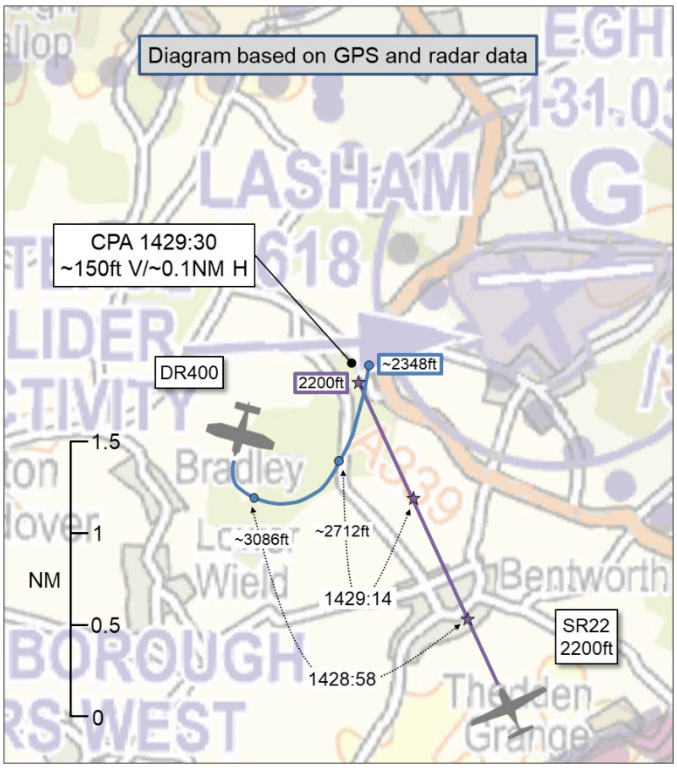
AIRPROX REPORT No 2025099

Date: 23 May 2025 Time: 1430Z Position: 5111N 00104W Location: IVO Lasham

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	DR400	SR22
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	Basic
Provider	N/A	F'borough LARS W
Altitude/FL	~2348ft	2200ft
Transponder	None[1]	A, C, S
Reported		
Colours	Black, yellow	White, blue
Lighting	Anti-col, landing, taxy, nav, strobes	Strobes
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	2700ft	2200ft
Altimeter	QNH (1019hPa)	QNH
Heading	045°	"*North*"
Speed	110kt	150kt
ACAS/TAS	FLARM	TAS
Alert	Information	Information
Separation at CPA		
Reported	200ft V/200m H	500ft V/1NM H
Recorded	~150ft V/~0.1NM H	



THE DR400 PILOT reports that they were in a descent after having released a glider south-west of Lasham airfield. They received an alert from their [EC device] greater than 3/4NM west-southwest of Lasham. An aircraft was observed passing under their left wing on a heading of 345° approximately 200ft below. Their own heading was 045°. The event was reported to Lasham Traffic (131.030MHz). They estimate that the aircraft passed very close to, or underneath, their DR400 from the right wing to appearing under the left wing. They described their avoiding action as "*turning away*".

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

THE SR22 PILOT reports that they were [en-route to their destination], somewhere just west of Lasham and, as usual in that area, were cruising northwards at 2200ft. They noticed on 'TCAS' that there was an aircraft just west-southwest of them and managed to see it. [The SR22 pilot] would have been travelling at approximately 150kt and estimated that, although [it had been] travelling towards them, [the other aircraft] would pass behind. They kept a good lookout in case this changed. [The other aircraft] then suddenly turned sharp-right and could only assume that the pilot had just seen the [SR22].

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

THE FARNBOROUGH LARS WEST CONTROLLER reports that they were working bandboxed LARS West and Farnborough Zone. No Airprox report was made on frequency. They have no recollection of this particular aircraft or the circumstances surrounding this Airprox.

[1] The pilot of the DR400 reported that a Mode A,C,S transponder was fitted to the DR400 but no transponder returns were observed on the NATS radar replay.

