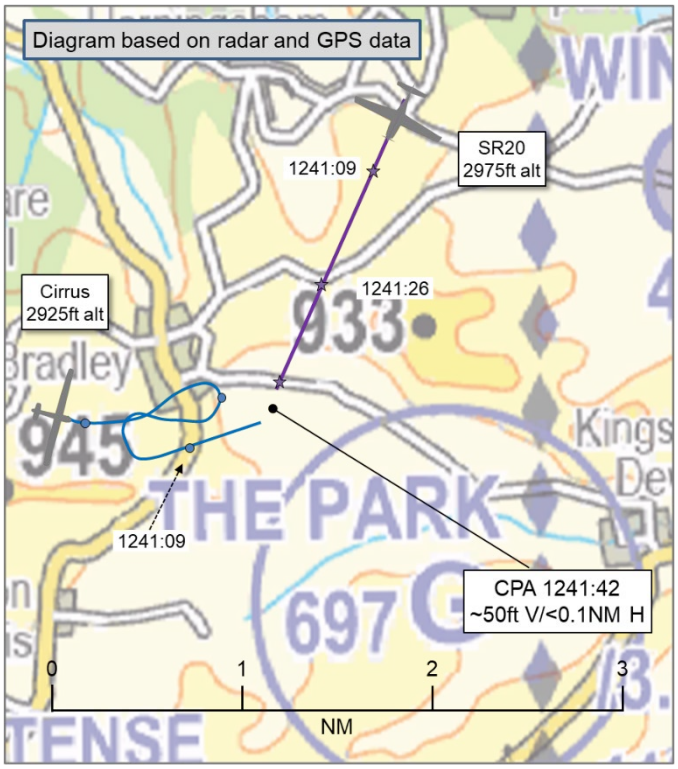
AIRPROX REPORT No 2023190

Date: 22 Aug 2023 Time: 1242Z Position: 5108N 00216W Location: 4NM Southwest Warminster

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Cirrus	SR20
Operator	Civ Gld	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Listening Out	Listening Out
Provider	Bath, Wilts and North Dorset GC	Bournemouth Rdr
Altitude/FL	2925ft	2975ft
Transponder	Not fitted	A, C, S
Reported		
Colours	White/Orange	Grey/Silver
Lighting	Not fitted	Strobes, Landing, Navigation
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	2300ft	3200ft
Altimeter	QFE (994hPa)	QNH
Heading	063°	206°
Speed	62kt	126kt
ACAS/TAS	FLARM	TAS
Alert	None	None
Separation at CPA		
Reported	100ft V/200-300m H	100ft V/0.5NM H
Recorded	~50ft V/<0.1NM H	



THE CIRRUS PILOT reports that they had been flying straight and level, exploring a line of weak lift on an east-northeast heading [at approximately] 2200ft QFE (set to The Park) above Little Knoll Hill (approximately 1km southeast of Maiden Bradley) when they had noticed two white strobe lights at their 11 o'clock position at approximately the same height. [They had] then noticed something dark between those lights that had not changed position in their canopy, i.e. [they had judged that] it had been heading straight for them. Upon realising this, the Cirrus pilot immediately pushed their stick forward and altered heading slightly to the right but had kept the other aircraft visual. The pilot also reports having waved their wing tips to get themselves noticed, but the other aircraft had maintained its speed and heading with no apparent averting action being taken, which had suggested to the Cirrus pilot that they had not seen them at all. A few seconds later the aircraft had passed them on their aft portside (west-southwest of their position) by then maybe 100ft above and probably no further than 200-300m horizontally. The Cirrus pilot immediately called the launch point controller at The Park gliding club to inform them of the incident and had asked them to track the aircraft in order to obtain its details.

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

THE SR20 PILOT reports that they had been operating on an instructional flight with a student. The sortie had been a navigation exercise from [departure airfield] to [destination airfield]. The aircraft had been flying straight-and-level with the auto-pilot engaged in HDG and ALT mode set to 3200ft. The Instructor had advised the student to make a HDG adjustment to the right around the Westbury area to avoid EGD123, which would also avoid The Park gliding site, passing around 1NM to the west. On passing The Park gliding site, the instructor spotted a glider at roughly 12 o'clock, slightly above, and passing from right-to-left 1-2NM away (no warnings or aircraft [had been] detected on TAS). The instructor had prepared to take avoiding action but deemed it unnecessary as on the set HDG the SR20

would have passed behind the glider. The glider had then made a left turn passing the SR20 on the left-hand side and around the aircraft in a 40-60° [angle of bank turn] coming within approximately 0.5NM of the SR20. At a similar time, a TAS warning had alerted the instructor and student of another aircraft which had been approximately 5NM at 1-2 o'clock passing through their level, climbing. This had been a powered aircraft towing a glider which was visually sighted by both the instructor and student.

