

AIRPROX REPORT No 2020044

Date: 27 May 2020 Time: 1415Z Position: 5046N 00211W Location: 13NM W Bournemouth

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

| Recorded | Aircraft 1 | Aircraft 2 |
|-------------|-----------------|-----------------|
| Aircraft | FA20 | ASK13 |
| Operator | Civ Comm | Civ Gld |
| Airspace | London FIR | London FIR |
| Class | G | G |
| Rules | VFR | VFR |
| Service | Traffic | None |
| Provider | Bournemouth | |
| Altitude/FL | A020 | NK |
| Transponder | A, C, S | Not Fitted |
| Reported | | |
| Colours | Blue, White | Yellow, Red |
| Lighting | HISL, Nav | Nil |
| Conditions | VMC | VMC |
| Visibility | >10km | >10km |
| Altitude/FL | 3000ft | 1900ft |
| Altimeter | QNH (1034hPa) | QFE |
| Heading | 080° | 135° |
| Speed | 230kt | 45kt |
| ACAS/TAS | TCAS II | Not fitted |
| Alert | None | N/A |
| Separation | | |
| Reported | 200ft V/0.5NM H | 250ft V/250ft H |
| Recorded | NK | |



THE FA20 PILOT reports that during a VFR recovery under a Traffic Service from Bournemouth Approach, they were positioning on the extended centreline for RW08 at a range of approximately 13NM whilst descending through 3000ft. The autopilot was engaged and both crew members were predominantly eyes out having already passed the glider site by a few miles, at this point the Captain (PM) spotted a yellow glider in the left 10 o'clock position within 0.5NM and around 200ft above their aircraft. The PM called the traffic to the PF who immediately disconnected the autopilot and manoeuvred away from the glider to increase separation. The contact was relayed to ATC who had no radar contact or information on the glider, the VFR approach was continued without further incident. Of note the glider did not appear on TCAS due to a lack of transponder, and the crew were maintaining a vigilant lookout in that area as they were aware of likely activity from the glider site. Upon landing they contacted Bournemouth ATC who advised that they were not notified of any glider activity, nor was the information available on the ATIS about glider activity as would normally be the case.

The pilot assessed the risk of collision as 'Medium'.

THE ASK13 PILOT reports that they were flying in a sea breeze front of marginal/turbulent lift, the front was running east to west approximately 1NM north of Dorset Gliding Club airfield. They had undertaken an aerotow to 3000ft and were subsequently gliding and conducting thermalling turns to around 1900ft when the Airprox occurred. They were in a marginal, turbulent thermal turning to the right, on the 2nd revolution a jet was observed in the 2 o'clock position, closing rapidly, approximately 400ft away and around 250ft below the glider. They could see it was going to pass underneath and slightly in front of the glider and was not on a direct collision course so no avoiding action taken.

The pilot assessed the risk of collision as 'Low'.

THE BOURNEMOUTH CONTROLLER reports that the radar controller was informed by the FA20 pilot that they had come within 400ft of a glider in the Eyres Field area which was not showing on TCAS. The pilot did not advise that they would be filing an Airprox either on the frequency or by phone on landing and therefore no report was filed by the controller, who has subsequently been on furlough.

Factual Background

The weather at Bournemouth was recorded as follows:

METAR EGHH 271350Z 17008KT 9999 FEW048 22/08 Q1034=

Analysis and Investigation

UKAB Secretariat

The FA20 and ASK13 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard.¹ If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right.² If the incident geometry is considered as converging then the FA20 pilot was required to give way to the ASK13.³

Bournemouth Occurrence Investigation

A Bournemouth Investigation found that there was no indication that the Dorset Gliding Club (DGC) had informed them that they were active that day, normally, once informed ATC would ensure controllers were aware by putting the details on their information screens. They noted that they had tried to engage with the DGC, specifically with regard to approaches to RW08, but there was no LoA in place because of the nature of their (DGC) operations, which tended not to follow specific days and the site was also used by visiting gliders.

At 1413:00 the FA20 pilot contacted Bournemouth Radar 22NM west of the airfield and outside controlled airspace, the pilot requested a VFR recovery. The controller placed the aircraft under a Traffic Service and cleared the pilot for a straight in approach for RW08. Whilst transmitting the joining clearance, a primary radar only contact briefly appeared on the radar display 9NM east of the FA20's position, slightly north of the final approach track for RW08. The contact displayed for 4sec before disappearing.

