

AIRPROX REPORT No 2013153

Date/Time: 1 Nov 2013 1111Z

Position: 5421N 00114W
(10.6nm NE of Topcliffe)

Airspace: Topcliffe MATZ (Class: G)

Aircraft 1 **Aircraft 2**

Type: Grob Tutor Grob Tutor

Operator: HQ Air (Trg) HQ Air (Trg)

Alt/FL: 500ft MSD 2300ft
RPS (1002hPa) RPS (1002hPa)

Conditions: VMC VMC

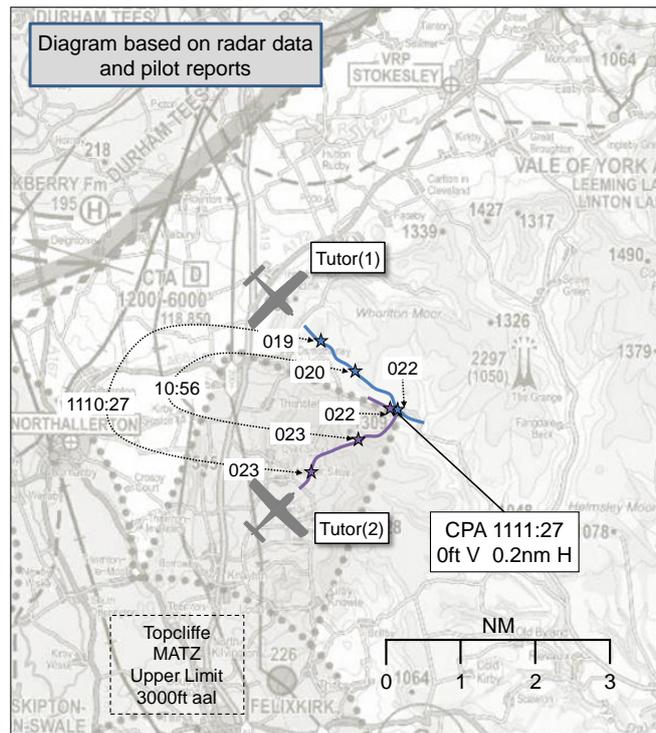
Visibility: 7km 10km

Reported Separation:

0ft V/100m H NR V/0.5nm H

Recorded Separation:

0ft V/0.2nm H



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE TUTOR(1) PILOT reports flying a predominantly white aircraft with HISLs and landing lights illuminated, squawking Modes 3/A, C and S; the aircraft was fitted with TAS¹. He was flying 'Low-level', VFR, 1000ft below cloud, heading 115° at 120kt, under a Basic Service from Leeming Zone, when he received Traffic Information on an aircraft in his 2 o'clock, 2nm away. He looked in the indicated direction but did not see anything, so he checked the TAS display which indicated traffic in his 10 o'clock position, 2nm away. He continued on his heading whilst looking for the traffic and moving his head to 'clear the area' behind the canopy arch. The TAS indicated that the traffic was 'closing' on his position and then displayed the traffic as 'same level, same position'; the pilot looked to his right and saw the other Tutor in his 2 o'clock, 100m away, at the same level, heading in the opposite direction.

He assessed the risk of collision as 'High'.

THE TUTOR(2) PILOT reports flying with a student in a predominantly white aircraft with HISLs, navigation lights and landing lights illuminated, squawking Modes 3/A, C and S; the aircraft was fitted with TAS. They had departed Leeming heading 060° at 100kt, climbing to 2300ft on the RPS (1002hPa), heading towards the North York Moors. They had agreed a Traffic Service with Leeming Approach, and received Traffic Information on a 'similar type', 'low-level, 5nm northeast'. The conflicting aircraft was shown on the TAS display and, following updated Traffic Information from Approach, the pilot reported 'visual' with Tutor(1), which was 2-300ft below them around 2nm away. The Instructor took control of the aircraft and, seeing that Tutor(1) was climbing, applied full power and 'waggled fairly aggressively'; on seeing Tutor(1) 'acknowledge his waggle' and turn left towards south, he turned his own aircraft 'hard left' towards west and watched Tutor(1) continue southwards.

He assessed the risk of collision as 'Low'.

THE LEEMING ZONE CONTROLLER reports providing a Basic Service to the pilot of Tutor(1), which had passed through the Leeming/Durham Tees Valley Gap and was routing southbound through the Topcliffe MATZ. Having approved the MATZ crossing, the controller saw Tutor(2) climbing out from Leeming, heading east, converging with Tutor(1). The controller assessed that

¹ Traffic Alert System

Tutor(1) was on a steady heading and passed its pilot Traffic Information '*right, two o'clock, three miles, converging left-right ahead, believed to be similar type, 400ft above*'; the pilot acknowledged the Traffic Information. The Zone controller did not think there was a risk of collision at the time and was aware of the Approach controller, to his left, passing Traffic Information to the pilot of Tutor(2) on the position of Tutor(1).

