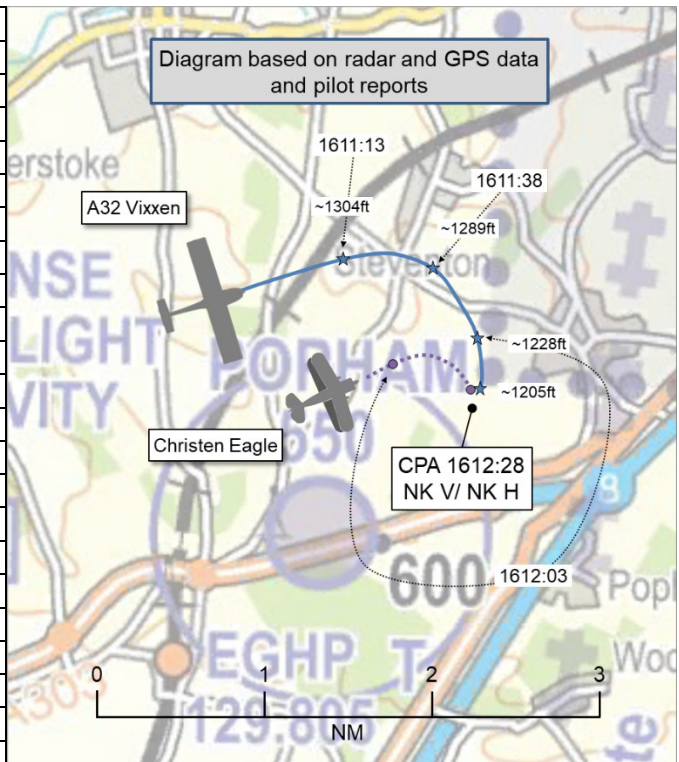


AIRPROX REPORT No 2023016

Date: 10 Feb 2023 Time: 1612Z Position: 5112N 00113W Location: 1.5NM NW Popham

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	A32 Vixxen	Christen Eagle
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	AGCS	None
Provider	Popham Radio	N/A
Altitude/FL	~1250ft	NK
Transponder	A, C, S	"Standby"
Reported		
Colours	Yellow	White
Lighting	Strobes, landing	None
Conditions	VMC	VMC
Visibility	5-10km	5-10km
Altitude/FL	500ft	800ft
Altimeter	QFE (NK hPa)	QFE (NR hPa)
Heading	260°	260°
Speed	45kt	90kt
ACAS/TAS	Not fitted	Not fitted
Separation at CPA		
Reported	100ft V/100ft H	NK V/NK H
Recorded	NK V/NK H	



THE A32 VIXXEN PILOT reports that they had approached Popham airfield from a westerly direction. Approximately 4NM from Popham airfield, they contacted the radio-tower on 129.805MHz and this was acknowledged. Shortly after, they heard the pilot of an [uninvolved] aircraft call 'long final' so they decided to make their position within the circuit known at all times. [The A32 Vixxen pilot] called crosswind, downwind, base-leg and final. All calls were acknowledged by the Popham Radio [operator]. The traffic on long-final landed and vacated the runway as the [A32 Vixxen pilot] was on the base-leg. After turning final, and whilst descending, a Christen Eagle [callsign redacted] passed in front of them at high speed from right-to-left. They immediately informed the radio-tower who tried to make radio contact [with the Christen Eagle pilot] but had no response. The Christen Eagle pilot then made a right turn and landed on RW26. [The A32 Vixxen pilot] landed shortly after and followed the Christen Eagle to the fuel pumps and asked who the pilot in command had been. [The Christen Eagle pilot] informed them that it had been them. [The A32 Vixxen pilot] said 'you nearly killed us both, did you not hear my radio calls?'. [The Christen Eagle pilot reportedly] said that 'their radio was not working and that they had informed the radio-tower who were going to warn other traffic'. [The A32 Vixxen pilot] went to the radio-tower and spoke to the operator who, [reportedly], said that no such information had been given to them.

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

THE CHRISTEN EAGLE PILOT reports that they had not seen the other aircraft and the first they knew about the event was [when they were approached] at the fuel pump, filling up after landing.

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

THE POPHAM AIR/GROUND RADIO OPERATOR reports that, prior to the incident, [the pilot of the Christen Eagle] had departed without making any radio call. The AGC operator made several calls to [the Christen Eagle pilot] whilst the aircraft was taxiing to the threshold of RW26, and again after they had departed. None of these calls were acknowledged.

