## AIRPROX REPORT No 2010062



## PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

**THE PILOT OF TUCANO T Mk1 (A),** a QFI, reports he was conducting a training sortie in the cct at Linton-on-Ouse and in communication with TOWER (TWR) on 240-825MHz. SSR was selected on with Mode C; TCAS 1 is fitted.

When going around from a Practice Forced Landing (PFL) and positioning on the deadside to RW28RHC at 1000ft QFE (1006mb), he saw another Tucano in their 8 o'clock position at a range of about 200m turning away. This ac had previously been running in from Initials at high speed. No avoiding action was taken as the other Tucano was already turning away so, taking control of his aeroplane from his student, he positioned his Tucano wider on the deadside to allow the other Tucano to join ahead. His aeroplane was then flown back to Initials to regain SA before re-joining the cct to land. He assessed the Risk as 'medium', but opined that ATC RT distraction was a relevant factor.

His aeroplane has a black and yellow colour-scheme and the HISLs were on.

**THE PILOT OF TUCANO T Mk1 (B),** reports he was on recovery to Linton-on-Ouse from Topcliffe, whilst in communication with Linton TWR on 240-825MHz. A squawk of A4506 was selected with Mode C on. TCAS 1 is fitted.

His aeroplane was positioned via Initials for a visual Run-in & Break to RW28RHC. At Initials, he reported his position on the TWR frequency, however, the controller was slow in responding and there appeared to be some confusion over the position of traffic in the visual cct. He attempted to gain visual contact with the traffic reported by TWR – 1ac on Final, 1ac between High and Low Key. He could not identify any ac between High and Low Key, so he slowed down to 180kt and converted his Run-in & Break to a normal 1000ft QFE cct join. He remained on the Deadside attempting to acquire the traffic, however, there was no sign of any ac on Final. Whilst he was still on the Deadside heading 280° another Tucano – (A) - performed, he thought, a Touch & Go and then climbed to their height. It was first seen 200ft away and to avoid it he turned slightly L to fly further into the Deadside. Minimum separation was 200ft but the Risk was 'low'. TCAS 1 enunciated a TA. It was at this stage that the Captain of Tucano (A) reported the Airprox. Extending to allow Tucano (A) to join the cct, this ac then climbed above cct height.

The subsequent cct was not without incident, as more ac were joining, and TWR was struggling with the position of the ac in the cct. The visual cct was very busy, and he believes the TWR controller lost SA, which contributed to the Airprox.

His aeroplane has a black colour-scheme with yellow flashes and all the lights were on.

**THE LINTON-ON-OUSE AERODROME CONTROLLER (ADC)** had just taken over the TWR position. [UKAB Note (1): HQ Air Cmd ATM SAFETY ANALYSIS advises this was about 18min before the Airprox occurred]. The A/D cct state was 1 on Final [another ac], 1 between High and Low key - Tucano (A) and 1 other joining via Initials - Tucano (B). The crew of Tucano (B) reported Initials at the same time as the inbound call was made for a short pattern cct (SPC), the radar traffic broadcast was given and the cct state given to Tucano (B). Tucano (A) reported going around as no clearance had been given due to another ac being on the runway, shortly thereafter the Captain of Tucano (A) reported an Airprox.

**THE LINTON-ON-OUSE ATC SUPERVISOR (SUP)** reports that he was situated in the ACR when the ADC rang to inform him of an Airprox in the visual cct, so he immediately made his way to the VCR.

Having not actually witnessed the Airprox he spoke to the reporting pilot of Tucano (A), the ADC and GROUND controllers and listened to the RT tape recordings. It was evident that at the time of the Airprox, the crew of Tucano (A) had made two attempts at a PFL approach and having been previously baulked by another ac, had been told to continue approach, as once again another ac, which had been cleared to land, was ahead. At the same time Tucano (B) had joined the cct through Initials the ADC acknowledged a liaison call from the TALKDOWN controller about a SPC to land, subsequently making the broadcast on the Tower frequency. With Tucano (B) now Deadside, the Captain of Tucano (A) informed TWR that he was going around, whereupon he then called an Airprox against Tucano (B) on the Deadside.

**HQ AIR BM ATM SAFETY ANALYSIS** reports that the Unit has identified that the situation in the increasingly complex and busy visual cct was exacerbated by the handover of the operating position between the off-going controller and the ADC taking over the watch. This served to reduce the ADC's SA and will have contributed to the erroneous visual cct state passed by the ADC to the crew of Tucano (B). However, this erroneous cct information would not in itself have prevented the crew of Tucano (A) climbing into confliction with Tucano (B). Other than this erroneous information the actions of the ADC were appropriate to the situation.

