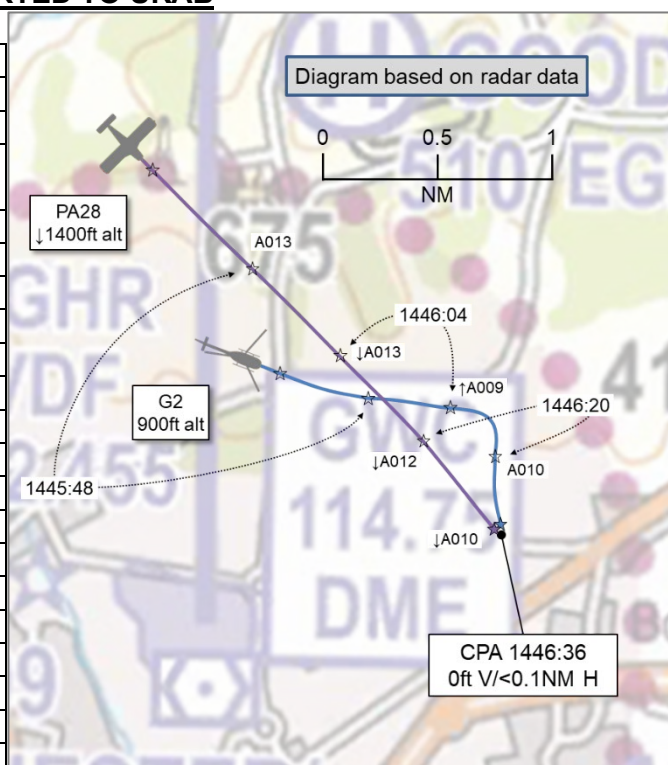


AIRPROX REPORT No 2022012

Date: 10 Feb 2022 Time: 1447Z Position: 5052N 00043W Location: Chichester/Goodwood circuit

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Cabri G2	PA28
Operator	Civ Helo	Civ FW
Airspace	Chichester/ Goodwood ATZ	Chichester/ Goodwood ATZ
Class	G	G
Rules	VFR	VFR
Service	AFIS	AFIS
Provider	Goodwood Info	Goodwood Info
Altitude/FL	1000ft	1000ft
Transponder	A, C, S	A, C, S +
Reported		
Colours	White, Grey	White
Lighting	Strobe, Landing	Landing
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	900ft	900ft
Altimeter	QFE (1019hPa)	QFE (1021hPa)
Heading	140°	140°
Speed	75-80kt	105kt
ACAS/TAS	Not fitted	Not fitted
Separation at CPA		
Reported	0 V/15m H	0ft V/15-20m H
Recorded	0ft V/<0.1NM H	



THE CABRI G2 PILOT reports that they were undertaking an instructional flight delivering training towards a PPL(H), with themselves, as instructor, sitting in left-hand seat and student sitting in right-hand seat. Their student was at the level of having undergone several solo sorties and was developing well through the course thus far. This sortie mainly concerned one of the later and more challenging/advanced exercises of landing on sloping ground. The student was performing the sloping ground exercises well, but found them challenging (as most students do). To provide a little variety and ease the student's stress/workload, they decided to fly a circuit before resuming further sloping ground take-offs and landings. They called the Tower advising their intention to undertake a circuit and took-off to fly the promulgated helicopter circuit with a maximum height of 900ft QFE accordingly. During downwind checks the student looked round to the 4-5 o'clock position and shouted in alarm, at which point they stretched over and was surprised to see, in the helicopter circuit, a low wing, single engine aircraft at [a range of] 15-20m in the 4-5 o'clock position at the same altitude, just as it seemed to take sudden evasive action by turning left and descending. At that point they fully expected a collision as they had no time to take any evasive action. They then saw [the PA28] passing away ahead on their left-hand side and noted the registration. As they turned final they advised ATC of their intention to file an Airprox. They then continued to complete the sloping ground exercises, before taxiing to the apron and shutting down at which point they noticed [the PA28] at the refuelling bay. They approached the flight crew and asked if they had recovered OK, as they and their student had found it quite a shocking experience and they assumed that they had felt the same. They confirmed that they would be filing the Airprox accordingly. They then visited ATC to similarly discuss. The discussion with [the PA28's] flight crew was perfectly amicable, during which they explained that their flight was also an instructional flight, they were not aware of anyone else in the circuit and that they had inadvertently descended below the fixed-wing circuit height (1200ft QFE). The instructor [of the PA28] had not seen them until their student shouted in alarm at which point [the G2] appeared from behind the windscreen pillar and they had taken evasive action by pitching down and rolling left. [The G2 pilot adds] that there has been an ongoing

