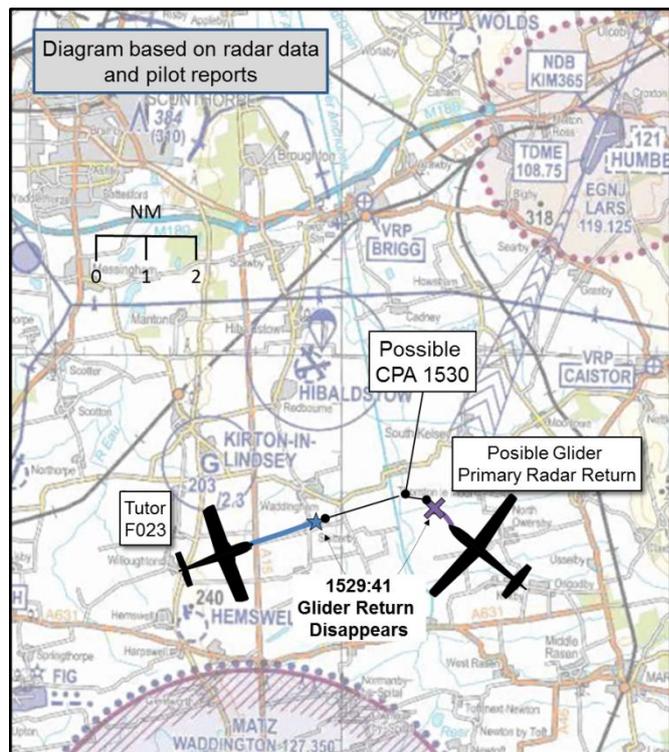


AIRPROX REPORT No 2014079Date/Time: 6 Jun 2014 1529ZPosition: 5327N 00027W
(8nm SSW of Humberside)Airspace: London FIR (Class: G)Aircraft 1 Aircraft 2Type: Grob Tutor Untraced GliderOperator: HQ Air (Trg) UnknownAlt/FL: 2000ft NK
RPS (1002hPa) NKConditions: VMC NKVisibility: 40km NKReported Separation:

0ft V/0.5nm H NK V/NK H

Recorded Separation:

NK V/0.4nm H

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

THE TUTOR PILOT reports flying a predominantly white aircraft with HISLs and navigation lights illuminated; the aircraft was fitted with a TAS¹ and a transponder with Modes 3/A, C and S selected. The crew were carrying out a medium-level navigation exercise and were transiting from the VRP² at the "A1/A57 Clumber Interchange" to the VRP at "Caistor" at 2000ft amsl, in receipt of a Traffic Service from Humberside Radar. As the student pilot was carrying out the pre-turning point navigation checks he noticed a glider in their 1 o'clock, at the same level, around 0.5nm away. The glider was in a gentle left-hand turn and did not make any movements that indicated that its pilot had seen the Grob. The student pilot turned the Grob to the left to avoid the glider and reported the Airprox to Humberside ATC.

He assessed the risk of collision as 'Medium'.

THE GLIDER PILOT could not be traced.

THE HUMBERSIDE RADAR CONTROLLER reports that it had been a busy afternoon with various VFR aircraft on frequency (including training aircraft being vectored for the ILS) and, consequently, the Radar 2 position was manned and controlling a scheduled aircraft in-bound. The controller took a handover from Doncaster Radar on the Tutor and the pilot requested a Traffic Service; however, initially only a Basic Service was agreed because the aircraft was below primary radar cover and was displayed as SSR only. Once two-way communications had been established, Humberside Radar informed the Tutor pilot that Kirton-on-Lindsey Glider site and Hibaldstow para-dropping site were active, and passed Traffic Information on contacts to the north of the Tutor. The controller also informed the pilot that a Traffic Service would be provided when the aircraft was in solid radar cover. When the Tutor was south of Hibaldstow, its primary radar return became visible and a Traffic Service was agreed; the controller passed Traffic Information on a further primary contact in the Tutor's 12 o'clock, 4-5nm away, crossing right-to-left, which the controller believed to be a glider. No further update on this traffic was passed as it faded from cover and the controller became busy vectoring other aircraft for the ILS. As the Tutor was approaching Caistor, the controller requested the pilot's next turning point, and at this point the pilot reported the Airprox.

¹ Traffic Alerting System

² Visual Reporting Point

Factual Background

The weather at Humberside at 1520 was recorded as:

EGNJ 061520 12011 090V150 9999 FEW046 21/11 1013

Analysis and Investigation

CAA ATSI

The Radar controller had delegated the control of two inbounds to the Radar 2 controller and the Support controller took a handover on the Tutor which was coordinated with the Radar controller.

