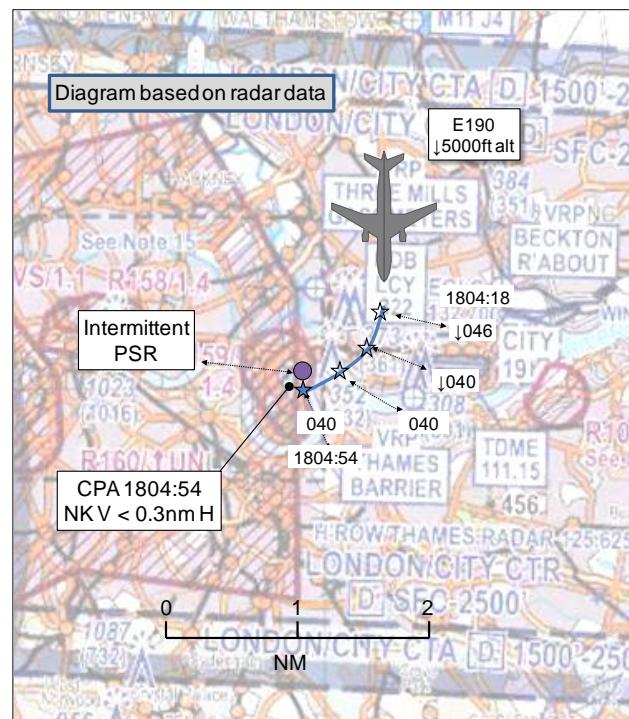


AIRPROX REPORT No 20133144Date/Time: 8 Sep 2013 1800Z (Sunday)Position: 5130N 00046W
(In the vicinity of London City)Airspace: LON TMA (Class: A)
Aircraft 1 Aircraft 2Type: Embraer 190 NKOperator: CATAlt/FL: 4000ft NK
QNH (NK)Conditions: VMCVisibility: CAVOK NKReported Separation:

NK V/20m H NK

Recorded Separation:

NK

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

THE E190 PILOT reports flying a blue and white aircraft with navigation strobe and landing lights on, and SSR Modes A, C and S selected. He was flying an IFR approach, in VMC, to Heathrow at 5000ft QNH at 220kt. The right-hand seat pilot ducked his head as he saw a paraglider 'flash' past the right-hand side of the cockpit. He estimated that, at its closest point, it was only about 20m away. He described the event as 'rapid', and noted that neither of the other two pilots in the cockpit saw the paraglider, moreover, due to the sun being behind it, the first officer was unable to describe the paraglider in any detail.

He assessed the risk of collision as 'Medium'.

THE PARAGLIDER: The radar recordings only showed intermittent tracks in the vicinity of the E190 and it was therefore not possible to trace the paraglider pilot.

THE GROUP SUPERVISOR AIRPORTS AT LONDON TCC reports that he received a telephone call from the Heathrow Tower controller to inform him that, after landing, the E190 pilot had reported that, whilst on baseleg at 5000ft, he had seen a paraglider with a red canopy. Although the radar replay recordings were viewed, nothing was seen.

Factual Background

The Heathrow weather was recorded as:

METAR EGLL 081850Z 19007KT 160V230 9999 FEW046 12/10 Q1017 NOSIG

Analysis and Investigation**CAA ATSI**

An incident was reported in Class A airspace by the pilot of an E190 when the non-handling pilot observed a paraglider in close proximity to the aircraft. The E190 was operating IFR on a flight into London Heathrow and was in receipt of a radar control service from Heathrow INT North on

frequency 119.725 MHz. ATSI had access to the pilot report, the written report from the Group Supervisor (Airports), and recorded area surveillance.

Using the Heathrow 10cm radar, an intermittent primary return can be seen to the right of the E190 as it positions on right base, although, because the contact is in the vicinity of Canary Wharf, it might also be possible that the return is a radar reflection from the tall buildings in the area (Figures 1 and 2). The incident was reported inside Class A controlled airspace; all aircraft are required to have a clearance to enter such airspace and a controller is not required to take action to avoid a position symbol that is not associated with a known aircraft unless radar-derived or other information indicates that an aircraft is making an unauthorised penetration of the airspace, is lost, or has experienced radio failure. Radar recordings could not definitively determine the presence of another aircraft in the vicinity.



Figure 1.



Figure 2

Summary

On 8th September 2013, at 1800, an E190 was on an IFR approach to Heathrow, in VMC, within Class A airspace. Whilst on baseleg, descending from 5000ft, the First Officer reported that a paraglider passed approx 20m away down the right hand side of the aircraft. The incident happened so quickly that no avoiding action was taken. It has not been possible to trace any such paraglider.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from the pilot, transcripts of the relevant RT frequencies, radar photographs/video recording and reports from the air traffic controllers involved.

The Board discussed various potential circumstances behind this incident at length. A key part of this discussion was whether the sighting had been an optical illusion, a paraglider or paramotor, or some other object such as a balloon or chinese lantern for example. The Board noted the ATSI comment which speculated that, whilst there was an intermittent radar trace that correlated with the pilot's report, its position over Canary Wharf meant that break-through from tall buildings could not be ruled out; ATC members experienced in that sector's operations confirmed that there are frequently false returns on the radar in that area. The fact that the observed primary radar return doesn't move at all would seem to back up the theory that it was indeed spurious. Turning to the First Officer's report, it was generally felt that it was quite unlikely to be a paraglider/paramotor for a number of reasons, principally because, firstly, it was extremely unlikely that a paraglider/paramotor would get into that position over central London without any other sighting reports from the many other aircraft in the area; and secondly, although paragliders can soar and travel for significant distances, it was thought that the only possible launch sites were probably too far away for a paraglider to gain enough lift to be at that height over central London at that time of year. Whilst it was conceded that a paramotor could have achieved such a position relatively easily, it was likely that, in manoeuvring to achieve this, a stronger and more persistent set of radar returns would likely have been generated at some point, which wasn't the case in this instance. Similarly, the possibility of a model aircraft was also discussed, but the practicalities of launching and controlling a model aircraft in this location and altitude made this theory also unlikely. The Board couldn't rule out the object being some sort of toy balloon or chinese lantern but, in the absence of any other reports from any aircraft in the area, there would be no way of proving this theory. Finally, a theory was proposed that the late evening sun could have presented an optical illusion that caused the First Officer to believe he had seen a canopy-like object. Regrettably, due to lack of definitive evidence along with the many alternative theories for the other air vehicle, the Board felt that this incident could only be described as a sighting report, with a Risk Cat of "D", insufficient information to assess.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A sighting report.

Degree of Risk: D

ERC Score¹: N/S

¹ 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.