

## **AIRPROX REPORT No 2014153**

Date/Time: 20 Aug 2014 1108Z

Position: 5237N 00028W  
(Wittering – elevation 273ft)

Airspace: Wittering ATZ (Class: G)

Reporter: Wittering Zone

Aircraft 1                      Aircraft 2

Type: Tutor                      C150

Operator: HQ Air (Trg)              Civ Pte

Alt/FL: 800ft                      1500ft  
QFE (NK hPa)              NK (1016hPa)

Conditions: VMC                      VMC

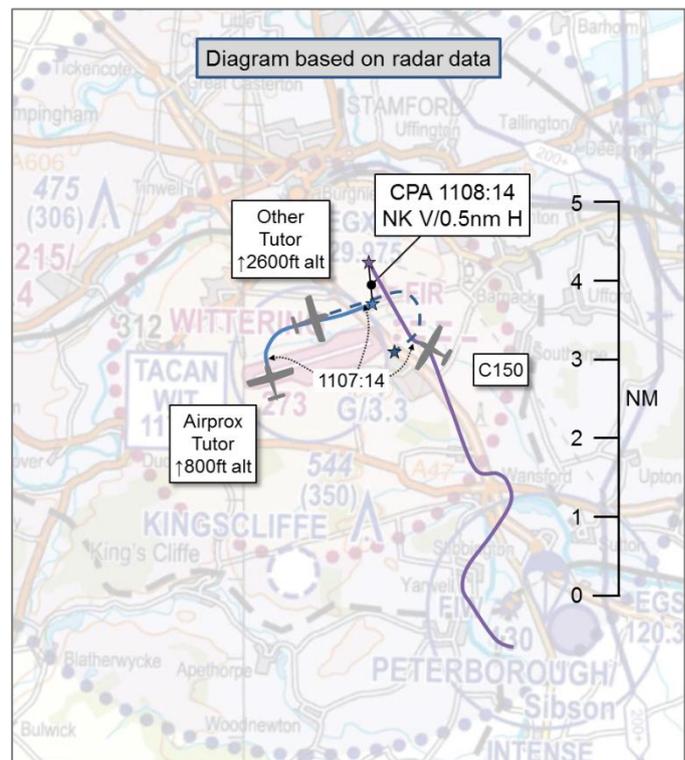
Visibility: >10km                      >10km

Reported Separation:

200ft V/0.25nm H NK

Recorded Separation:

NK V/0.5nm H



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

**THE WITTERING ZONE CONTROLLER** reports operating from the Ground Controllers position without radar<sup>1</sup>. Another controller was under examination in the Tower position, operating on the UHF Tower frequency and, due to the expected traffic loading, the VHF Tower frequency had been split out for Zone traffic. The Tower was busy with 3 Tutors and a Tucano in the circuit. After checking the latest weather change, the Zone controller looked up to re-acquire the visual circuit traffic and saw an aircraft which looked like it was inside initials for RW26 to the south side of the centreline, but which seemed to be tracking north. Looking through binoculars, the Zone controller could see it was a high-wing piston engine aircraft (possibly a C172) coloured white with a dark stripe down the fuselage. It was seen to cross overhead the RW26 threshold at an estimated height of 600-800ft agl but then suddenly climbed a few hundred feet once north of the runway. The Zone controller transmitted blind on the Tower/Zone VHF frequency but received no reply.

He perceived the severity of the incident as 'Low'.

**THE TUTOR PILOT** reports conducting a student circuit detail at RAF Wittering. The predominantly white aircraft had white strobe, navigation and landing lights selected on, as was the SSR transponder with Modes A, C and S. The aircraft was fitted with a TAS. The instructor was operating under VFR in VMC, in communication with Wittering Tower. On rolling out downwind at 800ft agl, and after completing the downwind checks for a normal circuit, he became aware of a high wing Cessna 150/172 type civilian aircraft crossing his downwind track about a mile ahead from south to north [right to left] at the end of the downwind leg. He estimated the other aircraft's height to be about 1000ft agl. He informed ATC of the encroaching aircraft and, although content that it was about 200ft above, noted that it seemed to be transiting the circuit without talking to ATC. He switched on the TAS to try and get a height read-out, but the civilian aircraft was not transponding [altitude]. The instructor stated he had seen the other aircraft and there was no risk of collision, however, a solo student, concentrating on checks and the circuit pattern, may have had a higher risk.

He assessed the risk of collision as 'Low'.

