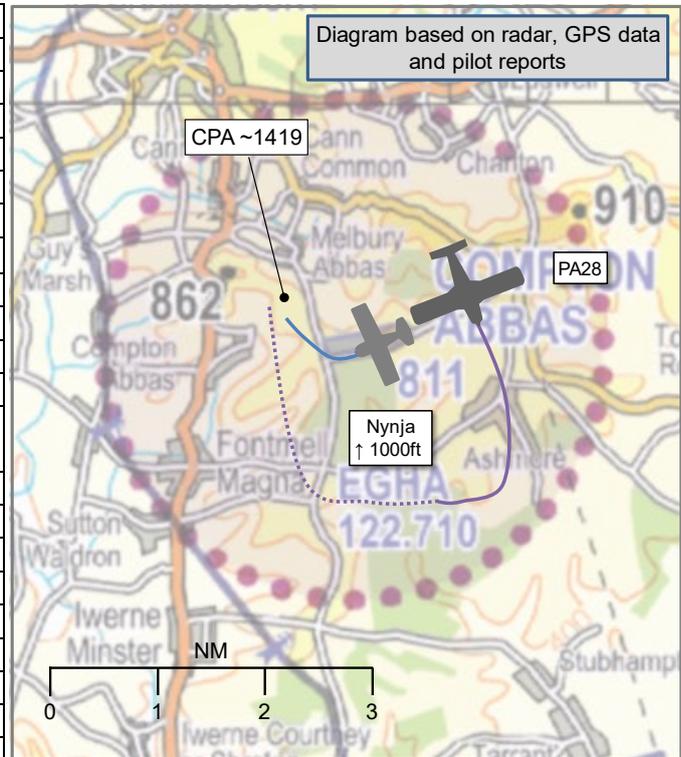


AIRPROX REPORT No 2023162

Date: 20 Jul 2023 Time: ~1419Z Position: 5058N 00210W Location: Compton Abbas

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Skyranger Nynja	PA28
Operator	Civ FW	Civ FW
Airspace	Compton Abbas ATZ	Compton Abbas ATZ
Class	G	G
Rules	VFR	VFR
Service	AGCS	AGCS
Provider	Compton Abbas	Compton Abbas
Altitude/FL	NK	NK
Transponder	None ¹	A, C, S
Reported		
Colours	White, Red, Blue	Blue, White
Lighting	Strobes, Landing	Strobe, Beacon, Landing
Conditions	VMC	VMC
Visibility	5-10km	>10km
Altitude/FL	800ft	1800ft
Altimeter	QFE (989hPa)	QNH
Heading	320°	340°
Speed	65kt	95kt
ACAS/TAS	SkyEcho	Not fitted
Alert	Information	N/A
Separation at CPA		
Reported	50ft V/200m H	0ft V/400m H
Recorded	NK	



THE SKYRANGER NYNJA PILOT reports that they took off to conduct some circuits. RW26 was in use with a right-hand circuit. For noise abatement precautions, a right-hand turn (onto approximately 300°) is initiated after passing the 08 numbers. They had executed 2-3 circuits and had given a call to say '[C/S] final 26 touch and go' prior to each landing, less the final landing. They had reached the 08 numbers and carried out the right-hand turn and continued climbing before reaching the crosswind leg. Just before they reached the crosswind leg they saw a PA28 join the circuit to their left about 200m away at the same height. As the other aircraft was faster, it passed from their left to ahead and they positioned behind. They levelled off at 1000ft QFE and noticed that the other aircraft was about 200ft below and ahead of them. They then followed the other aircraft by turning right onto downwind leg and transmitted a position report and acknowledged 'Contact one ahead'. They completed one more touch and go and then landed and informed Ops who debriefed the pilot of the PA28, who apologised and acknowledged their incorrect circuit join from deadside.

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

THE PA28 PILOT reports they were completing an overhead join to rejoin the circuit (right-hand) for RW26 at Compton Abbas, their view at the time was that all noise abatement areas were to be avoided. They therefore flew this part of the overhead join approximately 500m upwind of the RW08 threshold at 1800ft QNH. They set the altimeter to the airfield QNH at the time, but no longer have a written note of what this setting was, though thought it to be around 1019hPa. They had been subsequently informed that flying through the noise abatement area above Melbury Abbas is the standard procedure during the latter phase of an overhead join before turning downwind. As they were crossing the extended centreline of the runway, they became aware of a three-axis microlight lifting off from a RW26 departure,

¹ A, C, S reported as fitted by the pilot, but nothing could be seen on the NATS radar replay, possibly due to radar coverage.

