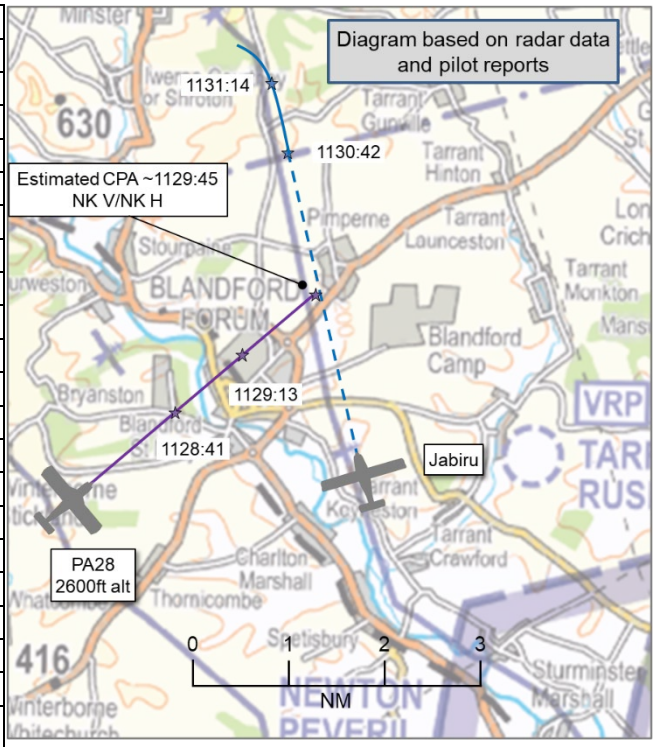
AIRPROX REPORT No 2024187

Date: 02 Aug 2024 Time: ~1130Z Position: 5052N 00207W Location: Pimperne, Dorset

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Jabiru	PA28
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Changing frequency	Basic
Provider	Compton Abbas	London Information
Altitude/FL	NK	2600ft
Transponder	A, S[1]	A, C, S
Reported		
Colours	White	White and blue
Lighting	Nil	Navigation, bcn
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	NK	2000ft
Altimeter	QNH (1015hPa)	RPS (1009hPa)
Heading	360°	050°
Speed	110kt	110kt
ACAS/TAS	Not fitted	Not fitted
Separation at CPA		
Reported	'A few feet' V / 'A few feet' H	200ft V/0.5NM H
Recorded	Unknown	



THE JABIRU PILOT reports that they had been on a flight from [departure airfield] to [destination airfield] and advised Bournemouth that they would be tracking along the coast to Wareham and then due north to Compton Abbas. They had been given a Basic Service and, once clear of their zone, they had signed off and switched to the Compton Abbas frequency. Shortly after this they had seen a white flash in their (pilot's) side rear window and, upon looking through the starboard side windows, witnessed either a Piper single engine Cherokee or Warrior type appear just below them on an easterly track towards Bournemouth. The Jabiru pilot reports that they cannot stress how close they had been to that aircraft, definitely only feet separation. They had no prior knowledge of this aircraft and were totally amazed that, considering their flight track and the fact that this aircraft had been flying at right angles to them, they were totally oblivious to their presence. In 20 years as a GA pilot they [believe that] they have never experienced such a close encounter […].

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

THE PA28 PILOT reports that they had been the pilot-in-command of a PA28 on a VFR NAVEX from [departure airfield] to [destination airfield]. [Approximately] 5NM northeast of Blandford Forum they had been flying at 2000ft AMSL and had spotted another aircraft in the 2 o'clock at approximately 1NM, similar height and constant bearing. The PA28 pilot initiated a descent for deconfliction and passed approximately 200ft below the other aircraft. They had been talking to London Information and in receipt of a Basic Service.

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

[1] 1st Mode A/S radar response showed at estimated CPA +57sec

THE LONDON INFORMATION FISO reports that they had subsequently been made aware of an Airprox but [it had] not been reported by the pilot at the time of the event. They have no information to add other than timings and route as stated.

