investigation of the incident and determined the root cause as failure to identify the specific NOTAM for the airspace. As a result, administrative actions were taken to ensure this situation does not occur again.

UKLAB Note (2): The recording of the Debden Radar shows the Apache pair manoeuvring aggressively at about 1000ft agl to the NE of Wattisham in NRR4B as the MC130P gets airborne and tracks E from Mildenhall, climbing to 2000ft then commencing a descent into the NLFS at 2026:09 (just after the ac passes 00040E - see UKAB Note (3) below) and changing squawk to London Info at 2027:24; thereafter the ac remains broadly at 1000ft agl. At that time the formation is manoeuvring at 18nm in their 11 o'clock. At 2028:30 the formation steadies on 060° and at 2029:00 they turn R initially onto 180° (in 1nm line abreast leader on the left – to the E) before commencing a crossover turn to the R onto a W track (at 2030:15) directly towards the MC130P rolling out with the leader 1nm to the N of No2 and the MC130P in the leader's 11 o'clock at 6.4nm. Thirty sec after they roll out on W, the C130 turned 30° to the right and descended slightly to avoid them to the S, passing 1.5nm abeam them to the S of the No 2 Apache and 300ft below it; it was 1.9 nm S of Leader who was then in the No2's 1.30.

UKAB Note (3): The UK Low Flying Hand Book (Sect 3) [Night] references are as follows:

1. NRR 4B. The co-ordinates of the NRR 4B area at para 59. Management of this area is undertaken by LFBC with co-ordination of approved Field Landing Site being conducted by 352 SOG. Mildenhall C130 activity is permitted in the area above 1000ft east of 00040E, subject to pre notification to the LFBC Supervisor on the working day prior to flight. RW users will be warned of any C130 activity when making a low flying booking.
2. No Visible Lighting. Prior approval is to be obtained from OC LF Ops Sqn for flights with no visible lights, except when hovering at a field HLS in LFA1 where lights may cause distraction, in established danger areas or as detailed by sub para c. Avoidance NOTAMS will be promulgated for such activity. Subject to agreement by a deconfliction fax other users may operate within the notified area.

UKAB Note (4): Both ac were correctly booked into the UKNLFS. As far as can be determined, the Apache formation was approved to conduct lights out activity but no deconfliction Fax was issued. There is no record of the Apache unit being warned of C130 activity.

UKAB Note (5): The following NOTAM was issued in respect of the Apache Flight:

(Y3343/11 NOTAMR Y2852/11

Q) EGTT/QXXXX/IV/NO/EW/000/020/

A) EGTT

B) 1108221930

C) 1109100300

D) 1930Z TO 0300Z ON 22ND TO 26TH AND 30TH TO 31ST AUG,

1830Z TO 0300Z ON 1ST AND 2ND AND 5TH TO 9TH SEP

E) NIGHT ROTARY REGION 4B, NIGHT ROTARY REGION 5, NIGHT ROTARY REGION 10

MANDATORY TEMPORARY AVOIDANCE. LIGHTS OUT ACTIVITY.

CREWS ARE TO AVOID HELOS WITHOUT LIGHTING OPERATING WITHIN AN AREA BOUNDED BY THE FOLLOWING POSITIONS:

N5204.48 E00047.76 TO

N5200.10 E00024.41 TO

N5207.75 E00015.54 TO

N5214.57 E00050.37 TO

N5230.12 E00055.08 TO

N5229.80 E00108.33 TO
N5225.06 E00108.23 TO
N5224.05 E00138.27 TO
N5215.97 E00138.82 TO
N5216.03 E00133.70 TO
N5206.88 E00133.70 TO
N5207.01 E00107.03 TO
ORIGIN.

AVOIDANCE STATUS DOES NOT INCLUDE THOSE PARTS WHICH FALL WITHIN AN ACTIVE MATZ.

POC: 01449 72 8964

F) GL
G) 2000FT AGL)

MoD MIL LF Ops commented that although it was not a factor in this incident, it became apparent that the wording of the [standard] NOTAM was open to differing interpretations and has subsequently been changed to:

‘Crews are to avoid the area bounded by the following positions...’

ATSI had nothing to add.

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 Mil LF Ops and reports from the appropriate ATC and operating authorities.

The Board noted that the MC130P crew was not aware of NOTAM Y2852/11 and that remedial action has already been implemented; it follows therefore, that the ambiguous wording of the NOTAM was not a factor in the incident, at least as far as the MC130P was concerned. The crew otherwise followed the procedures correctly. It was clear to Members that the intent, but not the wording, of the NOTAM was to provide a protected area for the Apaches to conduct their lights-out manoeuvres and that the dispensation for the MC130P to operate in the NRR4B above 1000ft should not apply in the NOTAMed area (virtually the whole of the Eastern part of the area). The Board therefore agreed that, despite the procedural error by the MC130P crew, the LFBC should have been aware that the ac was planning to operate in the NOTAMed LFA avoidance (up to 2000ft) and should not have accepted their LFA booking (or cancelled it if it was made before the NOTAM was issued). It is possible however, that the LFBC thought that the MC130P crew would be aware of the NOTAM and would operate only outside the NOTAMed area.

The Night Low Flying booking system is designed to provide procedural deconfliction between ac operating in the UKNLFS. Further, any night lights-out activity should be conducted only in NOTAMed avoidance areas. In this case, this procedure broke down and also the MC130P crew was not aware of the, albeit ambiguous, NOTAM. Notwithstanding these factors however, the MC130P crew was made aware of the Apaches by ATC, they saw them initially on TCAS and subsequently with NVDs and initiated visual separation both laterally and vertically. Although the lateral separation was less than the crew reported, probably due to the difficulty of estimating ranges at night, it was sufficient to ensure that there was no conflict and no collision risk.

The Board agreed that the Apache crews had expected to be operating in a ‘sanitised’ area and had been surprised to see the MC130P when Wattisham App warned them of it. They also (the Board agreed again probably due to night factors) had not assimilated the geometry or miss-distance

correctly as shown on the radar recording; Members agreed however, that the miss-distance was sufficient. Bearing these factors in mind, the Board agreed that there had been no risk of collision.

Post Meeting Notes:

- (1) Any military rotary-wing user may book NRR4B (MC130P ac may book as at UKAB Note 3, 1 above). Both the Apaches and the MC130P were booked into the area. It is understood that NOTAMs regarding lights-out activity should be available to the LFBC Supervisor but the Board was unable to determine if the Supervisor had not seen the NOTAM or if he had not regarded it as a prohibition.
- (2) The UKAB Secretariat was not able to contact the Apache crews for additional information.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A breakdown in the Night Low Flying deconfliction process.

Degree of Risk: C.

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