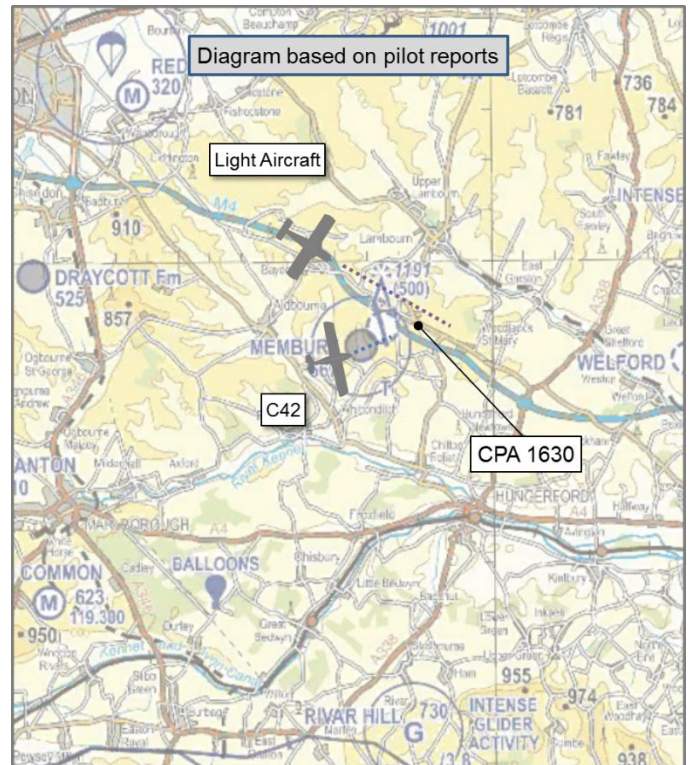


AIRPROX REPORT No 2018052

Date: 14 Apr 2018 Time: 1637Z Position: 5127N 00133W Location: Membury

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

| Recorded | Aircraft 1 | Aircraft 2 |
|-------------|-----------------|----------------|
| Aircraft | C42 | Light aircraft |
| Operator | Civ Club | Unknown |
| Airspace | London FIR | London FIR |
| Class | G | G |
| Rules | VFR | |
| Service | None | |
| Altitude/FL | | |
| Transponder | Standby | |
| Reported | | |
| Colours | Green, White | |
| Lighting | Strobe, Landing | |
| Conditions | VMC | |
| Visibility | 8km | |
| Altitude/FL | 800ft | |
| Altimeter | QFE | |
| Heading | 075° | |
| Speed | 60kt | |
| ACAS/TAS | Not fitted | Unknown |
| Separation | | |
| Reported | 200ft V/500m H | NK |
| Recorded | NK | |



THE C42 PILOT reports that he was crosswind in the RW16 visual circuit at 800ft and listening out on Safety Comm. He was about to turn downwind when the instructor saw another light-aircraft passing 500m in front, about 200ft above, travelling left to right. They delayed the turn onto downwind to ensure no other traffic was coming from the same direction. The other aircraft continued to the east.

He assessed the risk of collision as 'Medium'.

THE LIGHT AIRCRAFT PILOT could not be traced.

Factual Background

The weather at Brize was recorded as follows:

METAR EGVN 141550Z 20003KT 9999 FEW040 SCT250 17/07 Q1014 BLU NOSIG=

Analysis and Investigation

UKAB Secretariat

The incident could not be seen on the NATS radars. Although a PA28 could be seen routing to the north and then south of Membury just after the time reported by the C42 pilot, the geometry did not match the description given by the C42 pilot. The PA28 pilot was contacted anyway, but did not believe that he had come close to the C42. The PA28's track can be seen at 1000ft (Figure 1), with a primary contact also in the vicinity of the visual circuit. However once the PA28 turns west of Membury to route eastbound, south of the airfield (Figure 2), the C42 has left the circuit. The PA28 did not route eastbound along the M4 and was therefore ruled out. No other radar returns could be seen, and so the light-aircraft seen by the C42 pilot could not be traced.

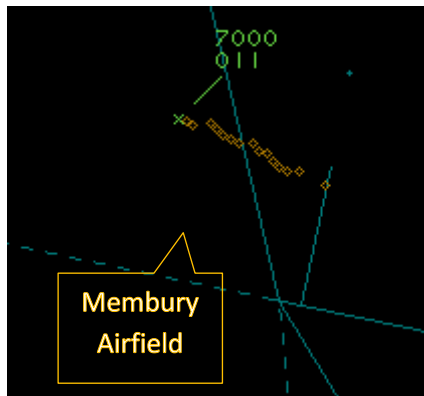


Figure 1 - 1632:26

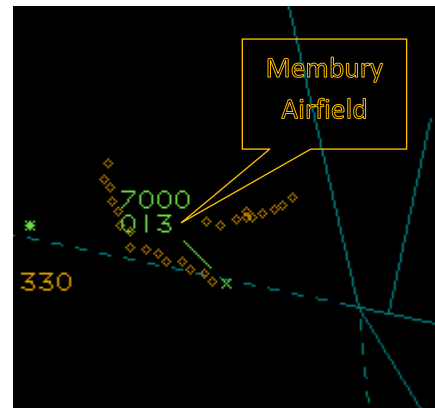


Figure 2 - 1636:20

PA28 Squawking 7000

The C42 and light aircraft pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard¹. An aircraft operated on or in the vicinity of an aerodrome shall conform with or avoid the pattern of traffic formed by other aircraft in operation².