Factual Background

The weather at RAF Odiham was recorded as follows:

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METAR EGVO 231420Z AUTO 21015KT 9999 SCT039/// BKN060/// 16/06 Q1018
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Analysis and Investigation

CAA ATSI

ATSI has nothing to add to the Farnborough investigation report.

FARNBOROUGH UNIT INVESTIGATION

Description of the event

The pilot of [the SR22] contacted the Farnborough LARS West frequency at 1420:34 (all times UTC). This was not initially responded to due to workload. The pilot called again at 1422:49 and stated they were "*just north of Plymouth, two thousand five hundred, one zero one eight, request a Basic Service*". A squawk of 0433 was applied with a Basic Service agreed.

Note: [The SR22] was north of Portsmouth, not Plymouth.

The pilot then requested a transit of Odiham MATZ, avoiding the ATZ. This was approved by the Farnborough LARS West (LF-LARS) controller. The LF-LARS controller advised the pilot of [the SR22] at 1427:20; "*just caution for Lasham glider site north of you by five miles, active*". The pilot responded; "*we'll deviate to the west*".

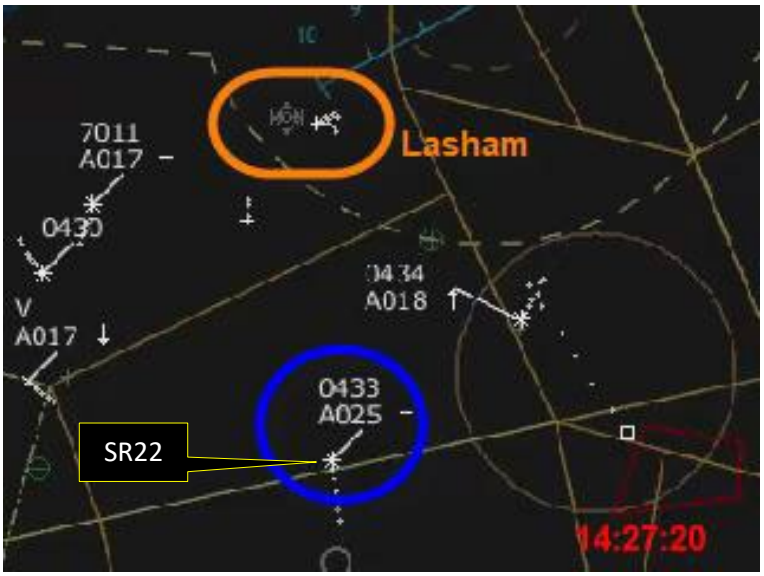


Figure 1 – Farnborough Radar (1427:20)

At the time of that advice, [the SR22] was tracking towards the Lasham overhead at altitude 2500ft, where a number of primary radar contacts were in the vicinity (Figure 1).

At 1429:16, NODE radar displayed a single primary track that had appeared to the north-east of [the SR22] that, potentially, correlated with an aircraft which had then tracked on a similar adjacent path 0.4NM to the east of [the SR22]. Neither aircraft appeared to change track (Figure 2).

Figure 2 – NODE radar (1429:24)

That was the Closest Point of Approach from any primary target in the vicinity and was assessed on NODE Radar as 0.4NM laterally with a vertical separation unable to be established.

The primary radar target could not be identified as [the DR400], however, the location correlated with the UKAB notification. The NATS4118 stated: 'It is perceived one of these primary contacts is the source of the Airprox report, however, the Unit is not able to ascertain which contact relates to [the DR400]'.

Investigation

Information available to the investigation included: CA4114 from the Farnborough LARS West controller (LF-LARS), NATS4118 Initial Watch Management Investigation Report and [a redacted copy of the DR400 pilot's] Airprox report.

The Farnborough controller was operating LARS West and Zone functions combined. The [SR22] pilot requested a Basic Service from Farnborough LARS, which was agreed.