Factual Background

The weather at Bournemouth Airport was recorded as follows:

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METAR EGHH 021120Z 26005KT 220V320 CAVOK 24/14 Q1013=
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Analysis and Investigation

NATS Safety Investigation

The pilot of the PA28 had called onto the London FIS frequency at 1106:08, requesting a Basic Service. The pilot had been advised, "*standby, you're number two*." At 1108:10, the pilot had been asked to provide their details and had reported that they were, "*a PA twenty eight with two on board out of* […] *for* […], *currently eight miles east of Dunkeswell for a navex via Bridport, Dorchester, back to* […]. *We're at two thousand feet, one zero one two, requesting a Basic Service*". The pilot had been issued squawk 1177 by the London FISO and advised they were under a Basic Service. The pilot requested the Regional Pressure Setting and had been advised that the Portland Pressure Setting had been 1009hPa.

The next transmission received from the pilot of PA28 had been at 1122:36 when the London FISO advised the pilot, "*be advised that Old Sarum is active with parachuting*." The pilot had responded that they had copied the information and, "*we've turned northeast now, Blandford Forum then back to* […]." The pilot of the PA28 advised the London FISO at 1140:39 that they were changing frequency to Middle Wallop which had been acknowledged by the FISO. There had been no other communication recorded relating to the PA28.

The UK Airprox Board contacted Safety Investigations on 14th August 2024 regarding an Airprox between a PA28 and a Jabiru at 1125. Radar data displayed both aircraft (the PA28 displayed as 'FIS' and the Jabiru squawking 7377) at 1121:46. However, the PA28 had moved outside radar coverage at 1121:47 with the Jabiru moving outside radar coverage at 1121:55. A Basic Service had been provided to the pilot of the PA28.

Conclusions

The Airprox occurred when a PA28 and a Jabiru, operating in Class G airspace, came into confliction. The PA28 had been in receipt of a Basic Service from London FIS. An Airprox report had subsequently been submitted relating to the confliction.

The Closest Point of Approach was unable to be determined as the confliction occurred outside radar coverage. The pilot of the PA28 reported passing approximately 200ft below the Jabiru.

UKAB Secretariat

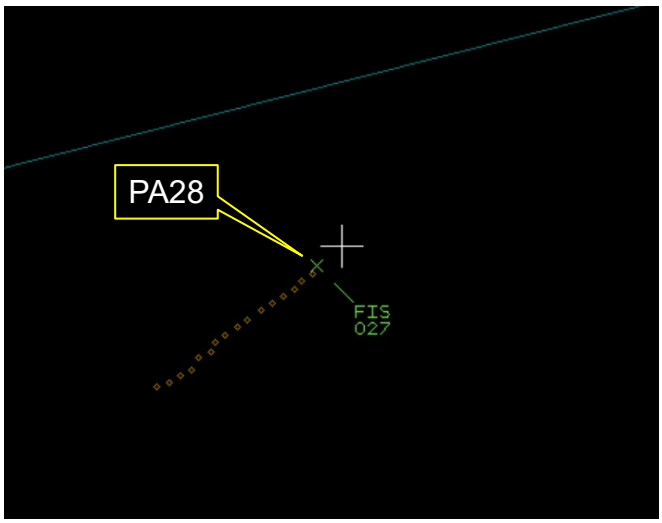


Figure 1: At estimated CPA: ~1129:45. The white cross represents the reported position of the Airprox

