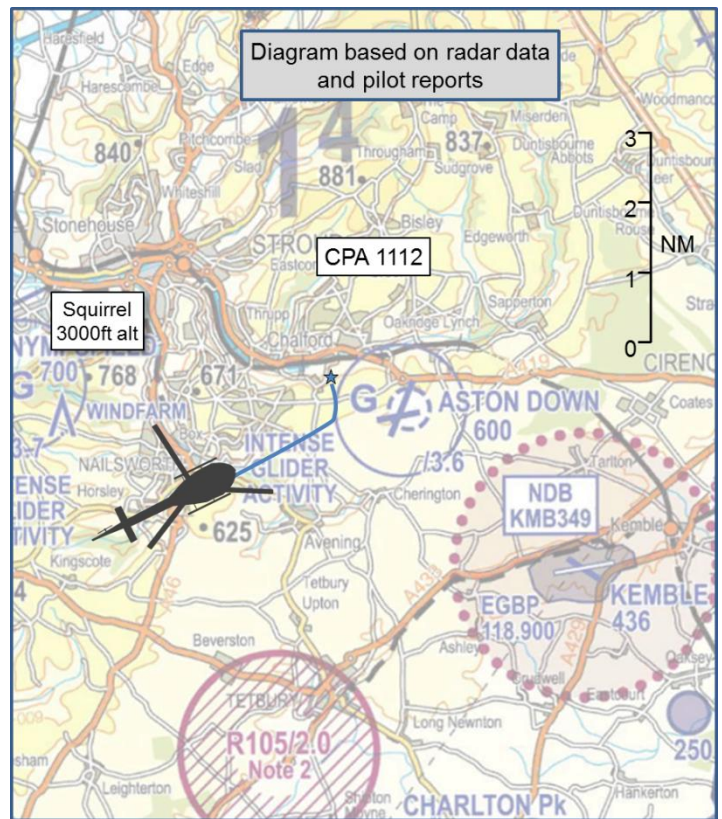


AIRPROX REPORT No 2015080

Date: 3 Jun 2015 Time: 1112Z Position: 5142N 00209W Location: 20nm SW Brize Norton

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Squirrel	Glider
Operator	HQ Air (Trg)	Unknown
Airspace	London FIR	London FIR
Class	G	G
Rules	IFR	NK
Service	Traffic	NK
Provider	Brize Radar	NK
Altitude/FL	3000ft	NK
Transponder	A,C	NK
Reported		
Colours	Black	White
Lighting	HISLs, landing light.	
Conditions	VMC	
Visibility	40km	
Altitude/FL	3000ft	
Altimeter	QNH (1014hPa)	
Heading	065°	
Speed	110kt	
ACAS/TAS	Other TAS	
Alert	Nil	
Separation		
Reported	50ft V/50ft H	NK
Recorded	NK	



THE SQUIRREL PILOT reports he was transiting back to his base and receiving a LARS via Gloster and Brize. Shortly after being handed over to Brize Radar, he was advised of a contact ahead and below, assumed to be a glider, which was sighted 1000ft below. ATC then gave avoiding action to turn left onto a heading of 360°, whilst conducting the turn the student in the right-hand seat saw the wing of a glider approaching in the lower right-hand window, the glider continued to climb past the right-hand window approximately 50ft away. The student continued the avoiding action turn and reported the glider to the rest of the crew.

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

THE GLIDER PILOT could not be traced.

THE BRIZE RADAR CONTROLLER reports that the Airprox was not reported on frequency at the time of the incident and he was only notified of it some days later; therefore, his recollection of the incident was hazy. The Squirrel was pre-noted by Bristol at 3500ft and on a Traffic Service. However, it free-called outside controlled airspace at FL50 and requested a Deconfliction Service. After starting to indentify the aircraft, the controller informed the pilot that if he wanted a Deconfliction Service, he would need to re-route 15nm to the west, and would be unable to transit through the Brize overhead due to the number of non-squawking tracks. The Squirrel was turned onto west for avoiding action against a track to the east, and the pilot stated that he would like a descent to become VMC, with the aim of accepting a Traffic Service. The pilot was duly given a descent and asked to report VMC below cloud. Once he had levelled, the pilot accepted a downgrade to Traffic Service and was given own navigation to BZN. Multiple tracks were called to the pilot on the transit, and it was reiterated on several occasions that there was intense glider activity around Nymphsfield

and Aston. Under its own navigation for Brize, he reported that the aircraft passed overhead Aston gliding site and the pilot was advised to climb to avoid a potential collision with the cable winch. [UKAB Note: the Squirrel did not in fact pass overhead the glider site, but to its west, as shown in the diagram on page 1]. The aircraft was then handed over to the Approach controller for his transit through the Brize CTZ.

