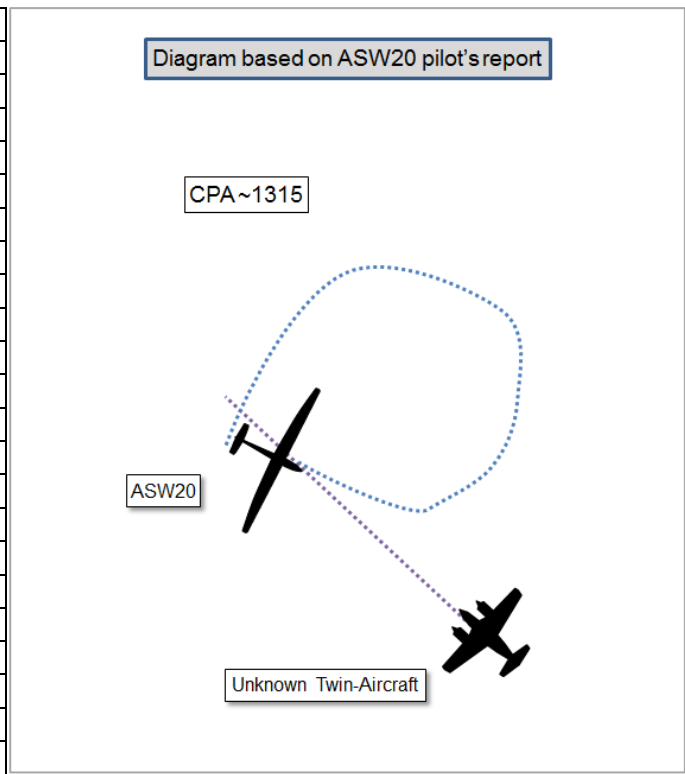


**AIRPROX REPORT No 2018149**

Date: 22 Jun 2018 Time: ~1315Z Position: 5157N 00034E Location: 3km NE Ridgewell

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

Recorded	Aircraft 1	Aircraft 2
Aircraft	ASW20	Twin-aircraft
Operator	Civ Gld	Unknown
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	
Service	None	
Provider	None	
Altitude/FL	N/K	
Transponder	Not fitted	
<b>Reported</b>		NK
Colours	White	
Lighting	None	
Conditions	VMC	
Visibility	>10km	
Altitude/FL	3000ft	
Altimeter	QFE	
Heading	SW	
Speed	100kt	
ACAS/TAS	Not fitted	
<b>Separation</b>		
Reported	50ft V/200m H	NK
Recorded		NK



**THE ASW20 PILOT** reports that he was circling left in a thermal at 45-degree bank at 3000ft Ridgewell QFE (about 3300ft QNH), just south of the town of Clare, climbing slowly at 50kt airspeed. The visibility was very good in all directions. He could see the lake near Colchester, Bury St Edmunds, and Haverhill. He noticed a twin-engine aircraft to the SE a few miles away which appeared to be heading directly towards him, the twin-aircraft's heading was roughly NW. He watched the twin-aircraft during his turn until it disappeared under his right wing. He decided to continue the current circle to make the glider more visible, i.e. show the twin-aircraft's pilot the plan view of his wings, because the glider is most visible like this. As he continued the turn, he saw the twin-aircraft again about 10 seconds later, as he was heading west. This time the twin-aircraft was surprisingly close, still SE of him, still wings-level heading NW, so he decided he must take avoiding action. He levelled the wings, selected full negative flap and dived to the SW perpendicular to the twin-aircraft, increasing his speed to 100kt, and losing some height in the process, taking him about 50ft below the twin-aircraft. The twin-aircraft passed him about 200m behind and, as it did so, he turned left to keep it in sight, and observed the left-side view of the fuselage. The twin-aircraft went past in a flash, but he saw several oval windows along the side of the fuselage; it appeared to be going considerably faster than his 100kt airspeed. The twin-aircraft continued straight and level to the NW. He did not see any markings because his view of the fuselage side was very fleeting, and he only saw its wings edge-on because it was at a similar height. The distinctive feature was the tail-plane, which had considerable dihedral, perhaps 15 degrees.

He assessed the risk of collision as 'Medium'.

**THE TWIN-AIRCRAFT PILOT** could not be traced.

**Factual Background**

The weather at Stansted was recorded as follows:

METAR EGSS 221320Z AUTO 36009KT 310V030 9999 NCD 20/04 Q1030

## Analysis and Investigation

### UKAB Secretariat

Neither aircraft could be seen on radar replays at or near the reported CPA. The radar was reviewed from 1145hrs to 1653hrs as per the ASW20 pilots reported times of flight, but there were no aircraft displaying on the radar replay. Unfortunately, the ASW20 pilot did not activate the ASW20's flight-logger and therefore there is no record of the aircraft's actual route, timings and heights.

The ASW20 and unknown twin-aircraft pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard<sup>1</sup>. If the incident geometry is considered as converging then the unknown twin-aircraft pilot was required to give way to the ASW20<sup>2</sup>.

### Summary

An Airprox was reported when an ASW20 and an unknown twin-aircraft flew into proximity at about 1315hrs on Friday 22<sup>nd</sup> June 2018. The ASW20 pilot was operating under VFR in VMC and not in receipt of a service. The unknown twin-aircraft pilot could not be traced.

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

Information available consisted of a report from the pilot of the ASW20.

