

AIRPROX REPORT No 2014105

Date/Time: 8 Jul 2014 0930Z

Position: 5354N 00022W
(Beverley/Linley Hill)

Airspace: Vale of York AIAA (Class: G)
LFA 11

Aircraft 1 Aircraft 2

Type: Thruster T600N¹ C130 Hercules

Operator: Civ Trg HQ Air (Ops)

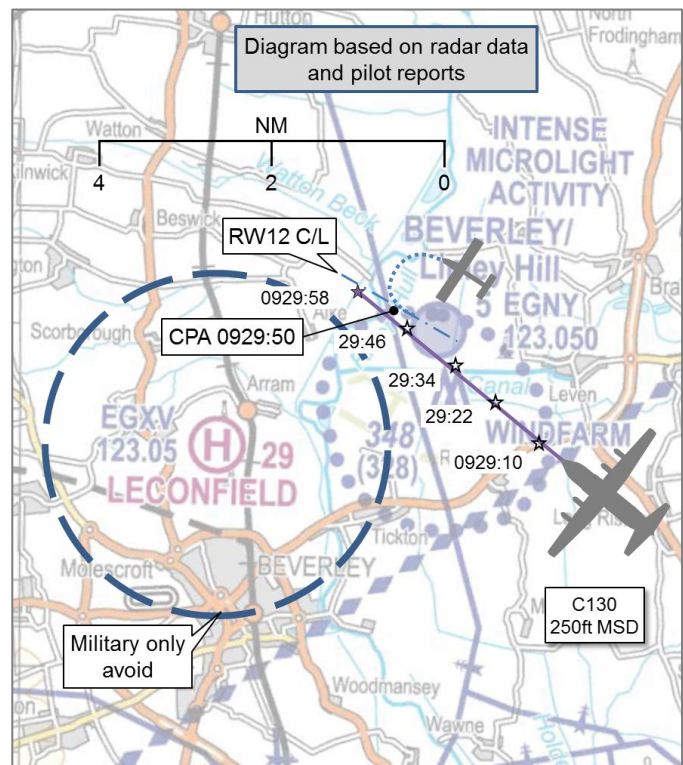
Alt/FL: 600ft 250ft
NK (1014hPa) msd (NK hPa)

Conditions: VMC VMC

Visibility: >10km 20km

Reported Separation:
200ft V/500m H 300ft V/NK H

Recorded Separation:
NK



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE T600N MICROLIGHT PILOT reports on final approach to RW12 at Beverley airfield, instructing a circuit training flight. The red aircraft was not fitted with lights, an SSR transponder or a TAS. The pilot was operating under VFR in VMC, in receipt of an 'Information Service' from 'Beverley Radio'. He was teaching a glide approach with the student turning left on to 120° at 60kt and descending through 600ft. The student had almost completed the final turn when the instructor saw the Hercules in his right 1 o'clock at an estimated height of 2-400ft and converging on a collision course. He immediately took control and started a climb. The Hercules passed below and from his right. The instructor stated that it was fortunate they were practising a glide circuit as it is flown higher with a steeper angle of descent than a normal powered circuit. A normal circuit, with a shallower approach, would have resulted in a much higher risk of collision. He also stated that Beverley airfield is very active with both microlight and GA training on a daily basis, and that to fly through the final approach with traffic in the circuit displayed, in his opinion, extremely poor airmanship on the part of the Hercules pilot.



He assessed the risk of collision as 'High'.

THE HERCULES PILOT reports conducting a low-level training sortie, with a minimum separation of 250ft from terrain and other objects. The green camouflaged aircraft had navigation lights and white strobes selected on, as was the SSR transponder with Modes A, C and S. The aircraft was fitted with TCAS. The pilot was operating under VFR in VMC, listening out on the low-level UHF 'common frequency' but not in receipt of an ATS. Heading about 300° at 210kt groundspeed, in the vicinity of a minor see-and-avoid airfield approximately 5nm to the east of 'Beverley airfield', he reported, they observed a microlight on an approximate heading of 100°. The aircraft was seen at an estimated distance of 2nm, at a height at least 300ft above the Hercules. It was judged that the aircraft were sufficiently height separated although the tracks were on a converging course. The wings were

¹ The Thruster T600N is a British built, single engine, 3-axis microlight with side-by-side seating. <http://www.thruster.co.uk>

rocked to indicate that they were visual with the microlight but no course correction was made to ensure visual contact was maintained until clear. The pilot stated that none of the crew of the aircraft felt threatened by the microlight.