At 1527:00 the Tutor contacted Humberside radar:

Tutor *"Humberside Approach good afternoon (Tutor)c/s on handover"*

ATC *"(Tutor)c/s Humberside Radar good afternoon identified Basic Service at the moment have you in secondary radar contact only, Hibaldstow and Kirton Lindsey gliding sites both active today"*

Tutor *"That's copied (Tutor)c/s Basic Service"*

ATC *"Upgrade you shortly once I get primary radar contact"*

Tutor *"Roger (Tutor)c/s"*

ATC *"You got 3 or 4 primary contacts just to the north of your Kirton Lindsey area"*

This last transmission was not acknowledged by the Tutor pilot and the controller was then occupied with a heavy RTF workload.

At 1528:49, the Radar controller advised, *"(Tutor)c/s identified reduced Traffic Service base of surveillance cover traffic 12 o'clock 4 miles right left no height information possible glider traffic"*. This transmission was not acknowledged by the Tutor pilot and another aircraft then started to transmit and RTF loading remained high – Figure 1.



Figure 1 – extract from the Humberside radar recording 1528:49

At 1529:32 the glider had faded from the Humberside radar and any intermittent returns are likely to have been masked by the 8nm-from-touchdown radar marker - Figure 2.

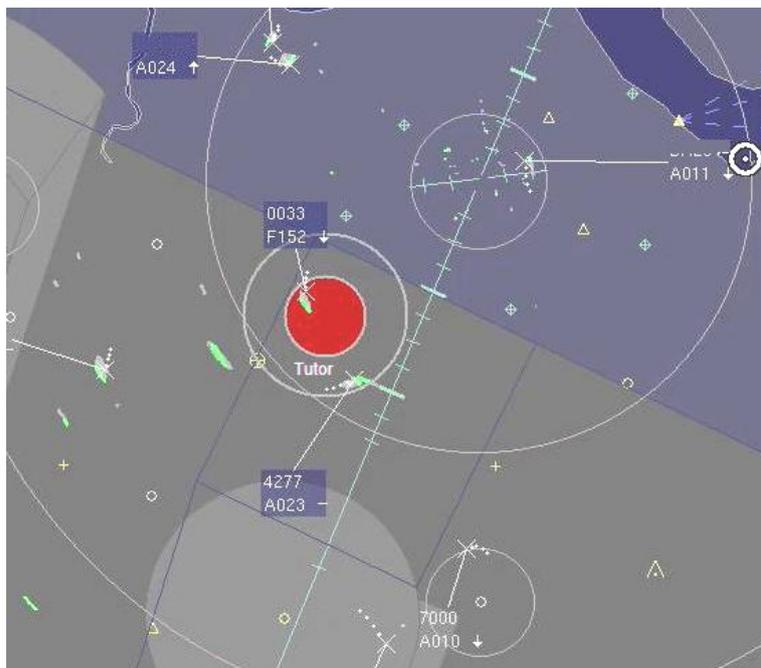


Figure 4 – extract from the Humberside radar recording 1530:17

The expanded range extracts taken at 1530:23 (Figure 5) and at 1530:27 (Figure 6) showed that the glider passed just to the south of the Tutor as they passed abeam.



Figure 5 – extract at 1530:23



Figure 6 – extract at 1530:27

The Tutor pilot's written report recalled that the Glider was in a left turn and the Tutor broke to the left. At 1531:12 the Tutor pilot transmitted, "*Er Humberside (Tutor)c/s message*". The call was not answered and an inbound aircraft then occupied the frequency and reported established on the localiser before being advised to continue the approach. At 1531:33 the Tutor pilot transmitted again, "*Humberside (Tutor)c/s*" but the controller became occupied passing Traffic Information to the aircraft on final approach together with missed approach instructions and then transmitted to other aircraft. At 1533:03 the following RTF exchange occurred:

ATC "*(Tutor)c/s request your next turning point after Caistor*"
 Tutor "*(Tutor)c/s will be heading due south to on top Coningsby to Swineshead Bridge*"
 ATC "*(Tutor)c/s Roger*"
 Tutor "*And (Tutor)c/s need to report an AIRPROX*"
 ATC "*(Tutor)c/s er roger can you do that when you land or do you want to do that now*"
 Tutor "*Er I can carry it out when I land no problem*"
 ATC "*Er roger what was it just out of interest there's nothing showing on radar*"

Tutor *"It was a glider (Tutor)c/s"*
 ATC *"Is this in your current position"*
 Tutor *"It was about 3 miles to the west of our current position"*
 ATC *"Ah roger it was noted that Hibaldstow and Kirton Lindsey glider sites were active today"*
 Tutor *"Ah yeah happy with that it's just that they we were well to the east of the gliding sites when we passed it head to head (Tutor)c/s"*
 ATC *"Roger are you turning south this time cos I've got a C130 climbing out you seem to be turning north at this time"*
 Tutor *"Yeah just carrying out an orbit and we will be heading south (Tutor)c/s".*

The Tutor was transferred to Coningsby Radar on frequency 120.8MHz

The ATSU investigation report indicated that the Radar controller acknowledged that he should have asked the Tutor pilot if he had copied the Traffic Information but reasoned that due to his workload and priorities of aircraft being vectored for instrument approaches and management of the KIM (NDB) hold along with other RTF users occupying the frequency, the moment passed. The Radar controller indicated that he had checked back on the Tutor visually but that the primary contact on which he had previously provided Traffic Information, had disappeared and so no update was given. The ATSU reviewed the local radar recording and reported:

'On reviewing the radar recording and closely studying the primary contact (glider) the investigating officer saw the glider fuse with the 8-mile marker point to runway 02, which is displayed on the radar screen, making it extremely difficult to differentiate between the two before disappearing and re-appearing; therefore, it is possible that the controller did check on the Tutor but at the time of diverting his attention the glider had faded from the radar picture or was obscured by the 8-mile marker. The glider reappeared when in close proximity to the Tutor, the contacts seemed to merge on the recording and re-appear without much deviation from their courses.'

