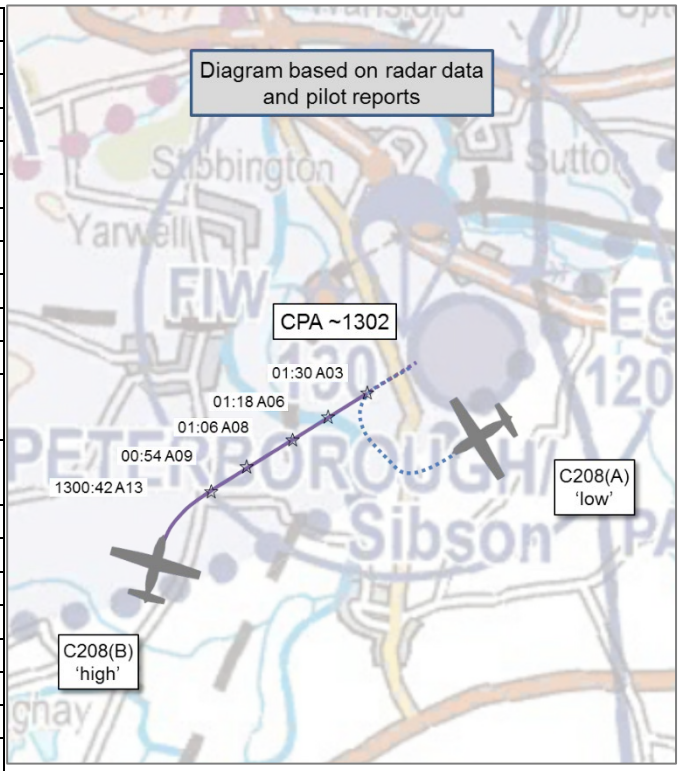
AIRPROX REPORT No 2019075

Date: 18 Apr 2019 Time: 1302Z Position: 5233N 00024W Location: Sibson – elev 130ft

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	C208(A)	C208(B)
Operator	Civ FW	Civ Para
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	AGCS	AGCS
Provider	Sibson Radio	Sibson Radio
Altitude/FL	NK	NK
Transponder	A, C, S	A, C, S
Reported		
Colours	White, blue, yellow	White
Lighting	Anti-col, strobes, landing	Strobes, nav, beacon
Conditions	VMC	VMC
Visibility	10km	10km
Altitude/FL	200ft	NK
Altimeter	agl	QFE (NK hPa)
Heading	060°	060°
Speed	80kt	90kt
ACAS/TAS	Not fitted	Not fitted
Separation		
Reported	50ft V/50m H	Not seen
Recorded	~10ft V/0m H	



THE AGCS OPERATOR reports that the two C208s were operated by the same parachuting company, one parachute dropping and the other pilot training on the day. He noted that the locally based flying school operate flying training and the R/T from the Tower. The AGCS Operator stated that a separate take-off incident at the start of their sortie had caused them concern as to the standard of awareness of the 208(B) pilot. Five minutes later, C208(B) was on the descent and reported left-base and then long-final (but later agreed that it was short-final). The C208(A) also turned final and the situation was that one C208 was right on top of the other with both intent on landing. The AGCS Operator realised the situation and called the top aircraft (C208(B)) to go-around. Both pilots were unaware of the position of the other C208 and, if not told to go around, it was estimated that a collision would have occurred after about 5 seconds.

THE C208(A) INSTRUCTOR reports conducting an instructional flight in the circuit pattern, flying a standard right-hand circuit pattern for RW06. The instructor was in the right seat and the student in the left, in accordance with standard practice. Both pilots had good situational awareness and maintained a good lookout throughout the exercise. The speeds being flown were in accordance with the AFM and appropriate to the Sibson Circuit and the instructor was using the radio to allow the student to concentrate on speed control. The instructor reported '[C/S] downwind right 06' at the beginning of the downwind leg and on completion of the turn from downwind onto base leg the instructor heard the pilot of C208(B) report, 'high right-base 06'. The C208(B) was not visible so the instructor concluded that it was above and behind them, which was consistent with the C208(B) pilot's reported position. On completion of the turn onto final approach for 06, the instructor reported '[C/S] final 06'. He also reported '[C/S] 1/4 mile final 06' shortly after as a reminder to other traffic that they were ahead and below. The approach was flown at 80kt, in accordance with the C208 Flight Manual and, as they approached the trees at the 06 threshold, the instructor became aware of another noise over and above the sound of their own engine. He also became aware of a change in the light level. He realised that C208(B) was

directly above them, took control from the student and lowered the nose of the aircraft positively over the trees. He heard it being reported on the radio that 'one Caravan was on top of another'. After touch down the instructor saw C208(B) about 50ft above and about 50m ahead. The tower instructed C208(B) to go-around at which point the C208(B) pilot initiated a go-around.