airfield circuit review to improve deconfliction concerns between the helicopter and fixed-wing circuits (especially in the specific area in which this Airprox occurred), following a previous similarly close helicopter/fixed-wing Airprox (formally filed) also in the circuit. They have been thinking how they could have reduced the likelihood of collision in this case and whilst they are very much a proponent of EC, they had had none in [the G2] and they have since been wondering if some sort of EC might have helped. Considering the speed and especially the direction from which [the PA28] approached, the confines of the helicopter circuit pattern, normal circuit traffic density etc, they are not sure they would have been able to take appropriate evasive action against an aircraft approaching at such a speed from behind whilst within the circuit (bearing in mind changes of direction required in the relatively small area of a circuit). They also wonder if [the PA28 pilot] had any sort of EC display that might have warned them of potential collision ahead. Whilst EC may help an overtaking aircraft take evasive action in such a circumstance it may be of lesser value to the aircraft being overtaken.

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

THE PA28 PILOT reports that they joined the fixed-wing circuit downwind for RW32 at Goodwood (1200ft QFE). They understood the circuit traffic was one fixed-wing aircraft on final approach to land. The downwind radio call was made. During this time their passenger (a qualified pilot) was flying the aircraft from the right-hand seat. They were explaining the use of gear selection and propeller controls, which caused them to become temporarily distracted, and therefore they did not notice that they had drifted down to 900ft QFE. At this point their passenger pitched forward sharply. Prior to this they had not seen the helicopter, and it was only then that they saw it pass above. The passenger saw the helicopter converging at the same altitude from the left, approximately 15-20m away, and took avoiding action by pitching the aircraft down. The occupants of both aircraft (4) met and debriefed after landing to establish any learning points. They felt that contributing factors from their point of view were mainly the lack of monitoring of the loss of circuit height, distraction, a window pillar blind spot, and a pinch point in this position on the downwind leg for both fixed-wing and helicopter circuits.

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

THE GOODWOOD AFISO reports that [the PA28] was inbound to join downwind. [The G2 instructor] was, at the time, training on the sloping ground. [The G2 pilot] took off into the helicopter training circuit approximately 2min before they reported the "Airprox" on the radio. They understand from conversations after both aircraft had landed that both aircraft had been flying at 900ft QFE. The published fixed-wing circuit is 1200ft QFE and the rotary training circuit is 900ft QFE.

The AFISO stated that they did not see the event and are therefore unable to offer an assessment of the risk of collision.

Factual Background

The weather at Shoreham was recorded as follows:

METAR EGKA 101450Z 29009KT 9999 FEW020 08/01 Q1023

Analysis and Investigation

CAA ATSI

The pilot of the G2 was a student under instruction, they had been undertaking a training detail involving landing and taking-off on sloping ground. The instructor had decided to take a break from this and conduct a northern helicopter circuit, right-hand, at the published height of 900ft QFE, before returning to the sloping ground for further exercises. The Airprox occurred during the circuit detail when the G2 student pilot was conducting their downwind checks.

The PA28 was being piloted by a passenger who was sitting in the right-hand seat and was a qualified pilot. They had joined the fixed-wing circuit for RW32 right-hand and were receiving

instruction on the use of the gear selection and propeller controls at the time of the Airprox. The published fixed-wing circuit height is 1200ft QFE.

ATSI had access to initial reports from the pilots of both aircraft and the FISO. A comprehensive investigation report was also received from Goodwood. The area radar and Goodwood RTF were reviewed for the relevant period. The screenshots within this report have been taken from the area radar recordings, and the Mode C is displayed as altitude. The Aerodrome elevation at Goodwood as published in Pooley's, is 109ft AMSL.

