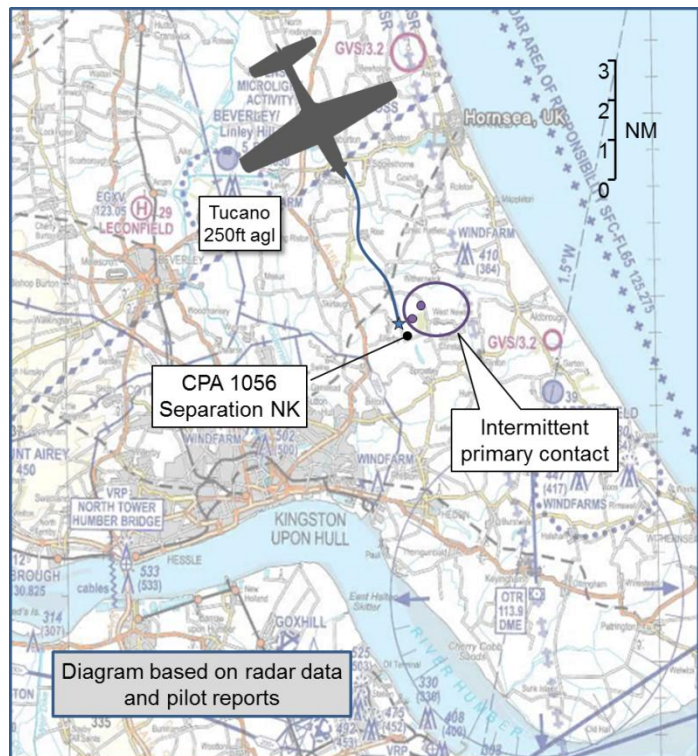


AIRPROX REPORT No 2014104Date/Time: 3 Jul 2014 1056ZPosition: 5350N 00010W
(4nm S Hornsea)Airspace: LON FIR (Class: G)Aircraft 1 Aircraft 2Type: Tucano UnknownOperator: HQ Air (Trg) UnknownAlt/FL: 250ft
agl NKConditions: VMC NKVisibility: >10KReported Separation:

NK

Recorded Separation:

NK

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

THE TUCANO PILOT reports flying a black and yellow aircraft with all lights illuminated and SSR Modes 3A,C and S selected. Whilst completing a low-level navigational route at 250ft, the front-cockpit pilot saw an object at close range, in the 11 o'clock position. He did an immediate emergency break to the right and, on rollout, saw the object pass behind the aircraft. The rear-seat pilot was looking in the right quadrant at the time and did not see the object, which was described as either a microlight or a large balloon. The front-seat pilot assessed that had avoiding action not been taken it would have passed very close to the aircraft. The captain (rear-seat pilot) took control of the aircraft, climbed and positioned off track, and, whilst staying clear of the last known position, attempted to see the object and check whether wake turbulence had had any effect on it. Nothing was seen. The Captain then called Humberside Radar to report the incident before continuing.

She assessed the risk of collision as 'Medium'.

THE UNKNOWN AIRCRAFT, despite an intermittent primary return in the reported area, the aircraft or object could not be traced.

THE HUMBERSIDE CONTROLLER reports being the radar controller on duty when the Tucano pilot checked in on frequency and immediately stated that she wished to file an Airprox against a paraglider. The Tucano had been conducting a low-level navex and, at approximately 2nm southwest of Hornsea, passed a paraglider to the right-hand side at a similar altitude. There was a primary only radar contact in the vicinity of Hornsea, but it was not confirmed as either a paraglider or an aircraft, and there were no aircraft on frequency in the area.

Factual Background

The Humberside weather was recorded as:

METAR EGNJ 031050Z 25012KT 9999 FEW025 SCT037 21/14 Q1017

Analysis and Investigation

UKAB Secretariat

Although the exact separation is not known, the radar recording places the Tucano within 0.5nm of the position where the primary contact fades from radar. Unfortunately, despite there being an intermittent primary-only radar trace in the vicinity of the reported Airprox, it has not been possible to trace the unknown object. An unmanned balloon rarely gives a radar trace unless equipment is suspended below, but it is not unknown. If the object was a paraglider or a microlight then both its pilot and the Tucano pilot had an equal responsibility for collision avoidance.¹ If the geometry is considered to be head-on and the unknown object was a microlight, then both pilots were required to give way to the right; if the object was a paraglider, then the Tucano pilot was required to give way², which he did.

Comments

HQ Air Command

The Tucano was not in receipt of an ATS, though it is debatable that, at 250ft agl and with an intermittent contact on primary radar only, a controller could have noticed a potential confliction and passed TI to the Tucano. In this case the pilot's lookout was the only really effective barrier to mid-air collision (MAC), and the relatively late acquisition of a small, slow moving object led to aggressive evasive action on the part of the Tucano pilot. The lesson here is that other users of UK Class G airspace can be encountered almost anywhere; if it was a paraglider/paramotor then it is unlikely that it would have carried any form of radio or electronic conspicuity device, so lookout really is the key to the detection and avoidance of airborne conflictions.

BHPA

The BHPA comments that the time of day and weather make it virtually impossible for a paraglider to have been there at that time. It could however have been a paramotor, which is supported by the primary radar returns. Essentially a paraglider rarely paints on primary radar but the propeller of a paramotor does tend to give intermittent returns. Without input from the other pilot, and with such an inconclusive observation of the other aircraft, it isn't possible to know the geometry of the incident, and so it is also not possible to comment meaningfully upon giving way. As HQ Air Command says, until practical electronic conspicuity is available, lookout is the key to mutual deconfliction.

Summary

An Airprox was reported on 3rd July 2014 at 1056 between a Tucano and an unknown object, possibly a microlight or a paraglider. The Tucano pilot was on a low-level navigational exercise and was not receiving an ATS at the time, although the Captain subsequently called Humberside Radar to report the incident. The unknown object could not be traced.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

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

The Board looked first at the actions of the Tucano pilot. It was agreed that without radar fitted or any other form of electronic conspicuity evident from the unknown object, look-out was the only viable collision-avoidance safety barrier available to him when flying low-level underneath ground radar coverage (and therefore without an ATS). Having seen the other object and taken avoiding action,

¹ Rules of the Air 2007, as amended Rule 8 (Avoiding Aerial Collisions)

² Ibid., Rule 10 (Approaching head-on)

the Board were surprised that the crew were unable to see it again on commencing their orbit; the fact that they could not also mitigated against it being a microlight or paramotor, neither of which would have travelled far in that time. The Board were frustrated that the lack of any meaningful radar recording meant that tracing action had not borne fruit and the other aircraft remain unidentified. The Tucano pilot had clearly seen something very close, but there was simply not enough information to deliver any meaningful analysis about the incident. Therefore, the Board quickly established that there was insufficient information to make a meaningful assessment of the incident and had to assess the risk as D.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: Insufficient Information.

Degree of Risk: D.

ERC Score³: N/S.

³ 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.