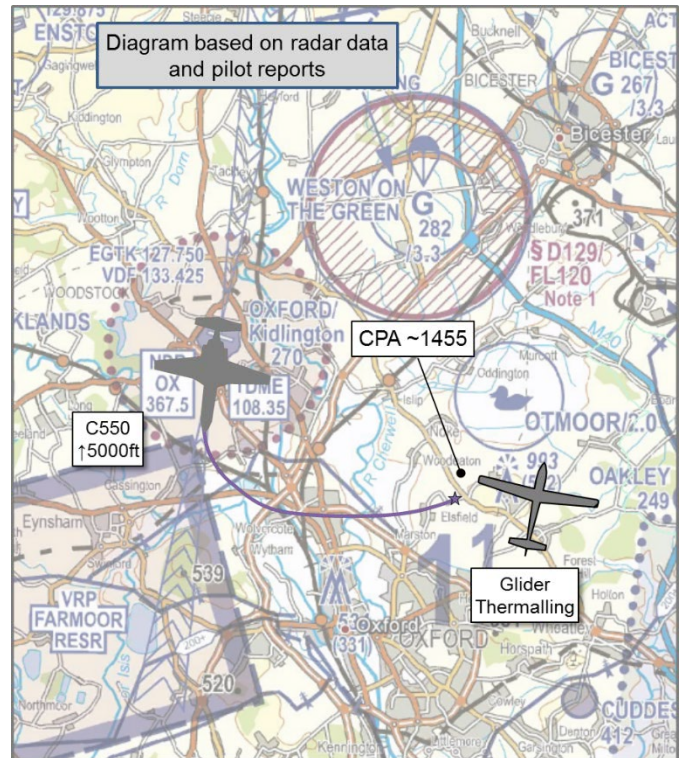


AIRPROX REPORT No 2018079

Date: 10 May 2018 Time: 1455Z Position: 5148N 00106W Location: NE Oxford

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	PIK-20 glider	C550
Operator	Civ Pte	Civ Exec
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	IFR
Service	None	Traffic
Provider		Oxford
Altitude/FL	NK	5000ft
Transponder	Not Fitted	A, C, S
Reported		
Colours	White	White, coloured stripe
Lighting	Nil	Strobes, Nav, Recognition lights.
Conditions	VMC	VMC
Visibility	40km	>10km
Altitude/FL	4900ft	5000ft
Altimeter	RPS (992hPa)	QNH
Heading	090°	080°
Speed	48kt	220kt
ACAS/TAS	FLARM	TCAS II
Alert	Unknown	None
Separation		
Reported	50ft V/200m H	300ft V/100m H
Recorded	NK	



THE PIK-20 PILOT reports that he was conducting a cross-country flight and was climbing in a thermal in a clockwise turn with a climb-rate of about 4kt. He first saw the other aircraft travelling from left-to-right in front of him, travelling from south-to-north. It was a small business-jet with 2 engines and was slightly higher than him. It did not appear to take any avoiding action and had gone past before the glider pilot had time to take any action.

He assessed the risk of collision as 'Medium'.

THE C550 PILOT reports they were on initial climb from RW19 at Oxford, turning left towards WCO and climbing to 5000ft. They transferred to Oxford Radar, who warned them about gliders in the area. They kept a good look-out, but the Airprox glider was difficult to spot because it was coming up from below them as they were nose-up in the climb. The non-handling pilot saw it out of the left-hand window approx 300ft below, to their left, and manoeuvring erratically. The handling pilot, on the right, could not see it and at the same time Oxford transferred them over to London Control with a joining clearance climbing to 6000ft. The non-handling pilot kept watching the glider and was ready to take control should the need arise; however, the flight paths were not in conflict and it became clear that the glider was going to pass beneath them.

He assessed the risk of collision as 'Medium'.

Factual Background

The weather at Benson was recorded as follows:

EGUB 101450Z 30007KT CAVOK 15/01 Q1017 BLU NOSIG

Analysis and Investigation

CAA ATSI

The C550 departed Oxford on an IFR flight plan, routing to the WCO (Wescott) VOR, in the climb to 5000ft. At 1454:16 the pilot contacted Oxford Radar, was identified by the controller, a Traffic Service was agreed, and the pilot was requested to expedite their climb to 5000ft (Figure 1).