The Board began by discussing actions of the ASW20 pilot. He had seen the twin-aircraft a few miles away whilst orbiting in a thermal and had decided to continue to orbit to present a more visible profile to the twin-aircraft. When he completed the turn, he re-sighted the twin-aircraft significantly closer and, believing that the twin-aircraft pilot had not seen the ASW20, decided to take avoiding action to increase the separation between the aircraft. Some members wondered whether the ASW20 pilot could have acted earlier to roll out of the thermal on first sighting the twin and thus away from its track until it had passed clear. The BGA member countered this by explaining that the actions of the glider pilot were normal; if you see the other aircraft early enough, first make yourself more visible and then, if the other pilot is not seen to be altering course to avoid, carry out avoiding action to ensure the aircraft are suitably separated. The other members agreed that this was a sound procedure if you could keep the other aircraft in sight, but that continuing to orbit when blind to the other aircraft bore its own risks. The BGA member acknowledged this and the Board all agreed that there was a fine balance of judgement to be made on when to react versus maintaining a predictable track to which the other pilot could give way. It was also fair to say that, had the ASW20 pilot stopped orbiting when head- or tail-on to the twin then he would have become less visible to the twin-aircraft's pilot due to the small cross-section of his glider.

The Board then turned to the twin-aircraft. The UKAB inspector explained that the height of the reported Airprox meant that the twin-aircraft would normally be expected to be visible on the radar replays, both primary and, if the aircraft was transponding, with secondary returns. The ASW20 pilot had not activated his flight-logger and therefore the inspector's radar replay review was based only on approximate positions and times. Nevertheless, he had conducted a wide search of the immediate area to that described with no evident success. Some members wondered whether the glider pilot had mistaken the date or time of the occurrence given that a twin would certainly expect to paint at least a primary return on radar. Although the Board understood the difficulty in tracing the second aircraft when there was very limited information, they were disappointed nonetheless that they could not gain the twin pilot's perspective of the incident.

The Board then turned to the cause of the Airprox. They quickly agreed that the main barrier to mid-air collision in Class G airspace was good lookout. Noting that the ASW20 pilot had seen the twin-aircraft

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<sup>1</sup> SERA.3205 Proximity.

<sup>2</sup> SERA.3210 Right-of-way (c)(2) Converging.

early and, after trying to make himself more visible to the twin-aircraft pilot, had then taken action to avoid it, the Board discounted inaction on his behalf (albeit some members remained concerned that he had continued to turn when blind to the twin). In the end, because they could not determine whether the twin pilot had seen the glider, the Board decided that the incident was probably best described as a conflict in Class G airspace. Turning to the risk, members discussed the amount of evidence available, with some believing that because there was only the assessment made by the glider pilot there was insufficient evidence to make an informed judgement (Category D). However, others opined that there was sufficient evidence given the glider pilot's reported assessment of 200m separation and his detailed comments about having to dive to avoid the twin. The Chairman called for a vote and the majority agreed that the ASW20 pilot had taken emergency action to avoid the twin-aircraft, and that there was enough within the glider pilot's report to assess that safety had been much reduced below the norm. The Board accordingly assessed the risk as Category B.

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

Cause: A conflict in Class G airspace.

Degree of Risk: B.

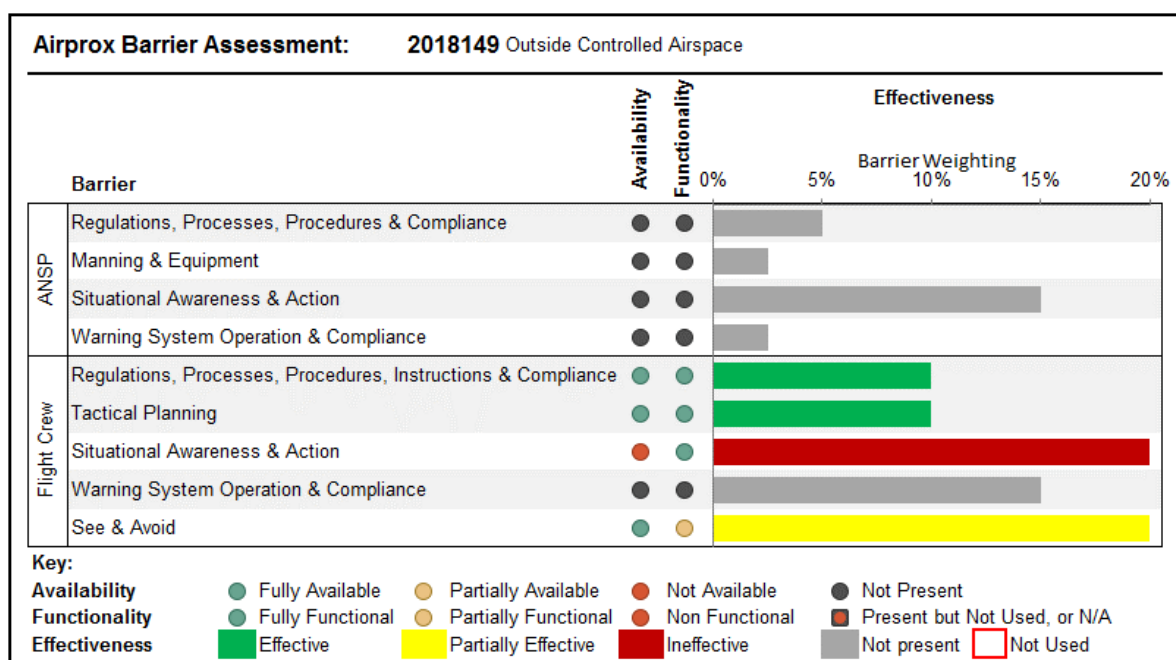
#### Safety Barrier Assessment<sup>3</sup>

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 ASW20 pilot did not have specific SA on the unknown twin-aircraft. It is not known if the unknown twin-aircraft pilot had any SA on the ASW20.

**See and Avoid** were assessed as **partially effective** because the ASW20 pilot carried out emergency avoiding action to increase the separation between his ASW20 and the twin-aircraft.



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