At **1442:20** the PA28 pilot made their initial call to the Goodwood FISO and advised that they were inbound from the north and requested joining instructions. The FISO responded, *"traffic is one in the circuit, RW32 right-hand in use, QFE 1019."* The pilot read back, *"32 right-hand, 1019."* Note: the circuit traffic referred to was on final approach and landed from this approach.

At **1442:30** the G2 pilot called the FISO and advised that they were task complete on the sloping ground and requested taxi back to the triangle, followed by a helicopter circuit right-hand. The FISO responded, *"taxi to the triangle and report ready for the circuit."* The pilot responded with *"wilco"*.

At **1442:50** the PA28 pilot reported downwind for RW32 and the FISO passed Traffic Information on an aircraft ahead that was joining on base leg. The pilot responded that they had copied the traffic (Figure 1).

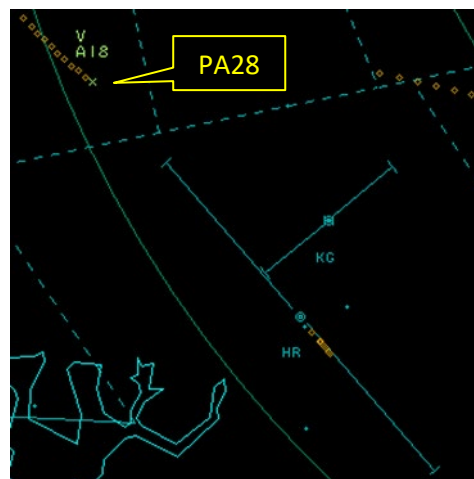


Figure 1 – **1442:50**

At **1443:10** the FISO turned their attention to the pilot of an aircraft at the RW holding point who had advised that they were taxiing onto the RW for an immediate departure and instructed the pilot to hold as previously instructed. The pilot responded that they were holding.

At **1443:20** the FISO requested a position report from the pilot of the aircraft joining on base leg. The pilot responded that they were on right base, shortly turning final and that they were visual with one on the RW and one at the hold.

At **1443:30** The G2 pilot requested to *"circuit right."* The FISO responded, *"triangle, take off at your discretion, the wind is 290/12."* The pilot responded, *"roger"* (Figure 2).

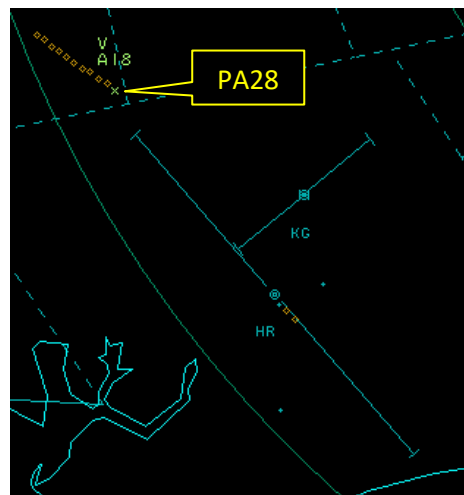


Figure 2 – 1443:30

At **1443:40** the FISO turned their attention to the aircraft on right base and advised the pilot to land at their discretion RW32.

At **1444:00** the FISO confirmed that the pilot of the traffic at the holding point had the landing traffic in sight and issued an instruction for the pilot to line-up behind the landing aircraft. There was no response from the pilot.

At **1445:10** the FISO turned their attention to the pilot of an aircraft calling for re-join and issued the pilot with joining instructions.

At **1445:10** the G2 first appeared on the radar replay (Figure 3).

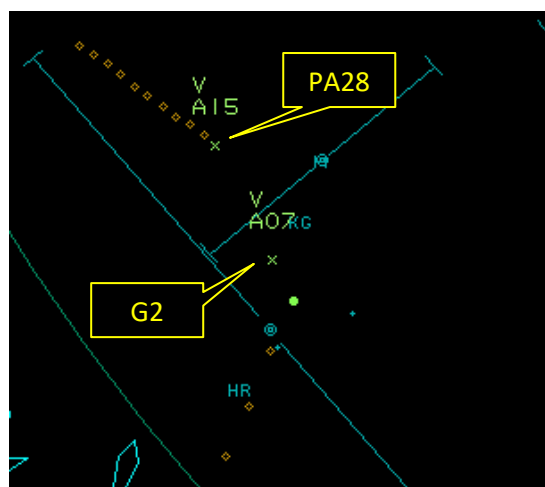


Figure 3 – 1445:10

At **1445:20** the FISO turned their attention to the pilot at the hold and advised them that the RW was occupied and to report lining-up. The pilot confirmed that they were lining-up.

