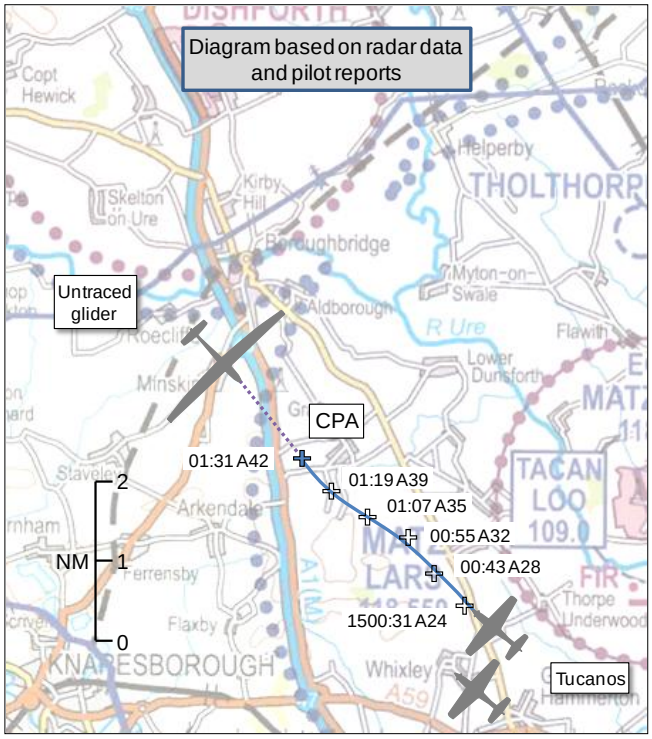
AIRPROX REPORT No 2013101

Date/Time: 2 Aug 2013 1502Z

Position: 5405N 00123W (5nm WNW Linton)

Airspace: Vale of York AIAA (*Class*: G)

	Reporting Ac	*Reported Ac*
Type:	Tucano T1	Glider
Operator:	HQ Air (Trg)	Unknown
Alt/FL:	FL40	NK
Weather:	VMC CLBC	NK
Visibility:	30km	NK
Reported Separation:		
	300ft V/0ft H	NK
Recorded Separation:		
	NK	



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE TUCANO PILOT reports leading a 2-aircraft close-formation departure from RAF Linton-on-Ouse (LIN). The black and yellow aircraft had navigation lights and HISLs selected on, as was the lead aircraft's SSR transponder with Modes A and C. The aircraft was fitted with TCAS I. He was operating under VFR in VMC and in receipt of a Traffic Service from the LIN Departure Controller (DEP), with 'Glider Ops' in force[1]. Upon receipt of this service he was immediately informed of three primary radar contacts; two to the south-west of his position and one to the north-west. Determining that the later, being 'on his nose', was a greater threat, he asked for an update on its position. He reported being told 'north-east, 1nm, no height', at which point he turned right to try and achieve deconfliction. Shortly after turning, heading 300° at 150kt and climbing through FL40, his wingman became visual with glider traffic as it passed directly beneath them with an estimated vertical separation of 200-300ft. He stated that the glider was at around 4000ft, 4nm west of LIN, and that despite having the radar service and directing all of his spare attention towards lookout, he never achieved visual contact with the glider. He noted that a gliding competition had launched that afternoon from Sutton Bank (hence the 'Glider Ops' decision) and that the task route was largely orientated north-south, with the legs repeatedly crossing the 'Vale of York MATZs'. He stated that he was concerned that despite taking every reasonable step to try and gain visual contact with the glider, he was still unable to do so.

He assessed the risk of collision as 'Low'.

THE GLIDER PILOT: Despite extensive tracing action, the glider pilot could not be located.

THE LIN DEP CONTROLLER reports that he was unaware of the incident at the time it happened and was submitting his report as a response to the hazard observation that was submitted. A VFR departure clearance was given to the Tucano formation to take-off during 'Glider Ops' at LIN. The subject Tucano pilot spoke with LIN DEP about 5min later. He climbed out, requested a Traffic Service and was identified and given traffic information on 3 non-squawking contacts west and north-west of the airfield all at a range of about 4-5nm with no height information available. As the Tucano pilot continued his departure profile, updated traffic information was passed as he got closer to a PSR contact. The Tucano passed the traffic before going en-route within a few minutes.

[1] During which there is a mandatory requirement of at least a Traffic Service whilst on departure, until the aircraft is in an operating area clear of significant glider activity.

THE LIN SUPERVISOR reports he was not aware an Airprox had been reported and had no recollection of events surrounding this incident.