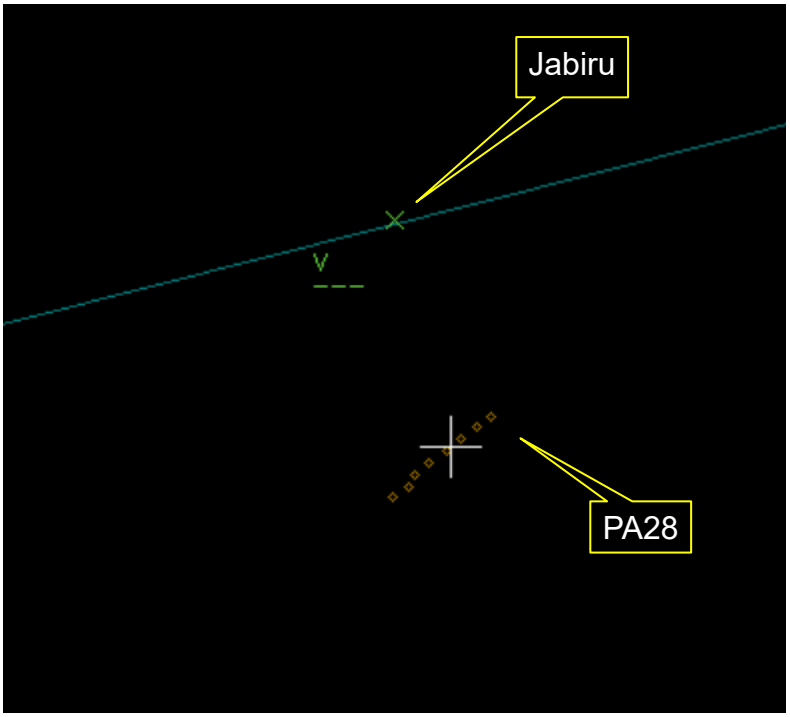


Figure 2: Pictured at 1130:42 – the PA28 ceased to show as a secondary contact at 1130:13 and the Jabiru appeared as a Mode A,S contact at 1130:42 (both events after estimated CPA of ~1129:45). The white cross represents the reported position of the Airprox.

In reference to the PA28 pilot's reported sighting of a second aircraft on which they took avoiding action, on following the flightpath of the PA28 beyond the reported Airprox, for a distance of approximately 10NM, no other aircraft are displayed either on radar or other aircraft tracking tools available. It is therefore assessed that the PA28 pilot's narrative relates to their sighting of the Jabiru.

The Jabiru 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] If the incident geometry is considered as converging then the PA28 pilot was required to give way to the Jabiru.[3]

Summary

[2] (UK) SERA.3205 Proximity.
[3] (UK) SERA.3210 Right-of-way (c)(2) Converging.

An Airprox was reported when a Jabiru and a PA28 flew into proximity at Pimperne at approximately 1130Z on Friday 2nd August 2024. Both pilots were operating under VFR in VMC, the Jabiru pilot had not been in receipt of an Air Traffic Service and the PA28 pilot had been in receipt of a Basic Service from London Information.

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 FISO 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 firstly considered the actions of the Jabiru pilot, noting the nature of their flight and that they had been in receipt of an Air Traffic Service from Bournemouth immediately prior to the reported event and had been in the process of switching frequency to that required by their destination airfield. The Jabiru pilot had utilised their transponder but it had unfortunately not appeared on radar replays until after the assessed CPA. As the pilot had no GPS files available, it had meant that the actual separation at CPA could not be calculated. The Jabiru pilot reports sighting the PA28 only at the point of CPA, which the Board deemed to have been effectively a non-sighting (**CF5**).

Members went on to review the actions of the PA28 pilot, noting that they had operated with an active transponder and had been in receipt of a Basic Service from London Information, although they had not reported having received any Traffic Information regarding the Jabiru. Members felt that the PA28 pilot might have considered utilising an Air Traffic Service provider closer to their area of operation; in this case Bournemouth may well have been better placed to have provided Traffic Information, particularly as the Jabiru had just passed through their area (**CF2**). Fortunately, the PA28 pilot had gained visual acquisition of the Jabiru at a range of approximately 1NM, commenting that it had been at a similar height and on a constant relative bearing; members felt this had been a late sighting (**CF4**) and but had been timely enough for the PA28 pilot to have initiated avoiding action.

Members expressed disappointment that neither aircraft had been equipped with electronic conspicuity equipment and wished to stress the advantages that can be gained by doing so. In this case, one of the key barriers to mid-air collision in Class G airspace had not been present because of the lack of compatible EC equipment.

In considering the contribution by the London FISO, members noted that the PA28 pilot had been in receipt of a Basic Service and had moved outside radar coverage approximately 8min before CPA (although members also noted that the London FISO does not have any form of surveillance equipment at their disposal). Notwithstanding, , the Board recognised that under such a service the FISO is not required to monitor the flight (**CF1**).

