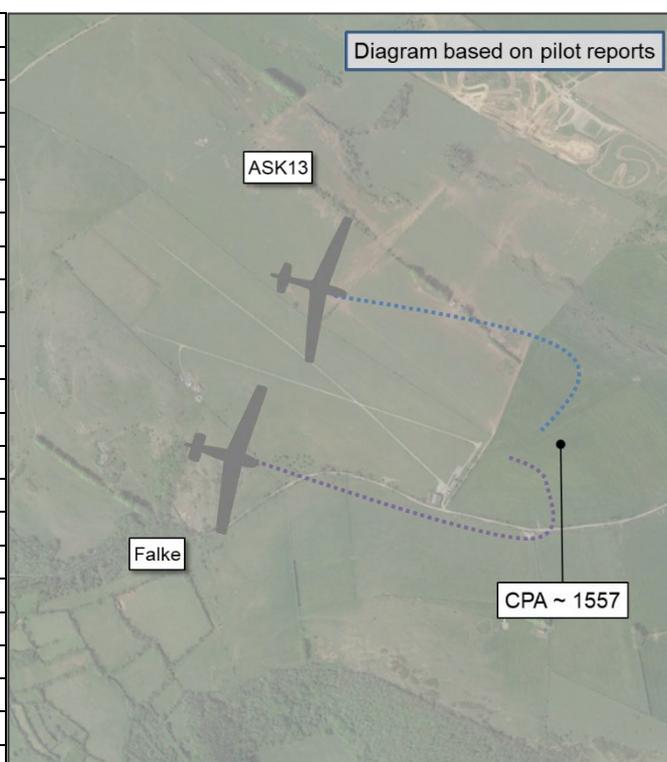


## AIRPROX REPORT No 2021032

Date: 12 Apr 2021 Time: 1557Z Position: 5115N 00243W Location: Halesland

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

Recorded	Aircraft 1	Aircraft 2
Aircraft	ASK13	Falke
Operator	Civ Gld	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	None
Altitude/FL	NK	NK
Transponder	Not fitted	A, C
<b>Reported</b>		
Colours	White	White, Red
Lighting	Nil	Beacon
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	300ft	200ft
Altimeter	QFE	QFE
Heading	310°	310°
Speed	55kt	60kt
ACAS/TAS	FLARM	SkyEcho
Alert	None	None
<b>Separation</b>		
Reported	100ft V/30m H	100ft V/15m H
Recorded	NK	



**THE ASK13 PILOT** reports that on the final of 5 flights of the day, the first 3 being instructor check flights to regain currency after a 6 month COVID lockdown break, they were flying the K13 in a circuit to the north of Halesland. Although they had flown regularly at Halesland, the flights that day were the first time they had flown a northerly circuit. They did not conduct sufficient lookout for aircraft flying a southerly circuit as they were focused on flying the circuit and looking out for hazards on the landing field. They therefore failed to notice the Falke flying a circuit to the south at a lower altitude. Shortly after turning final, due to its faster approach speed they noticed the Falke emerge from the blind spot beneath their aircraft. Given that the other aircraft was below them and lined up to the north of the strip, leaving sufficient landing space to the south side of the strip, they moved to the left and set up for, and made, a final approach and landing clear of the Falke.

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

**THE FALKE PILOT** reports that on returning to the airfield after a completed glider aero tow, they opted for a left-hand landing circuit as the wind direction had a northwesterly component, which would give a better directional approach control, and allow a better lookout towards the airfield and landing area (because they were sat in the left-hand seat in a side-by-side cockpit). While progressing on the downwind leg, they spotted a glider, higher than their aircraft, to the north of the airfield also flying downwind, but on a right-hand circuit. When turning left from diagonal onto base leg, they had the other glider in sight, and it was still higher in circuit than them. There appeared to be plenty of separation in its opposing circuit for it to complete a standard approach behind the Falke. After turning onto finals their focus was towards approach speed and direction control (the other glider was now no longer in view). After touchdown, as is normal practice, they kept the aircraft rolling and taxied closer to the north wall, to leave maximum room on the landing strip for any other landing aircraft and to facilitate an easier 180° turn to backtrack to the launch point, after checking the landing area was clear. Before starting to turn, they stopped and as usual looked back to observe for any landing aircraft. To their complete surprise the K13 glider had just landed slightly behind and to the south of their position.

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

## **Factual Background**

The weather at Bristol was recorded as follows:

METAR EGGD 121550Z AUTO VRB03KT 9999 NCD 09/M00 Q1029=

## **Analysis and Investigation**

### **UKAB Secretariat**

The ASK13 and Falke 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> 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.<sup>2</sup>

## **Comments**

### **BGA**

This incident illustrates the risks in using opposite direction circuits without robust measures in place to minimise the danger of MAC.

## **Summary**

An Airprox was reported when a ASK13 and a Falke flew into proximity at Halesland at 1557Z on Monday 12<sup>th</sup> April 2021. Both pilots were operating under VFR in VMC in the Halesland visual circuit. Neither were receiving an ATS.

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

Information available consisted of reports from both pilots 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.