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

THE C208(B) PILOT reports descending to Sibson after dropping some parachutists. The pilot called 'joining high right-base to 06 right-hand' but did not hear an answer. The next call was '[C/S] high final 06', made at 2000ft to which the reply '[C/S] Sibson Radio wind 15kt' was received. Shortly afterwards, another aircraft called 'final 06'. The C208(B) pilot called on final and asked whether any other aircraft was on final. The instructor in another aircraft said 'correction, we are on downwind'. When the C208(B) pilot was on short final, the call '[C208(A) C/S] final' was heard. The Sibson AGCS Operator then said 'Two caravan above each other, [C208(B) C/S] go around'. Afterwards, the C208(B) pilot went to the Sibson tower to talk about this situation (the pilot from C208(A) was still in the air) and was told there were 4 aircraft in the circuit at that time. The C208(B) pilot stated that no information about the traffic was passed when switching to Sibson Radio. The pilot was aware that it was not controlled airspace and that pilots were responsible for separation, but it was confusing when, having reported high-final, just information about the wind was passed, like a normal landing when not busy and No1 for landing. It was also confusing that the student in another aircraft called final when he was on downwind. The C208(B) pilot did not hear any calls from C208(A) when high-base or high-final was called. The first call heard from the C208(A) pilot was when they were in same position.

Both pilots debriefed the occurrence after landing. The C208(B) pilot thought that they had priority on final and didn't see or hear other traffic. The C208(B) pilot also felt that the other traffic should not join from base leg to short final after they had made their final call. The C208(A) pilot had stated that they did not see the C208(B) and that aircraft joining high to the circuit is not good. The C208(B) pilot stated that normally after dropping, aircraft get information about other traffic and can see this traffic better from altitude and have some time to make separation. The C208(A) pilot said they called final twice so the C208(B) pilot suggested that they may have been talking at the same time or it was a double transmission with the student and instructor in the other small aircraft. Both C208 parachuting dropping pilots agreed that all skydiving operations are more safe when the airport stops other traffic at the circuit for the time of dropping and landing the parachute plane, as is done at other Drop Zones.

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

Factual Background

The weather at Wittering was recorded as follows:

