

## **AIRPROX REPORT No 2013128**

Date/Time: 9 Sep 2013 1032Z

Position: 5407N 00114W  
(6nm N Linton on Ouse)

Airspace: Vale of York AIAA (Class: G)

Reporting Ac      Reported Ac

Type: Tutor T1              Tucano T1

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

Alt/FL: 6000ft              6000ft  
RPS (1014hPa)      RPS (1012hPa)

Conditions: VMC              VMC

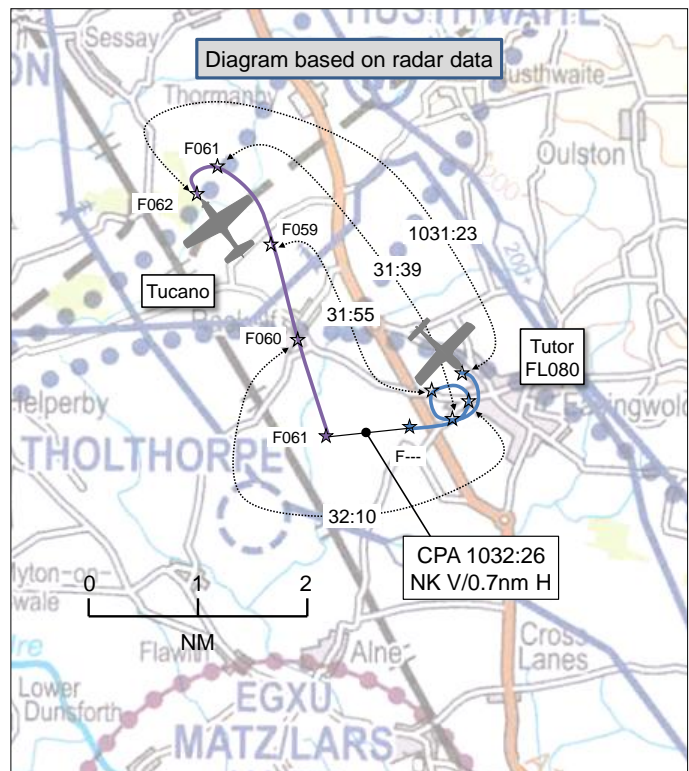
Visibility: 10km              30km

Reported Separation:

300ft V/NK H              0ft V/1nm H

Recorded Separation:

NK V/0.7nm H



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

**THE TUTOR PILOT** reports conducting an instructional sortie, setting up for a spinning exercise. The white aircraft had HISLs selected on, as was the SSR transponder with Modes A and C. The aircraft was fitted with a TAS. The pilot was operating under VFR in VMC, in receipt of a Traffic Service from Linton Approach. Prior to entering a spin, the position of a nearby Tucano was noted. TAS showed the Tucano to be a little over 2nm away, 2000' below and, from its perceived aspect, he believed it to be going away. On entry to the spin, Linton Approach alerted him to the proximity of the Tucano. He instructed the student (the handling pilot) to initiate spin recovery, which he did promptly, and acknowledged ATC. On recovery from the spin, TAS gave a verbal proximity warning. Unable to see any other traffic, he initiated a climb to establish vertical separation on the TAS contact, which was indicated as 300' below.

He assessed the risk of collision as 'Low'.

**THE TUCANO PILOT** reports conducting an instructional sortie. The black aircraft had HISLs and the SSR transponder on, with Modes A and C selected. The aircraft was fitted with a TAS. The pilot was operating under VFR in VMC and was not in receipt of an ATS. Several aircraft had been operating in a relatively small area bounded by poorer weather to the east and the 'Vale of York Clutch' airfields to the west. He reported operating between the cloud layers. On recovery to Linton, straight-and-level at 6000ft, he had a TCAS contact at 2nm and quickly acquired visual contact. He saw a Tutor aircraft spinning, abeam and at a distance of 1nm, and did not consider that a risk of collision existed.