Prior to discussing the actions of the pilots, the Board discussed the procedures at Halesland and whether they covered the use of opposing circuits. They heard from gliding members who reported that following on from discussions with Halesland, they had identified that procedures were inadequate, with no explicit procedures for pilots when operating dual circuits and no radio procedures (**CF1**), indeed the ASK13 was not fitted with a radio at all. They explained that Halesland had intended to fit radios in their gliders last year, but for various reasons this had been delayed, however the Board were heartened to hear that Halesland were looking to address this and to upgrade many of their aircraft with EC units to ensure interoperability between gliders and tugs.

The Board then looked at the actions of the ASK13 pilot. They were an inexperienced glider pilot and had not seen the northerly circuit in operation at Halesland before, furthermore, after flying with an instructor they were flying solo after a period of not flying due to COVID restrictions. Members commended them for their frank and honest report. By their own admission, the pilot described not giving enough attention to the possibility of aircraft using the southern circuit and without a radio, the

<sup>1</sup>(UK) SERA.3205 Proximity.

<sup>2</sup>(UK) SERA.3225 Operation on and in the Vicinity of an Aerodrome.

pilot was not aware that the Falke was operating there (**CF3**). Furthermore, the FLARM in the glider could not detect the SkyEcho in the Falke, so no alerts were received (**CF5**). As the pilot had turned onto finals, they didn't see the Falke below them (**CF10**), and did not see it until it appeared beneath them from their blind spot (**CF7**), after which they were able to take late action in order to ensure they landed clear of the Falke.

Turning to the Falke pilot, they were operating in the southern circuit and the first they knew about the glider in the northern circuit was when they saw the glider high, late downwind (**CF3**). At this point, without radio operations to establish the intentions of the other pilot, or to know whether the other pilot was visual with them, members thought that the Falke pilot would have been wise to have taken defensive action and elected to go around whilst there was no likelihood of meeting the other aircraft on finals (**CF2, CF4**). Instead, by continuing onto finals, and assuming the glider pilot was visual with them, they lost sight of the glider as it was above in the opposing circuit and they continued onto a lower, faster finals and did not see the glider again until after they had landed (**CF8, CF9**). Members discussed at length whether the SkyEcho should have alerted to the FLARM on the glider and were told that operators needed to pay a subscription to receive FLARM data, but that as a tug aircraft it would have been expected that the Falke did have such a subscription, however, the Board were informed that it had been switched off in the visual circuit and so would not have alerted to warn the pilot about the glider above (**CF6**).

Finally, when discussing the risk, without any radar or GPS data, the Board were reliant upon the incident as described by both pilots. They discussed the incident and whether either of them had the chance to take avoiding action prior to the event. They agreed that whilst the Falke pilot had been visual when the ASK13 was downwind, they had lost sight of it on finals and the ASK13 pilot described not seeing the Falke until it appeared beneath them on finals. Consequently, the Board thought that there had been a real possibility that the glider pilot could have descended on top of the Falke, and neither pilot had the opportunity to take any avoiding action. Therefore they determined that there had been an element of providence in keeping the aircraft apart and accordingly allocated a Risk Category A (**CF11**).

## **PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK**

### Contributory Factors:

	2021032			
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
<b>Flight Elements</b>				
<b>• Regulations, Processes, Procedures and Compliance</b>				
1	Organisational	• Flight Operations Documentation and Publications	Flight Operations Documentation and Publications	Inadequate regulations or procedures
<b>• Tactical Planning and Execution</b>				
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
<b>• Situational Awareness of the Conflicting Aircraft and Action</b>				
3	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
4	Human Factors	• Understanding/Comprehension	Events involving flight crew that did not understand or comprehend a situation or instruction	Pilot did not assimilate conflict information

• 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
6	Human Factors	• Response to Warning System	An event involving the incorrect response of flight crew following the operation of an aircraft warning system	CWS misinterpreted, not optimally actioned or CWS alert expected but none reported
• See and Avoid				
7	Human Factors	• Identification/Recognition	Events involving flight crew not fully identifying or recognising the reality of a situation	Late sighting by one or both pilots
8	Contextual	• Loss of Separation	An event involving a loss of separation between aircraft	Pilot flew into conflict
9	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
10	Contextual	• Visual Impairment	Events involving impairment due to an inability to see properly	One or both aircraft were obscured from the other
• Outcome Events				
11	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: A.

### 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 Elements:**

**Regulations, Processes, Procedures and Compliance** were assessed as **partially effective** because the procedures for operating opposing circuits at Halesland were inadequate.

**Tactical Planning and Execution** was assessed as **partially effective** because the Falke pilot could have elected to go around when they saw the glider late downwind in the northern circuit.

**Situational Awareness of the Conflicting Aircraft and Action** were assessed as **partially effective** because both pilots had only generic situational awareness about the other.

**Electronic Warning System Operation and Compliance** were assessed as **ineffective** because neither pilot received an alert from their CWS.

**See and Avoid** were assessed as **ineffective** because neither pilot saw the other in time to materially affect the separation.

<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](#).

**Airprox Barrier Assessment: 2021032** 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	⚠	✗					
<b>Key:</b>		<u>Full</u>	<u>Partial</u>	<u>None</u>	<u>Not Present/Not Assessable</u>	<u>Not Used</u>		
Provision	✓	⚠	✗	●				
Application	✓	⚠	✗	●	○			
Effectiveness	■	■	■	■	□			