

## **AIRPROX REPORT No 2014006**

Date/Time: 23 Jan 2014 1546Z

Position: 5154N 00203W  
(4.3nm E of Gloucestershire Airport)

Airspace: London FIR (Class: G)

Aircraft 1                      Aircraft 2

Type: Tecnam P2006T      Nimbus 3D

Operator: Civ Trg                      Civ Club

Alt/FL: 1900ft                      NK  
            QNH (1012hPa)      NK

Conditions: VMC                      VMC

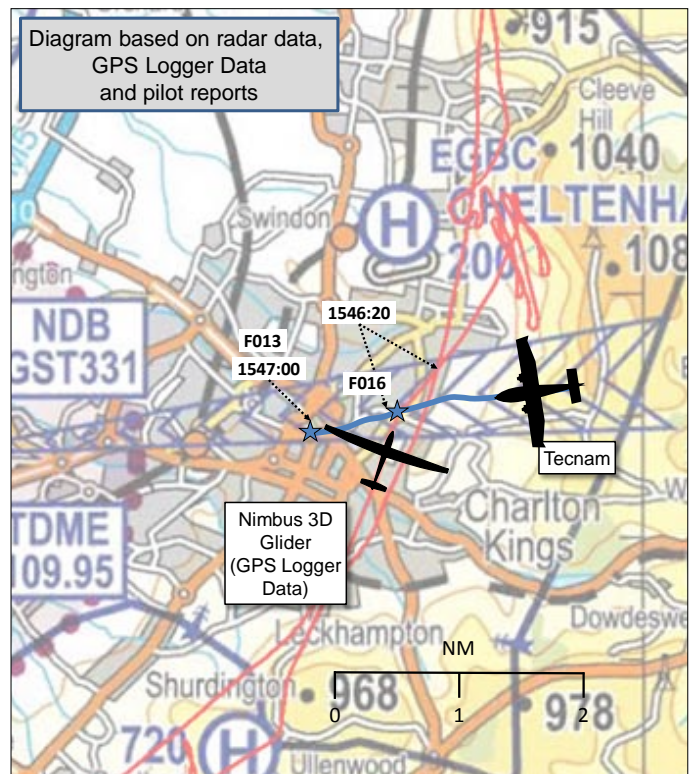
Visibility: NK                      NK

Reported Separation:

0ft V/2-300m H      0ft V/500-1000m H

Recorded Separation:

NK V/NK H



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

**THE TECNAM PILOT** reports flying a white aircraft with landing and strobe lights illuminated, squawking Mode 3/A code 7000 with modes C and S. The Captain reports flying IFR in VMC, under a 'Traffic or Procedural' Service with Gloucester (Gloster) Approach, heading 270° at 100kt, on a training flight with the student acting as the handling pilot from the left-hand seat, and another student in one of the rear seats. The weather was CAVOK but 'instrument screens' were being used to simulate IMC conditions for the handling pilot. During a very busy phase of flight, having commenced their final descent at the Final Approach Fix, the crew had positioned the aircraft at 4.5 DME and 1900ft QNH when Gloster Approach passed Traffic Information on an aircraft in their 10 o'clock. The Captain and the rear-seat student both looked through the gaps in the instrument screens and saw a glider; the Captain quickly assessed that no avoiding action was necessary and kept the glider in sight as it passed behind them. Had ATC not passed Traffic Information, the Captain assessed that they would have been unlikely to have seen the glider due to the screens.

He assessed the risk of collision as 'Medium'.

**THE NIMBUS 3D PILOT** reports hill soaring in the glider, VMC in a westerly wind, 4.5nm east of Gloucestershire Airport at around the time and date of the Airprox. Having left Leckhampton Hill, he crossed Cheltenham from the south-southwest and arrived over Cleeve Hill at around '1800ft QNH'. On finding lift 'off Cleeve Hill', he turned '180° to beat [the] hill' and then saw the 'other aircraft' as it passed from left to right, he recalls, at a similar height and around 500-1000m horizontally and did not consider it a threat. He assessed that the other aircraft appeared to be on long-final for Gloucester Airport. The glider pilot submitted his report by email and, when contacted to expand on the details, he declined complete the Airprox reporting form, stating that it was not suitable for glider pilots and he referred the Secretariat to the BGA Gliding Ladder for further details.