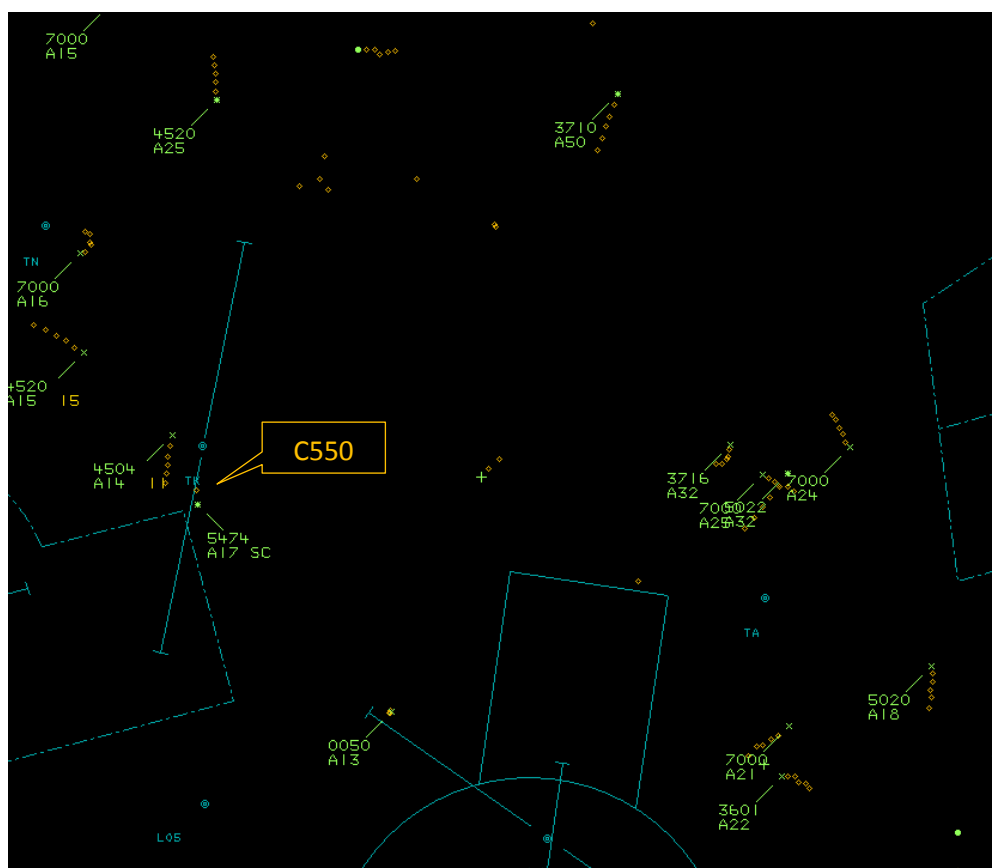


Figure 1 – 1454:16

At 1454:35, the Oxford controller advised the C550 pilot of 4 contacts in the Wescott area between 2200ft and 3500ft. The controller also cautioned the pilot that a lot of gliding activity had been reported in the area, which was acknowledged by the pilot. At the same time, the area radar replay showed two primary-only contacts, (ringed in Figure 2), to the east and northeast of the C550, but they both disappeared on the next sweep of the radar.

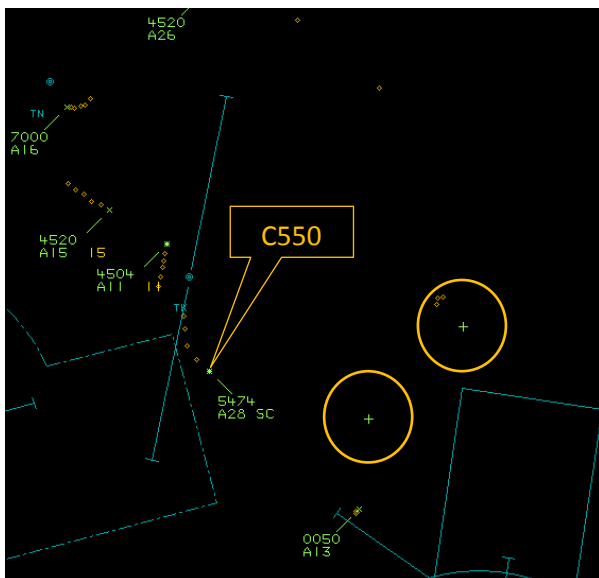


Figure 2 – 1454:35



Figure 3 – 1454:50

At 1454:50, the Oxford controller instructed the pilot to remain clear of controlled airspace, and advised them that they would transfer them to London Control early, in order to facilitate further climb into controlled airspace (Figure 3).

According to the NATS unit investigation, the C550 pilot contacted the London controller at 1455:18, and reported maintaining 5000ft. The controller issued a climb instruction to 7000ft as part of a joining clearance for the London TMA and, at 1455:32, the aircraft was seen to “squawk ident”. At 1456:10, a primary-only contact reappeared 0.8nm ahead of the C550 (Figure 4). The contact faded at 1456:18 (Figure 5).