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

Factual Background

The weather at Brize was reported as:

METAR EGVN 031050Z 26007KT 9999 SCT048 15/05 Q1022 BLU NOSIG

Analysis and Investigation

Military ATM

The Squirrel was under a Deconfliction/Traffic Service with Brize LARS. The Radar Analysis Cell captured the incident based upon the London QNH of 1022 hPa but could not detect the glider. The Deconfliction Service was provided at 1100:50 and the controller advised that he could not get the aircraft through the Brize overhead under the service due to multiple tracks operating in the Kemble area. At 1101:50, the crew requested a descent of 1500ft to get VMC below. Avoiding action was given at 1101:58 and the descent to 3000ft was given at 1102:15. The pilot called VMC below and was provided a Traffic Service and own navigation for Brize at 1104:43. Three sets of Traffic Information were then provided and a reduced service due to high traffic density. At 110:35 the Squirrel crew were warned that they were heading for the Aston overhead, which was active with glider activity.

At 1111:18, the controller transmitted, "[Squirrel c/s] Aston winch gliding up to altitude 3300 feet, suggest you avoid Aston." The squirrel asked for a repeat at 1111:27 and at 1111:29 the controller repeated, "Suggest a northerly heading to avoid Aston with winch gliding up to altitude 3300." The crew confirmed that they were avoiding Aston. The CPA was estimated at 1111:44 (Figure 1) based upon the avoiding action and the pilot report.

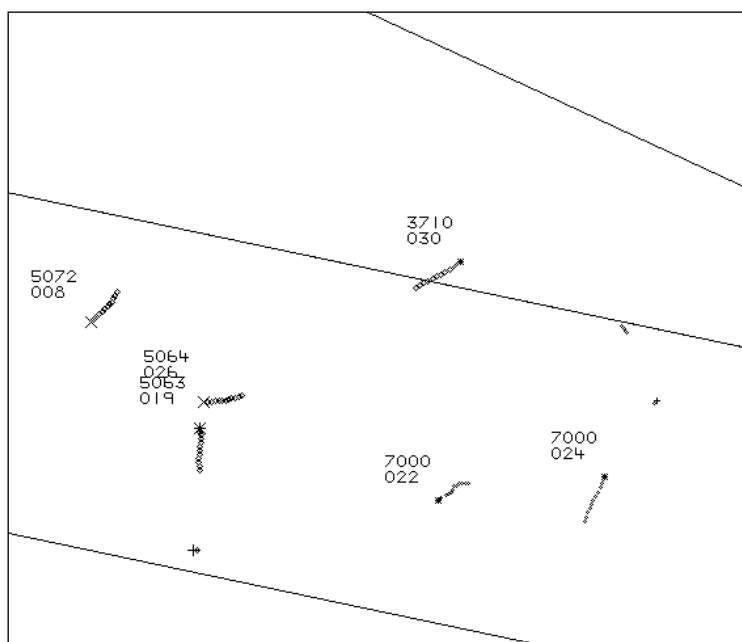


Figure 1: CPA estimated at 1111:44 (Squirrel squawk 3710).

The crew reported steady at 1112:34 and Brize gave a vector onto 090° with further Traffic Information at traffic at 3nm, with no height information.

The controller, with a great deal of assistance from an experienced Supervisor, had attempted to help the crew remain VMC and clear of traffic. Multiple sets of Traffic Information had been provided and the Traffic Service was reduced due to high traffic density. Following further Supervisor guidance, the crew were reminded of Aston gliding site and were eventually offered an avoid onto north to remain clear. The Airprox occurred as the Squirrel turned onto north and the crew became visual at CPA. The glider did not appear on any of the RAC radar replays. The crew had requested a descent to remain VMC and their new altitude had conflicted with Aston winch launches.

The normal barriers to an Airprox would be radar-derived Traffic Information, lookout and ACAS. Traffic Information had been called on detected aircraft along with advice on routing to avoid Aston. However specific information was not passed on the glider as it did not appear on the Brize radar. The ACAS equipped Squirrel could not detect a non-transponder; FLARM was not available to the Squirrel crew or ATC. The limitations of lookout are well-known, especially against a glider that may be difficult to acquire due to its target characteristics, slow relative motion and lack of colour contrast with the backdrop of the clouds.

