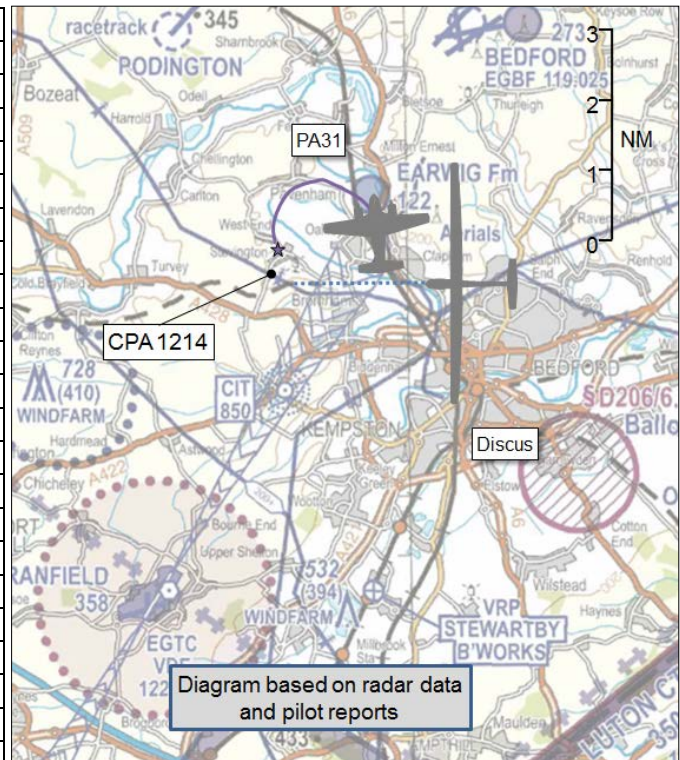


AIRPROX REPORT No 2016149

Date: 25 Jul 2016 Time: 1214Z Position: 5210N 00034W Location: IVO Cranfield

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Discus Glider	PA31
Operator	Civ Club	Civ Comm
Airspace	Lon FIR	Lon FIR
Class	G	G
Rules	VFR	IFR
Service	None	Procedural
Provider		Cranfield
Altitude/FL	NK	NK
Transponder	Not fitted	A, C, S
Reported		
Colours	White	
Lighting	Nil	
Conditions	VMC	
Visibility	>10km	
Altitude/FL	3750ft	
Altimeter	QFE	
Heading	270°	
Speed	60kt	
ACAS/TAS	FLARM	
Alert	Unknown	
Separation		
Reported	300ft V/0m H	NK
Recorded	NK	



THE DISCUS PILOT reports that he was routing towards Olney and could see the Cranfield runway, so he switched to Cranfield Approach frequency to listen out. When east of the centreline, he did a brief circling climb, which, with the wind from the west, meant that he drifted away from the centreline. As he was straightening up he saw a small twin-engine aircraft pass underneath, crossing left to right. Shortly afterwards he heard another aircraft telling ATC that there was a glider nearby 'in our holding pattern'. He called Approach and confirmed that he had seen a twin-engine aircraft nearby, but could not confirm its registration. He then passed his transit details to ATC. There was no further communication until he called to say that he was leaving the frequency.

He assessed the risk of collision as 'Medium'.

The PA31 pilot did not file a report. However, his company contacted UKAB and reported that he was on an IFR sortie and was thought to be in the Cranfield instrument pattern. They said that he had no recollection of the incident.

Factual Background

The weather at Cranfield was recorded as follows:

METAR EGTC 251150Z 25008KT 9999 FEW036 20/11 Q1019=

Analysis and Investigation

CAA ATSI

The Discus was on a VFR flight and no ATC Service was being provided, although the pilot was listening out on the Cranfield Approach frequency. The PA31 was on an IFR training flight via the 'CIT' non-directional beacon (NDB) (Figure 1). The intentions of the PA31 pilot were to take up the hold at the 'CIT', carry out one NDB hold followed by two instrument approaches (one NDB and one ILS) to RW21 at Cranfield. At the time of the Airprox the PA31 was in receipt of a Procedural Service from Cranfield App and was transponding 7417, a published IFR conspicuity code allocated for use by Cranfield.

