

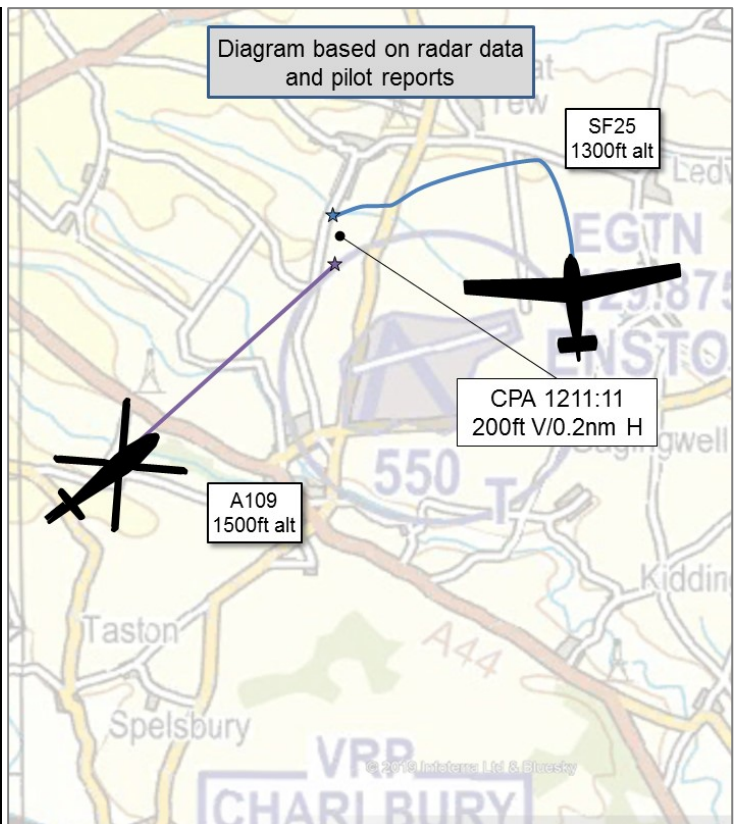
AIRPROX REPORT No 2019096

Date: 12 May 2019 Time: 1211Z Position: 5156N 00126W

Location: Enstone Airfield

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	SF25	A109
Operator	Civ Gld	Civ Helo
Airspace	Enstone	London FIR
Class	G	G
Rules	VFR	VFR
Service	AGCS	Basic
Provider	Enstone Radio	Brize Norton
Altitude/FL	1300ft	1500ft
Transponder	A, C	A, C, S
Reported		
Colours	Red, White	Cream, Blue
Lighting	Strobe, Wing	Nav, Anti-Col
Conditions	VMC	VMC
Visibility	10km	>10km
Altitude/FL	850ft	1500ft
Altimeter	NK (1017hPa)	QNH
Heading	260°	050°
Speed	80kt	150kt
ACAS/TAS	FLARM	Not reported
Alert	None	N/K
Separation		
Reported	50-100ft V/0.1nm H	Not seen
Recorded	200ft V/0.2nm H	



THE SF25 MOTOR GLIDER PILOT reports that he was on a training sortie at Enstone using RW08LH, circuit height 800ft (600ft for microlights); they were on their third circuit for RW08, late downwind. The instructor spotted a helicopter in their 11 o'clock, about 50-100ft below at very close range. Not a great deal of avoiding action could be taken due to the closing speed; FlightRadar24 shows the helicopter at 150kts and the Motor-glider at 70kts. They climbed as soon as the helicopter was spotted. In his opinion the helicopter was inside the Enstone circuit, traveling in the opposite direct to circuit traffic, not talking to Enstone Radio and at a height that jeopardised the circuit traffic. He thought it would be beneficial if Enstone was marked as intense gliding/motor gliding [UKAB note: Enstone is in the UKAIP as a Training Aerodrome as below and is correspondingly marked on Aeronautical Charts with a 'T' and contact frequency].

ENR 1.1

5.5.8 Training and Unusual Activity Aerodromes

5.5.8.1 Training Aerodromes - Designated Training Aerodromes are listed in ENR 5.5 and are regarded as an aerodrome. Flight Training including circuit practice is known to take place from these sites, the list and chart symbol are published to identify the hazards to other airspace users and the listing does not imply any right for an aircraft to use these aerodromes. Where training takes place at a licensed aerodrome and within the defined Aerodrome Traffic Zone, the aerodrome will be listed within the AD section.

ENR 5.5-14:

ENSTONE (TRNG AD) 515541N 0012542W		Phone: 01608-677208 Email: osf@enstoneaerodrome.c o.uk.	Site elevation: 550 FT AMSL. Training Aerodrome.
---------------------------------------	--	------------------------------------------------------------------	-----------------------------------------------------

He assessed the risk of collision as 'High'.