Summary

An Airprox was reported when a C42 and a light-aircraft flew into proximity at 1637hrs on Saturday 14th April 2018. The C42 pilot was operating VFR, in VMC, in the visual circuit at Membury without an ATS; the light-aircraft was transiting in the area, probably also VFR, in VMC, without an ATS.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the C42 pilot and radar photographs/video recordings.

The Board noted that the C42 pilot was in the Membury visual circuit when he saw an aircraft passing 500m ahead and 200ft above him in an easterly direction. Although he didn't need to take avoiding action, he did adjust his track to remain clear and members thought there was little more he could have done in the circumstances. Whilst probably not germane to this incident, the Board noticed that the C42 pilot did not have his transponder switched on whilst in the visual circuit and wished to remind pilots that since October 2017, SERA rule 13001 requires pilots to have their transponders on at all times; by doing so, pilots will aid electronic conspicuity for ATC and other pilots who may have collision warning systems fitted.

The Board agreed that the PA28 that was originally traced had been transiting in the opposite direction along the M4 at the time and was not the other aircraft involved. As for the unknown aircraft, members noted that Membury Mast, which is situated just north of the airfield, is a significant navigational feature in the area, easy to find by following the M4, and the untraced pilot was probably doing just this. Without a track on radar, the Board couldn't tell whether the unknown aircraft was within the Membury circuit pattern of traffic or not.

When determining the cause of the Airprox, the Board were hampered by the lack of available evidence and, without the radar track of the conflicting aircraft, it was difficult to say for sure whether he had avoided the pattern of traffic at Membury or not. In the end, the Board agreed that the incident was best described as a conflict in Class G resolved by the C42 pilot. When assessing the risk, some members initially thought that the lack of radar information meant that this would have to be graded as Category D, insufficient information. However, after further reflection, the Board agreed that the C42 pilot's report provided sufficient information to determine that although safety had been degraded, the C42 pilot had been able to act in a timely and effective manner to avoid a collision; risk Category C.

¹ SERA.3205 Proximity.

² SERA.3225 Operation on and in the Vicinity of an Aerodrome.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A conflict in Class G resolved by the C42 pilot.

Degree of Risk: C.

Safety Barrier Assessment³

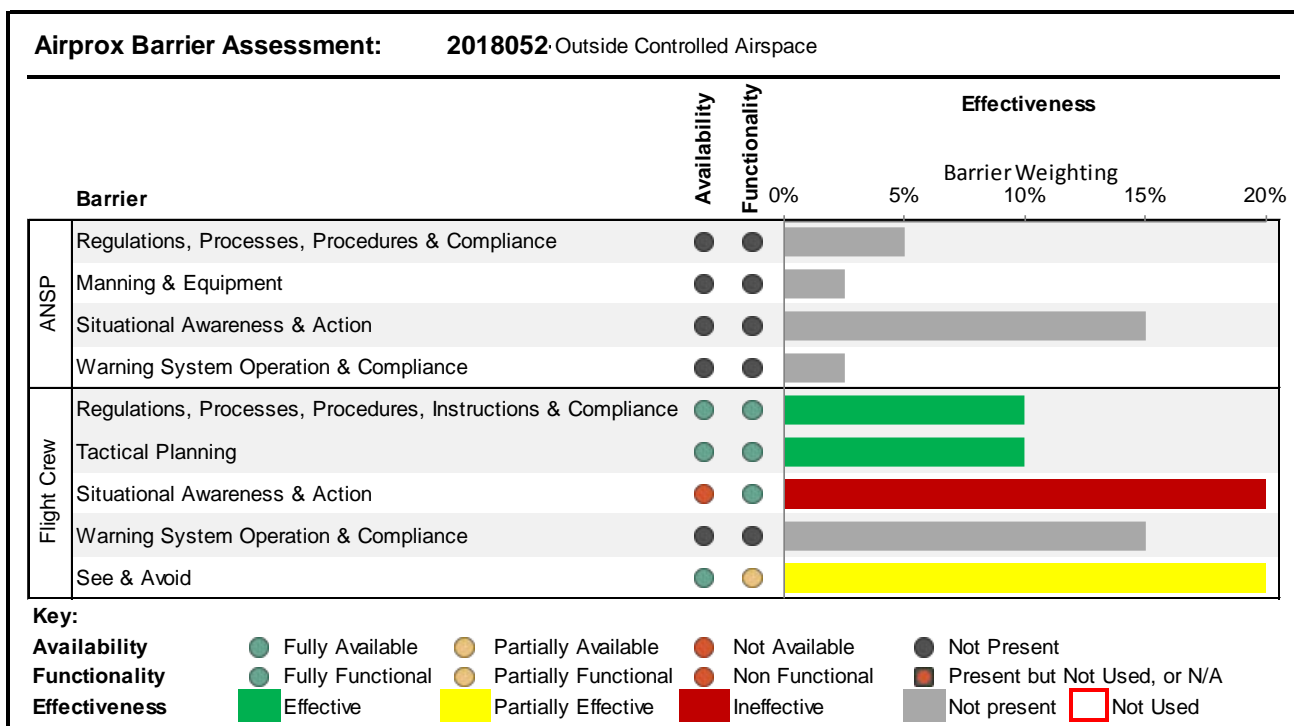
In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

Flight Crew:

Situational Awareness and Action were assessed as **ineffective** because the C42 did not have any situational awareness about the light aircraft.

Warning System Operation and Compliance was assessed as **not present**; the C42 pilot was not transponding and so even if the unknown light-aircraft was fitted with a collision warning system it would not have detected the C42.

See and Avoid were assessed as **partially effective** because the C42 pilot was able to take avoiding action, albeit late.



³ The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).