<sup>1</sup> The Wittering radar had not been reinstated at the time of this Airprox.

**THE C150 PILOT** reports having just got airborne from Sibson, on a transit flight to the northwest. The white and blue aircraft had wing strobe lights and tail beacon selected on, as was the SSR transponder with Mode A and C<sup>2</sup>, he recalled. The aircraft was not fitted with a TAS. The pilot was operating under VFR in VMC, listening out on Sibson A/G RTF. The pilot made a climbing right turn after take-off from RW24, on track to his destination. He did not call Cottesmore because he believed that frequency was not monitored. He could not see any activity at Wittering and, with a tailwind, was soon over the airfield in a climb. He saw a Tucano which passed him in a steep climbing turn on his left [this was after CPA with the Tutor in the visual circuit, which the C150 pilot did not report seeing]. The pilot stated that, on reflection, he should have called Wittering and apologised for not having done so but noted that in the past he did not always get a reply.

## Factual Background

The weather at Wittering was recorded as follows:

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METAR EGXT 201050Z AUTO 26012KT 9999 FEW037/// SCT060/// 16/07 Q1016
METAR EGXT 201150Z AUTO 30011KT 9999 BKN070/// 15/06 Q1016
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Wittering ATZ is notified as H24 (in continuous service) and is defined as being a cylinder of radius 2.5nm, from surface to height 2000ft (altitude 2273ft), centred on the mid-point of RW08/26.

## Analysis and Investigation

### Military ATM

The Airprox occurred between a Cessna 150 and a Grob Tutor. The Grob Tutor pilot was in communication with RAF Wittering Tower and the Cessna pilot was listening out on the Sibson A/G frequency.

The Cessna pilot responded to the Airprox by reporting upon the confliction between his aircraft and a Tucano that was departing from Wittering. The radar replay showed potential confliction between the Cessna, both Tutors in the visual circuit, and the departing Tucano; the Airprox was filed specifically between the Cessna and the visual circuit Tutor so this was the confliction that was investigated.

The tape transcript from the incident is reproduced below:

From	To	Speech Transcription	Time
Tutor	Tower	[Tutor C/S] downwind to land, be aware, fix wing just above 1000ft flying south to north downwind.	1107:55
Tower	Tutor	[Tutor C/S] Roger, trying to establish who it is	1108:02
Zone	All	Transmitting blind, one aircraft possible C172 1nm north of airfield	1108:19
Tucano	Tower	[Tucano callsign] departing to Cranwell	1108:23

At 1106:35 (Figure 1), the Cessna pilot was routing northbound in the vicinity of the Wittering visual circuit; RW26 right hand circuits were in force and both Airprox aircraft were squawking 7000.

<sup>2</sup> The aircraft did not display a transponder altitude response on area radar recording.

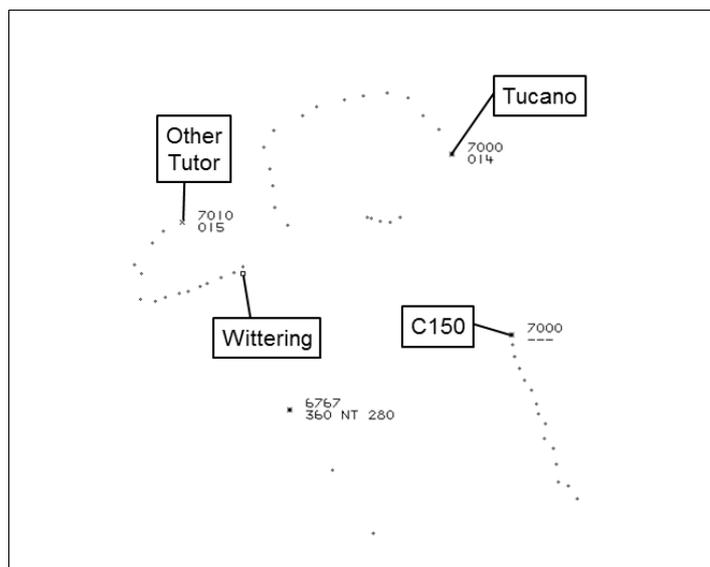


Figure 1: Cessna highlighted at 1106:35

At 1107:06 (Figure 2), the replay shows the three aircraft in the visual circuit.