CAP774 Chapter 2, 2.1 stipulates:

> 'A Basic Service is an ATS provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights … The avoidance of other traffic is solely the pilot's responsibility. Basic Service relies on the pilot avoiding other traffic, unaided by controllers/ FISOs. It is essential that a pilot receiving this ATS remains alert to the fact that, unlike a Traffic Service and a Deconfliction Service, the provider of a Basic Service is not required to monitor the flight.'

[The DR400] was a tug aircraft operating in the vicinity of Lasham. [The pilot] stated the confliction had occurred: '250° 1NM from Lasham Airfield ARP'.

The CAA 'GINFO' aircraft register displayed a transponder hex-code [for the DR400], suggesting this aircraft was fitted with conspicuity equipment[2] but, for reasons unknown, no SSR transponder data was received. Therefore, it was not possible to confirm that the pilot was operating in accordance with SERA requirements.

The LF-LARS controller provided information to the pilot of [the SR22] regarding Lasham glider activity, which was acknowledged by the pilot with a response they would "*deviate to the west*". Two

[2] An Aircraft Registrar at the CAA confirmed that an aircraft is allocated an ICAO ID (hex-code) at the point of application for inclusion on the UK Register. The presence of a 'hex-code' on 'G-INFO' does not imply that an aircraft is fitted with a transponder.

primary contacts were visible on Farnborough radar which correlated with potential glider traffic. Farnborough MATS Part 2 APR 4.4.7 further stated:

> 'Aircraft on a LARS track that is on own navigation, outside controlled airspace, may continue over Lasham at the pilot's own risk. Best practice would be to warn the pilot.'

CAP774 Chapter 2, 2.6 further stipulates:

> 'where a controller/FISO has information that indicates that there is aerial activity in a particular location that may affect a flight, in so far as it is practical, they should provide traffic information in general terms to assist with the pilot's situational awareness. This will not normally be updated by the controller/FISO unless the situation has changed markedly, or the pilot requests an update. Traffic information in general terms could include warnings of aerial activity in a particular location: [e.g.] Intense gliding activity over Smallville.'

As [the SR22] continued to track towards Lasham gliding area, two contacts initially maintained on radar. The LF-LARS controller was prioritising passing Traffic Information on final approach traffic operating VFR within the Farnborough CTR.

CAP774 Chapter 2, 2.7 states;

> 'A controller with access to surveillance-derived information shall avoid the routine provision of traffic information on specific aircraft but may use that information to provide a more detailed warning to the pilot. If a controller/ FISO considers that a definite risk of collision exists, a warning shall be issued to the pilot ((UK) SERA.9005(b)(2) and GM1 (UK) SERA.9005(b)(2)). Whether traffic information has been provided or not, the pilot remains responsible for collision avoidance without assistance from the controller.'

NODE Radar displayed [the SR22] had passed 1.2NM to the west of Lasham Airfield. Prior to the reported time of the confliction, both previous primary contacts (as displayed in Figure 1) in the vicinity of Lasham had disappeared from the Farnborough Radar display, with two further primary contacts appearing within the vicinity of [the SR22] (as displayed in Figure 2) on the Farnborough radar display at 1429:31 (Figure 3).

Figure 3 – Farnborough radar (1429:31)

The pilot of [the SR22] requested [to change frequency] at 1434:06. A confliction was not reported on the Farnborough frequency.

Conclusion

The pilot of [the SR22] was receiving a Basic Service from Farnborough LARS. The pilot was informed by the controller of Lasham Gliding area being active, which was acknowledged. [The

SR22] passed west-abeam Lasham in confliction with [the DR400], a tug aircraft operating in the vicinity. The confliction was not reported on frequency.

UKAB Secretariat

An analysis of the NATS radar replay was undertaken and the SR22 could be positively identified from Mode S data. The SR22 was also observed by reference to ADS-B data sources.