**THE LINTON APPROACH CONTROLLER** reports his workload as low, with a low task difficulty. He was controlling 3 aircraft at the time, including the Tutor. The Tutor was operating in 'GH area A' to the northwest of Linton-on-Ouse, in the block 3000-8000ft. Leeming ATC advised that their MATZ was sterile due to para-dropping activity, so the Tutor pilot was asked to remain in the Ripon area. Approximately 5min later, the Tutor pilot moved east, further away from Ripon. The controller requested the Tutor pilot's intentions because he was moving closer to the Linton radar overhead. The pilot stated that he was 'chasing weather', and that he was visual with fixed-wing traffic to his northeast. This aircraft was approximately 8nm to the northeast of the Tutor's position, indicating 400ft above at that time. Shortly afterwards the controller called the same aircraft to him when it was approximately 1nm northwest and 2000ft below, again the pilot acknowledged it.

**THE LINTON SUPERVISOR** reports that he was unaware of the incident until the Tutor pilot had landed and advised by telephone of his intentions to file an Airprox. He assessed the controller's workload as low.

## **Factual Background**

The Linton on Ouse weather was recorded as:

METAR EGXU 091050Z 01002KT 9999 FEW020CB 15/08 Q1015 BLU TEMPO 6000 SHRA SCT020CB WHT

## **Analysis and Investigation**

### **Military ATM**

This incident occurred between a Tutor and a Tucano north-northeast of RAF Linton on Ouse, at 1032:26 on 9<sup>th</sup> September 2013. The Tutor pilot was conducting a flying training sortie, and had changed operating area to remain within surveillance cover and VMC. The Tutor pilot was in receipt of a Traffic Service from Linton Zone. The Tucano pilot was conducting a general handling sortie, VFR, and not in receipt of an ATS. The Tucano pilot had reported that he 'had been operating in this area at about the same time (as the Airprox report) and had seen a Tutor aircraft 'conducting a spin'. However, the Tucano pilot was unaware of any Airprox until he in-briefed after the sortie. Linton Zone controller had a total of 3 aircraft on frequency comprising two Traffic Service (including the subject Tutor) and one Basic Service.

All heights/altitudes quoted are based upon SSR Mode C from the radar replay unless otherwise stated. 'Live-mic' recording from Linton was available to inform the investigation.

The Tutor pilot had reported FEW clouds, but with no height information, and visibility of 10km. The Tucano pilot had reported 30km visibility. Although there was a discrepancy in the reported RPS by the two pilots, it was not thought this had any bearing on the subsequent incident.

The incident sequence commenced at 10:28:35 when Linton Zone reported Traffic Information to the Tutor pilot "[callsign], *traffic north, 3 miles, manoeuvring, similar level*". The Tutor pilot acknowledged. At 1028:44 the Linton Zone controller asked the Tutor, "[callsign], *just confirm you said you were going to operate near Ripon?*" The Tutor pilot responded "*Err copied. I'm chasing the weather, I see the traffic to my northeast, [callsign]*". The controller acknowledged. Given the manoeuvring conducted by both aircraft, BM SPA considered that the Traffic Information provided by Linton Zone controller was accurate, timely and given as soon as it was apparent that the conflicting traffic was relevant.

From 10:28:52 to 10:31:47, the Linton Zone controller was involved in an R/T exchange with an un-related Tutor involving Traffic Information and confirmation of the aircraft's operating area and block.

On identifying a renewed conflict between the Tutor and the Tucano, at 10:32:08, Linton Zone updated the Tutor pilot regarding the Tucano's position "[callsign] *traffic north west, 1 mile, tracking south, indicating 2000ft below*". BM SPA considered that this update of traffic information was timely, and accurate; issued when the Tucano had altered course to conflict with the Tutor. Figure 1 depicts the aircraft positions from the radar replay at this point, the Tutor Mode 3/A 4532 and Tucano Mode 3/A 4577.