The controller passed Traffic Information to the FA20 pilot on another FA20 joining VFR ahead at 1413:21. The controller then co-ordinated with the ADI controller during which the radar controller advised of the two joining FA20s and two CTR transits. Clearance was then given to a pilot to transit the north eastern edge of the CTR not above 2000ft VFR, at 1414:21, whilst that pilot read back the transit clearance, a PSR contact briefly reappeared ahead of the FA20 approximately 0.5NM north of the final approach track 4NM east of the aircraft. A screen capture taken at this time is depicted below with FA20 descending through 3700ft (Figure 1).

¹ SERA.3205 Proximity..

² SERA.3210 Right-of-way (c)(1) Approaching head-on.

³ SERA.3210 Right-of-way (c)(2) Converging..



Figure 1

A continuous primary contact remained on the radar display making subtle movements until the contact began to coast at 1414:55 for several seconds (Figure 2). At 1415:07 the contact reappeared more solidly, approximately 0.75NM due north of the FA20 tracking slowly westbound, Figure 3.



Figure 2: 1414:59



Figure 3: 1415:07

At 1415:17 the FA20 pilot reported visual with the field and was told to contact Bournemouth Tower, just before leaving the frequency the pilot reported that he had flown within 400ft of a glider, which was not showing on TCAS. This was acknowledged by the controller. The controller could not recall whether they saw the primary contact or not, but Traffic Information was not passed.

Comments

BGA

Following the similar Airprox in this area last year (2019111), the Board suggested that closer liaison between DGC and Bournemouth ATC would be helpful. Following this incident, we're pleased to hear that this is to be extended to the FA20 Operator, who will be advised when DGC are operating midweek. It is unfortunate that the FA20's chosen routing took them overhead the DGC site - a small deviation in track or altitude would likely have prevented this Airprox.

Summary

An Airprox was reported when a FA20 and an ASK13 flew into proximity to the west of Bournemouth, at around 1415z on Wednesday 27th May 2020. Both pilots were operating under VFR in VMC, the FA20 pilot in receipt of a Traffic Service from Bournemouth, the ASK13 pilot was in not receipt of an ATS.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of both aircraft, transcripts of the relevant RT frequencies, radar photographs/video recordings and reports from the air traffic controllers involved. Relevant contributory factors mentioned during the Board's discussions are highlighted within the text in bold, with the numbers referring to the Contributory Factors table displayed in Part C.

Due to the exceptional circumstances presented by the coronavirus pandemic, this incident was assessed as part of a 'virtual' UK Airprox Board meeting where members contributed via dial-in/VTC comments. Although not all Board members were present for the entirety of the meeting and, as a result, the usual wide-ranging discussions involving all Board members were more limited, sufficient engagement was achieved to enable a formal assessment to be agreed along with the following associated comments.

The Board first looked at the actions of the FA20 pilot. Having called for a VFR approach to Bournemouth, members could understand the inclination to go for a direct routing, particularly given that the pilot had not been aware that Eyres Field was active. But members thought that by maintaining height above the glider site, or routing to the north, the pilot could have avoided the possibility of encountering gliders at all (**CF4**). Although they were receiving a Traffic Service, the controller had not provided any Traffic Information. Furthermore, the CWS within the FA20 could not detect the glider (which was not transponder equipped), so prior to seeing it the pilot had no situational awareness that the glider was there (**CF5, CF6**). However, in the event, although 0.5NM could be considered a late sighting (**CF7**), the pilot was able to take avoiding action to increase separation.

The glider pilot also did not have any prior situational awareness on the FA20 (**CF5**), they became visual whilst turning within a thermal, which members thought was probably after the FA20 pilot had already taken action (**CF7**). Noting that Bournemouth ATC were not aware of the glider site being active on that day, members thought that armed with such knowledge the FA20 pilot would probably have avoided the area completely. They were told that DGC normally informed ATC via a telephone call, or via radio from the tug on the first lift of the day, but clearly the system had fallen short on this occasion (**CF1**). Given that there had been another, very similar Airprox previously (2019111), members thought an opportunity had been missed to ensure that there was not a repetition, by improving liaison between the DGC and Bournemouth. However, they were heartened to hear that DGC had already instigated a number of changes to their procedures, including emailing the FA20's operating company as well as Bournemouth ATC to advise when active. With new procedures already in place, members stopped short of making a further recommendation.