The DR400 was not observed on the NATS radar replay, nor by reference to ADS-B data sources. The pilot of the DR400 kindly supplied GPS track data for their flight. It was by combining the data sources that the diagram was constructed and the separation at CPA determined.

The DR400 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 DR400 pilot was required to give way to the SR22.[4] 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 operation.[5] When an aircraft carries a serviceable SSR transponder, the pilot shall operate the transponder at all times during flight, regardless of whether the aircraft is within or outside airspace where SSR is used for ATS purposes.[6]

Comments

AOPA

Hopefully, the Department for Transport will announce a common form of electronic conspicuity which will assist aviation in Mid-Air Collision Avoidance (MACA). Until then, the use of an appropriate Air Traffic Service will assist with MACA and improve everyone's situational awareness. Where there is not an appropriate surveillance service available, the final barrier is an effective lookout scan which, in this case, saved the day.

BGA

The DR400 pilot was engaged in launching gliders from Lasham gliding site, which is home to one of the largest gliding clubs in the world, with more than 220 gliders based there. These aerotow launch operations require a continuous series of take-offs with a glider in tow, typically climbing to 2500-3500ft AMSL, remaining in Class G airspace within 3NM of Lasham, followed by a rapid recovery back to the airfield for the next tow. Areas of Farnborough Class D controlled airspace created immediately to the east in February 2020 have created a choke point there by funnelling north/south transit traffic that chooses (or is restricted) to remain in Class G airspace above 2000ft AMSL through the Lasham area, while simultaneously concentrating local glider-related traffic into the same restricted area. An increased frequency of Airprox involving tow-planes and gliders near Lasham is the likely result.

Had the DR400 transponder been operating, it should have registered on the SR22 TAS, which would have provided an additional safety barrier in this very busy area of Class G airspace.

Summary

An Airprox was reported when a DR400 and an SR22 flew into proximity in the vicinity of Lasham at 1430Z on Friday 23rd May 2025. The DR400 pilot was operating under VFR in VMC not in receipt of a FIS. The SR22 pilot was operating under VFR in VMC in receipt of a Basic Service from Farnborough LARS West.

[3] (UK) SERA.3205 Proximity.
[4] (UK) SERA.3210 Right-of-way (c)(2) Converging.
[5] (UK) SERA.3225 Operation on and in the Vicinity of an Aerodrome.
[6] (UK) SERA.13001 Operation of an SSR transponder (a).

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, GPS track data for the flight of the DR400, a report from the air traffic controller involved and a report from the appropriate operating authority. 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.

The Board first considered the actions of the pilot of the DR400, and a member with particular knowledge of gliding operations explained that the role of a tug-aircraft pilot was to take-off with a glider in tow, climb to 2000-3000ft for the release of the glider and then return to the airfield, perhaps with some haste, and to repeat the process, typically, many times per day.

Members noted that no transmissions were observed from the transponder fitted to the DR400 and wondered whether the transponder had been unserviceable or the pilot had not switched it on. It was also noted that the pilot of the DR400 had not been in receipt of an ATS and, without having contacted an ATSU for a surveillance-based service, it occurred to members that there had not been an opportunity for the output of the transponder to have been verified. Members agreed that it would have been prudent to have checked that the transponder output could be observed, perhaps at the commencement of operations, which may also have provided some specific situational awareness for controllers (and, of course, it would be expected that it would have been detectable by TAS and TCAS equipment).

The Board therefore resolved to make a Recommendation in two parts:

1. *Lasham Gliding Society considers introducing a start-of-day transponder check by which the serviceability of equipped tugs' transponders can be verified.*

2. *The BGA considers issuing guidance to clubs regarding the verification of the serviceability of tug aircraft SSR transponders.*

Notwithstanding that part of the discussion, members agreed that the transponder fitted to the DR400 had not been operated in accordance with the applicable regulation (**CF1**) and that the non-operation of the transponder (from the perspective of the planning and execution of their flight) had been a contributory factor to how the Airprox encounter had unfolded (**CF3**).