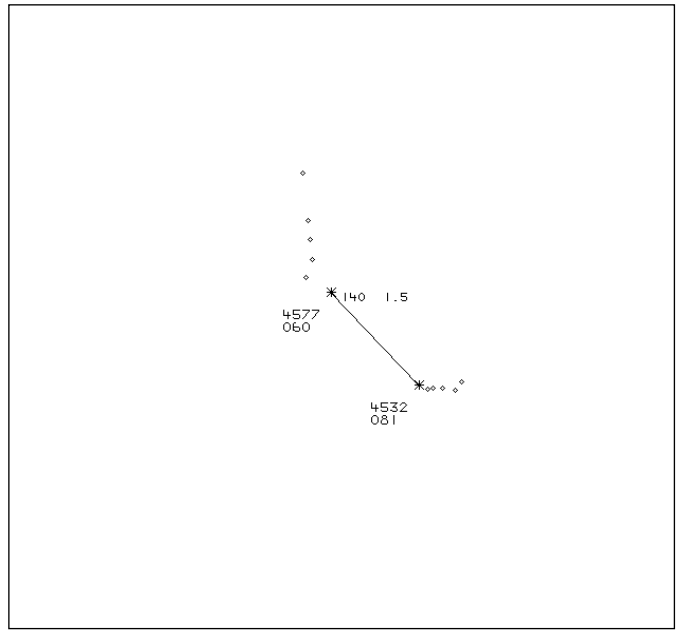


Figure 1

The Tutor pilot's Airprox report stated 'On entry to the spin Linton Approach alerted me to the proximity of the Tucano. I instructed the student handling pilot to initiate spin recovery, which he did promptly'. At 10:32:19 the Tutor pilot had descended from 8100ft to 7600ft on radar, which suggests that the spin manoeuvre had commenced.

The Tucano pilot continued his southerly track and, at 1032.26, the Tutor pilot had descended to his lowest altitude of 6300ft, before immediately climbing on an easterly track, suggesting that a spin recovery had been initiated. The Tucano pilot maintained his southerly track indicating 6100ft. This concurs with the Tutor pilot's Airprox report which stated that 'On recovery from the spin TAS gave a verbal proximity warning. Unable to see any other traffic, I initiated a climb to establish vertical separation on the TAS contact which was indicated as 300ft below'. The CPA coincided with the Tutor's descent to 6300ft at 1032:26, with the radar replay recording 0.7nm and 200ft separation, as displayed at Figure 2.

