

AIRPROX REPORT No 2012168

Date/Time: 30 Nov 2012 1203Z

Position: 5114N 00118W (13nm W Odiham)

Airspace: UKDLFS LFA1 (Class: G)

Reporting Ac Reporting Ac

Type: Merlin AS350 Squirrel

Operator: HQ JHC HQ Air (Trg)

Alt/FL: 120ft Low-hover
(agl) (agl)

Weather: VMC NR VMC NR

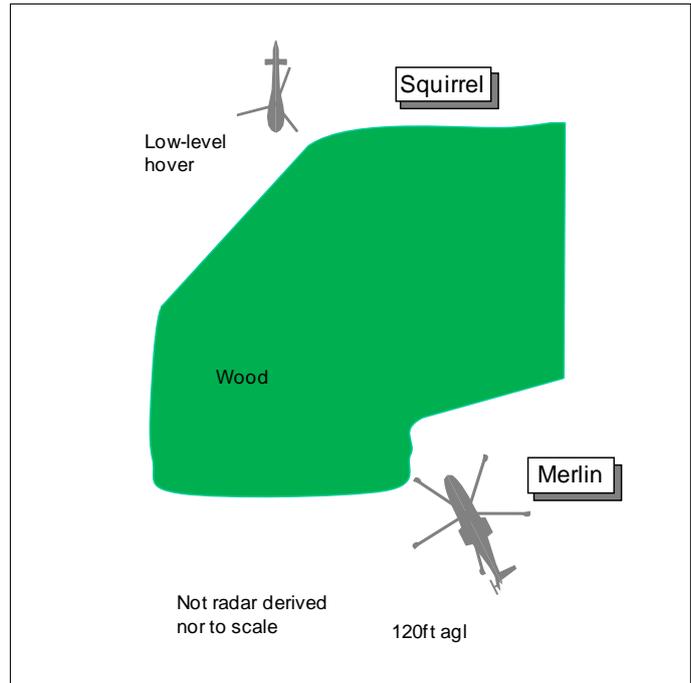
Visibility: 10km 10km

Reported Separation:

100ft V/Nil H 70ft

Recorded Separation:

NR



BOTH PILOTS FILED

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE MERLIN PILOT reports en-route from Odiham to Benson, VFR and in receipt of a BS from Odiham on 372-375MHz, squawking 3646 with Modes S and C. The visibility was 10km in VMC and the helicopter was coloured green with upper and lower HISLs, nav and 2 landing lights all switched on. While transiting at 120ft agl, heading 340° and 130kt, the centre seat Capt spotted a military Squirrel helicopter approximately 3nm away in their 11 o'clock. The LHS HP took padlock [responsibility for maintaining visual contact] and manoeuvred the ac to position away from the conflicting traffic. The Squirrel was operating at very low-level and seemed to approach to a hover in an open field and begin a spot-turn. Whilst crossing a small wood [OS Grid Ref provided, wood 0.5km S of Laverstoke] the LHS pilot noticed a 2nd Squirrel helicopter pass directly underneath by about 100ft. This Squirrel was hovering at the far side of (behind) the wood and was completely hidden to the crew until they were O/H. The crew checked to ascertain the Squirrel was not affected by their downwash before continuing towards Benson. He assessed the risk as medium.

THE AS350 SQUIRREL PILOT reports flying an instructional Recce Patrol sortie as No2 in formation from Middle Wallop, VFR and listening out on the Low Flying Common frequency, squawking 2676 with Mode C. The visibility was 10km in VMC and the helicopter was coloured black/yellow with anti-collision, strobe and landing lights all switched on. As he was the Patrol 2IC he was in a low hover when the Patrol Commander gave him a threat call on a Merlin before it was about to pass O/H. At the time his helicopter was positioned behind a wood, in his 12 o'clock, and he did not see the Merlin so he stayed in that position as told to do so by the Patrol Commander. He then turned though 180° and saw the Merlin 50m to the N flying away, estimating it had passed about 70ft above. Their formation had made several calls on the Low Flying Common frequency but had heard no calls from the Merlin flight. He assessed the risk as medium.

THE SQUIRREL SQUADRON FSO reports that the 2 Squirrel helicopters were manoeuvring on an Aviation Recce Patrol at very low-level, 'pepperpotting' from woodline to woodline. The Merlin was first sighted by the Lead Squirrel pilot who then warned the No 2 pilot to maintain position as the Merlin was very close but hidden to the No 2 by the treeline. The first the No 2 Squirrel pilot saw of the Merlin was when it had passed by.

BM SAFETY POLICY AND ASSURANCE reports that the Airprox occurred at 120ft agl, between Whitchurch and Overton within LFA1 and just E of the A34, approximately 13nm W of Odiham (Figure 1 refers, the W edge of Odiham's MATZ stub can be seen to the right of the picture), between a Merlin in receipt of a BS from Odiham Information and a pair of Squirrels.