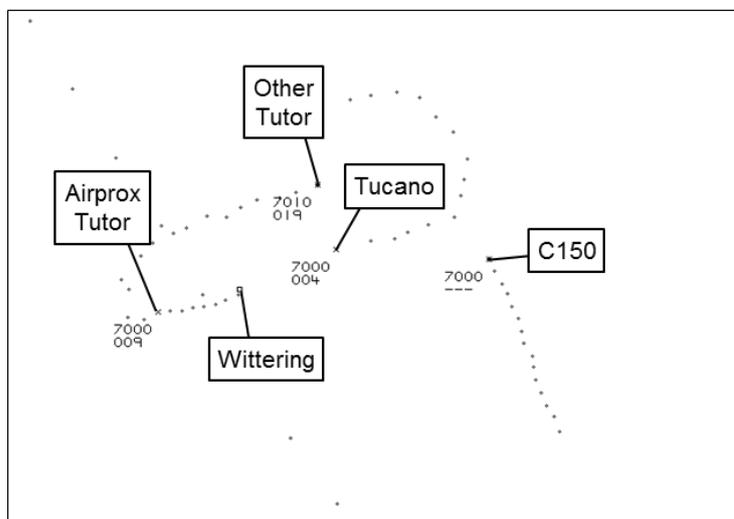


Figure 2: AT 1107:06 with 3 aircraft in the visual circuit; Cessna highlighted

Figure 3 shows the geometry at 1107:51. At 1107:55, the Tutor pilot called downwind and questioned the presence of the Cessna tracking south to north through the downwind leg.

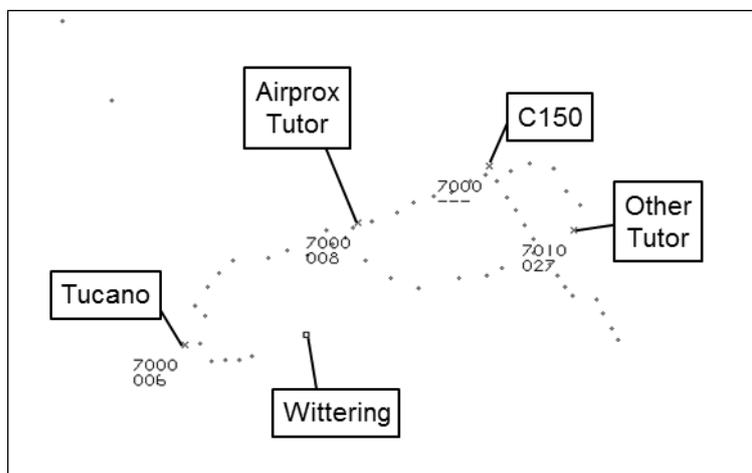


Figure 3: Geometry at 1107:51 with 0.7nm horizontal separation between the Cessna (7000 no Mode C) and Tutor (7000, Mode C 008)

Wittering had a controller in the Tower position using the VHF Tower frequency and a controller in the Ground position manning the VHF Zone frequency. Wittering were monitoring the Zone VHF and the Cottesmore Zone frequency on the day of the Airprox. ATC were visual with the Cessna and had tried unsuccessfully to raise the pilot on the Zone frequency when it was apparent that it had not called Tower. Blind calls were made and the Airprox action was initiated by ATC following tracing action with Sibson.

It appears from the radar replay that the Cessna pilot may have been visual with the easterly Tutor (squawking 7010) as a left turn was made to pass inside the Tutor's final turn but the Cessna pilot did not report seeing a Tutor. All pilots could have been made aware of the Cessna earlier had its pilot called when entering the Wittering ATZ. The Cessna pilot commented on the tailwind that had expedited the aircraft into the Wittering ATZ, and the fact that there was not always a reply on the frequency. The Tutor pilot was visual with the Cessna and did not require avoiding action; the lack of Mode C on the Cessna meant that the Tutor TAS could not give accurate height readout.

Wittering ATC confirmed that their ATZ was active 24 hours, and that the frequency manning period had been briefed to Sibson. The Letter of Agreement (LOA) between Sibson and Wittering states that Wittering is active Monday to Friday, 0830-1700 local and the ATZ is active 24 hours, 2.5 nm radius at 2000 ft AGL. Furthermore, the LOA states:

**'Sibson departures.** Aircraft departing Sibson, including those carrying out parachuting operations onto Sibson DZ, will call Wittering Tower on 125.525 MHz<sup>3</sup> before leaving the circuit. Unless approved by Wittering Tower, all departures will maintain VFR and depart to the South until clear of the Wittering MATZ.'

