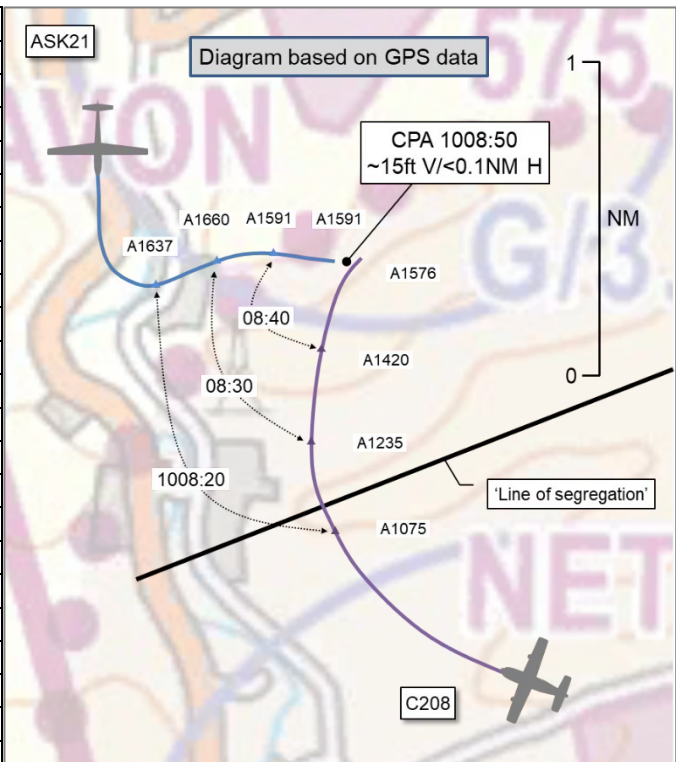


**AIRPROX REPORT No 2023200**

Date: 26 Aug 2023 Time: 1009Z Position: 5116N 00147W Location: 2NM NW Netheravon

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

Recorded	Aircraft 1	Aircraft 2
Aircraft	ASK21	C208
Operator	Civ Gl'd	Civ FW
Airspace	Netheravon ATZ	Netheravon ATZ
Class	G	G
Rules	VFR	VFR
Service	AGCS	Listening Out
Provider	Upavon Radio	Netheravon DZ
Altitude/FL	1591ft	1576ft
Transponder	Not fitted	A, C, S
<b>Reported</b>		
Colours	White	White/blue/red
Lighting	Not fitted	Strobes, beacon
Conditions	VMC	VMC
Visibility	>10km	NR
Altitude/FL	1100ft AGL	1500ft
Altimeter	NK (NK hPa)	QNH (NK hPa)
Heading	100°	NR
Speed	60kt	NR
ACAS/TAS	FLARM	SkyEcho
Alert	None	Unknown
<b>Separation at CPA</b>		
Reported	0ft V/50m H	300ft V/200m H
Recorded	~15ft V/<0.1NM H	



**THE ASK21 INSTRUCTOR** reports conducting a trial flight. They took off at 1106L into average weather with a cloudbase of about 1400ft AGL and visibility around 30km. At 1108, they were on a heading of approximately 100°, 1.5km to the southwest of Upavon. They conducted a very small left-hand turn before deciding not to take the perceived thermal. They then rolled out back on the 100° heading at 1100ft AGL, still about 1.5km southwest of Upavon. Upon rolling wings level they checked over the right wing. At that moment they saw and heard the Cessna rapidly moving towards them from the 4 o'clock position. It was climbing and in a right-hand turn. The ASK21 instructor then very quickly rolled the glider left to take avoiding action and watched the Cessna go to their right, close enough to read the tail number clearly. Immediately after the Airprox they made a radio transmission on the Upavon frequency to the effect of "All Upavon gliders be aware, Cessna Caravan abnormally close to Upavon, south side circuit, 1000ft AGL". The letter of agreement within Salisbury Plain Range Standing Orders is that no glider shall go south of Baden Farm on a 24/06 line. They were much further north of said line and thus did not expect to see the Cessna in that position. Without avoiding action they believed there would have been a collision. They understood that [the para-drop aircraft] did not carry a [compatible TAS] but was carrying [TAS] and they did not get [a TAS warning]. After the avoiding action they settled the aircraft and made a safe landing. Upon landing the Duty Instructor came over, said they had seen the event and would call Netheravon ATC.

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

**THE C208 PILOT** reports a normal take-off and initial climb out from RW29 for lift number 3 of 13 that day. The departure [track] was extended to avoid cloud and a right turn was commenced to the east about 1NM from Netheravon. As the turn commenced they observed a glider which appeared to be in a nose up attitude in a left turn. Because of the aircraft attitude and the fact they were turning away to the right they could not ascertain if there was a risk of collision. The remainder of the flight occurred without further incident.