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METAR EGXT 181250Z 10011KT 9999 FEW047 SCT056 BKN210 20/08 Q1023 BLU=
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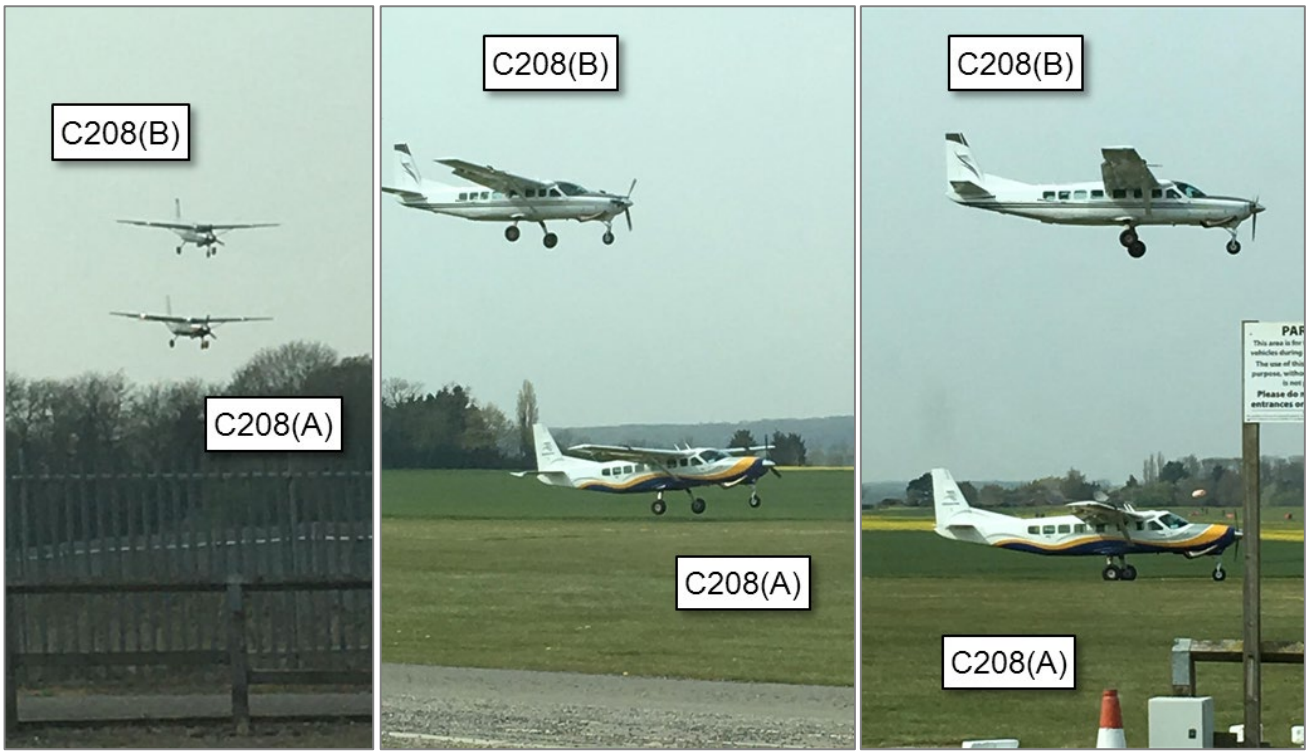
Analysis and Investigation

UKAB Secretariat

Both 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[1]. 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[2]. When two or more heavier-than-air aircraft are approaching an aerodrome or an operating site for the purpose of landing, aircraft at the higher level shall give way to aircraft at the lower level[3]. Photographs of the aircraft on short final and during the landing/overshoot were made available as follows:

[1] SERA.3205 Proximity. MAA RA 2307 paragraphs 1 and 2.
[2] SERA.3225 Operation on and in the Vicinity of an Aerodrome. MAA RA 2307 paragraph 15.
[3] SERA.3210 Right-of-way (4)(i).



Summary

An Airprox was reported when two C208s flew into proximity at 1302Z on Thursday 18th April 2019 in the visual circuit at Peterborough/Sibson aerodrome. Both pilots were operating under VFR in VMC and both were in receipt of an AGCS from Sibson Radio.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings and a report from the AGCS Operator. 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 discussed parachute dropping operations overall and wondered to what degree the general culture or location-specific aspects of such operations imbued an unhealthy sense of urgency to proceedings; it was clear that parachute-dropping pilots were under some pressure to recover to the airfield after dropping parachutists as soon as possible so that the next load could be made with the minimum delay possible, and some members felt that this may have been a factor in events. Others felt that such a known issue would be covered by pilots' threat and error management but all agreed that there were potential hazards from the normalisation of risks that could affect operations on a day-to-day basis when in an inappropriately heightened sense of increased urgency.

The C208(B) pilot reported that they had only received minimal airfield information during their initial call for recovery, and controller members wondered whether the C208(B) pilot fully understood the limitations of an AGCS in that A/G Operators were not empowered to give Traffic Information. The C208(B) pilot had also reported that they then heard another aircraft call final and, on querying this, had gained a response that this was an erroneous transmission. Although there were no R/T recordings to confirm, it seemed likely to the Board that this R/T exchange had occurred coincidently with the C208(A) pilot's first 'final' call such that C208(B) pilot had either not heard, or not assimilated this first call. As a result, C208(B) pilot's mental model was that there were no other aircraft on final and so they were effectively No1. The C208(B) pilot then heard the C208(A) pilot's second 'final' R/T transmission when they themselves were on short final and so likely interpreted this to mean that C208(A) was behind them. All of which highlighted the perils of conducting highly dynamic joins to busy airfields

without first ensuring an understanding of where all the aircraft were in the pattern. Returning to the theme of induced pressures on parachute dropping pilots for a quick turnaround, overall safety remained the top priority and the Board opined that the operating authority should ensure that there was sufficient flexibility within the parachute dropping schedule, and an appropriatly just culture within the safety management system, such that pilots felt able to abandon their steep join if unsure and conduct a more conventional join rather than perhaps pressing on in the interests of programmatic expediency.