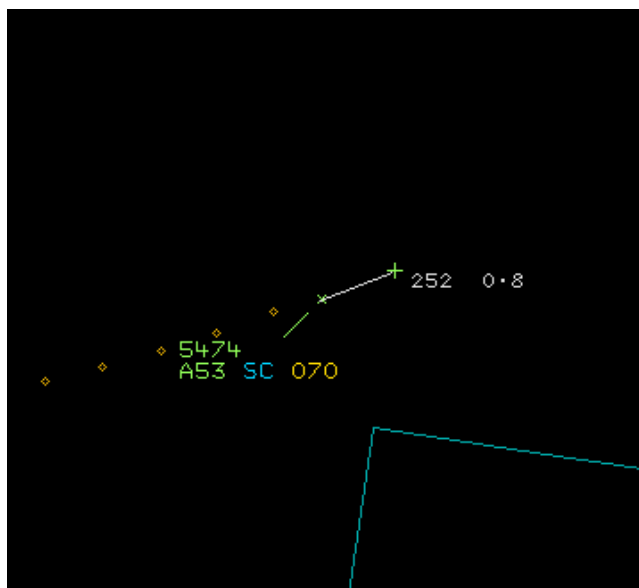


Figure 4 – 1456:10

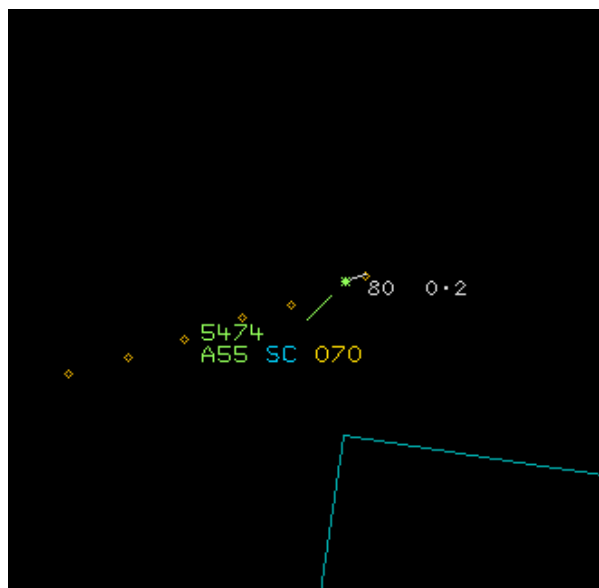


Figure 5– 1456:18

The C550 pilot reported seeing the glider as they were passing 5000ft, coincidental with the time they were transferred to London Control (at 1454:50). The glider pilot reported being at 4900ft at the time of the Airprox and reported that the C550 had already passed them before they could take any avoiding action.

From the pilot reports and the radar replay it has not been possible to positively identify the glider on radar, nor determine the exact position or time of the Airprox. The report from Oxford stated that nothing was seen to conflict by them on their radar, before, during or after the time the C550 was receiving a service from them. The NATS unit investigation was unable to identify any radar returns

which they could associate with a glider, highlighting the point that aircraft materials and low speed made the probability of detection very low.

In accordance with CAP774 UK Flight Information Services, irrespective of the type of service an aircraft is receiving in Class G airspace, and whether Traffic Information has been provided or not, the pilot remains responsible for collision avoidance without assistance from the controller. In this instance neither controller observed any contact deemed to be traffic to the C550. It was noted that the glider was not transponding, and the glider pilot, reported the radio “*not in use*”.

UKAB Secretariat

The glider and C550 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 head-on or nearly so then both pilots were required to turn to the right². If the incident geometry is considered as converging then the C550 pilot was required to give way to the glider³.

Comments

BGA

It’s heartening to see that not only were Oxford Radar alerting their traffic to the probable presence of gliders but also that the C550’s resulting enhanced lookout identified the glider in reasonable time.

Summary

An Airprox was reported when a glider and a C550 flew into proximity in Class G airspace at 1455hrs on Thursday 10th May 2018. The glider pilots was operating under VFR in VMC, not in receipt of an ATS and the C550 pilot was IFR in VMC and in receipt of a Traffic Service from Oxford.

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 appropriate ATC operating authorities.

The Board first looked at the actions of the glider pilot who was thermalling in busy Class G airspace where see-and-avoid was the main mitigation against mid-air collision. He saw the C550 slightly above him, but did not have time to take avoiding action. Although he was FLARM equipped, this was not compatible with the TCAS on the C550 and so he had no Traffic Information prior to the encounter and could not know whether the other pilot had seen him. Some members wondered whether the glider pilot might have been able to call Oxford and would therefore perhaps have been given information about the C550 climbing out; at the very least a call would have given Oxford some knowledge that the glider pilot was operating at that altitude and location.