In further consideration of EC device interaction, it was noted that the additional device fitted to the DR400 would not have been expected to have detected the SR22 (**CF5**). Members were in agreement that the 'information' that the device had provided (as reported) could not have related to the presence of the SR22 and that it must have detected another aircraft in the area at that time. Noting that the SR22 had been first observed passing "*under their left wing*", members were in agreement that there had been no time to have taken any avoiding action and that this had constituted, effectively, a non-sighting (**CF6**).

Members next turned their attention to the actions of the pilot of the SR22, and it was noted that they had been passed a caution by the Farnborough controller that "*Lasham glider site north of you by five miles,* [is] *active*". Consequently, members agreed that the pilot of the SR22 had gathered generic situational awareness of activity at Lasham (**CF4**), sufficient to have adapted their dynamic plan accordingly. Members noted that the pilot of the SR22 had altered their track slightly to the left and had passed approximately 1NM abeam the main runway at Lasham. In consideration of the high level of traffic that could have been reasonably expected in the vicinity of Lasham, members were in agreement that the SR22 pilot's dynamic plan had not been adapted sufficiently (**CF2**) and that it may have been prudent to have given the area a much wider berth. Members agreed that, having elected to be in receipt of a Basic Service, they had been responsible for avoiding other traffic, unaided by the controller. It had therefore been of the utmost importance for them to have maintained a very thorough and effective lookout.

Members pondered the narrative report provided by the pilot of the SR22 in respect of the TAS alert that they had received. Having previously agreed that the transponder fitted to the DR400 had not been operated, members agreed that the TAS equipment fitted to the SR22 could not have detected the presence of the DR400 (**CF5**) and that the 'TAS Information' received must have related to a different aircraft in the area. Consequently, members agreed that the pilot of the SR22 had not gleaned situational awareness of the DR400 (**CF4**). Further, given that the pilot of the SR22 had sighted an aircraft and had assessed that the closest that it had passed had been 500ft vertically and 1NM horizontally, members determined that that could not have been the DR400. Consequently, it was agreed that the DR400 had not been sighted around the moment of CPA, and that that effectively constituted a non-sighting (**CF6**).

The Board next considered the actions of the Farnborough LARS controller. Members agreed that, under the terms of a Basic Service, they had not been required to have monitored the flight of the SR22. Nevertheless, members noted that they had passed a generic caution to the pilot of the SR22 that Lasham had been active. Members noted that several primary-only returns had been sporadically visible on their radar display and that it had only been after analysis that it could be determined that one of the returns had been from the DR400. Members agreed that there had been little else that the Farnborough controller could have done to have assisted matters.

Concluding their discussion, members summarised their thoughts. Some members proffered that, whilst the separation between the aircraft had been uncomfortably close, it had been sufficient that no risk of collision had existed. Other members pointed out that all 'Flight Element' safety barriers had either been weakened or had failed during this encounter. A vote was conducted and the latter view, that the safety of the aircraft had not been assured, prevailed. Members were in agreement that it had been largely by chance that the separation had not reduced further, and agreed that a risk of collision had existed (**CF7**). The Board assigned Risk Category B to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2025099			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Flight Elements			
	• Regulations, Processes, Procedures and Compliance			
1	Human Factors	• Use of policy/Procedures	Events involving the use of the relevant policy or procedures by flight crew	Regulations and/or procedures not complied with
	• Tactical Planning and Execution			
2	Human Factors	• Insufficient Decision/Plan	Events involving flight crew not making a sufficiently detailed decision or plan to meet the needs of the situation	Inadequate plan adaption
3	Human Factors	• Transponder Selection and Usage	An event involving the selection and usage of transponders	
	• 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, inaccurate 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
	• Outcome Events			
7	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.

Recommendations:

1. Lasham Gliding Society considers introducing a start-of-day transponder check by which the serviceability of equipped tugs' transponders can be verified.

2. The BGA considers issuing guidance to clubs regarding the verification of the serviceability of tug aircraft SSR transponders.