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 hazard¹. When two aircraft are converging at approximately the same level, the aircraft that has the other on its right shall give way, except as follows: (i) power-driven heavier-than-air aircraft shall give way to ... sailplanes...²

Comments

HQ Air Command

This event took place in a known area of intense glider activity. It highlights the fact that very often gliders do not show up on radar and regardless of whether on a Traffic Service or Deconfliction Service, if a radar unit cannot identify a glider, they will not be able to alert you to or direct you away from its position. It also highlights the fact that white gliders with no other conspicuity features make identification difficult. No matter how many gliders you are aware of (through Air Traffic identification or your own lookout); there is always the possibility that there could be others in the area. In this instance, it is fortuitous that the Air Traffic advice provided to the Squirrel pilot to avoid Aston Down winch launching site was the catalyst which enabled the Squirrel pilot to see the glider.

BGA

This incident again illustrates the potential hazards for aircraft routing overhead promulgated and known-to-be-active gliding sites. It is gratifying to see the efforts made by the Brize Controller to assist the Squirrel pilot in avoiding Aston Down. Pilots should be aware of not only cable launching but tug/glider combinations and gliders that have recently launched and are climbing away close to the airfield above circuit height. Stall/spin training will also take place nearby. The immediate vicinity of a gliding site can be a very busy place on a soarable day.

Summary

An Airprox was reported on 3rd June 2015 at 1112 between a Squirrel and an untraced glider. The Squirrel pilot was at 3000ft, receiving a Traffic Service from Brize Radar and had received non-specific Traffic Information about the intense gliding activity.

¹ SERA.3205 Proximity.

² SERA.3210 Right-of-way.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the Squirrel pilot, 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 actions of the Brize Radar controller and commended him for reminding the Squirrel pilot of his proximity to the Aston down glider site. Without his reminder, and subsequent avoiding action, the pilot may well have flown straight through at a height below the winch launch. The Board also noted that the controller had passed generic Traffic Information to the pilot about numerous non-squawking contacts in the area which he believed to be gliders, and thought it unfortunate that this particular glider had not shown on the radar to allow more accurate Traffic Information to be passed.

In looking at the actions of the Squirrel pilot, the Board commended him for taking up a Traffic Service to assist his look-out, but thought that his choice of routing could have been better; in particular, they wondered whether, without ATC intervention he would have continued through Aston Down. That said, because of the timely reminder by ATC, he hadn't actually flown through it and the Board recognised that he was perfectly entitled to be in the airspace he was in. Notwithstanding, in Class G airspace, see-and-avoid is still the main mitigation against mid-air-collision particularly for gliders which are often not detected by radar. In this respect, members opined that this incident highlighted the need to clear the blind area on the outside of turns given that the incident occurred as the Squirrel was turning left away from Aston Down gliding site. The Board noted that the Squirrel pilot's sighting of the glider to his right was effectively at CPA, and too late to change the trajectory of the conflict, which had resulted in separation being at the minimum.

The Board were disappointed that the glider pilot hadn't been traced because it meant that they were deprived of the full picture of the nature of the Airprox and had no way of knowing whether the glider pilot was visual with the Squirrel. They noted that, despite extensive searching by the Radar Analysis Cell, it had not been possible to trace the glider pilot and no-one at Aston Down had reported seeing anything untoward (although it was recognised that the glider pilot could have been conducting a cross-country trip and therefore not from Aston Down). Ultimately, given the close proximity of the aircraft as reported by the Squirrel pilot and the absence of any report from a glider pilot (who would likely have also reported if he had seen the Squirrel so close), the Board believed that the glider pilot probably hadn't seen the Squirrel at all.

The Board discussed the issue of glider electronic conspicuity, a recurring Airprox theme, and noted that because the Squirrel was not P-FLARM equipped, and because most gliders did not carry a transponder, the TAS on board the Squirrel wouldn't have detected the glider. The JHC member commented that the MOD was investigating the feasibility of equipping Squirrels with P-FLARM, but that gliders were not considered to be the main risk of Airprox to the helicopter force, and it was likely that the cost of retrospectively fitting such equipment would be prohibitive.

Turning to the cause of the Airprox, the Board agreed that it was effectively a non-sighting by the Squirrel pilot (because by the time the crew saw the glider it was too late to take any action), and a probable non-sighting by the glider pilot. They determined the risk to be Category A, separation had been reduced to the minimum and chance had played a major part in the event.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: Effectively, a non-sighting by the Squirrel pilot and a probable non-sighting by the glider pilot.

Degree of Risk: A.