The C550 was climbing to join controlled airspace and was receiving a Traffic Service from Oxford. Because the glider was not transponder equipped, Oxford could not see it on their radar but were able to give generic Traffic Information based on other reports of gliders in the area. Prompted by this information, the C550 non-handling pilot was able to spot the glider and assessed that avoiding action was not necessary because they were climbing above it. The Board thought that it was a fine line between maintaining course and taking avoiding action to increase the separation, but because the non-handling pilot had ‘padlocked’ the threat, they accepted that he was content that enough separation existed.

¹ SERA.3205 Proximity.

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

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

With respect to the ATC aspects of the incident, some members wondered whether the Oxford controller might have suggested to the C550 pilot that a right-hand climb through the Oxford overhead might be prudent given that he knew that there were gliders operating to the east of the airfield. Controller members commented that it was not for the Oxford controller to suggest this, he had given the C550 pilot the information that was required, and it was for the C550 pilot to decide whether to route towards the hazard or not. Furthermore, the airspace around the Oxford area was extremely busy and a turn back through the overhead may have presented more hazards than that of the gliders.

The Board quickly determined that the cause of the Airprox was a conflict in Class G, resolved by the C550 pilot. Despite the discrepancy in the assessment of separation between the two pilots, the Board agreed that although safety had been degraded, there had been no risk of collision because the C550 pilot was visual with the glider sufficiently early enough to take avoiding action if required; therefore, they assessed the risk as Category C.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A conflict in Class G resolved by the C550 pilot.

Degree of Risk: C.

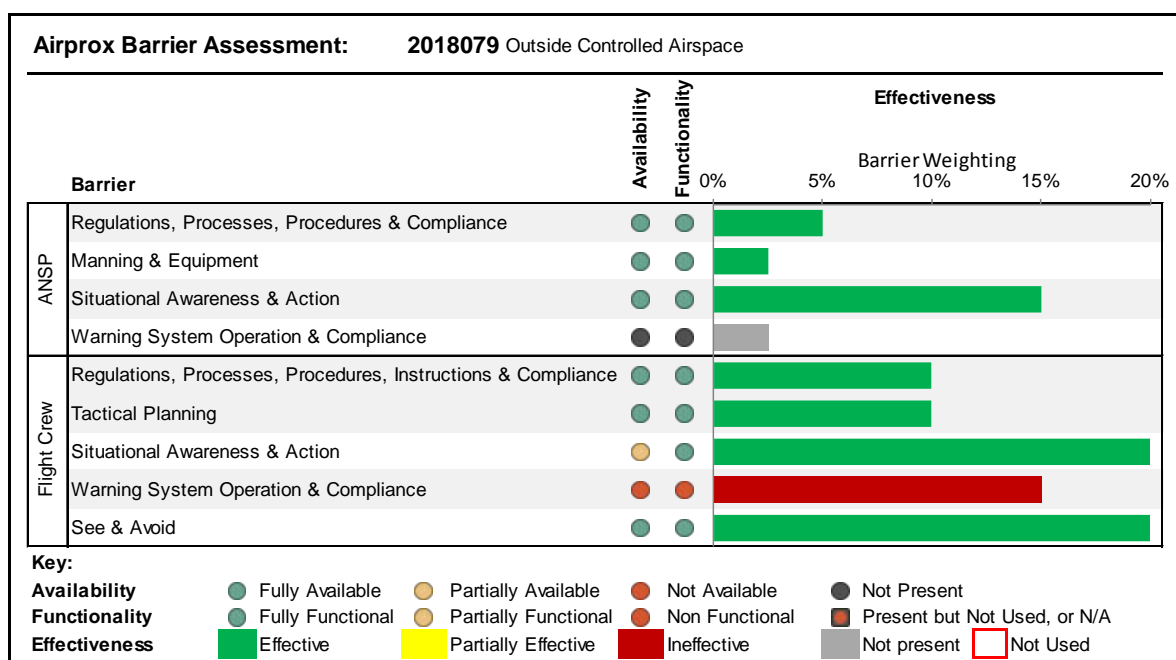
Safety Barrier Assessment⁴

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

Flight Crew:

Situational Awareness and Action were assessed as **effective**, although the availability was only partially present because the C550 pilot only had generic traffic information on the glider.

Warning System Operation and Compliance were assessed as **ineffective** because the CWS on each aircraft was incompatible with the other.



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