Safety Barrier Assessment[7]

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

Flight Elements:

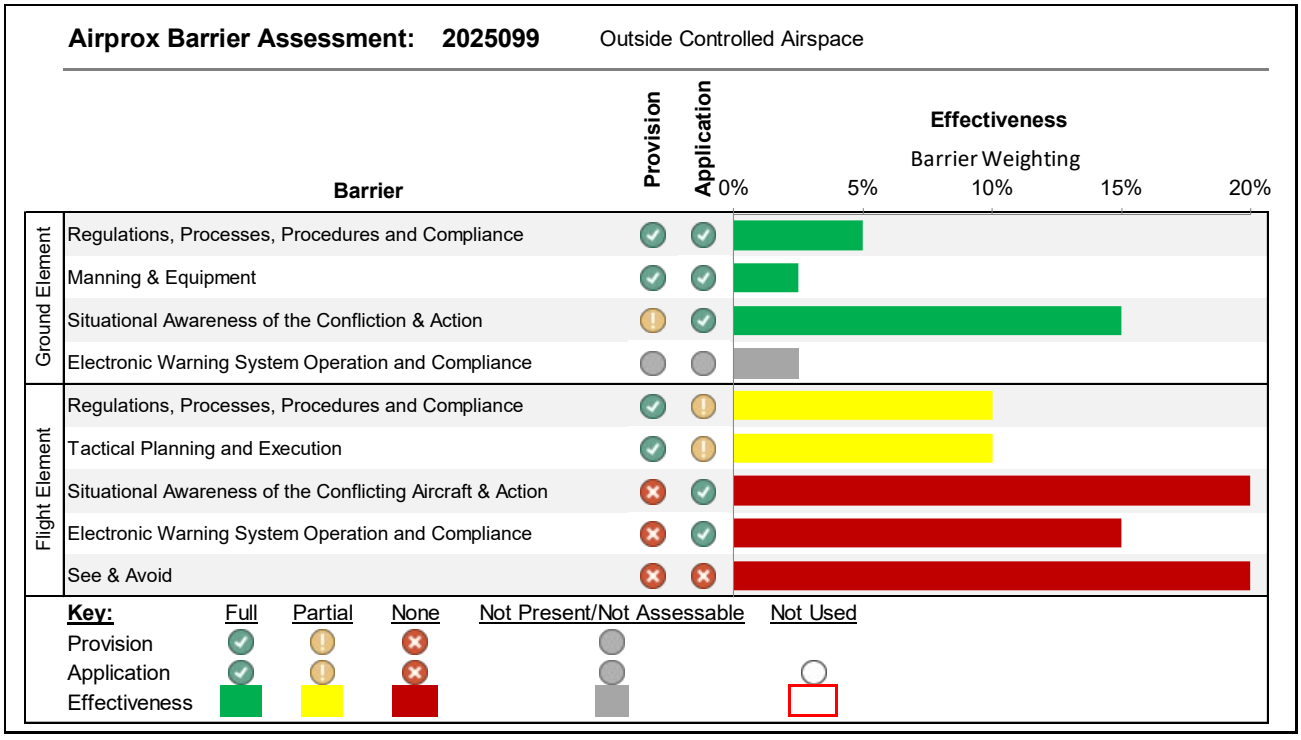
Regulations, Processes, Procedures and Compliance were assessed as **partially effective** because the pilot of the DR400 had reported that the DR400 had been fitted with a transponder but no transponder returns were detected by SSR equipment.

Tactical Planning and Execution was assessed as **partially effective** because it may have been prudent for the pilot of the SR22 to have ensured greater separation from Lasham.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the pilot of the DR400 had not had situational awareness of the presence of the SR22.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the EC equipment fitted to each aircraft would not have been expected to have detected the other aircraft.

See and Avoid were assessed as **ineffective** because neither pilot had sighted the other aircraft in time to have taken effective avoiding action.



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