At **1445:30** the FISO issued the departing aircraft with take-off at the pilot's discretion and issued a reminder of the noise abatement procedure.

At **1445:50** the departing pilot advised that they were talking-off and the FISO acknowledged.

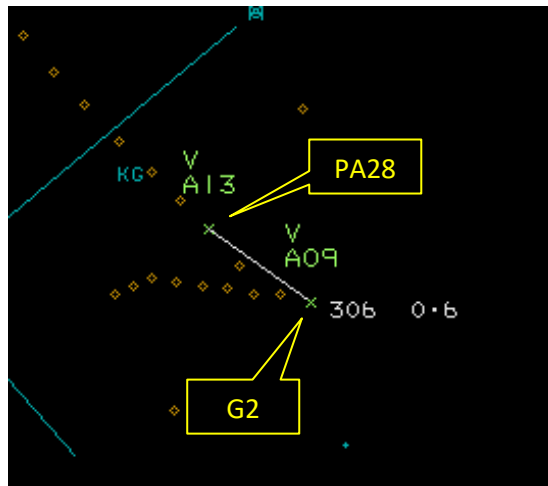


Figure 4 – 1446:01

At **1446:10** the FISO turned their attention to the pilot of an aircraft requesting to join downwind, followed by a pilot requesting to taxi to the hangar.

At **1446:20** the FISO responded to a pilot reporting downwind.

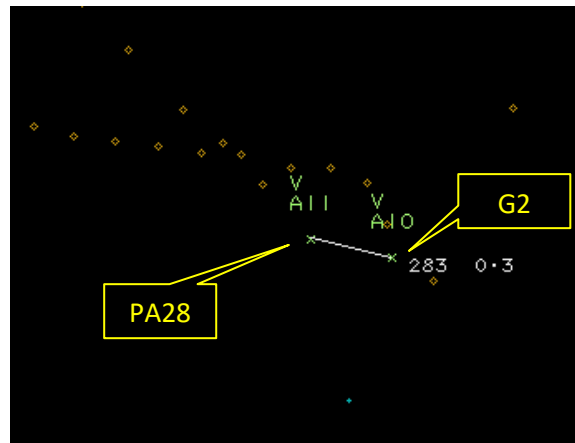


Figure 5 – 1446:22

At **1446:32** CPA occurred, with the aircraft separated by <math><0.1\text{NM}</math> laterally and an indicated 0ft vertically (Figure 6).

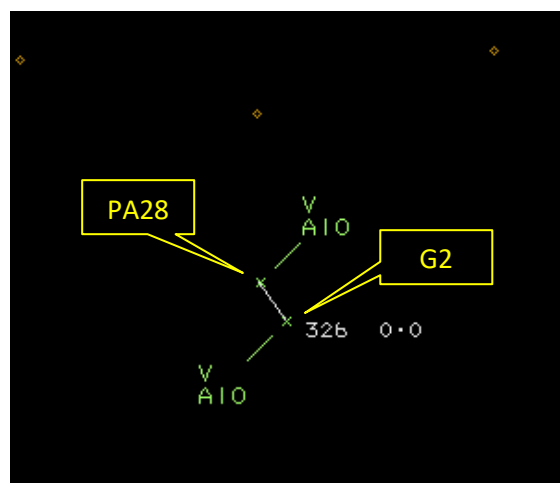


Figure 6 – 1446:33 CPA

When the PA28 pilot made their initial joining request to the FISO, the G2 was still operating on the sloping ground and had not yet made the request to the FISO for a right-hand circuit.

When the PA28 pilot reported downwind, the aircraft was displayed on the radar replay as still being some distance from the start of the downwind leg. Twenty seconds prior to receiving this downwind call, the FISO had issued the pilot of the G2 with taxi clearance to the triangle and advised them to report ready for their right-hand circuit. Based solely on the downwind position report from the PA28 pilot, the FISO may have believed that the PA28 would be late downwind by the time the G2 pilot had completed taxiing and reported ready for departure.

