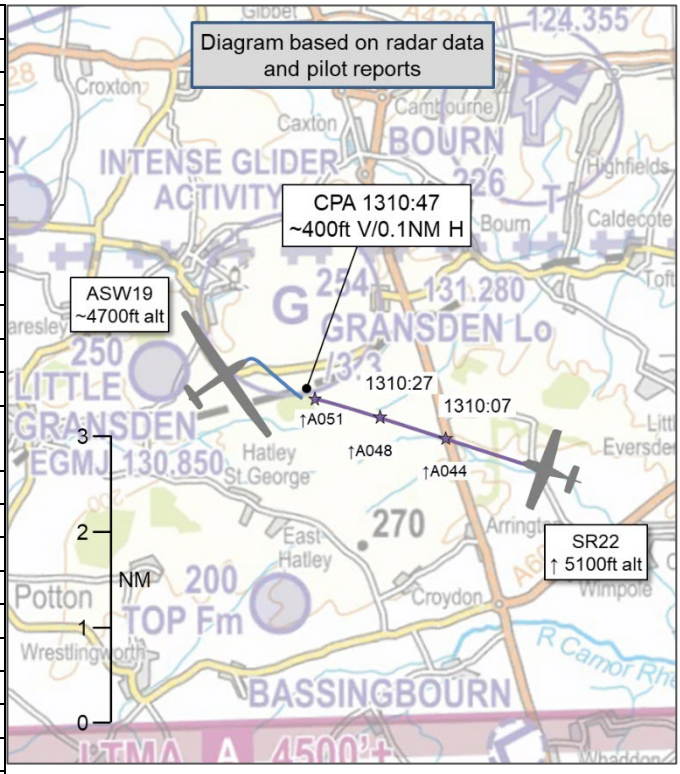
AIRPROX REPORT No 2021064

Date: 29 May 2021 Time: 1310Z Position: 5209N 00006W Location: Gransden Lodge

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	ASW 19	SR22
Operator	Civ Gld	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	IFR	IFR
Service	None	Basic
Provider	NA	London Information
Altitude/FL	~4710ft	5100ft
Transponder	Not fitted	A, C, S
Reported		
Colours	White	Blue, Grey
Lighting	None	Strobes, Nav, Landing, Anti-ice
Conditions	IMC	VMC
Visibility	>10km	>10km
Altitude/FL	4700ft	5200ft
Altimeter	NK	QNH
Heading	045°	300°
Speed	50kt	120kt
ACAS/TAS	FLARM	TAS
Alert	None	None
Separation		
Reported	100ft V/100m H	Not Seen
Recorded	~400ft V/~0.1NM[1] H	



THE ASW19 PILOT reports they were soaring in a glider, the flight was 'local', i.e. well within gliding range from the home airfield. At the time of the Airprox, they were flying close to cloud base under cumulus clouds to maintain height. Because of the proximity to cloud base, they were not VMC. The pilot was not wearing sun glasses so contrast of vision was reduced, but they were able to spot other gliders in the locality during the flight without any problem. At the time of the Airprox, the cloud under which they were flying was dark so visibility was further affected. The powered aircraft emerged at their 11 o'clock and was already very close upon first sight. It was above them and they thought it was likely they were in the other pilot's blind spot. They thought they would not have seen the other aircraft if it was not for its black engine and the noise attracting their attention because the rest of the aircraft was white and difficult to spot as it blended into the cloud. They were flying on reciprocal headings so the closing speed was fast and by the time they realised the situation, the powered aircraft was port abeam and then it was behind them, so no evasive action was taken. The powered aircraft continued on its course after the event and no evasive action was taken on their part either. The powered aircraft was not visible on the FLARM and no alarm was sounded.

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

THE SR22 PILOT reports that they had departed from an uncontrolled airfield and were joining airways. They were in contact with London Information at the time and negotiating an airways joining clearance and IFR flight plan activation. They had levelled off at 5200ft temporarily to remain beneath the base of the London TMA, before resuming climb to FL180. Their recollection was of VMC at the time, but they noted that they had little certainty of this as they fly frequently and there might have been cloud around too. Their flight plan track went south of Little Gransden airfield and therefore a few miles south of

[1] Approximate separation when comparing the GPS log file from the glider with the NATS radar.