A LIN CONTROLLER reports that the incident was not reported on RT at the time, or by any means afterwards. The incident was originally submitted as a 'Hazard Observation' and subsequently 'upgraded to an Airprox'. The ATC DASOR[2] was consequently not submitted by the LIN DEP until one week after the event. This highlighted the importance of aircrew reporting any possible incident as soon as possible to ATC so that the investigation process could occur as soon as possible after the event such that events were fresh in the memory of the controllers/personnel involved.

Factual Background

The LIN weather was recorded as follows:

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METAR EGXU 021450Z 17011KT 9999 FEW020CB FEW030TCU 24/16 Q1004 BLU NOSIG
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Analysis and Investigation

Military ATM

This incident occurred 4.9nm WNW of LIN, at 1501:33 on 2 Aug 13, between a formation of 2 Tucanos and a glider. The Tucano Formation were departing LIN on a VFR departure and were in receipt of a TS from LIN DEP. The RAC were unable to trace the glider involved. All heights/altitudes quoted are based upon SSR Mode C from the radar replay unless otherwise stated.

The incident was initially reported as a 'hazard observation' on 6 Aug 13 and upgraded to an Airprox on 7 Aug 13. The incident was not reported on the RTF in use and LIN ATC were not advised of the incident until around 9 Aug 13; thus the personnel involved had little recollection of events. The Tucano Formation leader reported that a 'gliding competition had launched that afternoon from Sutton Bank and that the task route was largely orientated North-South, with the legs repeatedly crossing the 'Vale of York MATZs'. This promulgated competition prompted LIN to implement their 'Glider Ops' procedure.

LIN Flying Order Book states that 'On days when significant amounts of glider activity are planned or observed, the DSS may invoke the 'Glider Ops Departure and Recovery Procedure'. This procedure may be directed because of planned glider activity, such as a competition, or because of activity noted on radar or seen by aircrew or air traffic personnel'. The procedure details a number of specific actions for aircrew and ATC, including 'The mandatory use of at least a Traffic Service whilst on departure, until the aircraft is in an operating area clear of significant glider activity'.

The Tucano Formation got airborne at around 1459:30, making initial RT contact with LIN DEP at 1459:52, "*passing 1300 ft, request Traffic Service*." The Tucano Formation were identified and placed under a Traffic Service. DEP then immediately passed TI to an unrelated Tucano that had got airborne immediately ahead of the Tucano Formation; this exchange ran from 1500:05 to 1500:19.

Between 1500:20 and 1500:22, there was a brief transmission and acknowledgement within the Tucano Formation, followed, at 1500:23, by DEP passing them TI on "*2 tracks, south-west, manoeuvring between 3 and 4 miles, no height information, believed to be gliders*" which was acknowledged. Immediately, DEP then advised the Tucano Formation of "*further traffic, north-west, 4 miles, tracking south, no height information, believed to be another glider*" which was also acknowledged. Although no primary contact was displayed on the radar replay at this time, one

[2] Defence Aviation Safety Occurrence Report.

subsequently became visible at 1501:01, on the Tucano Formation's projected track. Figure 1 depicts the Tucano Formation's position at 1500:23 (highlighted SSR 3A 4577), with a range and bearing line attached to the position of 2 primary contacts that had recently faded from the radar replay, that appear to correlate with the position of the 2 SW'ly contacts reported by DEP. Although the guidance material to CAP 774, Chapter 3, paragraph 5 states that '*Controllers shall aim to pass information on relevant traffic before the conflicting aircraft is within 5 NM*', given the flow of RT between DEP and both the Tucano Formation and the unrelated Tucano, it is reasonable to argue that the TI was passed as early as possible. Moreover, given the relative speeds of the aircraft, the provision of TI within 5nm had no bearing on the incident outcome.

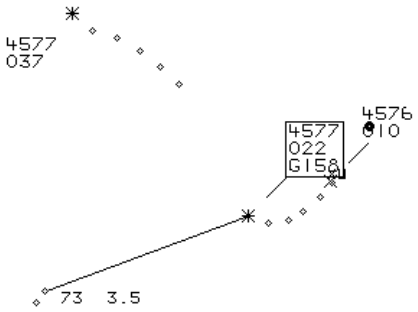

Figure 1: Incident Geometry at 1500:23.

Between 1500:46 and 1501:12, DEP was involved in an exchange of RT with a further Tucano pilot who had departed LIN. Immediately thereafter, the Tucano Formation leader requested DEP to "*say again the er north-westerly traffic again please*." DEP replied, "*previously called traffic in your 12 o'clock, 1 mile, crossing right-left, converging, no height information*" which was acknowledged. Approximately 6sec later, at 1501:31, a second voice was heard on the RT saying "*visual…below us now…clear* now"; this voice was subsequently assessed as being the Tucano Formation wingman. In subsequent conversation with the wingman, he advised that the passenger on board his ac visually acquired the glider and cued him to its position before he reported visual. The glider was reported as passing 'directly beneath' the formation, 'with an estimated height split of 200-300 ft'. The Formation leader expressed his concern that 'despite having the radar service and directing all of [his] attention towards lookout, [he] never became visual with this glider'. Figure 2 depicts the incident geometry at 1501:13, as the Tucano Formation leader requested updated TI on the "*north-westerly traffic*"; the circled primary contact, believed to be the incident glider, was 1.7nm from the Tucano Formation. This contact faded from the radar replay at 1501:24.