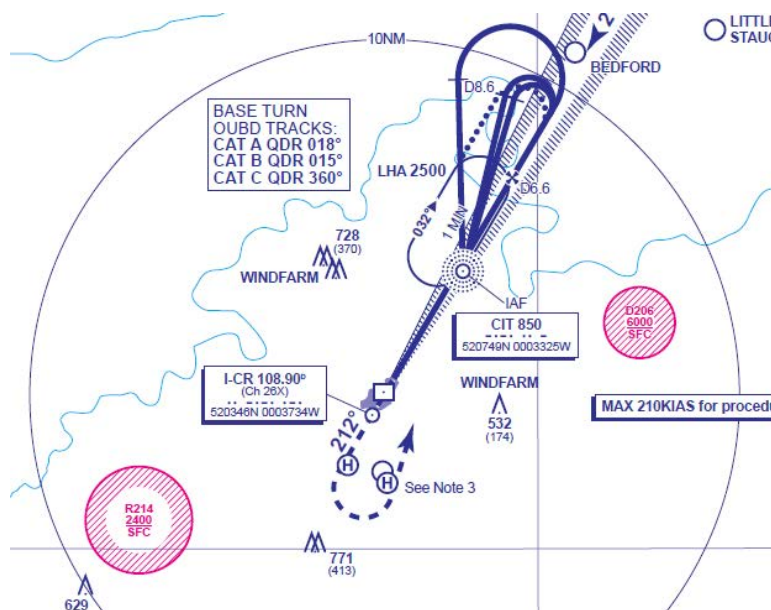


Figure 1 - UK AIP AD 2-EGTC-8-3 Instrument Approach Chart

At 1211:15 (Figure 2), the PA31 pilot reported approaching the 'CIT' NDB at altitude 3500ft and requested to join the hold. The Cranfield App controller instructed the PA31 to maintain altitude 3500ft and to report taking up the hold. A Procedural Service was then agreed and the PA31 was instructed to squawk 7417. [UKAB Note: Cranfield have no radar and so the controller would not be aware of any traffic not in contact with him, the radar screen shots below were not available to the Cranfield controller].

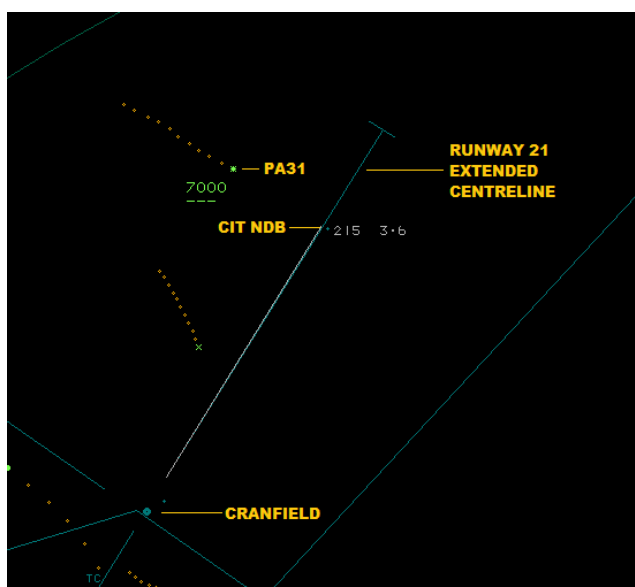


Figure 2 – Swanwick MRT at 1211:15

At 1212:36, the PA31 pilot reported that there was a glider operating within the confines of the 'CIT' hold, he then described the glider as being just above 3500ft and heading north-west. At 1214:14 (Figure 3), using the area radar recordings, an unidentified primary return was observed 0.3nm to the south south-west of the PA31 tracking approximately west.