The ATSU completed a comprehensive investigation and recommended a review of their MATS Part 2 regarding the division of traffic between radar controllers, and also issued a Standards Bulletin highlighting the necessity of a readback of Traffic Information.

Analysis

The Tutor was operating at 2300ft and initially in receipt of a Basic Service and then a reduced Traffic Service due to flying near the base of primary radar coverage.

CAP774, Flight Information Services, Chapter 3 (Traffic Service), paragraphs 3.1 and 3.5, state:

*'A Traffic Service is a surveillance based ATS, where in addition to the provisions of a Basic Service, the controller provides specific surveillance-derived traffic information to assist the pilot in avoiding other traffic. Controllers may provide headings and/or levels for the purposes of positioning and/or sequencing; however, the controller is not required to achieve deconfliction minima, and the avoidance of other traffic is ultimately the pilot's responsibility.
 The controller shall pass traffic information on relevant traffic, and shall update the traffic information if it continues to constitute a definite hazard, or if requested by the pilot. However, high controller workload and RTF loading may reduce the ability of the controller to pass traffic information, and the timeliness of such information.'*

On initial contact, whilst under a Basic Service, the controller had passed generic Traffic Information on gliding activity at Hibaldstow and Kirton-in-Lindsey, which the Tutor pilot acknowledged. The controller then added information about 3 or 4 contacts in the Kirton Lindsey area which the Tutor pilot did not acknowledge.

At the point when the Radar controller upgraded the level of service to a Traffic Service (albeit reduced), he also passed specific traffic information regarding the Glider, neither of which was acknowledged by the Tutor pilot. The Radar controller did not challenge the Tutor pilot to obtain a read-back, likely due to the RTF loading .

The radar return from the Glider was intermittent. The Radar controller was aware of the radar contact (likely a Glider) having passed specific Traffic Information, but the controller reported that when he subsequently checked to update the information, the contact had faded (Figure 2). Any subsequent radar returns may have been masked by the 8nm marker on the radar. When the Glider appeared again (Figure 3), it was not observed by the controller who was likely prioritising his workload.

The controller's workload and RTF loading were high and his priorities and focus at the time were with the aircraft on final approach. Two other arrivals had been delegated to the supporting Radar 2 controller. It is not clear why traffic on the ILS had not also been delegated to Radar 2 and the unit has recommended a review of the division of traffic between radar controllers.

UKAB Secretariat

The aircraft were converging so the Tutor, as the powered flying machine, was required to give way to the glider³, which he did.

Comments

HQ Air Command

Whilst the R/T traffic was particularly busy, it is disappointing that the Tutor captain did not acknowledge the Traffic Information passed by Humberside on 2 occasions. Whether the Traffic Information had been assimilated cannot be determined; as the Humberside controller had little capacity or opportunity to confirm receipt of the earlier transmissions, the 2 aircraft proceeded into proximity. This incident highlights the value of continuing to monitor Traffic Information during all aspects of the sortie, so allowing the captain to build a dynamic mental picture of the positions of other airspace users in the vicinity.

Summary

An Airprox was reported 8nm south-southwest of Humberside Airport, in Class G, between a Grob Tutor and an untraced Glider. The Tutor was operating on a VFR training exercise and was in receipt of a reduced Traffic Service from Humberside Radar. Traffic Information was passed to the Tutor pilot on potential glider contacts in his vicinity. The Radar controller's workload was assessed as high, and the relief controller was assisting as Radar 2, together with an additional Support controller assisting with coordination.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included 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.

Board members observed that it was very likely that the aircrew and air traffic controllers were working hard throughout the sequence of events in what was a busy section of airspace at the time. The Humberside Radar controller had passed generic Traffic Information to the Tutor pilot on potential glider radar returns in his vicinity, but it was not clear if the pilot had assimilated the information. Whilst the Board agreed that the cause was that the Tutor crew had seen the glider late, there had been time for them to take effective avoiding action, and they had, in the end, achieved a CPA of 0.4nm. Members agreed that this was not much below normal standards acceptable for aircraft of these types and speeds, and the degree of risk was therefore classified as Category C – effective and timely actions were taken to prevent the aircraft colliding.

³ Rules of the Air 2007, Rule 9, Converging

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A late sighting by the Tutor pilot.

Degree of Risk: C.

ERC Score⁴: 4.

⁴ 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.