

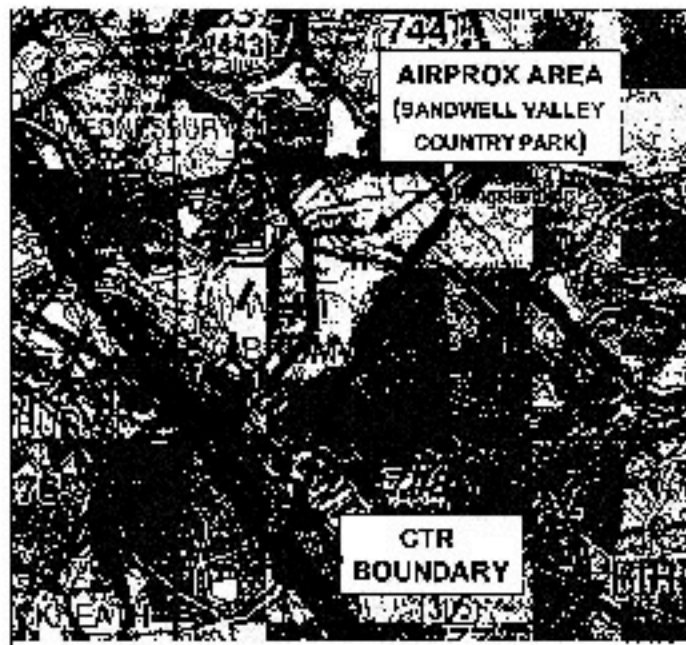
ATSI SEVI 1117  
ANV 032

**AIRPROX REPORT No 055/08**Date/Time: 2 May 2150Position: 5232N 00156W (8nm  
NW of BHX)Airspace: Lon FIR/B'ham CTR (Class: G/D)Reporting Ac Reported AcType: EC135 UnknownOperator: Civ Pol NKAlt/FL: 1500ft NK  
(QNH 1022mb)Weather VMC CAVOK  
[no cloud, no moon wind 4kt]Visibility: >30kmReported Separation:

NR

Recorded Separation:

NR

**PART A: SUMMARY OF INFORMATION REPORTED TO UKAB**

**THE EC135 PILOT** reports flying a routine night police surveillance task on the edge of Birmingham CTR squawking 0080 with Mode C and in receipt of a RC service from them. He was operating around 1500ft on the QNH and initially in an orbit at 80kt when the front observer saw unidentified lights flying around their ac. The pilot established visual contact, he estimated 100m away but it was very difficult to tell, as he manoeuvred the ac to avoid a collision and to identify the light source.

The lights appeared to continue to circle their ac the same height, flew away to the N slightly then returned. Contact was broken by flying E to Birmingham City and descending to a lower height to enable the lights to be seen against the dark sky but the other ac returned to their area.

They searched the open land in the area below them with their thermal camera looking for any signs of radio-controlled model activity but nothing obvious was found.

He believes the lights may have come from a radio controlled fixed wing ac, the lights being to assist with night flying, and that it was purposely flown around them. He also thought that the intent may either have been sinister, or just someone "messing around". He informed Birmingham Radar at the time who as would be expected saw nothing on the radar, probably due to the small size of the other ac.

**ATSI** had nothing to add.

**UKAB Note (1):** The pilot of the EC135 was very co-operative and provided additional information when contacted by the Secretariat. He is a very experienced helicopter pilot particularly in night operations. He was engaged on a routine police surveillance task, accompanied by 2 fully trained police observers, one visual in the left hand seat and one in the rear operating the ac equipment and, at the time, using NVGs. All 3 crewmembers saw 2 continuous (not flashing) blue/green lights and the front seat observer saw an object behind the lights. The rear seat observer saw the lights on his NVGs but nothing else due to 'blooming'. None of the crewmembers could offer any explanation as to the source of the lights other than that given by the pilot. The RT recording verifies that the EC135



pilot reported the incident to Radar and they responded by saying that there were no other contacts in the area.