[the Nynja] performed a noise abatement turn to approximately 320° and the distance between the Nynja and their aircraft reduced slightly; they would estimate the Nynja to have been around 400m from their own aircraft at the closest point. Since their aircraft was flying faster than the Nynja, the relative position of it to their aircraft moved to the five o'clock position whilst increasing in distance. Once on the downwind leg, they appended "contact one behind" to their downwind call to make it clear that they had seen the Nynja. Later on the downwind leg the other aircraft was no longer in view due to it being in their six o'clock position and there being no rear window on the PA28. At no point did they consider there to be a risk of collision as they had seen the Nynja and were confident of its position and able to see it during the entirety of the alleged conflict; they opined that their aircraft would have been visible through the Nynja's windscreen. Additionally, the difference in airspeed between the PA28 and the Nynja was such that they did not believe any manoeuvring was needed to increase separation. They wondered whether the pilot of the Nynja may have been surprised by the positioning of their aircraft during the overhead join as they would have been used to aircraft crossing the extended centreline closer to the threshold. They were informed by a member of the airfield's operations team after landing that the pilot of the Nynja had requested that the situation be discussed with them and the overhead join procedure at Compton Abbas outlined. After the discussion was had, it was agreed that the matter was closed, therefore they were surprised to learn of the Airprox report eight days later.

The pilot assessed the risk of collision as 'None'.

THE COMPTON ABBAS AGO reports that the Nynja got airborne from RW26. They climbed to circuit altitude (1800ft QNH) having turned right (200ft agl) for noise abatement from the RW26 centreline. [The PA28] was joining circuit from the south on crosswind at circuit altitude (1800ft QNH). [The PA28 pilot] positioned too far west from the 08 threshold numbers whilst joining crosswind.

The AGO perceived the severity of the incident as 'Low'.

Factual Background

The weather at Bournemouth was recorded as follows:

METAR EGHH 201350Z 17006KT 160V220 9999 FEW038 SCT043 20/10 Q1015=

The Compton Abbas entry in the UK AIP states:

EGHA AD 2.21 NOISE ABATEMENT PROCEDURES

a. Departure.

- i. Runway 08 - At end of runway (not before), turn left in order to avoid Hatts Barn Farm.
- ii. Runway 26 - At end of runway (not before), turn right, in order to avoid Compton Abbas village, tracking over the crest of Melbury Hill.

EGHA AD 2.22 FLIGHT PROCEDURES

a. Circuit directions: Runway 26 - RH; Runway 08 - LH.

- b. All traffic to join overhead or dead-side descending to 1800 FT QNH to cross the upwind runway numbers. All circuits to the north. Circuit altitude 1800 FT QNH. QFE available on request.

At Figure 1 is the diagram to illustrate overhead joins as published on the Compton Abbas website. Additionally, further information is given in the form of a newsletter:

There have been observations (from airfield management and others) that Circuits and rejoin procedures are not being executed properly. This is particularly evident with incorrect Overhead joins being flown. Some pilots are flying the aerodrome noise abatement departure procedure, after reaching the Overhead Crosswind position. This is not correct. The correct action is to fly a crosswind leg at 90 degrees to the upwind end of the Runway.



Figure 1 – Overhead join at Compton Abbas

Analysis and Investigation

UKAB Secretariat

An analysis of the NATS radar replay was undertaken. The PA28 could be identified using Mode S data and could be seen approaching the overhead at 1415. The Nynja could not be seen on the radar replay at all, however, the pilot supplied GPS data. By 1417:27 the PA28 could be seen joining in the overhead, however, it faded from radar on the next radar sweep. Therefore the exact separation could not be ascertained and the diagram at the top of the report was compiled using a mixture of radar, GPS data and pilots' reports.