Gransden Lodge gliding site which is presumably where the glider was based. They did not see the glider.

THE LONDON INFORMATION FISO reports that they were informed that an aircraft on London Information was involved in an Airprox. Although they were working in London Information that day they could not be certain whether it was them working the frequency at the time of the incident and had no recollection of the aircraft mentioning anything about this on the frequency.

Factual Background

The weather at Stansted was recorded as follows:

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METAR EGSS 291250Z AUTO 10006KT 050V210 9999 SCT045 19/09 Q1028=
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Analysis and Investigation

NATS Investigation

The SR22 was operating from [departure airfield] to [destination] in the climb following departure, outside controlled airspace tracking west-north-west. There were sporadic primary radar returns indicated in the vicinity of Gransden Lodge, one of which was believed to be an ASW-19B glider operating at a reported altitude of 4700ft. The pilot of [SR22 C/S] reported onto the London Flight Information Service (FIS) frequency at 13:09:14 (all times UTC) with the aircraft passing an indicated 3400ft. The pilot requested flight plan activation and an airways joining clearance. The FIS Officer (FISO) requested the SR22 pilot to repeat the message and following repetition, at 13:09:45 requested the pilot to display Mode-A 0027 (displayed on radar as FIRJOIN), to remain outside Controlled Airspace and a Basic Service was provided. The FISO requested at 13:10:21 the SR22 pilot's estimate for EBOTO, in order to effect the telephone coordination for the airways joining clearance from the appropriate TC sector. During this R/T exchange, [SR22 C/S] flew into proximity of a primary radar return believed to be [ASW19 C/S].

Closest Point of Approach occurred at 13:10:42 and was recorded on Multi-Track Radar as 0.3NM and 400ft (against reported altitude of [ASW19] of 4700ft) [2], see Figure 1.

Figure 1

[2] The NATS investigation did not have access to the glider's GPS log file and therefore separation is based purely on the radar returns.

Both tracks appeared to continue straight with no avoidance observed from either aircraft. The pilot of [SR22 C/S] made no reference to any potential conflict on the R/T. London Information provide Basic and Alerting Services only and do not use radar. The pilot of [ASW19 C/S] was not in contact with London Information, therefore the FISO was unaware of the glider.

CAP774 – UK Flight Information Services, Chapter 2 Paragraph 1 defines a Basic Service as:

> *'A Basic Service is an ATS provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights. This may include weather information, changes of serviceability of facilities, conditions at aerodromes, general airspace activity information, and any other information likely to affect safety. The avoidance of other traffic is solely the pilot's responsibility. Basic Service relies on the pilot avoiding other traffic, unaided by controllers/FISOs.*'

Following discussion with the Airprox Board, it was only established that [SR22 C/S] was involved in this Airprox on the 9th June 2021 (11 days after the event) and a historical report was requested from the FISO. The completed report from the FISO stated 'Although I was working in London Information that day I can't be certain if it was me working the frequency at the time of the incident and I have no recollection of the aircraft mentioning anything about this on the frequency.'

UKAB Secretariat

The ASW19 and SR22 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard.[3] If the incident geometry is considered as converging then the SR22 pilot was required to give way to the ASW19.[4]

Comments.

BGA

Local soaring gliders can be expected to be encountered with increasing frequency the closer you get to gliding sites. On days with cumulus clouds, they are likely to be concentrated underneath them, climbing up towards cloud base. Other aircraft in cruise flight could lessen their chances of meeting a thermalling glider by avoiding flying directly under the clouds in question, especially when vertically close to the base.