[UKAB Note (2): The crew of Tucano (B) called TWR to join at 1453:22, whereupon the ADC responded "[Tucano (B) C/S] Linton TOWER join runway 2-8 right-hand Q-F-E 1-0-0-6 2 in" [the cct -Tucano (A) climbing for High Key and another ac downwind to land]. The first part of the response from the crew of Tucano (B) was unintelligible on the recording. The other ac in the cct reported downwind to land and a few seconds later the crew of Tucano (A) advised TWR at 1453:51, ".. High Key touch and go". TWR replied 37sec later at 1454:28, "..1 ahead [the other ac to land] surface wind 2-8-0 11 knots". The other ac was cleared to land followed at 1455:26, by the crew of Tucano (A) reporting "Low Key gear down". TWR responded 2 sec later, "..continue approach", which was read back by the crew whilst awaiting the other ac to land and clear the RW. Some 11 sec later at 1455:41, the crew of Tucano (B) reported "..initials". Following a broadcast by TWR for the radar traffic executing a SPC and some 15secs after Tucano (B)'s Initials call, TWR responded to Tucano (B) at 1455:56, "..two finals...correction one finals one between High and Low Key, surface wind 2-8-0 14 knots", which Tucano (B)'s crew acknowledged with their C/S. Tucano (A) was not between High and Low Key but actually between Low Key and final for RW28RHC. Some 30sec later at 1456:26, the crew of Tucano (A) advised TWR, "...going round [sic]", that was acknowledged by TWR. A short while later at 1456:45, the crew of Tucano (A) commented, "...we'll..come from the south and extend upwind to allow..the other aircraft [Tucano (B)] to join"; after TWR's acknowledgement, the pilot added "...we might need to declare an Airprox...". An Airprox was subsequently declared on RT in answer to the ADC's enquiry. Tucano (B) then reported downwind at 1457:24.]

The SFSO has highlighted that the onus of responsibility for collision avoidance in the visual cct is primarily with the joining traffic. Furthermore, the pilot of Tucano (B) reports being visual with Tucano (A) conducting, he thought a Touch & Go, then climbing to his level. The purpose of RT calls between ATC and AC is to build the SA of all concerned on the frequency and this, coupled with a visual scan, should have presented enough information to the crews of the two Tucanos to assimilate the relative positions of each other's ac. Consequently, given the busy visual cct and the aircrew's responsibility to visually identify the cct ac and to take appropriate action to sequence themselves accordingly, it is reasonable to suggest that there is little that the ADC could have done to avert this Airprox.

**HQ AIR (TRG)** comments that the inaccurate TI passed to the crew of Tucano (B) made their task of identifying cct traffic very difficult. Consequently, having not identified all the ac in the cct the pilot of Tucano B sensibly slowed down and changed his Run & Break to a normal cct join rather than continue into the cct at high speed. As soon as Tucano (A) was seen the pilot of Tucano (B) took suitable avoiding action minimising the actual risk of a collision.

## 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 video recordings, a report from the air traffic controllers involved and reports from the appropriate ATC and operating authorities.

A controller Member who had previously been qualified at Linton-on-Ouse TOWER explained that the Linton aerodrome cct can be quite demanding for controllers with the mix of ac types leading to a very dynamic cct. Here, however, the cct did not seem abnormally busy with 2 'in' and 1 joining and it was clear to the Board that the catalyst to this Airprox was the erroneous positions of visual cct traffic passed by the ADC to the crew of Tucano (B) when they called at Initials inbound to join the cct. The Captain of Tucano (B) had reported that he had attempted to gain visual contact with the cct traffic whose position was reported by TWR to be 1ac on Final and 1ac between High and Low Key, but could not identify any ac - Tucano (A) - between High and Low Key. The RT transcript reveals that Tucano (A) was in another part of the sky between Low Key and final for RW28RHC, not yet having called final. The pilot of Tucano (B) reported that he had prudently slowed down and converted his Run-in & Break to a normal 1000ft cct join, however, pilot Members recognised that he had still not identified Tucano (A) before he entered the cct area. This was unwise. Pilots have a duty to see and avoid other ac in the cct and Military pilot Members believed the crew of Tucano (B) should have taken more robust action to search for the unseen ac, including asking for an update from the ADC when they could not see it. Whilst Tucano (B) remained on the deadside as the crew attempted to acquire the ac, they still flew on in to the aerodrome without any sign of the other ac, despite the crew of Tucano (A) subsequently reporting going around. Better airmanship would suggest flying much wider on the deadside, alternatively returning to Initials to sort it out might have been preferable. As it was the crew of Tucano (B) finally sighted Tucano (A) a mere 200ft away, erroneously perceiving that the ac had executed a touch & go. The Board concluded that the Cause of this Airprox was erroneous TI from the ADC, which resulted in a late sighting by the crew of Tucano (B). However, when they did see Tucano (A), Tucano (B)'s crew took appropriate action to avoid it and the Board agreed unanimously that no Risk of a collision had existed in these circumstances.

## PART C: ASSESSMENT OF CAUSE AND RISK

<u>Cause</u>:

Erroneous TI from the ADC, resulted in a late sighting by the crew of Tucano (B).

Degree of Risk: C.