Turning to the actions of the C208(A) pilot, members commented that the C208(A) instructor had heard the C208(B) pilot call 'high right-base for 06' and, given their own position also on base, rather than assume the C208(B) would see them and remain behind, might have considered at that point reporting 'right base' themselves in order to provide early situational awareness to the C208(B) pilot.

Whatever the reason, it was clear that R/T alone had not achieved its purpose of providing sufficient SA that the C208(B) pilot could integrate effectively within the visual circuit (**CF3**, **CF5**). The Board acknowledged that it may be considered 20/20 hindsight but, given the outcome, perhaps a positive confirmation of positions between the C208 pilots (**CF6**), and an early decision to go around by the C208(B) pilot if visual contact had not been obtained would have been a better course of action. Additionally, it was noted that both aircraft were operating from the same airfield and that a proactive deconfliction plan of some sort could have been agreed before they got airborne. In this respect, the parachuting aircraft's dynamic flight path was worthy of further measures to help mitigate conflict either procedurally, through positive radio calls or the use of a CWS (**CF2**). In the latter case, the Board noted that neither aircraft was fitted with a TAS, and that this could have provided a valuable source of SA to both pilots.

The Board then discussed prioritisation within the circuit and agreed that, ultimately, there was no priority for parachuting aircraft recovering to the airfield and that in this incident it was for the C208(B) pilot, arriving at the airfield, to integrate with the pattern of traffic already established and intending to land (**CF1, CF8**). In the event, neither pilot was aware of the proximity of the other (**CF4**), and neither saw the other aircraft until after CPA (**CF10**), at least in part, members surmised, due to the relative flight paths of the aircraft and their high-wing configuration (**CF9**). No doubt both pilots were concentrating on the runway as they conducted their approaches (**CF7**), but, acknowledging that the C208(A) pilot had bunted towards the ground as he became aware of the noise from the C208(B) above, the net effect was that it appeared that a collision had only been prevented by the AGCS Operator telling the C208(B) pilot to go-around. Consequently, members agreed that collision had only been avoided by the narrowest margin and that the Airprox warranted a risk rating of Category A.

Finally, the Board commended the AGCS Operator for his R/T call to the C208(B) pilot to go-around, not least because of the SA required to tell the correct pilot to do so; an error in callsign would have had as equally as serious an outcome as no call at all. The Board were mindful of the limited privileges afforded to an AGCS Operator and the associated limitations on R/T usage; however, in this incident his actions had, in the Board's opinion, prevented a mid-air collision.

[UKAB post-Board note: The C208(A) Instructor further stated that he was not employed by the PTO but simply training a new pilot for them with most of the training being conducted away from Sibson. There was no specific reason to organise deconfliction between himself and C208(B) pilot because he was just another aircraft in the circuit; if it applied to his aircraft then it should apply to all aircraft in the pattern. He commented on the issue of high energy joins into the circuit involving skydiving aircraft, for which he believed there are, fundamentally, two options. Either aircraft vacate the area when skydiving is taking place, a model used at a number of PTOs, or the parachute aircraft joins the active visual circuit in a standard manner, i.e. level, at an appropriate speed and with no specific priority. The pilot also noted that it was obvious to say that cultural or commercial pressures shouldn't compete with safety.]

PART C: ASSESSMENT OF CAUSE AND RISK

Contributory Factors:

	2019075		
CF	**Factor**	**Description**	**Amplification**
	Flight Elements		
	• Regulations, Processes, Procedures and Compliance		
1	Human Factors	• Flight Crew ATM Procedure Deviation	Regulations/procedures not complied with
	• Tactical Planning and Execution		
2	Human Factors	• No Decision/Plan	Inadequate planning
3	Human Factors	• Accuracy of Communication	Ineffective communication of intentions
	• Situational Awareness of the Conflicting Aircraft and Action		
4	Contextual	• Situational Awareness and Sensory Events	Pilot had no, only generic, or late Situational Awareness
5	Human Factors	• Understanding/Comprehension	Pilot did not assimilate conflict information
6	Human Factors	• Lack of Communication	Pilot did not request additional information
7	Human Factors	• Distraction - Job Related	Pilot was distracted by other tasks
8	Human Factors	• Monitoring of Other Aircraft	Pilot did not sufficiently integrate with the other aircraft
	• See and Avoid		
9	Contextual	• Poor Visibility Encounter	One or both aircraft were obscured from the other
10	Human Factors	• Monitoring of Other Aircraft	Non-sighting or effectively a non-sighting by one or both pilots

Degree of Risk: A.