The major barrier to Airprox in a visual circuit would normally be sound deconfliction procedures and lookout. The Cessna pilot reported being visual with the Tucano but did not report any other activity; the Tutor pilot and ATC were visual with the Cessna and were content that avoiding action was not required to maintain separation. Ultimately, aircrew lookout was the barrier that helped separate aircraft because the deconfliction procedures, outlined in the local LOA, were not followed.

## UKAB Secretariat

The Tutor and C150 pilots shared an equal responsibility for collision avoidance and not to fly into such proximity as to create a danger of collision<sup>4</sup>. The C150 pilot was required to conform to the pattern of traffic intending to land at Wittering or to remain clear of the area<sup>5</sup>, and to obtain permission before entering the Wittering ATZ<sup>6</sup>. CPA with the 'Other Tutor' was 0.3nm; the C150 pilot did not report seeing either Tutor. CPA with the Tucano occurred at 1108:38 as it passed on a north-easterly track 0.6nm ahead of the C150.

## Comments

### HQ Air Command

This report highlights the requirement for all aviators to remain vigilant and maintain good lookout even when operating in a perceived known environment with protection of an ATZ. The lack of Mode C resulted in the Tutor TAS being unable to provide a relative altitude assessment for the conflicting traffic. However, the lack of a relative altitude is unlikely to have been a factor in this incident, due to this barrier being removed by the Tutor pilot turning off the TAS when operating within a circuit; a known procedure to avoid distraction. Safe separation was maintained at all

<sup>3</sup> The diagram indicates Wittering Tower frequency of 129.975MHz, the correct frequency is 125.525MHz but the map has not yet been updated.

<sup>4</sup> Rules of the Air 2007 (as amended), Rule 8 (Avoiding aerial collisions).

<sup>5</sup> *ibid.*, Rule 12 (Flight in the vicinity of an aerodrome).

<sup>6</sup> *ibid.*, Rule 45 (Flights within aerodrome traffic zones).

times by the circuit traffic remaining visual with the conflicting aircraft until it was clear of the aerodrome.

Although activity has declined at Wittering in recent years, the airspace remained active with gliding operations taking place at the airfield. Fixed wing operations recommenced in Apr 14 with the ATC tower opening in accordance with the promulgated hours. A local area engagement plan was enacted in order to publicise the resumption of regular flying from the airfield. From Jun 15, there will be 5 resident Tutor Sqns operating from Wittering.

## Summary

An Airprox was reported when a Tutor and a C150 flew into proximity at 1108 on Wednesday 20<sup>th</sup> August 2014. Both pilots were operating under VFR in VMC, the Tutor pilot in contact with Wittering Tower and the C150 pilot not in receipt of an Air Traffic Service.

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

Information available consisted of 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 first discussed the controllers' actions. The Zone controller saw the C150, apparently inside initials, south of the centreline, and heading north. He made a blind transmission on VHF but did not receive a reply. It appeared from the tape transcript that the Airprox Tutor pilot saw the C150 before the Tower controller saw it, and advised the Tower controller of its presence. Members noted that the circuit was busy at the time, no doubt taking up much of the Tower controller's capacity, and that controllers and pilots could reasonably expect the ATZ to afford a degree of protection for the visual circuit. The Board re-emphasised the HQ Air Command comment that this incident highlighted the requirement for pilots, and controllers, to remain vigilant and maintain effective lookout even when operating in the perceived known environment and protection of an ATZ.

Considering the pilots' actions, Board members agreed that it had been the vigilance of the Airprox Tutor pilot in sighting the C150 that had enabled timely and effective action to be taken to prevent aircraft collision. Members were at a loss to account for the actions of the C150 pilot, which culminated in him flying through a promulgated and active ATZ without attempting to make contact with the controlling agency. The Rules of the Air and Sibson/Wittering LoA were explicit with regard to the necessary requirements and members could only surmise that the C150 pilot had not planned his flight with sufficient rigour. It was known that powered aircraft had not been based at Wittering in the recent past, and some GA members felt that the consequent lack of circuit flying activity may have lulled the C150 pilot into making erroneous assumptions about the airfield's status. The military ATC advisor informed the Board that flight activity at Wittering had increased considerably since the Airprox, and would continue to do so with the planned basing of 4 flying-training squadrons and one Air Experience Flight, representing some 25 Grob Tutors, by the end of June 2015.

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

<u>Cause:</u>	The C150 pilot entered the Wittering ATZ without obtaining clearance.
<u>Degree of Risk:</u>	C.
<u>ERC Score<sup>7</sup>:</u>	4.

<sup>7</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.