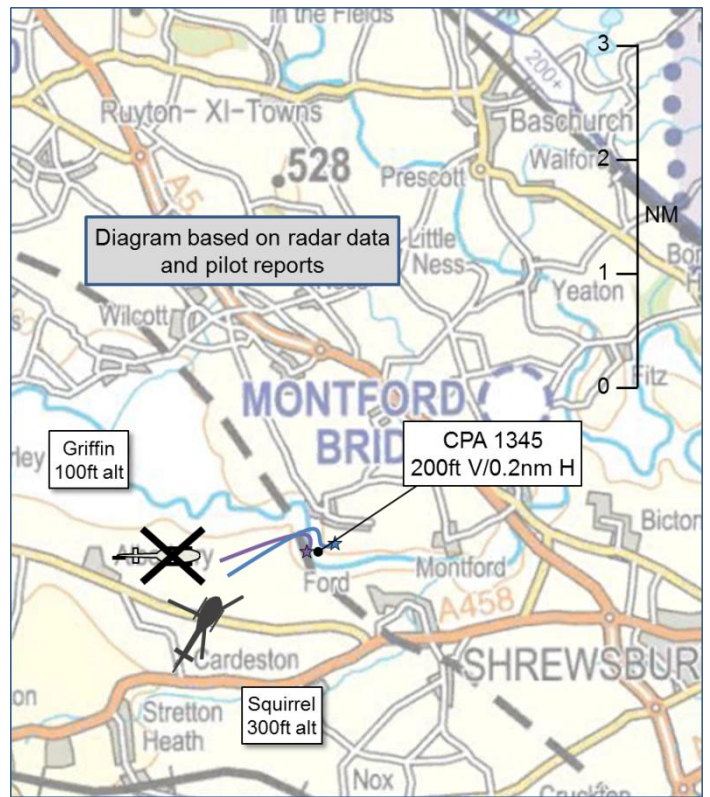


AIRPROX REPORT No 2015045

Date: 17 Apr 2015 Time: 1345Z Position: 5243N 00253W Location: Nesscliff

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Squirrel	Griffin
Operator	HQ Air (Trg)	HQ Air (Trg)
Airspace	LFA9	LFA9
Class	G	G
Rules	VFR	VFR
Service	Basic	Basic
Provider	Shawbury	Shawbury
Altitude/FL	300ft	100ft
Transponder	A,C,S	A,C,S
Reported		
Colours	Yellow/Black	Black/Yellow
Lighting	HISLs, Nav lights	Strobes, Nav lights.
Conditions	VMC	VMC
Visibility	40km	>10k
Altitude/FL	100ft	100ft
Altimeter	QNH (1022hPa)	QNH (1021hPa)
Heading	095°	090°
Speed	90kt	60kt
ACAS/TAS	Other TAS	Other TAS
Alert	TA	TA
Separation		
Reported	0ft V/5-700m H	0ft V/300m H
Recorded	200ft V/0.2nm H	



THE SQUIRREL PILOT reports that he was on a GH sortie in the western half of LFA9; the sortie was to include PFLs, quickstops, advanced transitions and malfunctions, and was a refresher in the middle of an Instrument phase of training. The intention was to conduct 3 PFLs prior to commencing low-level exercises. Approaching the area where they had intended to perform the PFLs, the pilot saw a Griffin doing right-hand quickstops in a 'tricolour' shaped field. Whilst heading south at height, he watched the Griffin complete one and thought he was moving clear of this area of good fields. He turned back round to NNE to position for the student's first PFL, but noticed the Griffin setting up for another quickstop. He stayed at height with the intention of giving the student a PFL that would take him to another triangular field in a position forward and left of the one that the Griffin was using, which would ensure that the Griffin pilot saw him he thought. He noted that, with hindsight, this was a poor choice; there was no need to operate in these fields as others were available further south. As they passed overhead the Griffin, he watched it in the final stages of his quickstop, turning into wind to hover in the field. Confident of its intent, and happy that there was sufficient lateral separation he gave his student the PFL; during the PFL, the Griffin was largely unsighted but he was confident that he was still clear of it. They completed the PFL and the instructor debriefed and instructed that they depart to the south out of the way. The Griffin was by now setting up for a third quickstop and, as they began the transition he came up in their 4 o'clock on a parallel easterly heading. As he was level with it, the Griffin began to turn towards them. The TAS audio may have warned at this point, but he couldn't be sure; however, he took control and broke off left to go north over the river in a climbing turn that would get them clear of the Griffin. He estimated that at the closest point they were one and half fields apart, about ½ km. they continued with the rest of the sortie as briefed.