THE A109 PILOT reports that he had departed from a private site within the Brize Norton zone on a transit flight to a private site at Northampton. He had established a Basic Service with Brize Norton and did not see the other aircraft.

THE BRIZE NORTON CONTROLLER had not submitted a report in time for the Airprox to be assessed by the Board members despite numerous requests from BM FHQ.

Factual Background

The weather at Oxford was recorded as follows:

METAR EGTK 121150Z 06007KT 020V100 9999 SCT041 15/04 Q1036

Analysis and Investigation

Military ATM

An Airprox occurred on 12 May 19 at approximately 1210 UTC, near Enstone between an SF25 and an A109. The SF25 was not receiving an Air Traffic Service but was in communication with Enstone Radio, the A109 reported receiving a Basic Service from Brize Radar. The Brize Controller concerned did not file an occurrence report.

UKAB were able to provide a portion of the radar replay to this HQ but, because no occurrence report was filed by Brize Radar, no RT recording or transcript was available at the time of compiling this report. As a result, full analysis of this incident is not possible and therefore BM staff are not able to provide a perspective on this incident. Figures 1 and 2 show the encounter and indicate that CPA occurred with a separation of 0.2nm and 200ft.

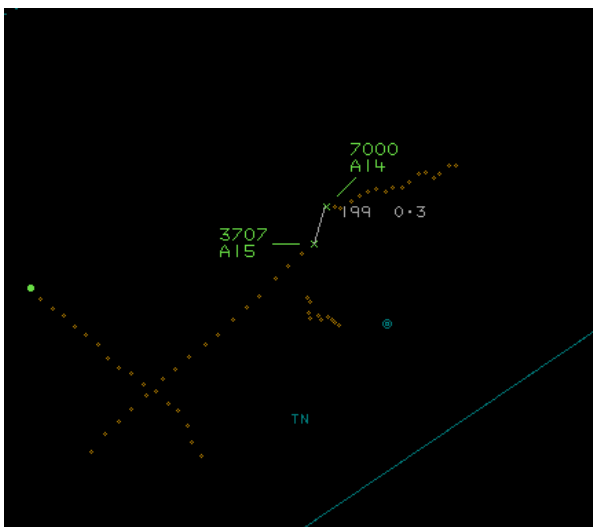


Figure 1: 1411:07

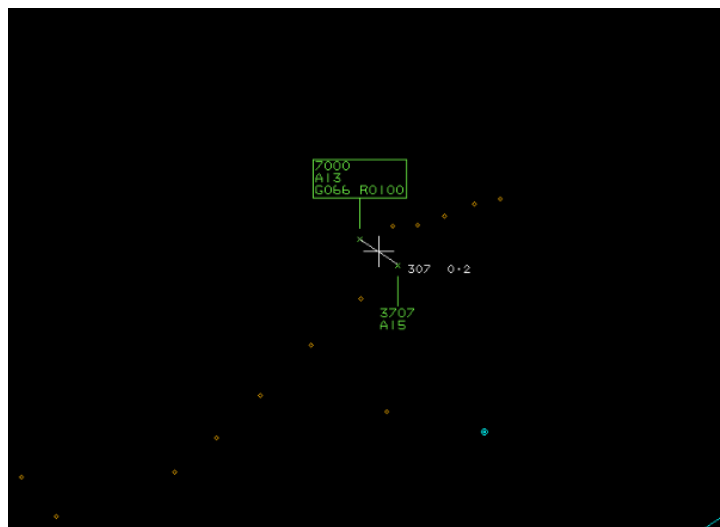


Figure 2 – CPA 1211:11

(SF25 squawk 7000, A109 squawk 3707)

UKAB Secretariat

The SF25 and A109 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard¹. If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right². 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 operation³.

¹ SERA.3205 Proximity.

² SERA.3210 Right-of-way (c)(1) Approaching head-on.

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

Summary

An Airprox was reported when an SF25 and an A109 flew into proximity within the Enstone visual circuit at 1211hrs on Sunday the 12th of May 2019. Both pilots were operating under VFR in VMC, the SF25 pilot receiving an AGCS from Enstone and the A109 pilot in receipt of a Basic Service from Brize Norton.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of both aircraft, transcripts of the relevant RT frequencies, radar photographs/video recordings, reports from the air traffic controller involved and reports from the appropriate ATC and operating authority.