The pilot discounted any 'flashing' from the rotor blades (as reported as taking place in some helicopter operations in the Middle East). He also stated that they thought that the source of the lights might be a reflection from the NVG lenses onto the inside of the ac canopy; this was later discounted after another ac conducted a test on a later flight.

UKAB Note (2): All available radar recordings were examined and the EC135 shows throughout squawking with Mode C, operating on the edge of the Birmingham CTR, both inside and outside Class D airspace. The RT recording shows that the pilot was in contact with Birmingham Radar and cleared to operate in the area. At the time the only other ac seen in the area and the only other in contact with radar, is a routine Birmingham CAT inbound which passes over the EC135, well above. (Although he did not report seeing it, the EC135 pilot was certain that the lights did not emanate from that ac). There were several 'one sweep only' primary contacts over 10nm to the W and slightly before the incident time that were attributed to enaprop [anomalous propagation].

UKAB Note (3): Due to the pilot's report the first organisation contacted by the UKAB in attempting to trace the source of the lights was the British Model Flying Association. Their view was that the object could not have been a model ac as it would have been too high and they had no reports of any activity at night. In addition it would not, in their view been possible to control a normal (in size and control system) model ac at that height since any light would not have been sufficient to enable control. In pursuing more sophisticated unmanned aerial vehicles, known civil, police and military operators of UAVs were contacted and no activity was reported (in any case it was a most unlikely location and time for the operation of UAVs, indeed virtually impossible for military UAV activity). Military flights were ruled out since there was no squawk observed and the area is outwith the UKLFS. Gliders, kites, tethered and untethered balloons were ruled out due to the light and weather conditions. There are no Met balloon launch sites in the area. All local GA airfields (except Halfpenny Green) reported no night activity on the date of the incident. The activity from Halfpenny Green was police operations that had landed before the incident time. Since the incident occurred in good radar coverage (both Birmingham and Clee Hill) and no contacts either squawking or primary-only were evident within 20nm of the incident position, it is thought most unlikely that the lights emanated from normal GA, other police or air ambulance activity. A laser light show was also discounted since there was no cloudbase for the lights to be reflected on. Fireworks or flares were also discounted since the light source did not descend towards the ground ac, even with parachute flares, would be the case and, in any case, the lights reported were not bright enough to be pyrotechnics. The authorities for the parks close to the incident area were contacted but they had no activity recorded for the evening of 2 May.

Although the possibility of a civilian clandestine flight by a microlight or similar ac could not be ruled out, it is thought unlikely that any pilot engaged on illegal airborne activity would orbit what could probably be identified as a police helicopter.

Regrettably therefore, despite extensive tracing the source of the lights could not be identified.

## **PART B: SUMMARY OF THE BOARD'S DISCUSSIONS**

Information available included reports from the helicopter pilot, a recording of the relevant RT frequency, radar video recordings and a report from the appropriate ATC authorities.

The Board noted the extensive tracing action taken by the Secretariat and accepted that any further effort was unlikely to determine the source of the lights reported by the EC135 pilot which, despite there being no information to support the crew's (unanimous) sighting, Members accepted totally as being accurate. The Board, which included a very experienced helicopter pilot Member with extensive experience of civil, military and police helicopter operations, was invited to offer an explanation as to the source of the lights: none was forthcoming. The possibility of a clandestine

flight was only one of several possibilities and Members were not convinced that, other than by exclusion of other logical possibilities, there was sufficient information to mention this in the cause. Certainly however, the ac from which the lights emanated had been small and probably non-metallic since it was not displayed on either of the radars examined and had not been displaying the lighting required by the ANO. Members agreed unanimously that they did not have enough information to determine a degree of risk involved in the Incident.

#### **PART C: ASSESSMENT OF CAUSE AND RISK**

Cause: An apparent conflict with an unidentified ac displaying non-standard lights.

Degree of Risk: D.