

## **AIRPROX REPORT No 2013105**

Date/Time: 9 Aug 2013 1502Z

Position: 5212N 00049W  
(10nm NW Cranfield)

Airspace: Lon FIR (Class: G)

Reporting Ac Reported Ac

Type: SA Bulldog Discus glider

Operator: Civ Comm Civ Club

Alt/FL: 3500ft 3500ft  
QNH (1015hPa) QNH (1017hPa)

Weather: VMC CLBC VMC CLBC

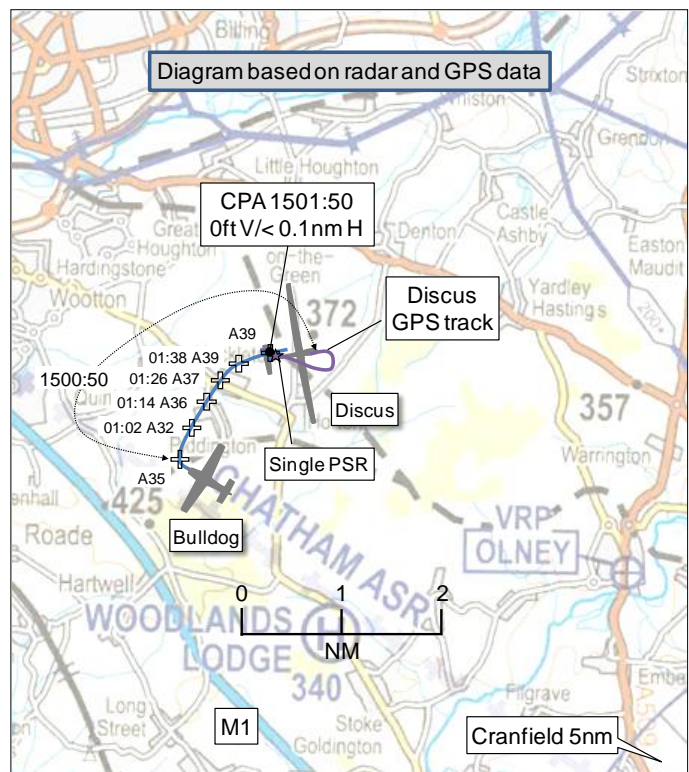
Visibility: >10km 12km

Reported Separation:

100ft V/100m H 100m

Recorded Separation:

0ft V/<0.1nm H



### **PART A: SUMMARY OF INFORMATION REPORTED TO UKAB**

**THE BULLDOG PILOT** reports departing his home base. The blue and white aircraft had navigation lights and beacon selected on, as was the SSR transponder with Modes A, C and S. The aircraft was fitted with a PowerFLARM<sup>®</sup> Traffic Alerting System (TAS). The pilot was operating under VFR in VMC, in receipt of a Basic Service from Cranfield. The pilot reported turning right through north after take-off, climbing through altitude 3500ft at 85kt, when he received a PowerFLARM alert displaying an immediate collision threat<sup>1</sup>. He looked out and saw a white glider in the 1 o'clock position at a range of about 100m and 100ft below him. He stated that he believed it was likely the glider pilot had also received a FLARM alert as the glider was turning away when he first sighted it.

He assessed the risk of collision as 'Medium'.

**THE DISCUS PILOT** reports flying on a task on the fifth day of the combined Inter-Services and Midland Regional Gliding Championships. The white glider was not fitted with lights or an SSR transponder but was fitted with a FLARM<sup>®</sup> TAS. The pilot was operating under VFR in VMC, listening out on the 'general gliding frequency' of 130.400MHz<sup>2</sup>. He stated that he had found the competition demanding and that this was exacerbated by difficult meteorological conditions; he was working hard in patchy lift. He also noted that he was completing the Airprox report some 1½ months after the incident and that he did not have a detailed recollection of events. He believed he was climbing in a left hand orbit in a thermal when he became aware of a dark blue, low-wing, single-engine aircraft in the right 2 o'clock position at a range of about 500m, just before his FLARM alarmed. He banked more steeply to the left and believed the powered aircraft pilot also increased his left bank; they passed each other on the left, the powered aircraft slightly above him. He noted that his perception of the low severity of the incident may have been influenced by his very close proximity to numerous gliders and consequent FLARM alerts during the course of the competition. The pilot stated that he was 'a great fan of FLARM and had been assisted by it on several occasions'.