The Board began by looking at the actions of the Brize Norton controller and were greatly disappointed that no report had been submitted at the time of the Board's assessment. Conducting their discussion on the understanding that the A109 was receiving a Basic Service from the Brize controller, some controller members noted that, under such a service, the Brize controller would not have been required to monitor the aircraft (**CF1**). Acknowledging this, other members wondered whether the controller should have warned the A109 pilot of his impending proximity to Enstone's visual circuit given that the A109 pilot's route would have been clear to the controller during their communications as the A109 transited his zone. Without his report, it was not possible to understand his workload at the time, but the Board noted that the controller may have been busy with higher priority tasks and therefore might not have identified the conflict (**CF2**) or been able to warn the pilot of the aircraft's track close to the Enstone visual circuit. Members noted that the A109 was transponding a Brize Norton SSR code at the time of the Airprox, and that the SF25 was also transponding and so would likely have been visible to the controller on his radar.

After the Boards assessment the controller submitted a report as follows:

He reports that he has been instructed to complete a DASOR regarding an Airprox reported at Enstone on the above date. He did not complete a DASOR previously because the incident was neither observed or experienced by him. The first he heard of the incident was on the 14th of May 2019 when he was told the incident was inside Enstone visual circuit between an A109 and an SF25. The Airprox was not called on his frequency and no pilot reported that they had encountered an SF25. It is possible that the aircraft was not on his frequency as it was outside Brize Norton Controlled Airspace [UKAB note: The A109 was talking to Brize during the Airprox and did not leave the frequency until 1216:07].

The Board then turned to the actions of the A109 pilot and agreed that, given that it was clearly marked on the VFR chart, he should have been aware of Enstone, and would have been better served by planning his route not to fly so close to the Enstone circuit (**CF4**); ultimately, he was required to avoid the pattern of traffic in operation there (**CF3 & 5**) albeit he had not seen the SF25 as he approached. The helicopter member commented that the A109 would have had a second radio and, given that his route would take him close to the visual circuit, he could have contacted Enstone by radio (using the frequency published on the chart) to inform any A/G operator and aircraft in the visual circuit of his intention to route nearby (**CF6**); such a call would have greatly increased both his and other pilots' situational awareness. Members wondered if this particular A109 was fitted with TCAS (installation was not reported by the A109 pilot) but, if it was, it should have detected the transponding SF25 in the visual circuit and this could have provided a further source of situational awareness. Finally, members noted that the A109 pilot had flown just outside the blue circle indicating Enstone on the VFR chart, and some wondered if the A109 pilot had been under the misconception that this circle was indicative of the size of the visual circuit whereas in fact it had no relevance in that respect, merely being a graphic indicator of airfield presence and level of activity; pilots were still required to avoid any aircraft forming a pattern of traffic at an airfield irrespective of the graphic on the chart.

For his part, although there was no ATZ at Enstone, the SF25 pilot had not expected to see a helicopter flying in the opposite direction, very close, within their visual circuit pattern (**CF7**). The Board noted that Enstone was marked as a training airfield on the VFR chart and agreed that pilots flying within the visual circuit could reasonably expect others to be aware of their activity and to avoid their traffic pattern if they were visual with them. However, this did not provide the same levels of protection that an ATZ would confer, and members recalled that there was already an outstanding previous recommendation with the CAA to investigate options for the cost-effective and straightforward means to afford additional protection of traffic operating in the immediate vicinity of busy minor aerodromes (Airprox 2018319). Seeing the A109 at a late stage, and with only about 50-100ft of vertical separation, the SF25 pilot carried out an emergency avoiding action turn and descent to increase the separation (**CF9**). The Board noted that he reported the A109 as below the SF25 whereas the radar recording showed that the A109 was above the SF25; noting that SSR transmissions had a tolerance of about +/- 200ft, it was entirely feasible that his recollection was correct although, being approximately co-altitude, members wondered whether his perception had been influenced by startle factor. The Board commented that, once again, this incident highlighted the need for robust, prioritised lookout at all times, even when conducting visual circuits.

The Board then turned to the risk. Noting that the A109 pilot made no change in course and had reported that he did not see the SF25 (**CF8**), and that the SF25 pilot only saw the A109 late and took emergency avoiding action, some members felt that safety had been much reduced below the norm (Category B). However, given the recorded lateral separation of 0.2nm, the majority believed that, although safety had been degraded, there had been no risk of collision; accordingly, the risk was assessed as Category C.