## Factual Background

The weather at Boscombe Down was recorded as follows:

METAR EGDM 261020Z AUTO 29011KT 9999 FEW018/// SCT079/// 17/12 Q1008=  
METAR EGDM 260950Z AUTO 29011KT 9999 SCT017/// SCT130/// 17/13 Q1008=

## Analysis and Investigation

### UKAB Secretariat

The ASK21 and C208 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 C208 pilot was required to give way to the ASK21.<sup>2</sup> If the incident geometry is considered as overtaking then the ASK21 pilot had right of way and the C208 pilot was required to keep out of the way of the other aircraft by altering course to the right.<sup>3</sup>

Annex A1 (LOA between Netheravon and Upavon concerning the segregation of circuit traffic from each airfield.) to The Aviation Safe Operating Environmental Manual For Netheravon Airfield, version 9 dated 7 Mar 23, states as follows:

### INTRODUCTION

1. Operators from Netheravon and Upavon airfields agree that in order to reduce the possibility of unsafe proximity of aircraft operating from each airfield a notional dividing line between the airfields is agreed in order to maintain safe circuit separation.

### AIRSPACE

2. The Netheravon ATZ and the Upavon gliding protection area each has a radius of 2 nm. As the airfields are only 2.6 nm apart these two areas intersect with an overlap of approximately 1.25 nm at the widest point. This places a potential hazard to aircraft joining or flying circuits at each respective airfield.

3. Although Netheravon ATZ has primacy over Upavon gliding site, it is agreed that in order to enhance Flight Safety a method be put in place to physically segregate aircraft operating from the neighbouring airfields concurrently.

### PROCEDURES

4. Netheravon and Upavon airfields have their primary runways on approximate headings of north-east and south-west. The general layout of the overlap of the Netheravon ATZ and the Upavon gliding protection area is also north-east and south-west. It is therefore agreed that a notional line is drawn halfway between the airfields which will be used as a line of segregation. The line to the SW extends as far as the D125 boundary and to the NE to Everleigh village at Grid 205537; see map at Annex A. Aircraft from each respective airfield will not cross that line during normal circuit procedures *when both airfields are active*.

5. Authorising officers are to ensure that aircrew are familiar with the geographical features that identify this segregation line.