The pilot assessed the risk of collision as 'None'.

THE BOURNEMOUTH ATS MANAGER reports they had been advised by the Airprox Board of a reported Airprox between a Cirrus and an SR20, which had [reportedly] been talking to Bournemouth ATC on the 22 Aug 2023 in the vicinity of Maiden Bradley. The Manager of Air Traffic Services [at Bournemouth] reviewed the RT and radar tapes and submitted this report on behalf of the controller at the time of the incident in their absence. [..] The report submitted to the Airprox Board states that there had been a reported Airprox in the vicinity of Maiden Bradley (northwest of Bournemouth by approximately 30NM) between a Cirrus and an SR20 at 1242. [Bournemouth] had impounded the RT and radar tapes as requested and sent them to the Airprox Board, the notification from the Airprox Board had been the first notification they had received on this incident. The ATS Manager at Bournemouth had reviewed the tapes to determine if there had been any controller involvement in the incident and found information [relating to the SR20 and a 3rd aircraft after the reported event and unconnected to it]. There had been no sighting of the Cirrus at that time […]. At the reported time of the Airprox none of the aircraft [pilots] had been talking or listening to Bournemouth and none had contacted Bournemouth Radar. At 1250 the SR20 pilot had called Bournemouth on 119.480MHz 15NM to the west of Bournemouth requesting a Basic Service which had been provided. At no point had the pilot of the SR20 reported to the controller that they had wished to file an Airprox and there had subsequently been no calls to Bournemouth Airport from any pilots advising their intentions to file. At no point throughout the period had the controller observed the Cirrus.

Factual Background

The weather at Yeovilton was recorded as follows:

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METAR EGDY 221220Z AUTO 28007KT 9999 SCT041/// 23/12 Q1021=
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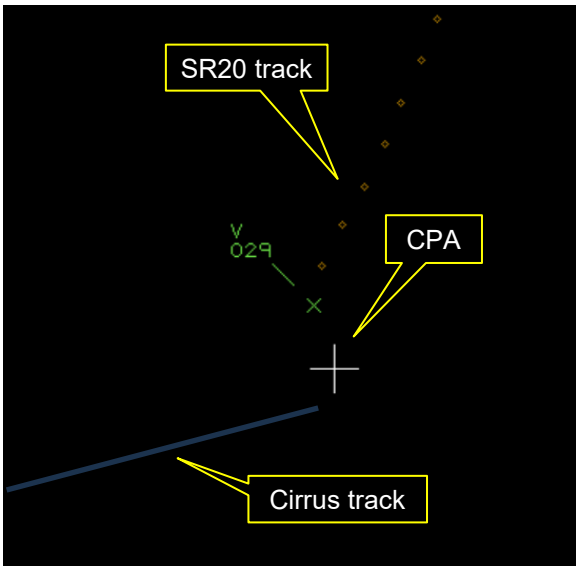
Analysis and Investigation

UKAB Secretariat



CPA 1241:42 ~50ftV/<0.1NM H

Both aircraft were plotted via an ADS-B source. The SR20 had an active transponder and was tracked by radar but the Cirrus did not show on radar, even as a primary contact. The Cirrus pilot reported to have been listening out on the nearest glider site frequency (The Park). The SR20 pilot reported that they had been listening out on the Bournemouth Radar frequency. Bournemouth ATS investigation showed first contact from the SR20 pilot to have been at 1250, i.e. more than 8min after CPA.

The Cirrus and SR20 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 converging then the SR20 pilot was required to give way to the Cirrus.[2]

Comments

AOPA

This incident demonstrates that until there is in-cockpit electronic conspicuity commonality, aircraft lights can assist pilots to visually detect the presence of other machines.

BGA

It is encouraging that the SR20 instructor had been aware of the location of The Park gliding site. A greater density of gliders, and aircraft towing gliders, may be expected nearby at any time during daylight hours, and at any altitude up to cloudbase. The VHF channel in use at The Park is shown on CAA VFR charts and listed in ENR 5.5. If transiting nearby below 3000ft AAL, a brief broadcast call on the listed channel using "Unattended Aerodrome" phraseology (CAP 413 §4.179 et seq) could help avoid conflicts and increase everyone's situational awareness.