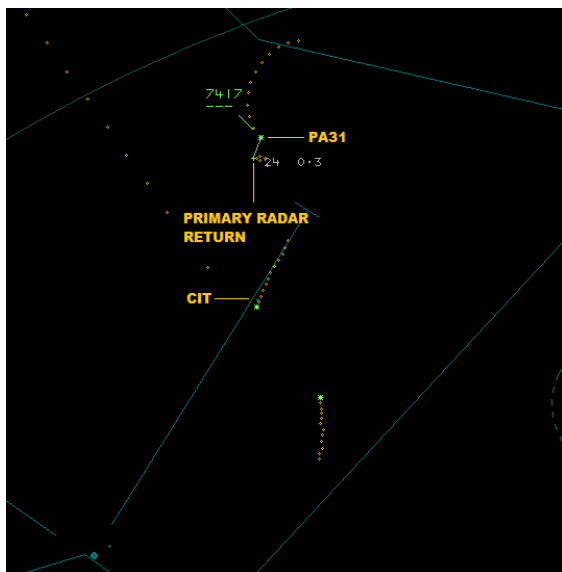


Figure 3 - Swanwick MRT at 1214:14

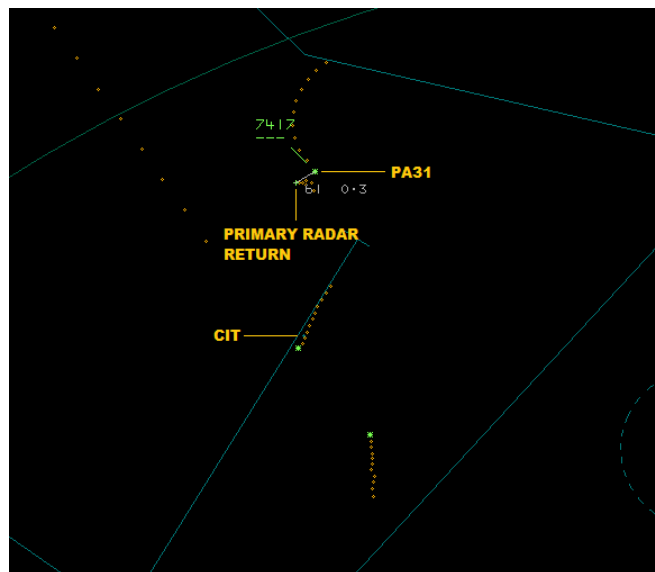


Figure 4 - Swanwick MRT at 1214:20

At 1214:20 (Figure 4), the PA31 pilot again reported the presence of a glider within the confines of the 'CIT' hold and asked the controller where the glider might be from. The Cranfield App controller then explained that given the prevailing weather conditions the glider could be from almost anywhere. The PA31 pilot then expressed concern about the glider operating in the vicinity of a published NDB hold.

At 1214:34 (Figure 5), the Discus contacted Cranfield App and reported his position as being north-west of Cranfield at altitude 3500ft, he also described that he was circling from time to time. The Cranfield App controller asked the Discus pilot whether he was in the vicinity of the 'CIT' NDB. The Discus pilot did not confirm this; however, he reported having seen a twin-engine aircraft pass behind him two minutes previously. The Cranfield App controller then went on to explain that the 'CIT' was the primary hold for the instrument approach procedure at Cranfield. The Discus pilot reported that he was tracking towards Olney. At no time did he request an ATC service from Cranfield App.

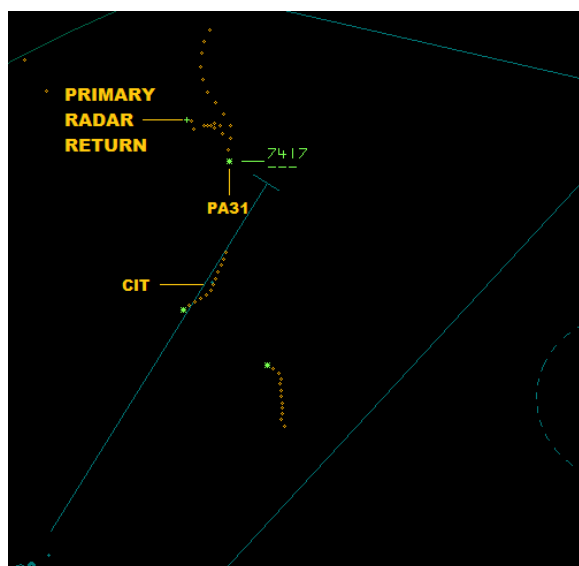


Figure 5 - Swanwick MRT at 1214:34

Using the area surveillance recordings, it was possible to identify the PA31 using Mode S. The Discus could not be positively identified; however, an intermittent primary radar return was observed in the vicinity of the 'CIT' coincident to the Discus pilot contacting Cranfield App. Due to the intermittent nature of the unidentified radar contact it was not possible to calculate CPA. However, the geometry of the Airprox together with the Discus pilot's sighting report and subsequent written report is broadly consistent with the recorded radar data. Despite the PA31 pilot expressing concern over the R/T regarding the proximity of a glider prior to him entering the 'CIT' hold, the PA31 pilot did not file an Airprox report.

