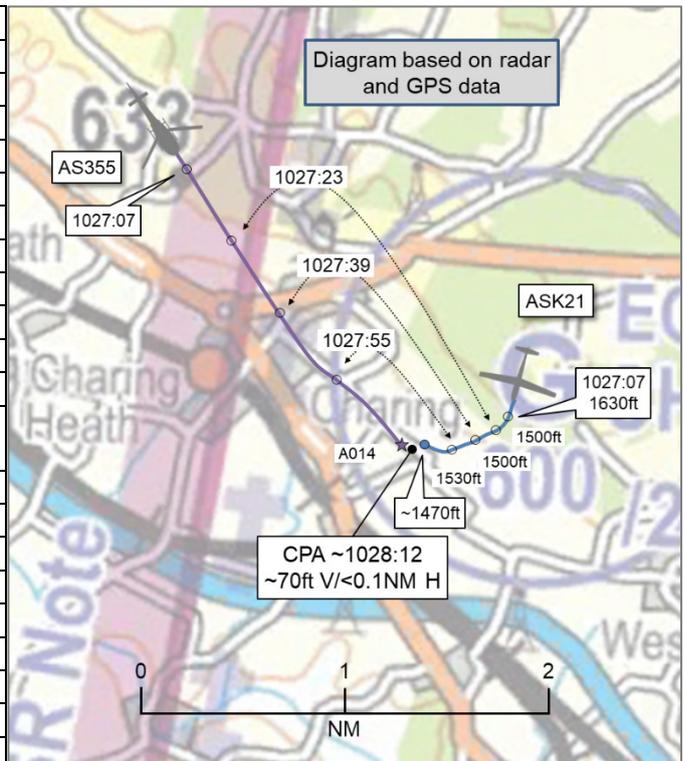


AIRPROX REPORT No 2022255

Date: 29 Oct 2022 Time: 1028Z Position: 5112N 00049E Location: 5NM NNW Ashford

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	ASK21	AS355
Operator	Civ Gl'd	Civ Comm
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	None ¹
Provider	Challock (CGFF ²)	Challock (CGFF)
Altitude/FL	1470ft	1400ft
Transponder	Not fitted	A, C, S
Reported		
Colours	White	Blue
Lighting	None	Anti-col, Strobe, Nav
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	1000ft	1500
Altimeter	QFE (NK hPa)	QNH (1014hPa)
Heading	225°	170°
Speed	50kt	110kt
ACAS/TAS	FLARM	PilotAware
Alert	None	None
Separation at CPA		
Reported	50ft V/400m H	Not seen
Recorded	~70ft V/<0.1NM H	



THE ASK21 PILOT reports that they were at the top of a training winch-launch flight. They recovered to the normal attitude and observed a helicopter approaching from the right, at about 50ft above and 400m to their right. They decided to turn to the right to avoid any potential collision and present a better view to the other pilot. They did not know if the helicopter was descending or climbing. As the helicopter was approaching from their right, the helicopter would normally have the right of way [they believed] however, they were unable to see it during the winch-launch climb. They believe the helicopter pilot should not have been flying so close to an active gliding winch-launch site. The helicopter never altered course.

The ASK21 pilot also supplied a witness statement from a qualified CPL/FI(A) stating: They were at the southern end of the airfield when they noticed a helicopter tracking along the southern boundary of the airfield, west-to-east. They were surprised that it was not leaving a wider margin – in particular as it was well below the promulgated [winch] launch height, and around the height that gliders were launching on the day. They then heard the sounds of a winch launch and were unsurprised that an Airprox resulted.

The pilot assessed the risk of collision as ‘Medium’.

THE AS355 PILOT reports that they were tracking the A20. They called Challock [on the radio] but had no response. They saw no aircraft and hadn’t [so far on their] route north [which had been] some 30min earlier. Challock had seemed quiet. They were using [their EC device] linked to SkyDemon. Their track took them to the west of Challock. As they passed Challock they saw no aircraft to their left nor any activity, so continued their transit southwards. The first they heard of this was the email informing them

¹ Pilot reported being in receipt of a Basic Service however Challock is unable to provide this service.
² Common Glider Field Frequency.

of an Airprox with a glider, none were seen nor identified. They got no response on the radio on the [Challock] frequency.