He assessed the risk of collision as 'Low'.

THE GRIFFIN PILOT reports that a series of quickstops were flown to a field south of Nesscliff, each finished on an easterly heading. A Squirrel had been seen to approach the area at height and then depart, where it ceased to be a factor and visual contact was lost; it was also noted that a radio call had been made indicating that PFLs would be carried out in the “western” area, and that was presumed to be the same aircraft. On completion of one of the quickstop manoeuvres, the aircraft was flown to a 50ft hover and the instructor took control to debrief the manoeuvre; having relinquished control the student leant forward to stretch and noticed a Squirrel very high in the 12 o'clock, just visible through the upper canopy. The QHI saw the aircraft at the same time and tightened the planned right turn. It became obvious that the Squirrel was in autorotation and would be approaching a field not far away from the Griffin. Once the track was heading away from the Squirrel the TAS alert sounded. No alert was given prior to the closest point of approach, which was about 300m away at a similar level. During the post-sortie debrief it became clear that the trainee crewman had noted a TAS contact on the screen, just prior to the pilot seeing the Squirrel, and was attempting to look for the aircraft through the cabin windows, he could not remember what colour the contact was. He had been reluctant to interrupt the airborne debrief and therefore had not shared the information with the rest of the crew.

He perceived the severity of the incident as ‘Low’.

THE SHAWBURY LFA CONTROLLER reports he was the OJT¹ for the LFA position; there was one aircraft in the LFA, when the Squirrel pilot called at the western gate, requesting a Basic Service. The Griffin was operating beneath the radar cover and had last reported operating south of Nescliffe. At 1346 the Griffin pilot was heard on Stud 5 asking for the Squirrel operating at Yockelton to “come up on Stud 4”, but no reply was made. The Griffin pilot then switched to stud 4 to ask for the callsign of the Squirrel, he then declared an Airprox, requested that the RT was impounded and said he would report more details when he was on the ground. He then continued with his sortie. No traffic Information was passed to either aircraft because the one of the aircraft was operating beneath the radar cover and could not be seen.

THE SHAWBURY SUPERVISOR reports that the unit workload and the controller workload were low. He was not in the ACR at the time of the reported occurrence. On receipt of the report of an incident, he immediately relieved the controller in order to clarify the details. The RT was impounded and controllers were instructed to raise the relevant reports.

Factual Background

The weather at Shawbury was reported as:

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METAR EGOS 171250Z 09010KT CAVOK 12/03 Q1022 BLU NOSIG
METAR EGOS 171350Z 08014KT 9999 FEW035 SCT120 OVC220 12/04 Q1022 BLU NOSIG
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Analysis and Investigation

Military ATM

Studs 4 and 5 are used at RAF Shawbury for aircraft flying in the Low Flying Area under a Basic Service up to 3000ft. Where possible, crews are offered a discrete frequency to assist with instructing; it is common for crews to use stud 4 as a chat frequency but still declare intentions when on stud 5 for shared situational awareness.

At 1339:05, Shawbury Low Level (LL) provided a Basic Service to the Squirrel crew, who confirmed that they were conducting PFLs in Western at 1339:19 on stud 5.

¹ On-the-job-training instructor.

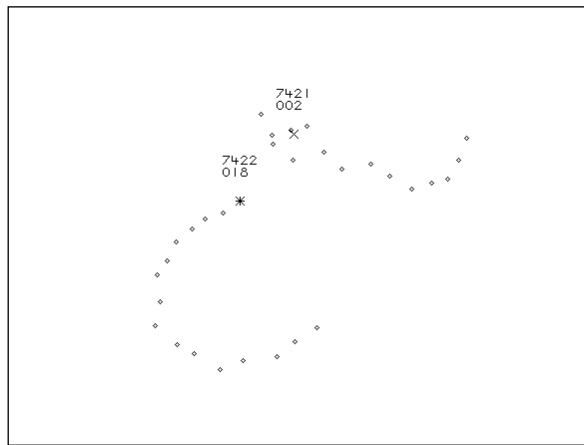


Figure 1: Geometry at 1344:34 (Griffin 7421; Squirrel 7422).