## Factual Background

The Gloster weather was recorded as:

METAR EGBJ 231520Z 27011KT 9999 FEW025 06/01 Q1012=  
METAR EGBJ 231550Z 27008KT 9999 FEW025 06/01 Q1013=

## Analysis and Investigation

### CAA ATSI

CAA ATSI had access to Gloster RTF and area radar recordings, together with the written reports from the Gloster Approach controller and the TECNAM pilot. Gloster ATSU provided radar prints showing the proximity of the two aircraft.

The Tecnam was conducting an instrument training flight operating IFR from Gloster and had commenced the procedural NDB DME approach for RW27. The Tecnam was in receipt of a Procedural Service from Gloster Approach on frequency 128.550MHz. At the time of the ATSI investigation, the glider was untraced but it is assumed that the glider was operating VFR.

The Gloster ATSU were operating split Aerodrome and Approach services from the VCR. The ATSU is equipped with a primary radar system only (without SSR), which is utilised to expedite the procedural environment. Radar services are only available subject to manning and operational requirements. The radar does not display traffic in the overhead. The radar system has an additional slaved display in the VCR, which is approved for use as an ATM.

The Tecnam was in the hold at 2800ft on QNH 1012hPa and was cleared for procedural NDB DME approach. At 1538:18 the Tecnam pilot reported beacon outbound followed by a base turn complete call at 1542:30. The Approach controller instructed the Tecnam pilot to report at four miles DME.

At 1545:30 the Gloster radar recording showed a pop-up contact in the Tecnam's eleven o'clock at a range of 0.75nm – Figure 1.

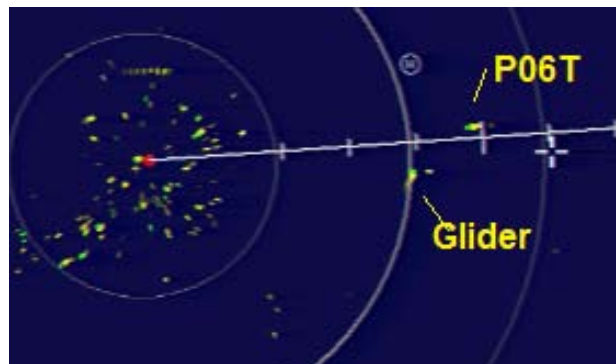


Figure 1 – Gloster radar recording at 1545:30

The Approach controller's written report indicated that, as the Tecnam approached 5nm, he observed a pop-up primary contact on the radar situational display. The Approach controller was already transmitting to another aircraft at the time but, at 1545:40, he interrupted the transmission to pass a warning to the Tecnam:

APC "...break break...(Tecnam c/s) you're not under a radar service there's possible traffic in your left ten o'clock range of half a mile northbound no height information."

At 1545:45 the glider was in the Tecnam's half past ten at a range of 0.5nm – Figure 2.

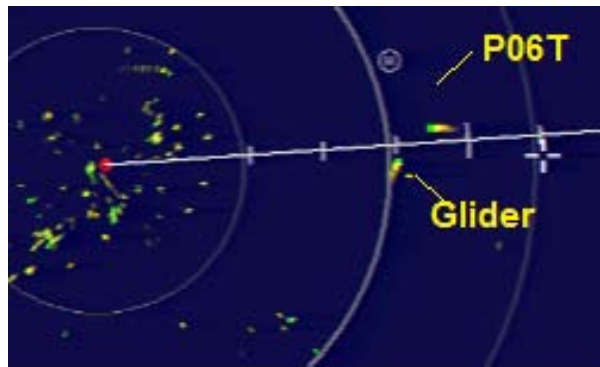


Figure 2 – Gloster radar recording at 1545:45

The Tecnam pilot responded “(Tecnam c/s) roger yeah we got that visual looks like a glider funnily enough”, which was acknowledged and the Tecnam pilot added “and he’s right at our altitude as we speak it’s just going down my left-hand side now (Tecnam c/s)”.

At 1546:00 the glider passed behind the Tecnam – Figure 3.



Figure 3 – Gloster radar recording at 1546:00

The written report from the Tecnam pilot indicated that he sighted the glider to his left at a range of between 200 and 300 metres and that he did not consider that he needed to take avoiding action as the glider was passing to his left and behind.

The Tecnam continued with the approach without further incident and was transferred to the Tower at 1546:35.

The glider appeared on the Gloster radar as a primary contact and was not shown on the area radar recording. To date the glider is untraced.