He perceived the severity of the incident as 'None'.

THE LEEMING APPROACH CONTROLLER reports screening a trainee controller with only the pilot of Tutor(2) on frequency, receiving a Traffic Service whilst general-handling 'in and above' the northern portion of the Topcliffe MATZ stub. Approach passed Traffic Information on Tutor(1) to the pilot of Tutor(2) 'northwest of his position by 4nm indicating low-level' and added the aircraft type as the controllers were aware that Tutor(1) was on the Zone controller's frequency. The pilot of Tutor(2) acknowledged and reported looking for the other aircraft. When Tutor(1) turned south towards Tutor(2) and began climbing, the Approach trainee updated the altitude of the conflicting aircraft to Tutor(2)'s pilot; the Approach controller instructed the trainee controller to give Tutor(2)'s pilot fully updated Traffic Information on the conflicting aircraft, which was now 2nm north of him, tracking south, indicating 300ft below. The pilot of Tutor(2) acknowledged the Traffic Information and shortly afterwards reported 'visual' with Tutor(1).

He perceived the severity of the incident as 'None'.

THE LEEMING SUPERVISOR reports that the Radar Director's position was busy and also manned by an instructor with a trainee and so he had focussed his attention on supporting that team. He was aware that Approach and Zone were working both Tutors and he heard Approach pass Traffic Information to the pilot of Tutor(2) but did not see the whole occurrence. The Supervisor assessed the Approach and Zone controllers' workloads as 'Low', and the Unit's workload as 'Medium to Low'.

Factual Background

The weather at Topcliffe at 1050 was reported as

METAR EGXZ 011050Z AUTO 18010KT 9999 FEW050/// SCT070/// 10/07 Q1007

Analysis and Investigation

Military ATM

Heights/altitudes quoted are based upon SSR Mode C from radar replay unless otherwise stated.

At 1109:30 the Approach controller called, '[Tutor(2) c/s], *traffic north 4 miles southeast bound, in the low-level system, 1000 feet below.*' (Figure 1). At this point, Tutor(2)'s pilot started looking for the traffic and Approach updated at 1109:56 to '[Tutor(2) c/s] *er previously called traffic now indicating 500 feet below climbing, similar type.*'

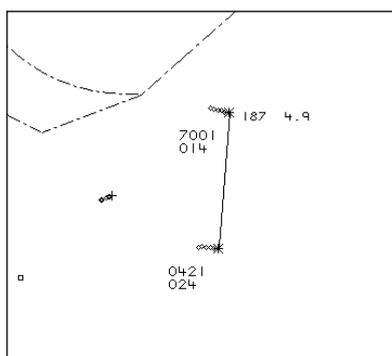


Figure 1: Aircraft geometry at 1109:30

(Tutor(2) squawk 0412; Tutor(1) squawk 7001)

At 1110:01 (Figure 2) Zone passed Traffic Information to Tutor(1), '[Tutor(1) c/s], *traffic believed to be you has traffic right er 2 o'clock, 2 miles, er converging right left ahead, believed to be a similar type, 400 feet above.*' This prompted Tutor(1)'s pilot to start looking. In his Occurrence Report, the pilot of Tutor(1) reported that the ATC Traffic Information (traffic 2nm in the 2 o'clock position) conflicted with his TAS indication of traffic at 2 nm in the 10 o'clock position. The pilot eventually spotted Tutor(2) around 100m away in his 2 o'clock position. Figure 2 shows the radar picture at 1110:01, when Zone passed Traffic Information to the pilot of Tutor(1), and indicates that the information was passed accurately. The TAS was checked post-flight and found to be serviceable.

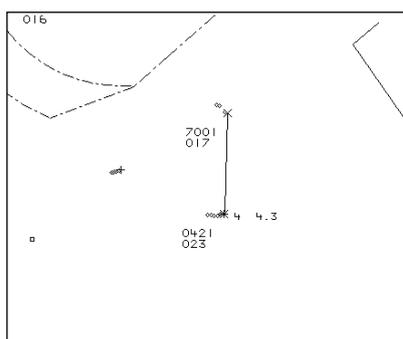


Figure 2: Traffic Information to Tutor(1) at 1110:01

Approach provided a further Traffic Information update at 1110:20, '[Tutor(2) c/s], *previously er reported traffic, north, 2 miles, southeast bound, indicating 300 feet below*' and Tutor(2)'s pilot reported visual at 1110:38 (Figure 3). It was not until 1111:14 that Tutor(2)'s pilot reported '*that traffic now going away.*' The pilot of Tutor(2) first became visual with the other Tutor at 2-300ft and 2nm, prompting the instructor to take control from the student pilot.