When the G2 pilot was given take-off at their discretion for the right-hand circuit, the PA28 had only just reached the start of the downwind leg.

Traffic Information was not passed to the G2 pilot on the PA28 when the G2 pilot was getting airborne into the circuit.

Traffic Information was not passed to the PA28 pilot advising them that the helicopter circuit was becoming active at 900ft, with the G2 getting airborne into the right-hand circuit.

Just prior to giving the G2 pilot take-off at their discretion, the FISO was experiencing some challenges with the pilot of the aircraft at the holding point, who, having previously been told to hold, had subsequently advised the FISO that they were lining up on the RW, without having been cleared to do so. There were further challenges when the pilot was eventually given clearance to line up and did not respond.

The downwind position report provided by the PA28 pilot was inaccurate by a substantial margin, and this had the potential to affect the FISO's planning.

The PA28 pilot was observed on the radar replay to have descended below the published fixed-wing circuit height while on the downwind leg of the circuit. The pilot confirmed in their report, that distraction had played a part in the unintended descent.

The G2 pilot did not receive Traffic Information on the PA28 joining downwind right-hand and this resulted in a late sighting of the PA28.

The PA28 pilot did not receive information that the northern helicopter circuit was active with the G2 in a right-hand circuit, and this resulted in a late sighting of the G2.

The RTF loading increased substantially in the period leading up to the Airprox and the FISO may have become distracted by the pilot of the aircraft at the holding point when they advised that they were entering the RW at a point where it was unsafe to do so.

The investigation report received from Goodwood management appears to have accurately captured the causal and contributory factors and indicates that they are taking appropriate action to reduce the risk of a similar event occurring in the future.

UKAB Secretariat

A schematic of the fixed-wing and rotary-wing circuits at Goodwood is at Figure 7. It should be noted that in the AIP the fixed-wing and rotary-wing circuit patterns are represented independently and are not overlaid as in this schematic. The airfield elevation at Goodwood is 109ft; therefore, the published fixed-wing circuit height of 1200ft equates to an altitude of 1300ft and the published rotary-wing circuit height of 900ft equates to an altitude of 1000ft.

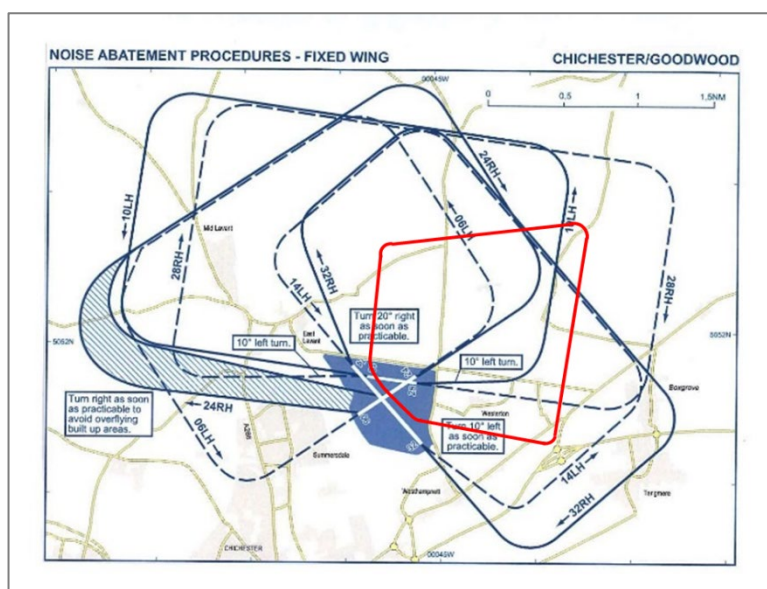


Figure 7 – Chichester/Goodwood circuit patterns for fixed-wing aircraft, overlaid with the (Northern) helicopter pattern for when RW14/32 is in use¹

The Cabri G2 and PA28 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard.² 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.³

Chichester/Goodwood Aerodrome Safety Investigation

The runway in use was RW32 for fixed-wing, with a corresponding 'Northern' circuit for helicopter training traffic. The circuit for RW14/32 and helicopter 'northern' circuit intersect at two points, but there is sufficient vertical separation (300ft) if both circuits are flown at an accurate height. The helicopter circuit patterns were introduced in 1991 and the fixed-wing circuits were established and optimised (for noise reduction) in 1978 as part of a legal (Section 52) review of Aerodrome operational limitations. The northern helicopter circuit is largely contained within the fixed-wing circuit, with traffic in both circuits moving clockwise for RW32, and anti-clockwise for RW14.