Turning to the actions of the controller, without formal notification that the glider site was active, they were not expecting to see gliders in the vicinity (**CF2**). Controlling members noted that it was notoriously difficult to see gliders on the radar, given that most did not carry a transponder and that the very fabric of the aircraft provided a poor radar signature. Although the radar screenshots showed an intermittent primary return, if the controller was looking elsewhere on their radar screen at the time it would have been easy to miss it, or to discount it as radar clutter. Whatever the reason, the controller did not assimilate that the glider was there and did not give Traffic Information to the FA20 pilot (**CF3**).

When assessing the risk some members felt that this was normal operations in Class G airspace, in that the FA20 pilot saw and avoided a glider (Category E). However, others argued that the lack of prior situational awareness, until the relatively late sighting by both pilots, meant that safety had been degraded, although the timely and effective avoiding action by the FA20 pilot ensured that there had been no risk of collision. In the end, the latter view prevailed; Risk Category C.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK**Contributory Factors:**

| 2020044 | | | |
|---|---------------|--|---|
| CF | Factor | Description | Amplification |
| Ground Elements | | | |
| • Regulations, Processes, Procedures and Compliance | | | |
| 1 | | • Any other event | Existing notification procedures not followed |
| • Situational Awareness and Action | | | |
| 2 | Contextual | • Situational Awareness and Sensory Events | The controller had only generic, late or no Situational Awareness |
| 3 | Human Factors | • Conflict Detection - Not Detected | |
| Flight Elements | | | |
| • Tactical Planning and Execution | | | |
| 4 | Human Factors | • Flight Planning and Preparation | |
| • Situational Awareness of the Conflicting Aircraft and Action | | | |
| 5 | Contextual | • Situational Awareness and Sensory Events | Pilot had no, late or only generic, Situational Awareness |
| • Electronic Warning System Operation and Compliance | | | |
| 6 | Technical | • ACAS/TCAS System Failure | Incompatible CWS equipment |
| • See and Avoid | | | |
| 7 | Human Factors | • Monitoring of Other Aircraft | Late-sighting by one or both pilots |

Degree of Risk: C.

Safety Barrier Assessment⁴

In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

Ground Elements:

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the Bournemouth controller was not aware that the glider site was active.

Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because the FA20 pilot elected to fly over the top of the gliding site.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither pilot had any situational awareness that the other was there prior to becoming visual.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the TCAS in the FA20 could not detect the non-transponding glider.

⁴ The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).

| Airprox Barrier Assessment: 2020044 | | Outside Controlled Airspace | | | | | | |
|--|--|-----------------------------|--------------------|--------------------------|-----------------------------------|-----------------|-----|-----|
| Barrier | | Provision | Application | Effectiveness | | | | |
| | | | | Barrier Weighting | | | | |
| | | | | 0% | 5% | 10% | 15% | 20% |
| Ground Element | Regulations, Processes, Procedures and Compliance | ✓ | ✓ | | | | | |
| | Manning & Equipment | ✓ | ✓ | | | | | |
| | Situational Awareness of the Conflicion & Action | ✗ | ✗ | | | | | |
| | Electronic Warning System Operation and Compliance | ○ | ○ | | | | | |
| Flight Element | Regulations, Processes, Procedures and Compliance | ✓ | ✓ | | | | | |
| | Tactical Planning and Execution | ✓ | ! | | | | | |
| | Situational Awareness of the Conflicting Aircraft & Action | ✗ | ✓ | | | | | |
| | Electronic Warning System Operation and Compliance | ✗ | ✓ | | | | | |
| | See & Avoid | ✓ | ✓ | | | | | |
| Key: | | <u>Full</u> | <u>Partial</u> | <u>None</u> | <u>Not Present/Not Assessable</u> | <u>Not Used</u> | | |
| Provision | ✓ | ! | ✗ | ○ | | | | |
| Application | ✓ | ! | ✗ | ○ | | | | ○ |
| Effectiveness | | | | | | | | |