Recommendation: Nil.

Safety Barrier Assessment[4]

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

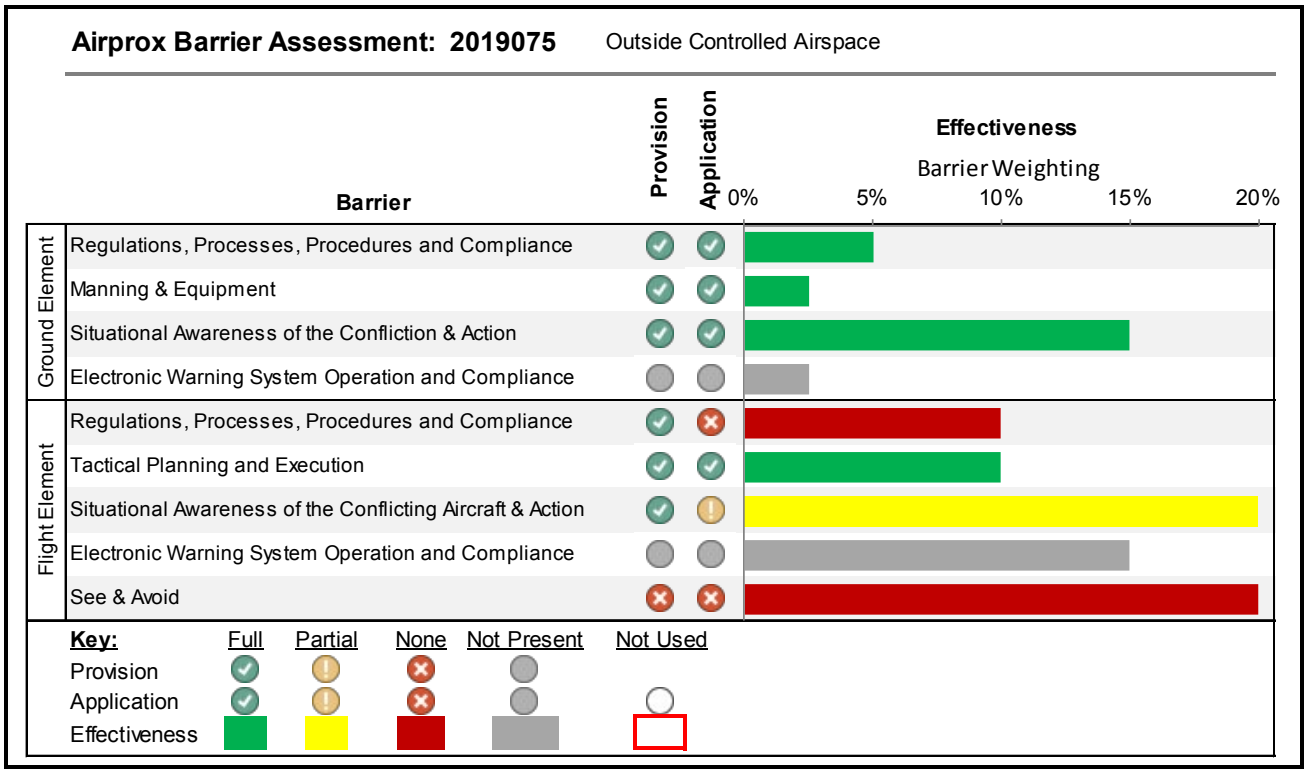
Flight Elements:

Regulations, Processes, Procedures and Compliance were assessed as **ineffective** because the C208(B) pilot did not integrate with the pattern of traffic intending to land.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither pilot was aware of the proximity of the other aircraft.

See and Avoid were assessed as **ineffective** because neither pilot saw the other aircraft until after CPA.

[4] 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: 2019075
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 Used
Provision
Application
Effectiveness