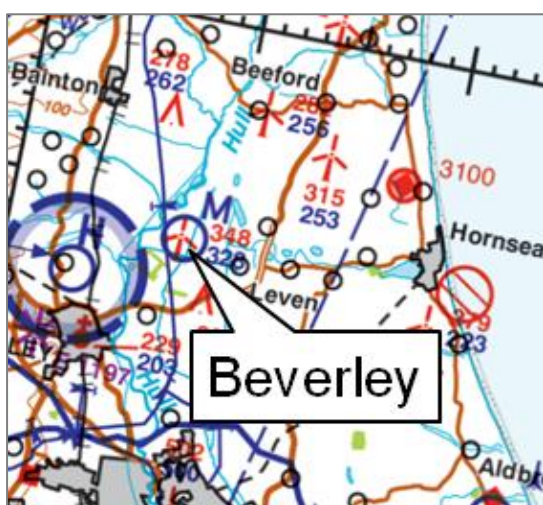
He assessed the risk of collision as ‘Low’.

Factual Background

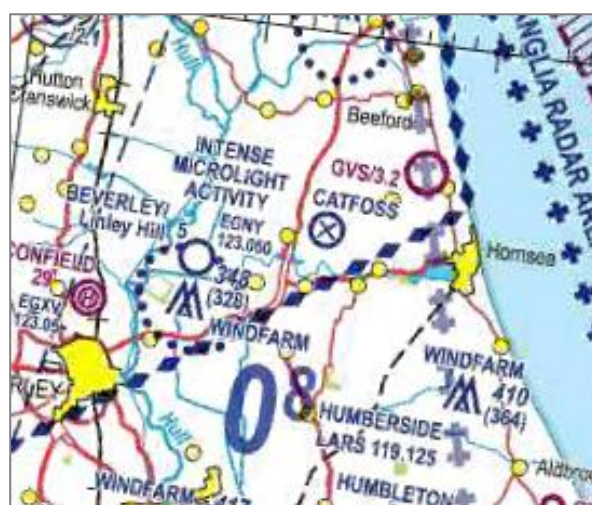
The weather at Leconfield was recorded as follows:

METAR EGXV 080850Z AUTO 02004KT 5000 HZ SCT008/// SCT015/// BKN100/// 17/15 Q1014
 METAR EGXV 080950Z AUTO 03003KT 9999 SCT014/// BKN090/// 18/15 Q1014

The UK Military Low-Flying Chart depicts Beverley airfield as a ‘Microlight Site’ with an associated ‘wind-farm’. The UK CAA VFR Chart depicts Beverley airfield as an ‘Aerodrome – Civil, limited or no facilities and where flying training may be taking place’, with an annotation highlighting ‘Intense Microlight Activity’ in the area.



Military Low Flying Chart



CAA VFR Chart

Analysis and Investigation

CAA ATSI

The Microlight was not shown on the radar recording but, at 0929:34, the C130 was shown 0.6nm southeast of the Beverley’s RW12 threshold, indicating FL003 (approximately 300ft on QNH 1014hPa), see Figure 1.

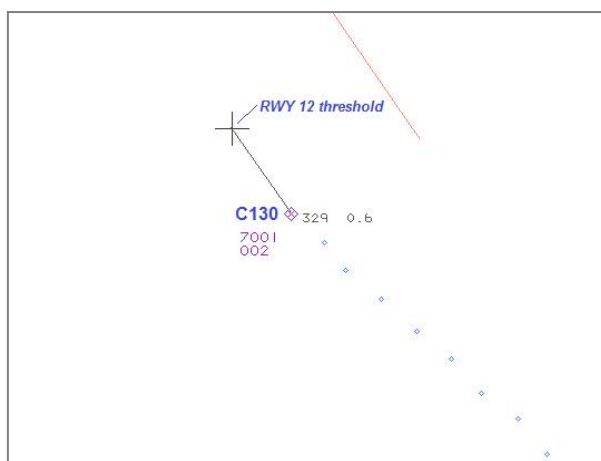


Figure 1: Swanwick MRT at 0929:34

The C130 pilot continued on a northwesterly track and passed 0.2nm southwest of the RW12 threshold, indicating FL002 (200ft), see Figure 2.