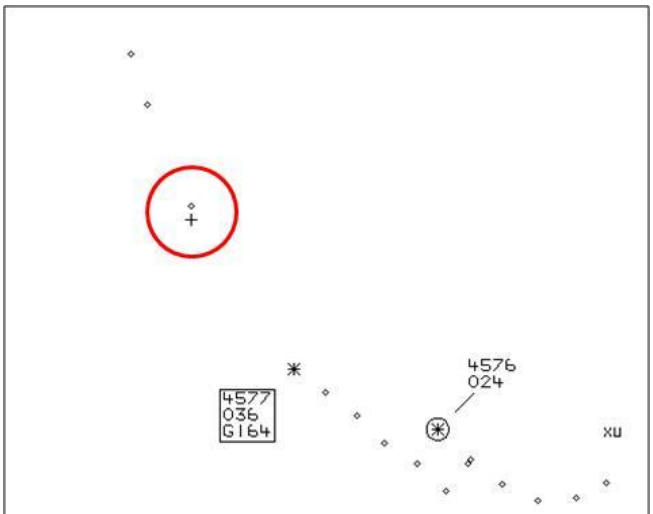

Figure 2: Incident Geometry at 1501:13.

From an ATM perspective, by specifically using the word 'converging' DEP appears to have made good use of the amended TI phraseology in CAP 413 Edition 21 to highlight his perception of a 'significant risk of mid-air collision'.

Comments

HQ Air Command

The traffic information passed to the Tucano formation by ATC allowed prioritisation of lookout towards the highest threat, unfortunately without success until the formation was close to the

glider. Whilst both civilian and military aircraft are equally entitled to usage of this airspace, it is disappointing that the heavy investment in regional liaison by RAF Linton-on-Ouse did not yield a better level of coordination between the 2 parties. Had the gliding competition task routing remained clear of the RAF Linton-on-Ouse departure and recovery lanes then the risk of mid-air collision may have been further mitigated (though it is accepted that the Airprox glider may have been unconnected to the reported competition). Of note, the delay in reporting the incident as an Airprox had reduced the fidelity of the Airprox reporting process.

Summary

A Tucano formation and an untraced glider flew into confliction, 5nm west-north-west of LIN. The Tucano formation were operating under VFR, in receipt of a Traffic Service from LIN DEP.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included a report from the Tucano pilot, transcripts of the relevant RT frequencies, radar video recordings, reports from the air traffic controllers involved and reports from the appropriate ATC and operating authorities.

Members considered the pilots' actions first. The Tucano formation leader was operating under a Traffic Service with 'Glider Ops' in force at Linton. His departure from the airfield was normal, and he was given traffic information (TI) on contacts to the south-west and north-west. The TI for the conflicting glider, to the north-west, was first passed about 1min before CPA. Members felt that the Tucano pilot may not have correctly assimilated the traffic's position, demonstrated by him rolling out of his initial right turn pointing at this north-westerly traffic, his request for updated TI, and his recollection of that TI indicating traffic to the north-east. Members noted that if the pilot was unsure about the position of the traffic, and hence unsure as to an appropriate direction to turn, he could reasonably have requested a Deconfliction Service, rather than requesting updated TI.

Turning to the glider pilot, members were disappointed to note that the glider pilot could not be traced, especially given the degree of regional liaison by RAF Linton-on-Ouse. Glider pilot members noted that the subject glider pilot may well not have been based at a local airfield, and also noted that the glider pilot could equally well have observed the formation passing and assessed the situation as benign, therefore not believing that an Airprox report was appropriate. In the absence of information from the glider pilot it was impossible to determine whether he or she had seen the formation and, if so, whether the pilot either took avoiding action or considered the miss-distance 'acceptable'. The delay in filing the event as an Airprox may have been a factor in identifying the glider pilot since tracing action taken at the time might have been able to link the glider to a particular competition task.

Members assessed that the ATS had been appropriate for the conditions and that the LIN DEP had passed timely and appropriate TI, albeit probably not fully assimilated by the Tucano pilot.

In the absence of information from the glider pilot, the Board determined that the Airprox was due to a conflict in Class G airspace but that, although safety margins were reduced, they had not been 'much reduced' below normal.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A conflict in Class G airspace.

Degree of Risk: C.

ERC Score[3]: 4.

[3] 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.