THE KENT GLIDING CENTRE (CHALLOCK) REPRESENTATIVE reports that Kent Gliding Centre is open every day and flying takes place whenever the weather is suitable. At weekends, there is normally a duty ground crew consisting of 3 rostered club members. A handheld radio is used on 118.685MHz to communicate with the tug aircraft pilot and glider pilots. Any of the duty crew could have used the radio to launch or listen for gliders making calls in the circuit. No one heard a call from the pilot of [the AS355] and no one can recall who had the radio at the time of the incident.

Factual Background

The weather at Lydd was recorded as follows:

METAR EGMD 291020Z 18015KT CAVOK 20/16 Q1015

Analysis and Investigation

UKAB Secretariat

An analysis of the NATS radar replay was undertaken and the AS355 was initially detected as a primary only contact, with the Mode C altitude information only becoming available 3 radar sweeps, 12sec before CPA. Although the ASK21 was not detected by the NATS radars, the UKAB Secretariat was able to obtain GPS data detailing its flight, thus enabling construction of the diagram at the top of this report and the measurement of the separation. However, as differing data sources have been combined to measure the separation, it has been recorded as an approximation.

The ASK21 and AS355 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 head-on or nearly so then both pilots were required to turn to the right.⁴ If the incident geometry is considered as converging then the AS355 pilot was required to give way to the ASK21.⁵

Comments

BGA

The AS355's route passed about 800m (0.45NM) from the SW perimeter of Challock airfield (EGKE). A greater density of gliders, and aircraft towing gliders, may be expected in the vicinity of gliding sites at any time during daylight hours, and at any altitude up to cloudbase. The downwind leg of a glider's landing pattern typically commences at 800ft AAL (hence 1400ft AMSL at Challock) and up to 1500m (0.8NM) from the airfield boundary.

Challock is one of 79 UK winch-launch gliding sites listed in UK AIP ENR 5.5, all of which are labelled on the CAA 1:500,000 and 1:250,000 charts with a "G" symbol (as shown in the chart segment in Part A), and annotated with the maximum winch launch altitude, 2600ft AMSL in this case. A glider being winch-launched has an initial climb angle of 45° and a climb rate in excess of 4000ft/min; it can climb to 2000ft AAL in less than a minute under the right conditions.

The North Downs ridge runs parallel to, and about 1NM NE of, the A20/M20 between Challock airfield and Rochester, about 14NM to the northwest. In southerly winds of sufficient strength this ridge generates rising air, allowing gliders to fly along it at altitudes of between 1000ft and 2000ft AMSL, or to maintain height for flights of unlimited duration in the vicinity of the airfield. Hence

³ (UK) SERA.3205 Proximity.

⁴ (UK) SERA.3210 Right-of-way (c)(1) Approaching head-on.

⁵ (UK) SERA.3210 Right-of-way (c)(2) Converging.

aircraft tracking the A20/M20 at low level may encounter gliders along this section of their route under these conditions.

Gliders and glider tugs operating from Challock may use the assigned Common Glider Field Frequency (channel 118.685MHz) to aid situational awareness in the circuit and when landing, using "Unattended Aerodrome" phraseology (CAP 413 section 4.162 to 4.170). Although not listed in the AIP or on CAA charts, this channel is promulgated via the Kent Gliding Club website. Radio calls are not typically made when winch launching. The AS355 pilot is to be commended for using channel 118.685MHz to broadcast their intentions when in the Challock area. However, reception of these radio calls cannot be guaranteed and, in any case, according to CAP 413 section 4.165, "No reply to an unattended aerodrome report shall be transmitted".