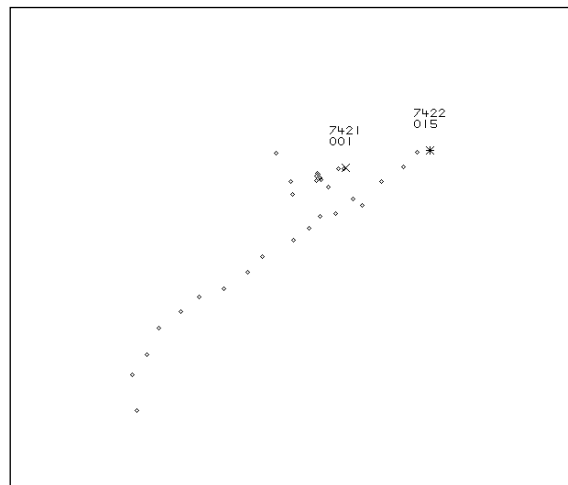


Figure 2: Geometry at 1345:07.

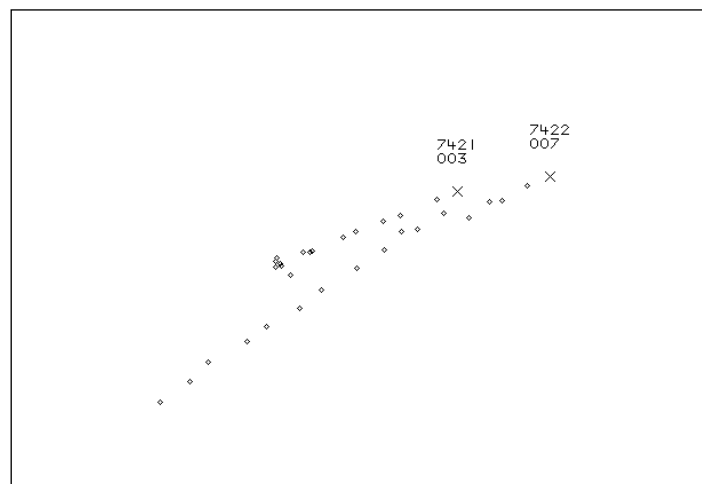


Figure 3: Geometry at 1345:32.

The CPA was estimated between 1345:42 and 1345:46 (Figure 4), with 0.2nm horizontal separation and around 100ft height separation.

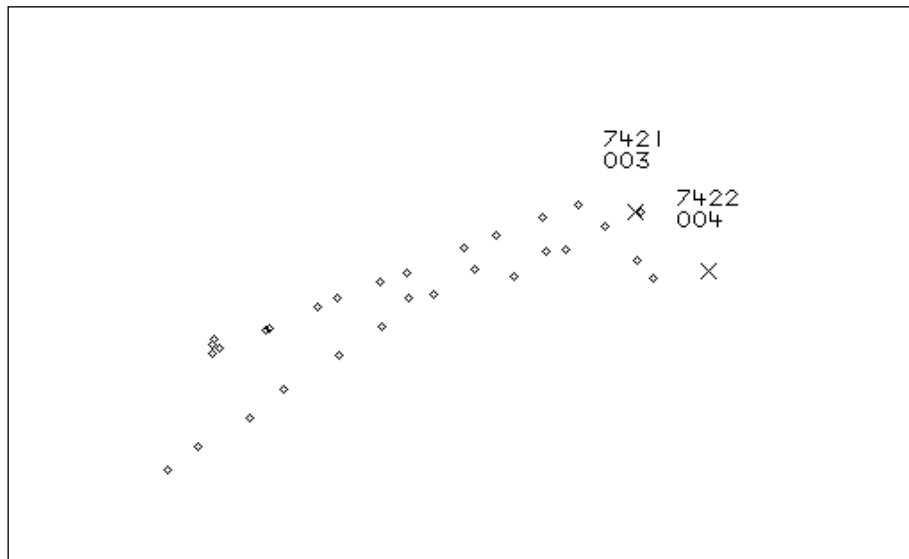


Figure 4: CPA at 1345:44.