Two FISOs were rostered on duty. At the time of the incident, both were in the VCR, with one being the on-watch FISO. Examination of the FISO roster shows that [the on-watch FISO] was 6 hours in to an 8.5 hour shift of which 8 hours are within the published operating hours of the Aerodrome. Both of the FISOs on duty were highly experienced.

[The PA28 pilot was inbound] to the aerodrome from a local flight, and was joining the circuit downwind for RW32. One other aircraft [registration redacted] was on a base leg, and this traffic was advised to the joining aircraft.

The [G2] helicopter was airborne, completing a training detail on the sloping ground, an area within the aerodrome boundary, and had requested to reposition to the Triangle, a nominated area on the northern side of the aerodrome, in preparation for lifting in to the northern training circuit.

In addition to the above movements, there was also traffic manoeuvring towards the RW32 Holding Point for departure.

¹ Sources: <https://www.aurora.nats.co.uk/htmlAIP/Publications/2021-10-07-AIRAC/html/index-en-GB.html> and <https://www.goodwood.com/flying/pilot-information/old-circuit-patterns--noise-abatement/>

² (UK) SERA.3205 Proximity.

³ (UK) SERA.3225 Operation on and in the Vicinity of an Aerodrome.

The helicopter [G2 pilot] reported ready for lift in to the circuit and requested '*circuit right*', a standard circuit direction when RW32 is in use. The FISO acknowledged the call, passed [surface] wind speed and direction but did not pass any Traffic Information about the fixed-wing [PA28 c/s] joining downwind.

Immediately prior to [the G2 pilot] requesting the circuit, the FISO was distracted by an aircraft approaching the RW32 holding point that was a potential runway incursion as the pilot's terminology indicated that they were '*lining-up*' on RW32 with another aircraft on final. The FISO correctly prioritised this risk above all else. Similarly, the joining fixed-wing traffic was not passed Traffic Information about the helicopter circuit becoming active to 900ft QFE.

The helicopter entered the circuit and encountered the joining fixed-wing traffic at between 800-900ft, some 300ft lower than the published fixed-wing circuit height at that point. The helicopter [pilot] had no time to take avoiding action, primarily because the aeroplane appeared in the 5 o'clock position, relative to the helicopter and was acquired visually, initially by the student pilot and then instructor. The aeroplane [pilot] took avoiding action which resulted in a turn and descent to pass below the helicopter, at which point [the PA28] was significantly below the published circuit height. The helicopter instructor clearly identified the aeroplane from registration markings. Both aircraft continued to an uneventful landing.

The helicopter [pilot] initially notified the Airprox to Goodwood Information and the call was acknowledged by the FISO. The helicopter commander passed an incorrect registration during this transmission. No confirmation of the Airprox was given by the aeroplane commander.

It is clear that the primary cause of the Airprox was that the aeroplane [pilot had not joined], or maintained, the correct circuit height, and had descended significantly below the published circuit height for fixed-wing, to the point that it was then at a similar height to the helicopter.

It has not been determined at this stage why the aeroplane [pilot] had either lost so much height within the circuit, or just did not fly the correct circuit height, given the experience of the commander and [that there was] no reported unserviceability with the aeroplane. It is also not clear why the [PA28 pilot] called '*downwind*' so early, evident because the fixed-wing approached the helicopter from astern and despite the time taken for the helicopter to reach that height and position in the helicopter circuit.

Having considered the circumstances of the incident detailed above, the following recommendations are made with the intent of enhancing safety for helicopter 'northern' circuit operations when the fixed-wing circuit is active, and a generally increased awareness of circuit height for all aircraft using the Goodwood ATZ.