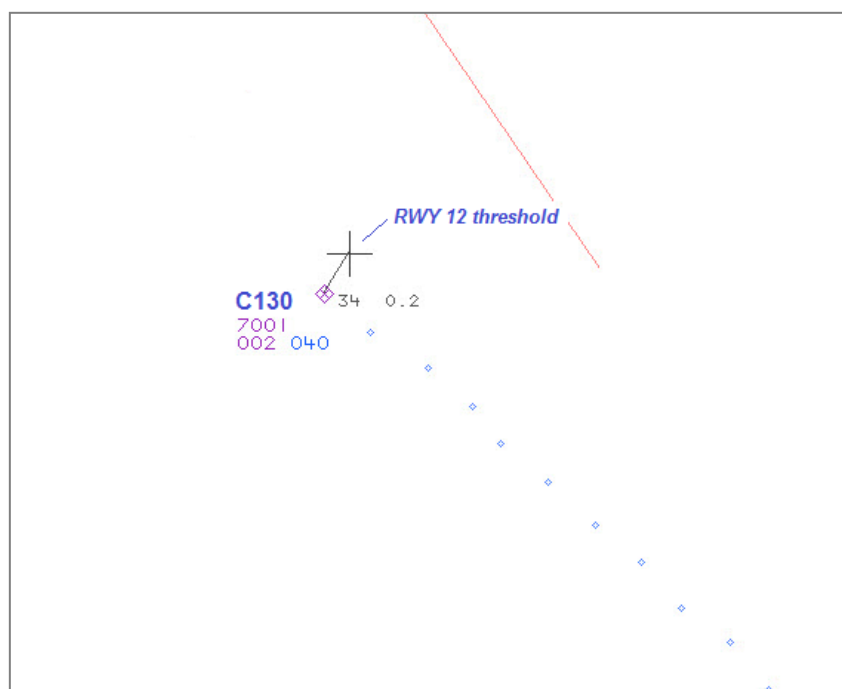


Figure 2: Swanwick MRT at 0929:42

At 0929:50, the C130 passed 0.1nm southwest of the Microlight pilot's reported position indicating FL003 (300ft), see Figure 3.