At 1348:02, The Griffin declared, "Squirrel carrying out PFLs in the vicinity of Yockleton, please come up stud 4." At 1348:32, Shawbury LL confirmed the callsign of the Squirrel and the Airprox was declared at 1348:35.

Both crews were instructing in the Low Level environment, Class G airspace, under a Basic Service. The normal barriers to an Airprox for rotary aircraft operating low-level would be TAS and 'see-and-avoid'. As the aircraft were operating into fields, there was very little opportunity to receive Traffic Information. ATC considered the practice of asking for specific PFL areas on RT to provide a shared situational awareness; the control team did not request details of PFL area on this occasion but the crews had been visual with each other and had chosen operating fields understanding that another user was in the vicinity. The CVRs show evidence of TAS alerts in the Squirrel but they are less evident in the Griffin, supported by crew statements. Both captains had been visual prior to CPA but were involved in instructional sorties and manoeuvres that would have degraded lookout.

UKAB Secretariat

Both pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard².

Comments

HQ Air Command

There were several times when this incident could have been prevented; however, planning decisions, mis-communication, not following procedures, lack of flexibility (acknowledged in hindsight) and false assumptions all added together to bring 2 aircraft from the same Base into conflict. It is standard teaching for Shawbury controllers to record the areas in which PFLs are being conducted and pass the information to other users. The UT controller did not challenge the Squirrel pilot for failing to identify the specific area where he would conduct PFLs, he even discussed the omission with his instructor who stated that had they been busier, they would have done so. The Squirrel pilot has admitted that when he first saw that the Griffin was operating close to his intended operating area, he could have moved to another area (to the South), however he chose to stick with his original plan with the assumption and belief that the Griffin would maintain sight of him. An investigation was carried out by Shawbury ATC which resulted in a recommendation to remind all Shawbury controllers of the requirement to obtain the specific area within which a pilot wishes to conduct PFLs.

² SERA.3205 Proximity.

Summary

An Airprox was reported on 17 April 2015 at approximately 1345 between a Griffin and a Squirrel. Both aircraft were VFR and VMC in Class G airspace. They were both operating into fields and receiving a Basic Service from Shawbury. The Griffin was beneath the radar cover, so ATC were not able to provide Traffic Information; the Squirrel pilot received Traffic Information from his TAS.

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 considered the actions of the Squirrel pilot, and they thanked him for his open and frank report. The Board noted that he was flying a sortie that required a PFL with his student, and that he had identified a suitable field to use, probably one that he regularly used because of its eminent suitability. Although the Griffin was seen using a field near-by, it was clear to the Board that the Squirrel pilot considered that he could still safely use his field beyond the Griffin. The Board agreed with the pilot's own assessment in his report that, at this point, he should have looked for another field to use for PFLs; that being said, the Board noted that the incident had occurred after the PFL had been completed, so it was more a factor of 2 aircraft knowingly being operated in the same area than the specific fact that PFLs were being conducted *per se*. Prior to conducting the PFLs, Shawbury procedures state that the Squirrel pilot should have informed ATC about the area that he was intending to operate in, and that they should have reminded him to do so; had this happened the Griffin pilot may well have also been alerted to any potential conflict rather than assuming that the Squirrel had moved away from their operating area. Having committed to the PFL, the Board agreed that the Squirrel pilot had lost sight of the Griffin until the post-PFL recovery, at which point, as they both transitioned away from their respective manoeuvres, the Griffin unknowingly turned towards the Squirrel, who received a TAS TA and took avoiding action.

For the Griffin pilot, the Board felt that there was little he could do about the circumstances: he was undertaking his own training sortie; had seen the Squirrel early but thought it had moved away; and, as he was de-briefing the student and turning to the right, he saw the Squirrel emerge to abeam from his rear-right quarter and so he tightened his turn. The Board couldn't explain why his TAS didn't alert, and expressed concern that the crewman did not feel it sufficiently urgent to interrupt the instructor in order to call the traffic which he had seen.

The Board agreed that the cause of the Airprox was that the Squirrel pilot flew into conflict with the Griffin; because the Squirrel pilot was visual with the Griffin at all times, and also that the Griffin pilot had been able to tighten his turn to separation, they assessed the risk as Category C, timely actions had been taken to prevent a collision.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The Squirrel pilot flew into conflict with the Griffin.

Degree of Risk: C.