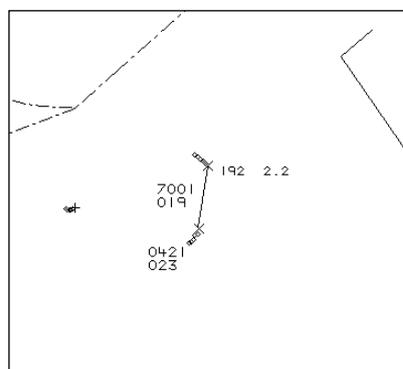


Figure 3: Tutor(2) visual at 1110:38.

The instructor of Tutor(2) waggled the Tutor aggressively as Tutor(1) climbed towards them at the same level. Eventually, a hard left turn onto west was initiated to keep separation (Figure 4).

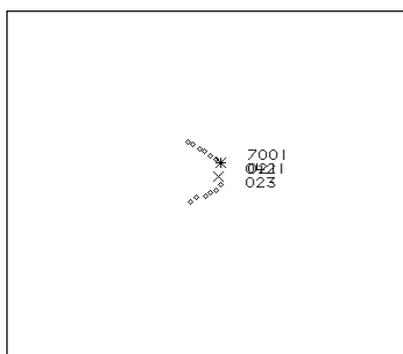


Figure 4: Aircraft geometry at 1111:27.

Both Leeming controllers were in the same approach room and were aware that the other had called Traffic Information. The Approach controller provided timely and accurate Traffic Information, as per CAP 774, followed by two relevant updates, as expected of a Traffic Service. Zone provided Traffic Information, using 'traffic believed to be you' to a Tutor under a Basic Service. BMSPA concludes that both Approach and Zone fulfilled and, being aware that the confliction was developing, went beyond their obligations under the requirements of the types of ATS² they were providing in their efforts to help the pilots achieve visual contact with the other aircraft.

Comments

HQ Air Command

This incident once again serves to highlight the benefits of using all means available to identify possible conflicting traffic – in this case one of the aircraft was under a Traffic Service and the other under a Basic Service, but both aircraft were passed timely and accurate TI on each other. Importantly, Tutor(1)'s TAS indications did not agree with the TI the pilot was receiving – it would have been prudent to confirm with ATC the relative bearing of the traffic in order to better concentrate lookout in the appropriate area. The pilot of Tutor(2) visually acquired Tutor(1) at a range of approximately 2nm and took the correct steps to highlight his aircraft's position to Tutor(1). However, simply highlighting his position without changing his flight path did not resolve the conflict; a more expedient course of action would have been to manoeuvre Tutor(2) to increase lateral separation.

Summary

An Airprox was reported between a Tutor under a Basic Service from Leeming Zone and a Tutor being controlled under a Traffic Service by Leeming Approach. Both aircraft were flying VFR and received Traffic Information. The pilot of Tutor(2) saw Tutor(1) 1-2nm away, the pilot of Tutor(1) saw Tutor(2) 100m away. The CPA measured on radar was 0ft V and 0.2nm H.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from the pilots of both aircraft, transcripts of the relevant RT frequencies, radar photographs/video recordings, reports from the air traffic controllers involved and reports from the appropriate ATC and operating authorities.

The Board noted that the Leeming controllers had passed timely and accurate Traffic Information and that the Approach Instructor had been punctilious in ensuring that the trainee controller passed full and accurate Traffic Information to the pilot of Tutor(2).

The Pilot of Tutor(1) had Tutor(2) on his right and was required to give way³ so the Board could not understand why, having received Traffic Information and a TAS indication that Tutor(2) was above him, he had continued to climb in to confliction with it. The pilot of Tutor(2) had seen Tutor(1) much earlier and 'waggled' his wings to indicate this fact, he also perceived that the pilot of Tutor(2) had responded; members opined that Tutor(2)'s pilot would have been better served by taking an earlier turn rather than waiting and having to avoid 'hard left'.

The Board agreed that, despite receiving traffic information on Tutor(2), the pilot of Tutor(1) had climbed into conflict with it.. When discussing the degree of risk, members noted that the pilot of

² Air Traffic Service

³ RA2307(1) Para 12, Aircraft Converging

Tutor(2) had the other aircraft in sight for some distance and was able to take effective avoiding action and achieved a CPA of 0.2nm, and concluded that it was a C.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: Despite receiving traffic information on Tutor(2) the Tutor(1) pilot climbed into conflict.

Degree of Risk: C

ERC Score⁴: 2

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.