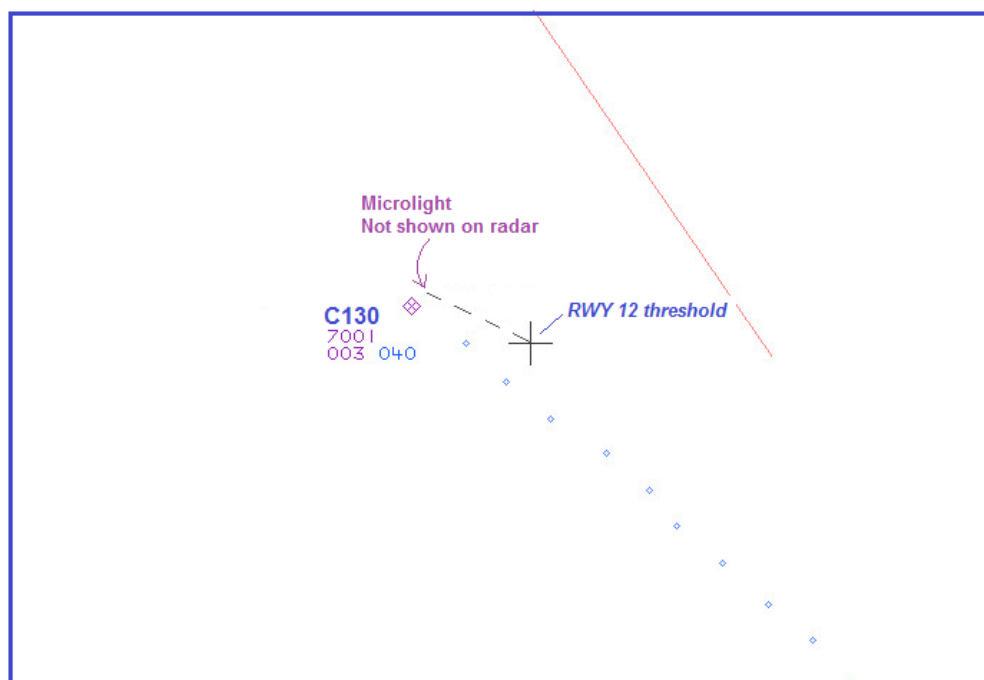


Figure 3: Swanwick MRT at 0929:50

The Beverley A/G operator confirmed that the Microlight was on final for RW12 at about 0.5nm from touchdown when the C130 overflew the airfield at between 2-300ft, below the level of the Microlight, and waggled wings.

UKAB Secretariat

Both pilots shared an equal responsibility for collision avoidance and not to fly into such proximity as to create a danger of collision². The Hercules pilot was required to conform to the pattern of traffic formed by other aircraft intending to land at Beverley, or to keep clear of the airspace formed by that pattern³.

Comments

HQ Air Command

The Hercules captain's decision to use height as the primary axis of separation from a microlight in the vicinity of a promulgated microlight site appears to be questionable; clearly the microlight felt that the separation was inadequate. That said, the rate of descent by the microlight on approach to a runway may have been difficult to detect by the Hercules crew, particularly from a head-on aspect. This may have led to the belief that the microlight was maintaining altitude and that there was sufficient room for the Hercules to pass below. The prudent option would have been for the Hercules captain to provide both lateral and vertical separation from the microlight whilst avoiding over-flight of the landing site.

Summary

An Airprox was reported when a Thruster T600N and a C130 Hercules flew into proximity at 0930 on Tuesday 8th July 2014. Both pilots were operating under VFR in VMC, the microlight pilot in communication with Beverley Radio and the Hercules pilot not in receipt of an ATS.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of both aircraft, radar photographs/video recordings and reports from the appropriate ATC and operating authorities.

Board members first considered the pilots' actions. The Thruster pilot was conducting a training sortie, setting up for a glide approach to RW12. He saw the C130 closing on him at close range, albeit in time to take effective action and overshoot to maintain vertical separation. The C130 pilot had planned to remain clear of the Leconfield Airfield Protected Zone (APZ) and routed to the east and north of the APZ at low-level, which brought him into potential conflict with the 'see and avoid' airfield at Beverley. The crew were conducting a normal lookout, the pilot saw the microlight at a reported range of 2nm, waggled his wings, and continued on track in order to maintain visual with the microlight. After some discussion, Board members agreed that, once the C130 pilot had seen the Thruster in the vicinity of what he should reasonably have known was a microlight site from his map, he assumed responsibility for remaining clear of the pattern of traffic intending to land at Beverley. Whilst there was no formal definition of 'remain clear', members agreed that the C130 pilot could have taken more positive action, either by turning hard right or left, if there was time to do so, or by climbing. The recorded weather conditions included low cloud, but members considered that the requirement to remain clear of the pattern of traffic at Beverley was of primary concern (members were also informed that the Leconfield APZ could be transited by low-level aircraft by calling on the appropriate frequency).

The Board therefore agreed that the C130 pilot had flown into conflict with the Thruster, which was in the visual circuit at Beverley. Members were divided as to the degree of risk involved; some felt that effective and timely actions had been taken to prevent aircraft colliding but others thought that safety margins had been much reduced below normal. The question was eventually put to a vote, with members deciding by a narrow majority that effective and timely action had been taken.

² Rules of the Air 2007 (as amended), Rule 8 (Avoiding aerial collisions) and as reflected in Military Flying Regulations.

³ *ibid.*, Rule 12 (Flight in the vicinity of an aerodrome) and as reflected in Military Flying Regulations.

The Board also commented on the apparent disparity in information between the UK CAA VFR chart and the Military Low Flying chart, in this case with the former emphasising intense microlight activity in the area of the Airprox and the latter omitting that information. The Board were glad to be advised that a review of information on the Military Low Flying chart was currently being undertaken in order to harmonise the information between this and the CAA charting.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The C130 pilot flew into conflict with the Thruster.

Degree of Risk: C.

ERC Score⁴: 21.

⁴ 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.