[The Popham Air/Ground Radio operator was asked by the UKAB Secretariat to confirm if permission had been given for the pilot of the Christen Eagle to operate at Popham without a radio. They replied that:] No permission was given for [the Christen Eagle pilot] to operate non-radio from Popham on the day in question. There is no understanding between Popham and the pilot [of the Christen Eagle] to operate non-radio from Popham. The [Christen Eagle] pilot did not operate in accordance with the non-radio procedures set out on the Popham Aerodrome website.

Factual Background

The weather at Odiham was recorded as follows:

METAR EGVO 101620Z AUTO 24007KT 9999 BKN020/// BKN028/// 08/04 Q1036

The Popham Airfield website provides the following procedure for pilots:

Joining and Landing

No non-radio aircraft is to operate into or out of Popham without the prior permission of AGCS and must at all times conform to strict non-radio procedures.

Analysis and Investigation

UKAB Secretariat

An analysis of the NATS radar replay was undertaken and the A32 Vixxen could be positively identified from Mode S data. The Christen Eagle was observed on radar by sporadic, primary-only returns and identified according to the pilot narratives. The exact position and altitude of the Christen Eagle could not be determined (see Figure 1).

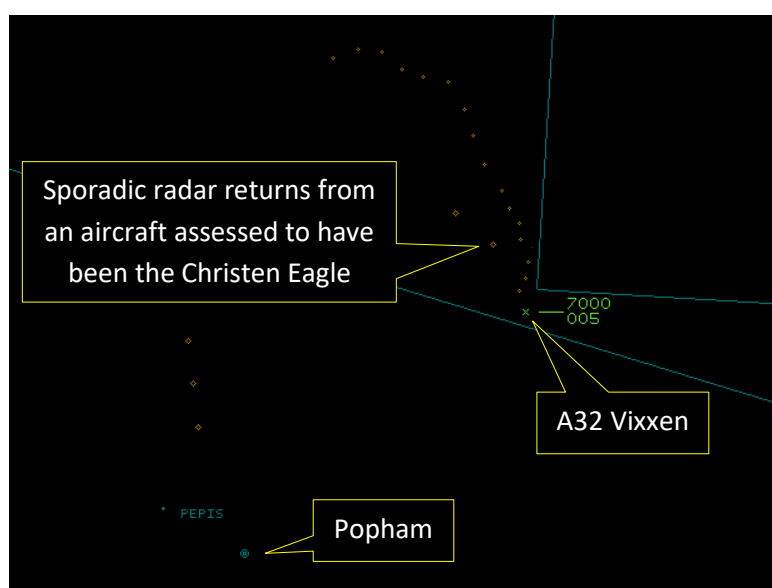


Figure 1 – CPA at 1612:28

The pilot of the A32 Vixxen kindly supplied GPS track data of their flight. It is by combining the radar and GPS data, and an integration of the pilot narratives, that the diagram was constructed. The track of the Christen Eagle is shown as an approximation of the actual track which could not be verified. The separation at CPA could not be determined.

The A32 Vixxen and Christen Eagle 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

¹ (UK) SERA.3205 Proximity.

aircraft in operation.² When an aircraft carries a serviceable SSR transponder, the pilot shall operate the transponder at all times during flight, regardless of whether the aircraft is within or outside airspace where SSR is used for ATS purposes.³

Summary

An Airprox was reported when an A32 Vixxen and a Christen Eagle flew into proximity 1.5NM northwest of Popham at 1612Z on Friday 10th February 2023. Both pilots were operating under VFR in VMC, the A32 Vixxen pilot in receipt of an AGCS from Popham Radio and the Christen Eagle pilot not 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 and a report from the Air/Ground Radio operator involved. 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 pilot of the A32 Vixxen. Members noted that, upon hearing that there had been an aircraft approaching the airfield on a 'long final', the A32 Vixxen pilot had decided to make a position call on each leg of their circuit. This, members agreed, had been a prudent decision, and would have been advisable in any case, for the benefit of the situational awareness of all pilots on the Popham Radio frequency and for the Popham Air/Ground Radio operator. Members noted that the Popham Air/Ground Radio operator had made several calls to the pilot of the Christen Eagle, albeit that they had been unanswered, and it was agreed that these calls would not have enabled the A32 Vixxen pilot to have built situational awareness of the Christen Eagle as its position had not been established. Moreover, it was further agreed that the pilot of the A32 Vixxen had not been aware that the Christen Eagle pilot had been flying in the circuit and, consequently, had had no situational awareness that the Christen Eagle pilot had been behind them and about to overtake (**CF5**). It was therefore appreciated that there had been a considerable startle-factor to have seen an aircraft 'cut in front' whilst they had been turning for final. Members noted that the immediate reaction of the pilot of the A32 Vixxen on sighting the Christen Eagle had been to transmit a call to the Popham Air/Ground Radio operator and, therefore, members concluded that if time had allowed for such a call, that emergency avoiding action had not been necessary. Members were in agreement that to have visually acquired the Christen Eagle at the moment of CPA effectively constituted a non-sighting (**CF6**).