At the time of the Airprox, the Cranfield Approach controller was providing a combined Aerodrome and Approach Control service without the aid of surveillance information in Class G (uncontrolled) airspace. The PA31 was in receipt of a Procedural Service. CAP774, UK Flight Information Services, Chapter 5, Paragraph 5.1 states that:

'A Procedural Service is an ATS where, in addition to the provisions of a Basic Service, the controller provides restrictions, instructions, and approach clearances, which if complied with, shall achieve deconfliction minima against other aircraft participating in the Procedural Service. Neither traffic information nor deconfliction advice can be passed with respect to unknown traffic'.

UKAB Secretariat

The Discus and PA31 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard¹. If the incident geometry is considered as converging then the PA31 pilot was required to give way to the glider².

Comments

BGA

It's good to see that the Discus pilot was listening out and contacted Cranfield when the confliction became apparent. Instrument holds in Class G airspace are not always obvious to VFR pilots, given that they are not marked on VFR charts.

Summary

An Airprox was reported when a Discus glider and a PA31 flew into proximity at 1210 on Monday 25th July 2016. The Discus glider pilot was operating under VFR in VMC, without an ATS. The PA31 pilot was IFR, and operating in the Cranfield instrument pattern, although his flight conditions were not known because he did not file a report.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of a report from the Discus pilot, transcripts of the relevant RT frequencies, radar photographs/video recordings, and reports from the appropriate ATC and operating authorities.

The Board first looked at the actions of the Discus pilot. He was flying in the vicinity of Cranfield and, commendably, was listening out on their frequency. Although he was entitled to operate in that location in Class G airspace, and acknowledging that he may not have had an RT licence, members wondered why he hadn't given at least an information call to ATC to let them know where he was. They also wondered if he might have heard the PA31 pilot also on frequency, and could have assimilated that it was nearby in the Cranfield IFR hold had he known where that hold was. In his defence, the Board thought that because he was flying at and around the cloud base of 3600ft, he

¹ SERA.3205 Proximity.

² SERA.3210 Right-of-way (c)(2) Converging.

probably assumed he would be above any Cranfield traffic directly inbound on the 'feathers' but would not necessarily be expected to know where the hold was located other than to appreciate that Cranfield was a busy airfield that would have some system of holds in the vicinity. Board members who knew Cranfield suggested that the frequency can also be extremely busy, which might have precluded the glider pilot being able to call; however, the transcript from CAA ATSI indicated that, although moderately busy, there was certainly time for the pilot to have made the call on this occasion had he wished. Noting that it is difficult for free-ranging glider pilots to find out the position of IFR holds because they are not printed on the VFR charts, the Board recalled previous recommendations to the CAA that they publish a chart detailing UK airfield IFR holding patterns as a one-stop solution to informing the GA VFR community, (specifically Airprox 2014126). The CAA had rejected this recommendation, citing that the information is available by other means. The Board did not contest that the information was available by searching numerous documents, but they felt that this incident again demonstrated the fact that it was not easy for GA pilots who did not fly IFR themselves (and may be operating from bare-base locations as is common in gliding activities) to know where the holds were situated by consulting a single source of information.

The Board were very disappointed that the PA31 pilot had not filed a report, particularly because the RT transcript revealed that he had seen the glider and clearly appeared to have been disturbed by its presence at the time. Only by having available all relevant information could the Board conduct its work effectively, and members noted that, under the CAA Mandatory Occurrence Reporting Scheme (CAP 382), any aircraft operated under an air operator's certificate of airworthiness granted by the CAA³ should have submitted a report on request.

In determining the cause of the Airprox, the Board noted that both pilots had seemingly been concerned by their proximity but that it was the Discuss pilot who had been specifically concerned by the proximity of the PA31. In the absence of any information from the PA31 pilot, especially regarding when the glider was sighted, they reluctantly agreed that the best description of the event was therefore that the Discuss pilot was concerned by the proximity of the PA31. That being said, members concluded that a contributory factor was that the glider pilot had been operating in the vicinity of the hold without speaking to ATC. The Board then discussed the risk; however, without the report from the PA31 pilot, or any radar recordings that showed the incident at CPA, it was impossible to judge how close the two aircraft had come and so they therefore also reluctantly assessed the risk as Category D, insufficient information.

PART C: ASSESSMENT OF CAUSE AND RISK

<u>Cause:</u>	The Discuss pilot was concerned by the proximity of the PA31.
<u>Contributory Factor:</u>	The Discuss pilot operated in the vicinity of the hold without communicating with ATC.
<u>Degree of Risk:</u>	D.

³ CAP382, 2.2.1