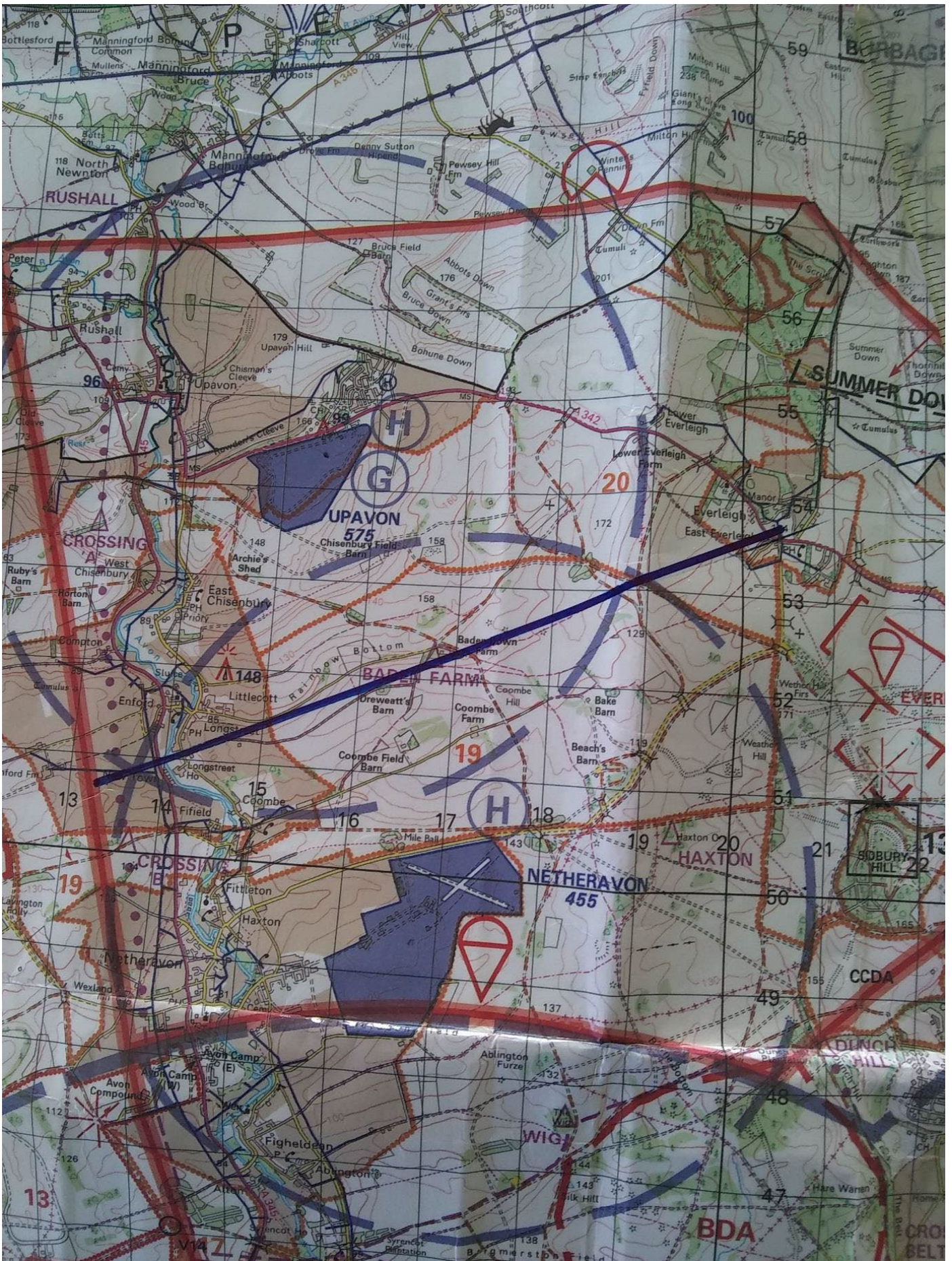
### APPLICATION OF THE AGREEMENT

6. Nothing in this LOA prevents a pilot from using his or her discretion and sensible captaincy to ensure safe flying operations.

<sup>1</sup> (UK) SERA.3205 Proximity. MAA RA 2307 paragraphs 1 and 2.

<sup>2</sup> (UK) SERA.3210 Right-of-way (c)(2) Converging. MAA RA 2307 paragraph 12.

<sup>3</sup> (UK) SERA.3210 Right-of-way (c)(3) Overtaking. MAA RA 2307 paragraph 14.



Annex A Map

## Comments

### Netheravon and Upavon Airfield Operator

The Netheravon and Upavon Airfield Operator has notified the Board Secretariat that, in light of this Airprox incident, the LoA between Netheravon and Upavon has been reviewed, amended and re-issued to all pertinent personnel.

## Summary

An Airprox was reported when an ASK21 and a C208 flew into proximity near Upavon at 1009Z on Saturday 26<sup>th</sup> August 2023. Both pilots were operating under VFR in VMC, the ASK21 pilot in receipt of an AGCS from Upavon Radio and the C208 pilot not in receipt of a FIS.

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

Information available consisted of reports from both pilots, radar photographs/video recordings and GPS data. 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.

Board members first discussed the pilots' actions and agreed that the C208 pilot had appeared to have lost positional situational awareness after having avoided some cloud after take-off. This loss of situational awareness had resulted in them turning right at a point where the turn had taken them beyond the 'segregation line' (**CF1, CF2, CF3**). Each pilot had been aware that the other airfield had been operating but had had only generic situational awareness as to other aircraft's position (**CF4**); with incompatible EC (**CF5**) and no surveillance-based FIS available, the remaining barrier to mid-air collision had been see-and-avoid. The ASK21 instructor had seen the approaching C208, albeit at a late stage (**CF6**), and had taken avoiding action. The C208 pilot had also seen the ASK21 but the Board felt their narrative indicated that they had seen it at about CPA, effectively a non-sighting (**CF7**). Turning to risk, members unanimously agreed that the proximity at CPA and late and effectively non-sightings had resulted in a situation where safety had been much reduced, Risk B.

The Board commended the Netheravon and Upavon Airfield Operator on their action post-Airprox but noted that a 'segregation line' had been in effect on the date of the Airprox. Members felt that it was important that mitigation be put in place in the event of the 'segregation line' being crossed inadvertently, for example by fitting a TAS to the C208 compatible with the glider EC.

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

#### Contributory Factors:

2023200				
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
<b>Flight Elements</b>				
<b>• Regulations, Processes, Procedures and Compliance</b>				
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
<b>• Tactical Planning and Execution</b>				
2	Human Factors	• Action Performed Incorrectly	Events involving flight crew performing the selected action incorrectly	Incorrect or ineffective execution
3	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>				
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
<b>• Electronic Warning System Operation and Compliance</b>				

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	• Identification/ Recognition	Events involving flight crew not fully identifying or recognising the reality of a situation	Late sighting by one or both pilots
7	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				
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<sup>4</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 **ineffective** because the C208 pilot crossed the segregation line.

**Tactical Planning and Execution** was assessed as **ineffective** because the C208 pilot did not remain south of the segregation line after avoiding cloud.

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

**Electronic Warning System Operation and Compliance** were assessed as **ineffective** because the ASK21 TAS was incompatible with the C208 EC and the C208 pilot did not report having received an alert.

**See and Avoid** were assessed as **partially effective** because the C208 pilot saw the ASK21 likely at about CPA, effectively a non-sighting, and the ASK21 pilot saw the C208 at a late stage.

<sup>4</sup> The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).

<b>Airprox Barrier Assessment: 2023200</b>		Outside Controlled Airspace							
<b>Barrier</b>		<b>Provision</b>	<b>Application</b>	<b>Effectiveness</b>					
				Barrier Weighting					
				0%	5%	10%	15%	20%	
Ground Element	Regulations, Processes, Procedures and Compliance	✓	✓						
	Manning & Equipment	✓	✓						
	Situational Awareness of the Conflicition & 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>		<b>Full</b>	<b>Partial</b>	<b>None</b>	<b>Not Present/Not Assessable</b>	<b>Not Used</b>			
Provision	✓	⚠	✗	⊖					
Application	✓	⚠	✗	⊖		○			
Effectiveness									