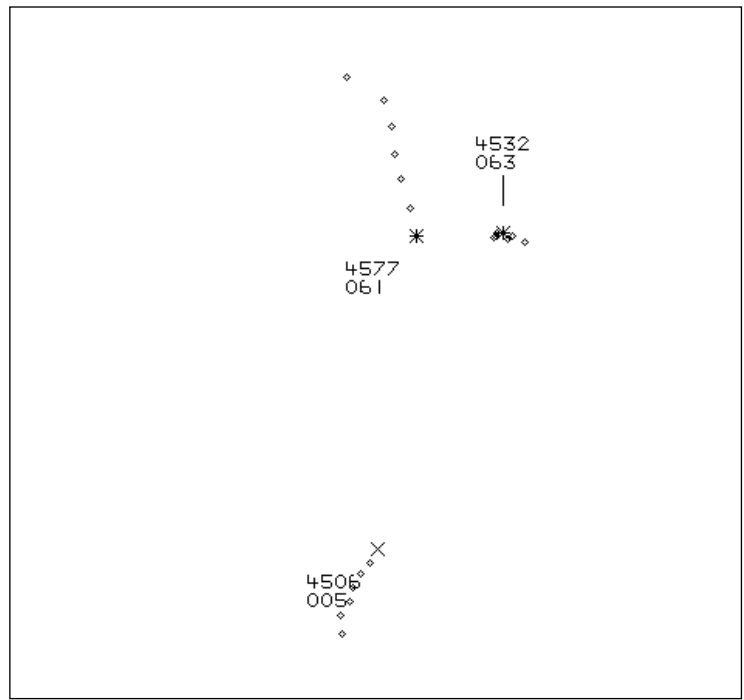


Figure 2

Both pilots were operating under VFR in Class G airspace and were equally responsible for the avoidance of other aircraft in accordance with MAA Regulatory Article 2307, Avoidance of Collision. The Tutor pilot was in receipt of a Traffic Service from Linton Zone and, from the analysis of the information, TAS and ATS were considered effective at highlighting the conflicting traffic. Timely Traffic Information was provided to the Tutor pilot regarding the Tucano, and the Tutor pilot had previously reported visual. Furthermore, the Tucano pilot had reported seeing a Tutor operating in the vicinity; albeit that they had not perceived a risk of collision. As the Tutor pilot commenced a spin, Linton Zone provided a timely and accurate update of Traffic Information and the pilot consequently recovered from the spin. The Tutor pilot was alerted to the presence of the Tucano by TAS and, not being visual with the aircraft, executed a climb, based on the TAS information.

While ATC were aware that the Tutor pilot was general handling, they were not aware that the pilot was commencing a spinning exercise, and therefore may have been restricted in manoeuvrability, and lookout. There is no requirement for aircraft in receipt of an ATS to inform ATC when conducting manoeuvres that may involve rapid descent or restricted manoeuvrability. A pilot reporting his intention to conduct activities that will change the profile of flight, may allow controllers to reassess traffic that was previously considered irrelevant. Thus it may be relevant for aircrews to consider advising their ATS provider that they are conducting spins.

## **Comments**

### **HQ Air Command**

The resolution of the conflict between the Tutor and Tucano serves as testament to the utility of both an appropriate ATS and an on-board traffic alerting system. That the Tucano pilot acquired visual with the spinning Tutor reaffirms the indispensability of good lookout and all but negated any risk of collision (as the Tucano pilot could have manoeuvred away from any potential conflict). The incident occurred in a busy volume of airspace which was compressed on the day by weather, thus forcing those wishing to operate VFR into a smaller volume. Receipt of a Traffic Service clearly does not diminish a pilot's responsibility to 'see and avoid' but it is worth considering how the planned handling exercises for the sortie might impinge on this responsibility. Briefing your controller on your intentions will better allow him/her to judge whether or not other traffic could be a factor during your manoeuvring.

## **Summary**

The incident occurred when a Tutor pilot and a Tucano pilot flew into conflict 6nm north of Linton on Ouse. The Tutor pilot was conducting a spinning exercise in VMC and was in receipt of a Traffic Service from Linton ATC in a block 3000-8000ft. The Tucano pilot was on an instructional sortie, in VMC, without an ATC service, and was on recovery to Linton at 6000ft. Linton ATC gave Traffic Information on the Tucano to the Tutor pilot who subsequently curtailed his spin and used his TAS to gain situational awareness on the Tucano's position. The Tucano pilot was visual with the Tutor.

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

Information available included reports from the pilots of both ac, 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 this incident occurred in the busy Vale of York airspace which, on the day, was further constrained by the weather. The Tutor pilot was conducting a spinning exercise and some members of the Board felt that had ATC known this then they might have been better able to assist the pilot with pertinent TI. That said, the Board commended the controller for the timely and accurate TI that he had given. The Board also noted the value of TAS and how, in this case, it had been used during the spin recovery to avoid a more serious incident occurring.

Overall, given that the Tucano pilot had been visual with the Tutor throughout, and that the combination of ATC and TAS had also helped the Tutor pilot position to avoid the Tucano, the Board opined that there had been no erosion of normal safety procedures or standards. This was therefore assessed as risk E, a sighting report.

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

Cause: A sighting report.

Degree of Risk: E

ERC Score<sup>1</sup>: 1

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<sup>1</sup> 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.