Summary

An Airprox was reported when an ASW19 and a SR22 flew into proximity in the vicinity of Gransden Lodge at 1310Z on Saturday 29th May 2021. Both pilots were operating under IFR, the ASW19 in IMC and the SR22 in VMC. The SR22 pilot was in receipt of a Basic Service from London Information and the ASW19 pilot was not in receipt of an ATS.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, reports from the air traffic controllers involved and reports from the appropriate operating authorities. 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 provided a combination of written contributions and dial-in/VTC comments.

[3] (UK) SERA.3205 Proximity.
[4] (UK) SERA.3210 Right-of-way (c)(2) Converging.

The Board first considered the actions of the glider pilot. Whilst acknowledging that they were allowed to operate just beneath the cloud base, some members questioned the wisdom of this (**CF2**). The gliding member noted that, on a good soaring day it was sometimes difficult to know where the cloud base was until you reached it, and that in the vicinity of gliding sites other airspace users should expect to see gliders operating up to the cloud base. Nevertheless, members pointed out that it was difficult to spot a white aircraft against the white cloud and that in this case it probably contributed to the glider pilot not seeing the SR22 earlier and vice versa (**CF7**). The glider pilot was not receiving an ATS, and the FLARM on the glider could not detect the transponder on the SR22 (**CF5**), so the glider pilot had no prior situational awareness about the approaching SR22 (**CF4**). Furthermore, even after they had seen it, it was too late to take any avoiding action making this an effective non-sighting by the glider pilot (**CF6**).

Turning to the SR22 pilot, members noted that they had called London Information for the activation of their flight plan. Whilst London Information did provide that service, many members noted that London Information only provided a Basic Service and that this was without recourse to a radar so the FISO would not have been able to provide any Traffic Information (**CF1**). The pilot had a long way to travel without a radar service and members thought they would have been better served to have called a radar unit such as Cambridge for a service and called London Information on their second box to activate the flight plan (**CF2**, **CF3**). A NATS controlling member noted that, although not a LARS unit, the pilot could have called Essex Radar for an ATS and they would also activate the flight plan and in fact, if not busy, could probably facilitate an earlier climb into controlled airspace. The TAS on the SR22 could not detect the FLARM equipped glider (**CF5**) and without an ATS either, the pilot had no situational awareness that the glider was in the vicinity (**CF4**) and did not see it (**CF6**).

When determining the risk the Board took into consideration the description by the glider pilot and the separation when comparing the glider's GPS data with the radar and thought that it described a situation where safety had not been assured, Risk Category B (**CF8**).

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2021064			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Ground Elements			
	• Situational Awareness and Action			
1	Contextual	• ANS Flight Information Provision	Provision of ANS flight information	The ATCO/FISO was not required to monitor the flight under a Basic Service
	Flight Elements			
	• Tactical Planning and Execution			
2	Human Factors	• Action Performed Incorrectly	Events involving flight crew performing the selected action incorrectly	Incorrect or ineffective execution
3	Human Factors	• Communications by Flight Crew with ANS	An event related to the communications between the flight crew and the air navigation service.	Pilot did not request appropriate ATS service or communicate with appropriate provider
	• Situational Awareness of the Conflicting Aircraft and Action			
4	Contextual	• Situational Awareness and Sensory Events	Events involving a flight crew's awareness and perception of situations	Pilot had no, late or only generic, Situational Awareness
	• Electronic Warning System Operation and Compliance			
5	Technical	• ACAS/TCAS System Failure	An event involving the system which provides information to determine aircraft position and is primarily independent of ground installations	Incompatible CWS equipment
	• See and Avoid			

6	Human Factors	• Monitoring of Other Aircraft	Events involving flight crew not fully monitoring another aircraft	Non-sighting or effectively a non-sighting by one or both pilots
7	Contextual	• Visual Impairment	Events involving impairment due to an inability to see properly	One or both aircraft were obscured from the other
	• Outcome Events			
8	Contextual	• Near Airborne Collision with Aircraft	An event involving a near collision by an aircraft with an aircraft, balloon, dirigible or other piloted air vehicles	

Degree of Risk: B.