He assessed the risk of collision as 'Low'.

<sup>1</sup> The Airprox occurred about 10min after T/O.

<sup>2</sup> BGA Laws and Rules for Glider pilots, Edition 18 including v1.2 amendments, dated November 2012. This RTF is one of 5 allocated to the BGA by the CAA. Its stated use is 'Cloud flying and relaying cross-country messages only'.

## Factual Background

The weather at Cranfield was recorded as follows:

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METAR EGTC 091450Z 32013KT 280V340 9999 FEW040 21/12 Q1018
METAR EGTC 091520Z 29011KT 270V340 9999 FEW040 21/11 Q1019
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The Gliding Championships NOTAM was recorded as follows:

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(H3511/13 NOTAMN
Q) EGTT/QWGLW/IV/M /W /000/100/5226N00103W010
A) EGTT B) 1308030427 C) 1308111937
D) SR-SS
E) MAJOR GLIDING COMPETITION INC CROSS-COUNTRY ROUTES. INTENSE ACT WI 10NM RADIUS
522626N 0010238W (HUSBANDS BOSWORTH, LEICESTERSHIRE). UP TO 40 GLIDERS AND 7 TUG ACFT
MAY PARTICIPATE. GLIDERS WILL NORMALLY OPR BLW THE INVERSION LVL OR BTN THE TOPS OF
ANY CU CLOUDS AND 500FT AGL. RTF CTC 127.575MHZ. FOR INFO ON DAILY TASK RTES CTC
GLIDER CONTEST CTL TEL 01858 880521 OR 07795 422567 OR VIEW
WWW.BGALADDER.CO.UK/SHOWTASK.ASP FOR HUSBANDS BOSWORTH. 13-08-0100/AS3.
F) SFC G) FL100)
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The ACN for the Gliding Championships is reproduced at Annex A.

## Analysis and Investigation

### UKAB Secretariat

Tracing of the glider pilot was considerably complicated by the Bulldog pilot's reported time and location of occurrence, neither of which were coincident with the CPA, as eventually established.

Both pilots were operating under VFR in VMC in Class G airspace and were equally responsible for collision avoidance<sup>3</sup>; the Bulldog pilot was required to give way<sup>4</sup>. Each pilot saw the other, the glider pilot shortly before a FLARM alert and the Bulldog pilot as a result of a PowerFLARM alert. The CPA was determined through a combination of radar data from the Bulldog and the Discus' GPS data. Of note, a Mode C altitude response is subject to an acceptable error of +/- 200ft.

## Comments

**THE BULLDOG OPERATIONS FLIGHT SAFETY OFFICER** stated that the company had been using PowerFLARM in its light aircraft for 3 years and had found it to be a highly effective system, alerting pilots to other traffic in Class G airspace. The company actively promoted the use of such devices to reduce collision risk.

## Summary

A Bulldog and a Discus flew into conflict at about 1502 on 9<sup>th</sup> August 2013. Both pilots were operating under VFR in VMC in Class G airspace, the Bulldog pilot in receipt of a Basic Service and the Discus pilot not in receipt of an ATS, listening out on a BGA allocated frequency. Each pilot received an alert from their TAS, the Discus pilot just after starting to take avoiding action and the Bulldog pilot as the glider was turning away.

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<sup>3</sup> Rules of the Air 2007 (as amended), Rule 8 (Avoiding aerial collisions).

<sup>4</sup> *ibid.*, Rule 9 (Converging).

## **PART B: SUMMARY OF THE BOARD'S DISCUSSIONS**

Information available included reports from the pilots of both ac, radar video recordings and GPS log data.