Summary

An Airprox was reported when a Cirrus and an SR20 flew into proximity 4NM southwest of Warminster at 1242Z on Tuesday 22nd of August 2023. Both pilots were operating under VFR in VMC with the Cirrus pilot listening out on the Bath, Wilts and North Dorset Gliding Club frequency and the SR20 pilot listening out on the Bournemouth Radar frequency.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, GPS data and a report from the air traffic unit 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.

Members firstly discussed the actions of the Cirrus pilot, noting that they had maintained a listening watch on The Park frequency as the nearest active airfield at that time and that, although they had not been equipped with a transponder, they had carried an electronic conspicuity (EC) unit common amongst glider pilots but unfortunately it had not been compatible with the equipment carried on the SR20 (**CF3**). The Board agreed that, on identifying the lights of the SR20 in their left 11 o'clock, and having ultimately confirmed it as an aircraft, they reacted positively and at a late stage (**CF4**) to increase separation between the two aircraft.

Turning to the actions of the SR20 pilot, members noted that the pilot had been instructing a student and had maintained an autopilot configuration for that purpose but felt that, as the aircraft had been approaching a marked active glider site, it might have been prudent to have varied the flightpath to increase their visibility to others and improve their lookout options. On seeing the Cirrus, the SR20 pilot had judged that their path would take them sufficiently clear and behind but, at CPA, that separation had been close enough to cause concern to the Cirrus pilot (**CF5**) and members felt that the SR20 pilot

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

may have been better served by executing a turn at the point of identification, which would have increased separation and perhaps avoided concerning the glider pilot. The Board expressed surprise at the SR20 pilot's selection of Bournemouth as a listening out frequency, opining that they had presumably aimed to build their air picture of that area prior to their arrival but, as other options had been closer to hand, such as Yeovilton for LARS or The Park, they could have considered either of those for an immediate area situational awareness tool (**CF1**). Members noted positively the SR20 pilot's carriage and use of transponder and TAS equipment and again felt it unfortunate that there had been no compatibility between the two aircraft EC suites (**CF3**).

In reviewing the role played by The Park and Bournemouth ATC, Board members accepted the limited value they could offer in this case and noted that in its combination with the lack of EC compatibility, the Cirrus pilot had had no situational awareness of the SR20 and that of the SR20 pilot had been limited to a generic state raised by the chart indication of the active glider site (**CF2**).

When determining the risk of the Airprox, the Board considered the reports from both pilots together with the report from the Air Traffic Manager at Bournemouth. They noted that, although the Cirrus pilot had seen the lights of the SR20 early, they had then identified them as an aircraft on a constant bearing and reacted by descending as the SR20 had passed behind them. The SR20 pilot had seen the Cirrus and judged that they would pass behind and felt they had not needed to take further avoiding action, and that whilst the Cirrus pilot may have wished for more separation, their action had ensured that although safety had been degraded, there had been no risk of collision. Members awarded a Risk Category C to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2023190			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Flight Elements			
	• Tactical Planning and Execution			
1	Human Factors	• Accuracy of Communication	Events involving flight crew using inaccurate communication - wrong or incomplete information provided	Ineffective communication of intentions
	• Situational Awareness of the Conflicting Aircraft and Action			
2	Contextual	• Situational Awareness and Sensory Events	Events involving a flight crew's awareness and perception of situations	Pilot had no, late, inaccurate or only generic, Situational Awareness
	• Electronic Warning System Operation and Compliance			
3	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			
4	Human Factors	• Identification/ Recognition	Events involving flight crew not fully identifying or recognising the reality of a situation	
5	Human Factors	• Lack of Individual Risk Perception	Events involving flight crew not fully appreciating the risk of a particular course of action	Pilot flew close enough to cause concern

Degree of Risk: C.

Safety Barrier Assessment[3]

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

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 SR20 pilot could have considered switching to The Park frequency as they had passed through the area.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the Cirrus pilot had no awareness of the SR20's passage through the area and the SR20 pilot had only generic awareness of gliding activity in the area.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because, although both aircraft carried warning equipment, the units had been incompatible.

See and Avoid were assessed as **partially effective** because, although the Cirrus pilot had seen the SR20 aircraft lighting, the pilot had needed time to confirm it as a threat before manoeuvring; and the SR20 pilot, having seen the Cirrus, had judged that it would pass further ahead than it ultimately had.