- A SI [is to be] issued to air traffic staff and copied to all holders of the Goodwood Aerodrome Manual, to clearly state the necessity for Traffic Information, so that pilots are able to make timely judgements on the position of aircraft within the fixed and/or rotary circuits to aid deconfliction. The SI will state further the necessity for pre-briefing of circuit activity prior to flight, and specific information about circuit height(s) will be passed to visiting aircraft at the time they [request] PPR for arrival. The flight progress strip will be annotated to show that the information about circuit height has been passed to PPR traffic. ACTION: FISO training by Local Validity Assessors (LVAs) must capture and test understanding of the criticality of passing timely Traffic Information.
- In addition to the SI, communications, in plain language, will be sent to all based aircraft operators about the importance of flying circuits at the correct height, and a reminder that the airspace classification (Class G) requires pilots to see and avoid. Too much emphasis is placed, by pilots, on the Traffic Information passed by FISOs and this can result in a false sense of security about the location of other traffic in both the circuit and the ATZ. An example of this is the inconsistent reporting of location when the '*downwind*' call is made. ACTION: Communications sent to homebased aircraft operators.

- If distracted by other activity on the aerodrome, the FISO should not have released the helicopter into the circuit without the correct level of Traffic Information – whilst not a causal factor in this incident, it is a contributory factor. ACTION: FISO training by LVAs must capture and test understanding of this scenario.
- Education of based and visiting pilot community is to address the lack of understanding about published circuit height(s) and risks associated with flying below the published height. A number of publications currently publish the circuit maps but each one is different in presentation and/or content. ACTION: Revise and circulate the circuit mapping so that only one, correct and consistent set of maps is available as a pilot reference tool.
- The Northern helicopter circuit requires review. ACTION: The Northern circuit has been withdrawn from operational use pending completion of the review.
- Re-educate FISOs and based pilots to remove any opportunity for non-standard circuit joins (i.e. left-base RW24, right-base RW06, left-base RW32) which may place a joining aircraft in potential conflict with helicopter activity in the southern circuit. ACTION: Issue an SI to be read in conjunction with SI006/2022 [communication of circuit height]. Incorporate into Aerodrome Manual amendment.

Summary

An Airprox was reported when a Cabri G2 and a PA28 flew into proximity downwind right, RW32 at Chichester/Goodwood at 1447Z on Thursday 10th February 2022. Both pilots were operating under VFR in VMC, both pilots were in receipt of an AFIS from Goodwood Information.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, reports from the air traffic controllers involved 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.

The Board first considered the actions of the Cabri G2 pilot. Members examined the geometry of the event and agreed that, as the PA28 had been behind the G2, it would have been obscured from the view of the G2 pilot by the aircraft's structure (**CF12**). Members noted that the G2 pilot had not had any EC available to them at the time of the Airprox and had been encouraged that the pilot had reviewed this post flight. The Board wished to highlight to pilots that additional funding has been made available for Electronic Conspicuity devices through the CAA's Electronic Conspicuity Rebate Scheme⁴, which has been extended until 31st March 2023. A discussion followed regarding whether the G2 pilot had had any prior awareness of the presence of the PA28; members agreed that they had had none (**CF9**) as they had not had any EC and had not received any Traffic information relating to it (**CF3**). Members concluded that they had only become visual with the PA28 at a late stage and had therefore, not been able to take effective avoiding action (**CF11**).

The Board then discussed the actions of the PA28 pilot and noted that they had made the "downwind" call whilst still at a considerable distance from the start of the downwind leg (**CF7**). Members then considered the instruction that the pilot had been delivering and agreed that this had distracted them from their primary tasks of lookout and flying the aircraft accurately (**CF10**) and, as a result, the pilot had not flown the correct profile (**CF6**, **CF8**). A GA pilot member suggested that differences training of this type can be delivered initially away from the circuit where any resultant deviations from the intended flight profile would have a reduced impact. Members agreed that, with the absence of any Traffic Information and without any EC equipment, the pilot had had no prior awareness of the presence of the G2 (**CF9**). Having discussed the point at which the PA28 pilot had become visual with the G2, the Board concluded that the windscreen arch had obscured the G2 from the view of the PA28 (**CF12**) and they

⁴<https://www.caa.co.uk/general-aviation/aircraft-ownership-and-maintenance/electronic-conspicuity-devices/>

had only become visual with the G2 at a point at which it had been too late for them to have been able to take any effective avoiding action (**CF11**).