The Board first considered the Bulldog pilot's actions. His sortie took him near to the glider competition task route, however, given the nature of the NOTAM (which referred only to activity within a 10nm radius of an airfield that was 27nm from his base), he could not have deduced this from that source. Equally, given that glider task routes often extend hundreds of kilometres, it would probably have been impractical for him to check the BGA Ladder for all gliding task routes that might transit his normal operating area. The Board recalled that, in light of previous similar Airprox regarding glider competition task routes, a recommendation had been made in Airprox 2013079<sup>5</sup> to address this issue: work was ongoing by the BGA in this respect. Further to this work, the Board emphasised that the competition ACN contained an 'essential' requirement for the Competition Director to notify the military Low Flying Booking Cell of 'likely cross-country routes'<sup>6</sup>, but that this requirement did not extend to non-military notification. Finally, members noted that the Bulldog pilot was in receipt only of a Basic Service whereas a radar-based ATS might have provided him with traffic information. Notwithstanding, it was acknowledged that a glider would normally display only as a radar primary contact, if at all, and so it may not have assisted in this instance; the increased RT of a radar-based service had also to be balanced against the Bulldog pilot's sortie aim.

Turning to the glider pilot, the Board felt that his efforts to remain airborne in 'patchy lift' would necessarily channel his attention towards seeking indications of lift around him, which could detract from general look-out for other aircraft. In the event, he reported seeing the other aircraft at a range of 500m, just before his FLARM alerted, and took effective avoiding action. The Board opined that it was regrettable that it had only been possible to inform the glider pilot of the Airprox 1½ months after the event; discrepancies between his report and the radar picture were probably due to the elapsed time.

In the event, both pilots received alerts from their TAS equipment and were able to visually acquire and manoeuvre to avoid the other aircraft. The Board felt that this equipment had been instrumental in reducing the risk of the encounter. The Board commended the use of FLARM and PowerFLARM to all as a highly valuable means of mitigating the risk of mid-air collision for many aircraft types.

Turning to the cause and risk, the Board felt that, given the prevailing weather conditions and geometry of the incident, both pilots had the opportunity to see the other aircraft earlier than they did, and that it was their late sightings that had caused the Airprox. The glider pilot had reportedly seen the Bulldog first, before his TAS alarmed, and had started to manoeuvre away. The Bulldog pilot's visual sighting was associated with the directed look-out derived from his FLARM equipment. The Board therefore felt that, on balance, effective and timely actions had been taken to prevent the aircraft colliding.

## **PART C: ASSESSMENT OF CAUSE AND RISK**

Cause: Late sighting by both pilots.

Degree of Risk: C.

ERC Score<sup>7</sup>: 4

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<sup>5</sup> 'The UKAB recommends that the BGA Competitions Committee reviews the content of glider competition NOTAMs and promulgation of daily task notification.'

<sup>6</sup> Annex A, paragraph 8.

<sup>7</sup> 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.



Safety and Airspace Regulation Group  
AIRSPACE UTILISATION

ACTIVITY NO: 2013-08-0100

24 Jul 2013

See Distribution

## AIRSPACE CO-ORDINATION NOTICE

### BGA MIDLAND REGIONALS GLIDING COMPETITION HUSBANDS BOSWORTH AIRFIELD 03-11 AUG 2013

Reference:

- A. British Gliding Association Notification (Mr C Rule). E-mail dated 03 Jun 13 (BGA Comps 2013).
- B. CAA Exemption From Rule 18 (Husbands Bosworth) dated 02 May 13.

#### ALL TIMES UTC

#### INTRODUCTION

1. As requested/notified at Reference A, the following measures have been agreed by AU with the organiser and airspace controlling authorities to accommodate the title subject Unusual Aerial Activity.

#### ACTIVITY

2. A BGA sponsored Midland Regionals Gliding Competition, including cross-country flights, to be mounted from The Gliding Centre located at Husbands Bosworth Airfield, Leicestershire [Position: 522626N 0010238W].

#### DATES AND TIMES

3. Sat 03 Aug – Sun 11 Aug 2013. DAILY from Sunrise to Sunset.

#### VERTICAL LIMITS

4. The activity will take place from surface to FL100. Glider participants can be expected at any level but will normally operate below the inversion level or between the tops of any cumulus clouds and 500ft agl. Controlled airspace will be avoided unless prior clearance has been obtained from the Airspace Controlling Authority.

#### OPERATING AUTHORITY OR SPONSOR

5. a. Competition Director: Mr Frank Davies.