Figure 2 – 1415:39

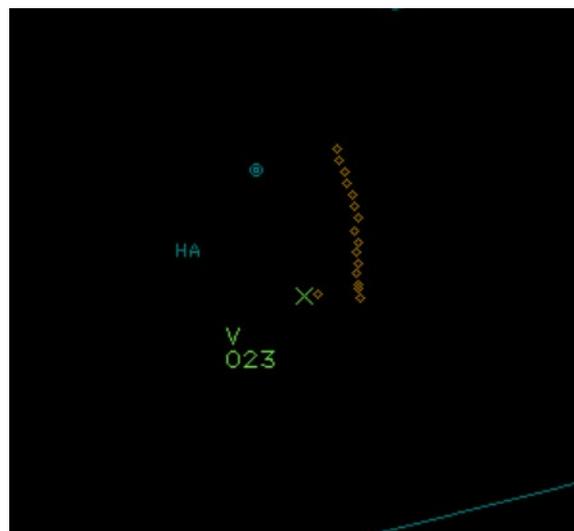


Figure 3 – 1417:27 (Last radar contact.)

The Skyranger Nynja 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

Summary

An Airprox was reported when a Skyranger Nynja and a PA28 flew into proximity at Compton Abbas at around 1419Z on Thursday 20th July 2023. Both pilots were operating under VFR in VMC, both were in receipt of an AGCS from Compton Abbas.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs, GPS track data and a report from the AGO. 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 the actions of the Nynja pilot. They had been flying in the visual circuit at Compton Abbas and had not expected to see the PA28 appear in front of them when climbing to crosswind (**CF4**). The pilot reported having received an alert from their CWS (**CF5**), which may have warned them about the impending situation, nevertheless, members commended the Nynja pilot for having sighted the PA28 as it crossed ahead of them and noted that incidents such as this highlighted the need to be vigilant and maintain a good lookout when in the visual circuit, particularly when operating at a unit with an AGO, who is not required to sequence aircraft in the circuit.

Turning to the actions of the PA28 pilot, members noted that the instructions for joining the visual circuit at Compton Abbas were very clear on the airfield website and in the UK AIP, and they thought that the PA28 pilot perhaps should have better planned their approach into the airfield prior to getting airborne (**CF3**). By not following the airfield join procedure, the PA28 pilot had become unpredictable to other pilots already in the circuit (**CF1**). The Board agreed that, as the joining aircraft, it had been for the PA28 pilot to conform with, or avoid, the circuit traffic, in this case the Nynja turning crosswind, and aside from whether the pilot had flown the incorrect joining procedure for noise abatement or not, they had still been required to integrate with it (**CF2**). This led to a general discussion on the overhead join, an example of which was illustrated in the Skyway Code, but GA members noted with consternation that they repeatedly saw examples of Airprox where pilots simply joined through the overhead in one long continuous process, rather than taking time to orbit in the overhead to assess, and then fit in with, the circuit traffic. Members discussed what could be done to highlight this issue, and the Chair undertook to write a letter to the CAA outlining the Board's concerns.

When determining the risk of the Airprox, because the incident took place beneath radar coverage, members had only the reports from both pilots to aid their assessment. They noted that although the Nynja pilot had been concerned by the proximity of the PA28 (**CF6**), the PA28 had been faster and the pilot visual with the Nynja, therefore members agreed that there had been no risk of collision. Some members thought that the separation had been such that normal safety parameters pertained, but others countered that because the PA28 pilot had not flown the correct joining procedure, safety had been degraded. The latter view prevailed; Risk Category C.

² UK Reg (EU) SERA.3205 Proximity.

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

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK**Contributory Factors:**

	2023162			
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
Flight Elements				
• Regulations, Processes, Procedures and Compliance				
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
• Tactical Planning and Execution				
2	Human Factors	• Action Performed Incorrectly	Events involving flight crew performing the selected action incorrectly	Incorrect or ineffective execution
3	Human Factors	• Pre-flight briefing and flight preparation	An event involving incorrect, poor or insufficient pre-flight briefing	
• Situational Awareness of the Conflicting Aircraft and Action				
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
• Electronic Warning System Operation and Compliance				
5	Contextual	• Other warning system operation	An event involving a genuine warning from an airborne system other than TCAS.	
• See and Avoid				
6	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 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 **not used** because the AGO was not required to sequence aircraft in the circuit.

Flight Elements:

Regulations, Processes, Procedures and Compliance were assessed as **partially effective** because the PA28 pilot had not adhered to the Compton Abbas overhead join procedure.

Tactical Planning and Execution was assessed as **partially effective** because the PA28 pilot had not followed the joining procedure correctly.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **partially effective** because the PA28 pilot had positioned in such a way that the Nynja pilot had not been expecting to see it in that part of the circuit.

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: 2023162		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							