PART C: ASSESSMENT OF CAUSE AND RISK

Contributory Factors:

2019096-Barriers			
CF	Factor	Description	Amplification
Ground Elements			
• Situational Awareness and Action			
1	Contextual	• Situational Awareness and Sensory Events	Not required to monitor the aircraft under the agreed service
2	Human Factors	• Conflict Detection - Not Detected	
Flight Elements			
• Regulations, Processes, Procedures and Compliance			
3	Human Factors	• Flight Crew ATM Procedure Deviation	Regulations/procedures not complied with
• Tactical Planning and Execution			
4	Human Factors	• No Decision/Plan	Inadequate planning
5	Human Factors	• Aircraft Navigation	Did not avoid/conform with the pattern of traffic already formed
6	Human Factors	• Communications by Flight Crew with ANS	Pilot did not communicate with appropriate controlling authority
• Situational Awareness of the Conflicting Aircraft and Action			
7	Contextual	• Situational Awareness and Sensory Events	Pilot had no, only generic, or late Situational Awareness
• See and Avoid			
8	Human Factors	• Monitoring of Other Aircraft	Non-sighting or effectively a non-sighting by one or both pilots
9	Human Factors	• Monitoring of Other Aircraft	Late-sighting by one or both pilots

Degree of Risk: C.

Safety Barrier Assessment⁴

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

Ground Elements:

Situational Awareness of the Confliction and Action were assessed as **ineffective** because the Brize Norton controller did not identify that the A109's track would infringe Enstone visual circuit or recognise the conflict with the SF25.

Flight Elements:

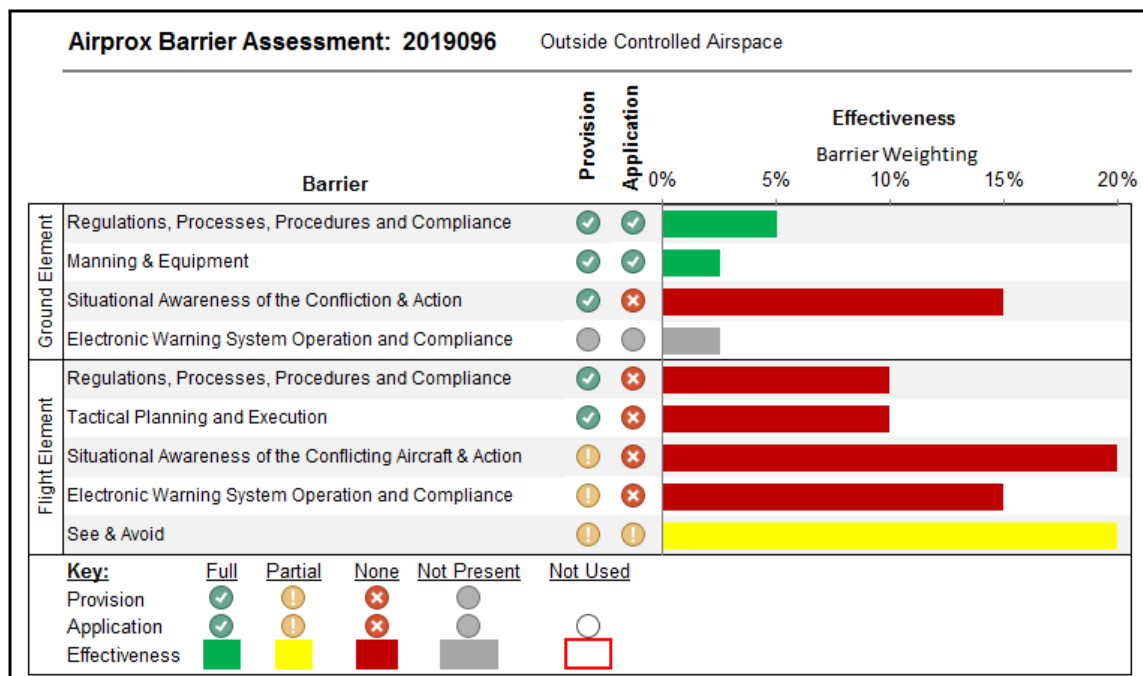
Regulations, Processes, Procedures and Compliance were assessed as **ineffective** because the A109 pilot did not avoid the pattern of traffic formed by aircraft in the Enstone visual circuit.

Tactical Planning and Execution was assessed as **ineffective** because the A109 pilot did not sufficiently avoid Enstone, which is marked on charts and notified in the UK AIP.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because although the A109 pilot should have been generically aware of likely traffic at Enstone airfield, neither pilot had specific situational awareness of the other.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because SF25's FLARM was not able to detect the A109. The A109 pilot did not report whether they had a Collision Warning System fitted or if it had alerted the pilot to the presence of the SF25.

See and Avoid were assessed as **partially effective** because the SF25 pilot only saw the A109 late and took emergency avoiding action. The A109 pilot did not see the SF25.



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