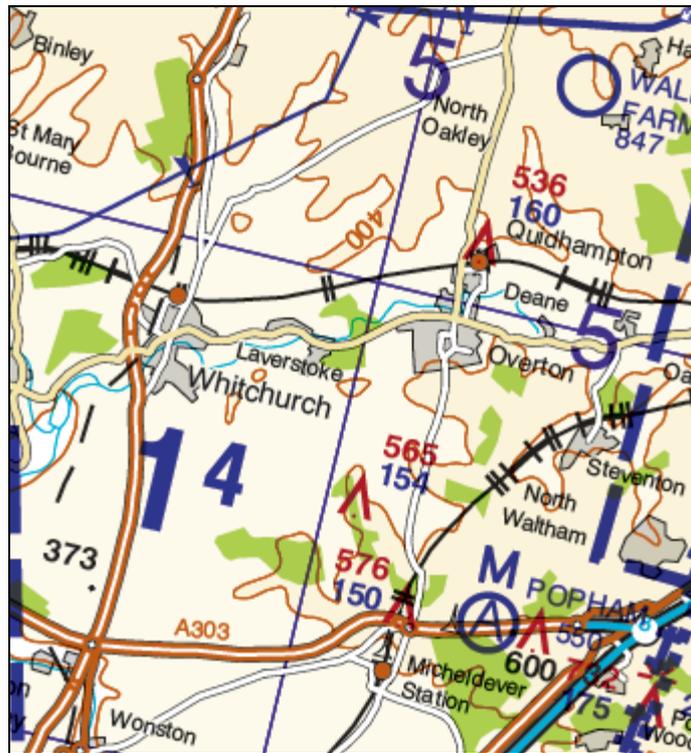


Figure 1: Extract from LF Chart Depicting Area of Airprox.

The Airprox was not captured by NATS Radar Heads and BM SPA contends that, given the height of the Airprox, neither the Merlin nor the Squirrels would have been detected by Odiham's Watchman PSR.

Investigation by Odiham ATC determined that the Merlin entered LFA 1, calling Odiham Information, at approximately 1147:00, having conducted a PD at Odiham, and left the Odiham frequency at approximately 1210:00, going 'en-route' to Benson. No other transmissions were received from the Merlin flight by Odiham during this period. Moreover, there was no record of the Squirrel formation being 'worked' by Odiham Information.

The Military Low Flying Handbook (MLFH) stipulates that:

'Where possible, ac within LFA 1 should monitor the UKLFS common safety frequency 278.0 MHz, which may be used for blind safety calls when lifting from fields or other landing sites. A Basic Service is available during ATC operating hours from Benson (376.65MHz), Boscombe Down (359.775MHz); Middle Wallop (280.625MHz) and Odiham (131.3MHz).'

The BINA En-Route Supplement lists Odiham Information's frequency as 372.375MHz, the frequency stated by the pilot of the Merlin as the one on which they were operating and makes no mention of LF Common. Whilst not stipulated within the MLFH, the historic boundaries of responsibility for the provision of a BS to ac within LFA 1 are the M4 and A34.

Given the height at which the Airprox occurred and that Odiham Information had no knowledge of the Squirrel formation's presence, they were unable to affect the outcome of the occurrence.

HQ JHC comments that this is a known area of increased helicopter activity for ac departing or joining SPTA and RAF Odiham and as such it is evident from the narrative that both ac were conducting meticulous lookouts. Both crews were operating iaw extant military low flying regulations. The Squirrel patrol leader gave timely information to his wingman on the overflying Merlin and the Merlin crew were ensuring separation on the first Squirrel they had visually acquired. The effectiveness of the low level frequency was probably negated due to the terrain and line of sight issues. Neither of the Squirrels had undergone the ongoing Traffic Advisory System (TAS) modification yet and a collision avoidance system is being actively pursued by this command for all JHC manned platforms, which would have been likely to provide an earlier warning. Both of the ac communities involved have discussed this Airprox occurrence and have used it to reinforce the requirement for a stringent lookout when operating, particularly at low level.

HQ AIR (TRG) comments that all crews in the LF system should monitor the LF Common Frequency whenever possible, along with Guard. Groups have been requested to remind units of this requirement. Further guidance regarding the use of LF Common is under consideration. Following a recent but unrelated change to booking procedures, LF Ops Sqn now pass details of other users of the LF System on booking in. However, rotary-wing ac are not required to book in, making it impossible to ascertain the numbers or details of other users, creating a reliance on 'see-and-avoid'. In the event, the nature of the training exercise made sighting more difficult, but the Squirrel formation leader's intervention was effective, albeit that it made sighting by the Merlin impossible.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from the pilots of both ac, transcripts of the relevant RT frequencies, reports from the air traffic controllers involved and reports from the appropriate ATC and operating authorities.

With the helicopter crews operating in accordance with the low-flying regulations, the primary means of discharging their responsibilities was through 'see and avoid'. This, for all intents and purposes, had worked well, given the tactical flying tasks being executed. The Squirrel formation's 'hide and seek' sortie profile had intentionally placed the helicopters where they would be difficult to see in an operational scenario. The Squirrel leader had done well to spot the approaching Merlin and had told the No2 pilot to stay put in a very low hover behind a wood to deconflict from it. Meanwhile the Merlin crew had also done well in seeing the No1 Squirrel at some range and had manoeuvred to avoid it. However, the Merlin crew was unaware of the measures that had been taken by the Squirrel formation when they overflew the No2 Squirrel, which they saw only as it passed beneath and which had caused them concern. The Board agreed that the Squirrel formation tactics and the leader's actions had been effective in preventing a conflict occurring, the helicopters passing each other, albeit at close quarters, with no risk of collision.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A conflict prevented by the Squirrel formation leader.

Degree of Risk: C.