'The Gliding Centre'

Civil Aviation Authority, K6, 45-59 Kingsway, London, WC2B 6TE  
Direct Dial: 0207 453 6583 or 6599. DFTS (9) 6453 ext 6583. Fax: 020 7453 6593  
Internet/Email: [mandy.biggs@caa.co.uk](mailto:mandy.biggs@caa.co.uk)



FS 36365



INVESTOR IN PEOPLE

ACN 2013-08-0100

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Husbands Bosworth Airfield  
Lutterworth  
Leicestershire LE17 6JJ  
Mob: 07795 422567  
Email: [frank@greystone.demon.co.uk](mailto:frank@greystone.demon.co.uk)

- b. **Glider Contest Control**: The contact for this competition is Glider Contest Control Tel: 01858 880521.
- c. **Radio Contact**: VHF 127.575Mhz.

#### **AIRCRAFT**

- 6. Up to 40 x gliders and 7 x powered tug aircraft may participate.

#### **CO-ORDINATES OF AREA OR EVENT**

- 7. The activity will take place within 10nm radius of 522626N 0010238W (Husbands Bosworth Airfield). After launching, most participants may be concentrated in the airspace around and just downwind of the launch site or on the first leg of the daily nominated cross-country route.

**Note:** For daily information on routes, activity and likely take off times contact Glider Contest Control Competition Director [as per Para 5 above]. In addition, the BGA web site: [www.bgaladder.co.uk/showtask.asp](http://www.bgaladder.co.uk/showtask.asp) may contain daily task information under the Selected Gliding Clubs tab.

#### **CO-ORDINATION ARRANGEMENTS**

- 8. It is essential that the Competition Director relays details of the daily flying activities at the site (inc likely cross-country routes) to RAF Wittering Low Flying Booking Cell (LFBC) on Tel: 01780 783838 Ext 5002 or Free Phone: 0800 515544 when the military low flying system is open. Ideally, this should be done at least 4hrs before daily launch in order that appropriate Military 'Y' Series NOTAM action can be taken if necessary.

- 9. At Reference B, the CAA has exercised powers under Article 242 of the ANO 2009 to exempt gliders participating in the Midland Regionals Gliding Competition and flying from Husbands Bosworth Airfield. This exempts gliders from Rule 18 of the Rules of the Air Regulations 2007 when flying (during the period 03 – 11 Aug 13 between 1000hrs and 1800hrs UTC) in the areas bounded by the following positions:

**The Daventry Box.** The airspace forming that part of the London Terminal Control Area bounded by the following:

520835N 0011700W - 522048N 0010740W - 521355N 0010026W - 521049N  
0010650W - 520835N 0011700W

From 4,500 to 5,500 ft amsl.

- 10. The Competition Director is to contact the **ATC Watch Manager at Birmingham Airport on Tel: 0121 7671210** each day at least 45 minutes prior to the start of gliding activity to obtain approval to use the airspace and to advise the start and finish times, or cancellation, of the day's operations. This information will be cascaded to LTC (Swanwick) GS North and London Luton Airport ATC as necessary.

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Continued (2 of 3 pages)

ACN 2013-08-0100

**OTHER NOTIFIED ACTIVITY**

11. As per any daily NOTAM promulgated as effective in the area on the day.

**AERONAUTICAL PUBLICATIONS**

12. A Systems NOTAM will be issued by AU to cover the overall event.

**AMENDMENT ACTION**

13. The Sponsor should co-ordinate any changes to this ACN with AU on Tel: 0207 453 6599 or Fax: 0207 453 6593 or Email [ausops@caa.co.uk](mailto:ausops@caa.co.uk) quoting the Activity Number at the top of the page.

A J BIGGS  
Airspace Specialist 3

Distribution: All by e-mail

Action:

BGA	BGA Competition Committee [FAO Mr C Rule]
Birmingham Airport	ATC Ops & Trg Mgr
East Midlands Airport	Mgr ATS
Husbands Bosworth Airfield	The Gliding Centre [For Competition Director]
LACC Swanwick	TC Ops
LATCC (Mil)	West Supervisor
RAF Wittering	Low Flying Ops Sqn (LFBC)

Information:

Bruntingthorpe Airfield	ATC Ops
Coventry Airport	Mgr ATS
LACC Swanwick	AC Ops
LATCC (Mil)	MABCC, WO Ops
Leicester Airfield	ATC Ops
London Luton Airport	Mgr ATS
Northampton/Sywell Airfield	ATC Ops

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