The Tecnam was in receipt of a Procedural Service. CAP774 Flight Information Services, Chapter 5, Page 43, paragraph 5.1, states:

*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.*

The controller was providing the Procedural Service without the aid of surveillance equipment, but when monitoring the primary radar situation display, he observed a pop-up radar contact in close proximity to the Tecnam. The controller immediately passed a warning using appropriate phraseology. The controller’s actions were significant and appropriate for the situation and the controller fulfilled his duty of care by alerting the Tecnam pilot to the possible imminent danger, which resulted in the Tecnam pilot sighting the glider.

Both aircraft were operating in Class G airspace where regardless of the ATS being provided, pilots are ultimately responsible for collision avoidance. The glider was operating in an area known to be used for Gloster instrument approach procedures and marked by symbols on the Topographical Air Charts with associated advice to pilots stating:

The symbols are aligned to the MAIN instrument Runway (Civil). Pilots who intend to fly or route adjacent to aerodromes with IAPs are strongly recommended when flying within 10nm of the aerodrome to contact the aerodrome ATSU. Detailed AIP information is shown in the UK AIP.

The glider remains untraced and it was therefore not known whether the glider was equipped with RTF or if the glider pilot sighted the Tecnam.

[UKAB Note: The glider pilot was only traced after ATSI had completed their report.]

### **UKAB Secretariat**

Both pilots had equal responsibility to avoid a collision.<sup>1</sup> The aircraft were converging, and the Tecnam pilot was required to give way to the glider.<sup>2</sup>

### **Summary**

The Airprox occurred in Class G airspace, 4.5nm east of Gloucestershire Airport, when the Tecnam and glider came into close proximity. The Tecnam was IFR conducting an NDB DME Approach.

The Approach controller observed the pop-up contact on the situational display and provided Traffic Information, which alerted the Tecnam pilot to the close proximity of the glider and resulted in the Tecnam pilot acquiring the glider visually.

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

Information available included a full report from the Tecnam pilot, an abbreviated minimal report from the glider pilot, transcripts of 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 started its discussion by unanimously agreeing that the Gloster Approach controller had done well to pass appropriate Traffic Information to the Tecnam pilot whilst providing a Procedural Service with only primary radar; this had enabled the Tecnam pilot to see the glider despite the use of instrument flying screens, and assess that no avoiding action was necessary.

Turning to the actions of the glider pilot, although he reported that he had seen the Tecnam, his actions in flying across the instrument approach lane whilst the Tecnam was conducting its approach, his GPS logger data, and the brief details given in his report, all indicated that he had probably only seen the Tecnam either at or just after the CPA, when the Tecnam was passing behind him. The Board were disappointed that it was not possible to explore these details further with the Nimbus 3D pilot, who had chosen not to participate in the investigation.

The Board noted that both pilots were entitled to be operating in the area but members opined that the glider pilot had not demonstrated as high a level of awareness of instrument approach procedures as might be hoped. Furthermore, given that he was flying an advanced glider, it was likely that it was fitted with a radio, and members opined that, if nothing else, he would have been well served to have contacted Gloster Approach to alert them to his presence. The Board commented that, in the same way that powered aircraft pilots need to be aware of glider operations, glider pilots in turn need to be

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<sup>1</sup> Rules of the Air 2007, Rule 8, Avoiding Aerial Collisions

<sup>2</sup> Rules of the Air 2007, Rule 9, Converging

aware of basic instrument approach tracks and procedures near to airfields and airports. The Board resolved to recommend that the BGA considers reviewing the education of glider pilots in this regard.

The Board also noted that, whilst it is still common practice for crews to use screens to simulate instrument flying, this was no longer a requirement by the CAA, and the use of alternative devices, such as 'foggles' can equally well enable simulated IMC by the handling pilot whilst allowing other crew members to maintain a good lookout in the normal manner.

The Board agreed that the cause of the Airprox was that Nimbus 3D pilot was operating in the approach lane to Gloucestershire Airport without communicating his presence. When considering the risk, the Board noted that the Tecnam pilot had not felt that any avoiding action was required and they therefore agreed that the Degree of Risk was C.

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

<u>Cause:</u>	The glider pilot was operating in the approach lane to Gloucestershire Airport without communicating his presence.
<u>Degree of Risk:</u>	C
<u>ERC Score<sup>3</sup>:</u>	4
<u>Recommendation(s):</u>	The BGA reviews the education of glider pilots regarding IFR procedures and operations.

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<sup>3</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.