If all related equipment was functioning as intended, the EC signals transmitted by the K21 would have been relayed to the AS355's EC equipment, providing warning of the glider's presence. However, there is no report of this happening. If this barrier did in fact fail to function, it would be useful to understand why. The ASK21 pilot is to be commended for maintaining a good lookout, and manoeuvring to remain clear of the AS355.

Summary

An Airprox was reported when an ASK21 and a AS355 flew into proximity 5NM north-northwest of Ashford at 1028Z on Saturday 29th October 2022. Both pilots were operating under VFR in VMC, neither pilot 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, GPS data 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 ASK21 pilot and was encouraged that the pilot had been maintaining an effective lookout and, although they had not had any prior awareness of the presence of the AS355 (**CF1**), they had visually acquired the AS355 early enough to enable them to take appropriate avoiding action. The Board agreed, however, that the ASK21 pilot had been concerned by the presence of the AS355 (**CF5**). Members then discussed that, whilst EC equipment can supplement a pilot's lookout, it cannot replace it, and that this event had been a reminder of that, as the EC equipment carried by the ASK21 pilot had not been compatible with the equipment carried by the AS355 pilot, and had therefore not alerted to its presence (**CF2**).

Next, members discussed the actions of the AS355 pilot and had been encouraged that they had made a call to Challock using the Common Glider Field Frequency⁶ as they had passed. Members noted that, although there had been personnel on the ground at Challock, and the ASK21 pilot had been equipped with a radio, the AS355 pilot had not had a reply to their radio call. An extended discussion followed regarding the legalities of the use of radios, which included reference to legislation,^{7, 8} and members concluded that radio frequencies at locations such as Challock should be used in a similar way to SafetyCom, where pilots listen out and make transmissions for Situational Awareness, but should not necessarily expect to receive a direct reply. The Board noted that the AS355 pilot had been carrying EC equipment that would have been expected to have detected the glider and issued an alert regarding its presence, however no alert was reported (**CF3**). Members then agreed that, as the AS355 pilot had called Challock, they would have had generic awareness of the likelihood of glider activity in the area (**CF1**). A civil helicopter and a glider pilot both added that, although gliding can take place at any time during daylight hours in suitable weather, it is often the case that there is increased gliding activity at

⁶ There are a number of CGFFs, details of the frequencies used at specific sites can be found in the UK AIP, Part 2, ENR 5.5.

⁷ The Air Navigation Order 2016, part 6 Chapter 1 Para139.

⁸ CAP 413 section 4.162 to 4.170.

weekends. The Board then agreed that gliders, due to their low profile, can be difficult to visually acquire and that the AS355 pilot had not become visual with the ASK21 at any point (**CF4**).

Finally, the Board considered the risk of collision involved in this Airprox. Members noted that although the AS355 pilot had had a generic awareness of the likelihood of the presence of gliders, they had not visually acquired the ASK21. Members discussed at length the avoiding action that the ASK21 pilot had taken and at what point this had happened and, following a vote, the Board determined that the ASK21 pilot had become visual with the other early enough to enable them to take appropriate avoiding action. The Board concluded that, although safety had been degraded, there had been no risk of collision. Consequently, the Board assigned a Risk Category C to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2022255			
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
Flight Elements				
• Situational Awareness of the Conflicting Aircraft and Action				
1	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				
2	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
3	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				
4	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
5	Human Factors	• Perception of Visual Information	Events involving flight crew incorrectly perceiving a situation visually and then taking the wrong course of action or path of movement	Pilot was concerned by the proximity of the other aircraft

Degree of Risk: C

Safety Barrier Assessment⁹

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

Flight Elements:

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because, whilst the AS355 pilot had had a generic awareness of the likelihood of the presence of gliders due to their location relative to Challock, the ASK21 pilot had not had any awareness of the presence of the AS355 prior to sighting it.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the EC equipment carried by the ASK21 pilot had been incompatible with, and therefore unable to detect the equipment carried on the AS355 and, whilst the AS355 pilot's EC equipment should have been capable of detecting the ASK21, no alert was reported.

⁹ 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: 2022255 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	■	■	■	■	□			