Next, the Board considered the actions of the Goodwood FISO and agreed that, when the PA28 pilot had called downwind, the FISO had naturally assumed this to have been an accurate position report (**CF4**) which, in turn, had resulted in them creating an inaccurate mental model of the location of the aircraft (**CF5**). Additionally, at the time of the Airprox, the main focus of the FISO had been on preventing a runway incursion. An ATC member stated that this had been entirely appropriate however it may have contributed to them not passing Traffic Information to either the G2 or the PA28 pilots (**CF2, CF3**). The attention of the Board then turned to the procedures employed at Goodwood and members noted that, whilst the circuit procedures create vertical separation between the fixed-wing and helicopter circuits, there is insufficient horizontal separation as the two cross laterally, leading members to agree that the procedures had been lacking (**CF1**). Members were extremely encouraged by the extensive work that has been done at Goodwood since this event where, with the appropriate CAA oversight teams, significant action has been undertaken to review and to propose modifications to these procedures.

Finally, in assessing the risk of collision the board considered that neither pilot had had any prior situational awareness regarding the presence of the other and that neither pilot had become visual with the other early enough to have enabled them to have taken any effective avoiding action. Therefore, the Board concluded that providence had played a major part in events, that the separation that had existed had been fortuitous and the bare minimum and, that there had been a serious risk of collision (**CF13**). As such, the Board assigned a Risk Category A to this Airprox.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2022012			
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
Ground Elements				
• Regulations, Processes, Procedures and Compliance				
1	Organisational	• Aeronautical Information Services	An event involving the provision of Aeronautical Information	The Ground entity's regulations or procedures were inadequate
2	Human Factors	• ATM Regulatory Deviation	An event involving a deviation from an Air Traffic Management Regulation.	Regulations and/or procedures not fully complied with
• Situational Awareness and Action				
3	Human Factors	• ANS Traffic Information Provision	Provision of ANS traffic information	TI not provided, inaccurate, inadequate, or late
4	Human Factors	• Expectation/Assumption	Events involving an individual or a crew/team acting on the basis of expectation or assumptions of a situation that is different from the reality	
5	Contextual	• Traffic Management Information Action	An event involving traffic management information actions	The ground element had only generic, late, no or inaccurate Situational Awareness
Flight Elements				
• Regulations, Processes, Procedures and Compliance				
6	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				
7	Human Factors	• Accuracy of Communication	Events involving flight crew using inaccurate communication - wrong or incomplete information provided	Ineffective communication of intentions
8	Human Factors	• Action Performed Incorrectly	Events involving flight crew performing the selected action incorrectly	Incorrect or ineffective execution
• Situational Awareness of the Conflicting Aircraft and Action				

9	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
• See and Avoid				
10	Human Factors	• Distraction - Job Related	Events where flight crew are distracted for job related reasons	
11	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
12	Contextual	• Visual Impairment	Events involving impairment due to an inability to see properly	One or both aircraft were obscured from the other
• Outcome Events				
13	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 Assessment⁵

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

Ground Elements:

Regulations, Processes, Procedures and Compliance were assessed as **ineffective** because the procedures at Chichester/Goodwood do not provide for any horizontal separation between the helicopter and fixed-wing circuits and, the FISO did not provide Traffic Information to either the G2 or the PA28 pilot regarding the other.

Situational Awareness of the Confliction and Action were assessed as **ineffective** because the FISO had had an inaccurate mental model regarding the position of the PA28 assuming it to be further downwind than it was.

Flight Elements:

Regulations, Processes, Procedures and Compliance were assessed as **ineffective** because the PA28 pilot had deviated from the fixed-wing circuit altitude.

Tactical Planning and Execution was assessed as **ineffective** because the timing of the downwind call from the PA28 pilot and their altitude keeping had been sub-optimal.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither pilot had had any awareness of the presence of the other prior to sighting it.

See and Avoid were assessed as **ineffective** because neither pilot had seen the other in time to allow for effective avoiding action to have been taken.

⁵ 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: 2022012		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:		<u>Full</u>	<u>Partial</u>	<u>None</u>	<u>Not Present/Not Assessable</u>	<u>Not Used</u>		
Provision								
Application								
Effectiveness								