Safety Barrier Assessment[5]

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

Flight Elements:

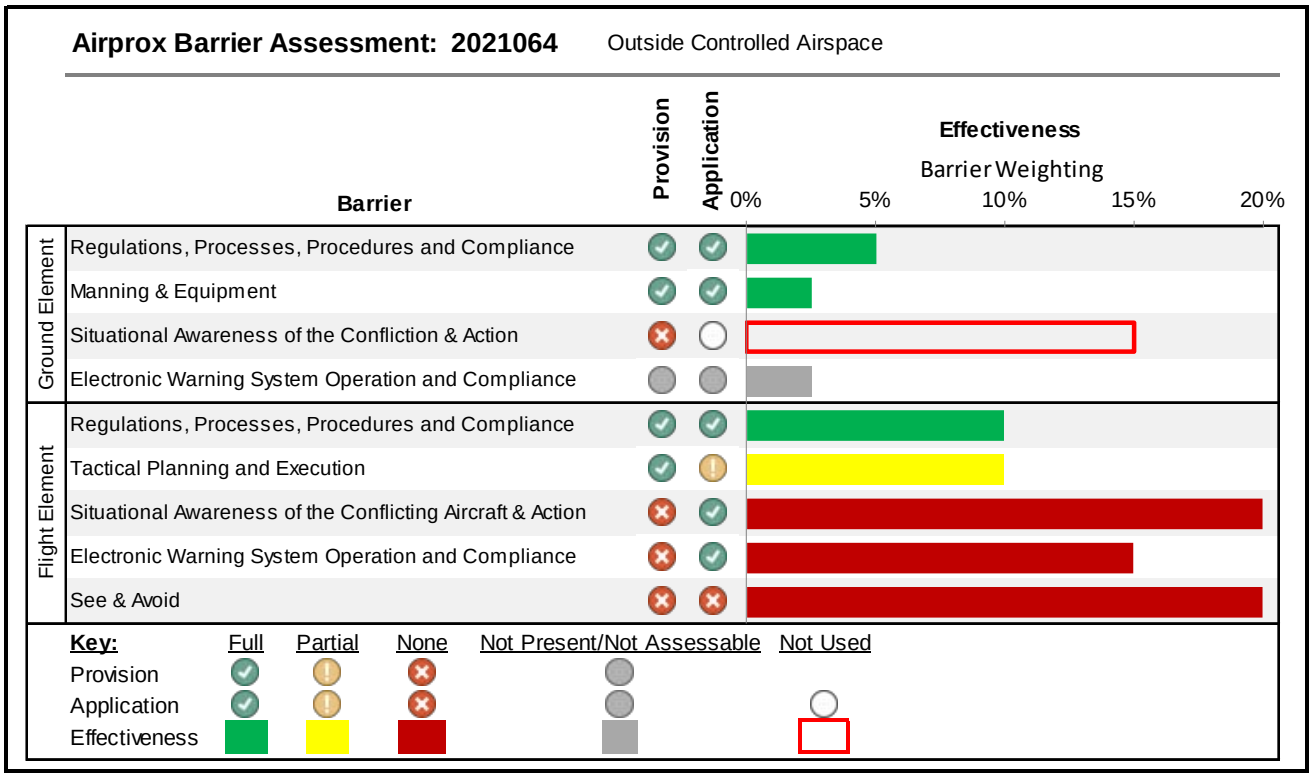
Tactical Planning and Execution was assessed as **partially effective** because the glider pilot could have remained further away from the cloud base. Furthermore, the SR22 pilot should have called an ATSU that could provide a radar service.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither pilot had any prior situational awareness on the other.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the FLARM on the glider could not detect the SR22 and the TAS on the SR22 could not detect the glider.

See and Avoid were assessed as **ineffective** because the glider pilot did not see the SR22 in time to take any avoiding action and the SR22 pilot did not see the glider at all.

[5] 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: 2021064
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 Confliction & 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:
Full
Partial
None
Not Present/Not Assessable
Not Used
Provision
Application
Effectiveness