Concluding their discussion, members agreed that neither pilots had had any situational awareness of the presence of the other aircraft (**CF3**). The pilot of the Jabiru had not sighted the PA28 and the pilot of the PA28 had achieved only a late sighting of the Jabiru. Members agreed that the separation between the PA28 and Jabiru had been such that the safety of the aircraft had not been assured and that there had been a risk of collision (**CF6**). The Board assigned Risk Category B to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2024187			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Ground Elements			
	• Situational Awareness and Action			
1	Contextual	• ANS Flight Information Provision	Provision of ANS flight information	The ATCO/FISO was not required to monitor the flight under a Basic Service

	Flight Elements			
	• Tactical Planning and Execution			
2	Human Factors	• Communications by Flight Crew with ANS	An event related to the communications between the flight crew and the air navigation service.	Pilot did not request appropriate ATS service or communicate with appropriate provider
	• Situational Awareness of the Conflicting Aircraft and Action			
3	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			
4	Human Factors	• Identification/ Recognition	Events involving flight crew not fully identifying or recognising the reality of a situation	Late sighting by one or both pilots
5	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			
6	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 Assessment[4]

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 London FISO is not required to monitor the flight under a Basic Service.

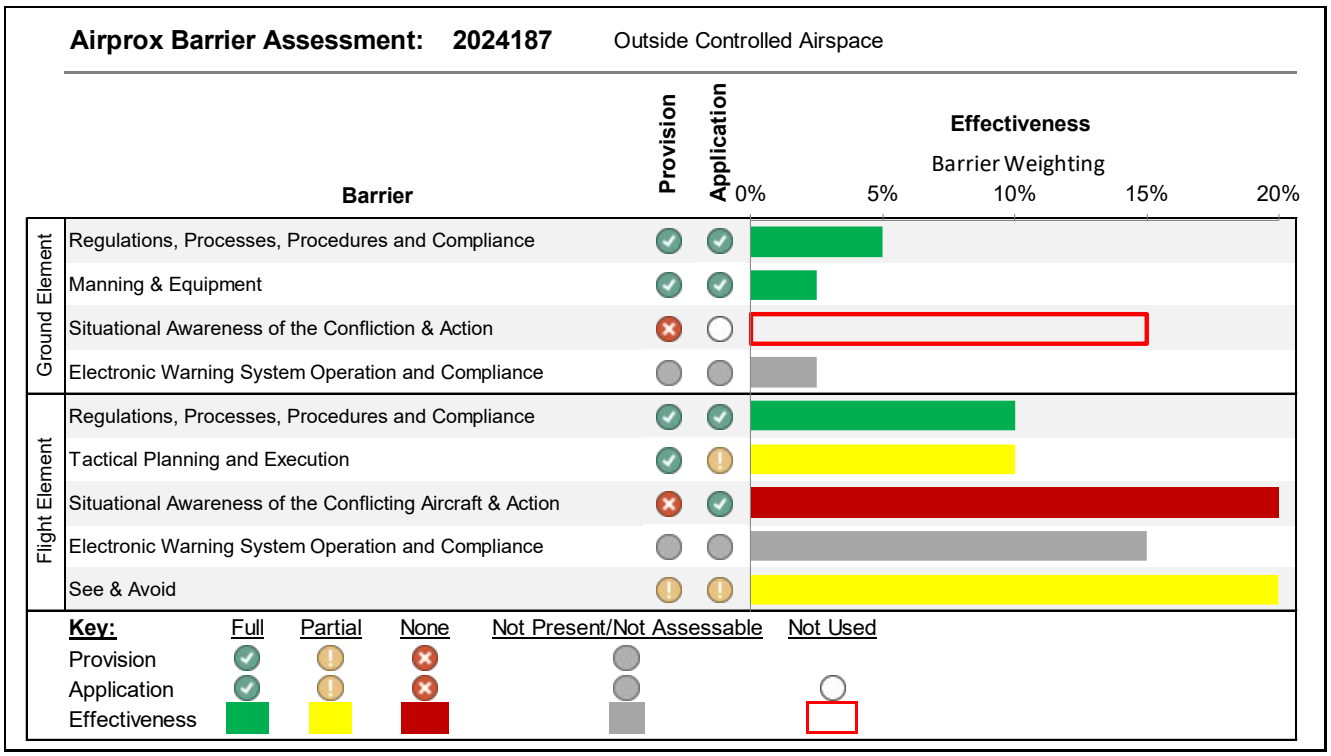
Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because the PA28 pilot could have considered calling Bournemouth for a FIS.

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

See and Avoid were assessed as **partially effective** because the Jabiru pilot had only sighted the PA28 at or around CPA, and the PA28 pilot had achieved only a late-sighting of the Jabiru.

[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: 2024187
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 Assessable
Not Used
Provision
Application
Effectiveness