Members next turned their attention to the actions of the Popham Air/Ground Radio operator. It was noted that they had attempted to call the pilot of the Christen Eagle on the radio as they had taxied to the runway and had subsequently departed. Members agreed that, given that the Popham Air/Ground Radio operator had made those calls, this indicated that that there had not been any prior communication from the pilot of the Christen Eagle relaying their intention to have departed without a working radio, nor that they had sought permission to have done so.

Turning their attention to the actions of the pilot of the Christen Eagle, members noted that the 'Joining and Landing' section of the Popham Airfield website specifies that no non-radio aircraft is to operate into or out of Popham without the prior permission of AGCS. Members were satisfied that the pilot of the Christen Eagle had not sought permission from the Popham Air/Ground Radio operator in advance of their departure from Popham and had therefore not complied with the airfield procedures (**CF1, CF2**). Noting that the pilot of the Christen Eagle had reported that they had set the transponder fitted to the Christen Eagle to 'standby', members were puzzled why the pilot had not elected to turn the transponder on. Members were in agreement that to have departed without an operating transponder had reduced their electronic conspicuity and had therefore weakened the potential situational awareness that other pilots may have gathered from their EC equipment being able to detect the presence of the Christen Eagle. Notwithstanding, members acknowledged that, in the specific circumstances of this Airprox, neither aircraft had been fitted with an additional EC device and therefore neither pilot could have been

² (UK) SERA.3225 Operation on and in the Vicinity of an Aerodrome.

³ (UK) SERA.13001. Operation of an SSR transponder.

alerted to the presence of the other. Members agreed that in having operated 'non-radio', the pilot of the Christen Eagle had not gleaned any situational awareness of the presence of the A32 Vixxen (**CF5**). In further consideration of the aforementioned, specifically that the pilot of the Christen Eagle had not operated in accordance with the airfield procedure, that they had not turned their transponder on and that they had not had a working radio, it appeared to members that the pilot of the Christen Eagle had not been adequately prepared for their flight. Members were very keen to emphasise that, given these conditions, and that the Christen Eagle is a relatively high performance aircraft, a very keen lookout had been necessary to acquire and to remain in visual contact with other pilots operating in the circuit. However, members noted that the pilot of the Christen Eagle had not been aware of, nor had they seen, the A32 Vixxen during the entire encounter (**CF6**). Members agreed the pilot of the Christen Eagle had neither conformed with, nor had avoided, the existing pattern of traffic in the circuit (**CF3, CF4**).

In determination of risk, members were in agreement that neither pilot had been aware of the other in the circuit and that it had been largely through the non-sighting of the A32 Vixxen by the Christen Eagle pilot that safety had been reduced much below the norm. There had been a risk of collision and it had been principally through chance that the separation had not been less. Consequently, the Board assigned Risk Category B to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

2023016				
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	• Accuracy of Communication	Events involving flight crew using inaccurate communication - wrong or incomplete information provided	Ineffective communication of intentions
3	Human Factors	• Action Performed Incorrectly	Events involving flight crew performing the selected action incorrectly	Incorrect or ineffective execution
4	Human Factors	• Monitoring of Environment	Events involving flight crew not to appropriately monitoring the environment	Did not avoid/conform with the pattern of traffic already formed
• Situational Awareness of the Conflicting Aircraft and Action				
5	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				
6	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
• Outcome Events				
7	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: B

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:

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

Ground Elements:

Situational Awareness of the Confliction and Action were assessed as **not used** because the Popham Air/Ground Radio operator had not been required to have monitored the flight.

Flight Elements:

Regulations, Processes, Procedures and Compliance were assessed as **ineffective** because the pilot of the Christen Eagle had operated at Popham without their aircraft having a working radio and had not had permission to have done so.

Tactical Planning and Execution was assessed as **ineffective** because the pilot of the Christen Eagle had not conformed with nor avoided the existing pattern of traffic in the circuit.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither pilot had situational awareness of the presence of the other.

See and Avoid were assessed as **ineffective** because neither pilot had sighted the other before CPA.

