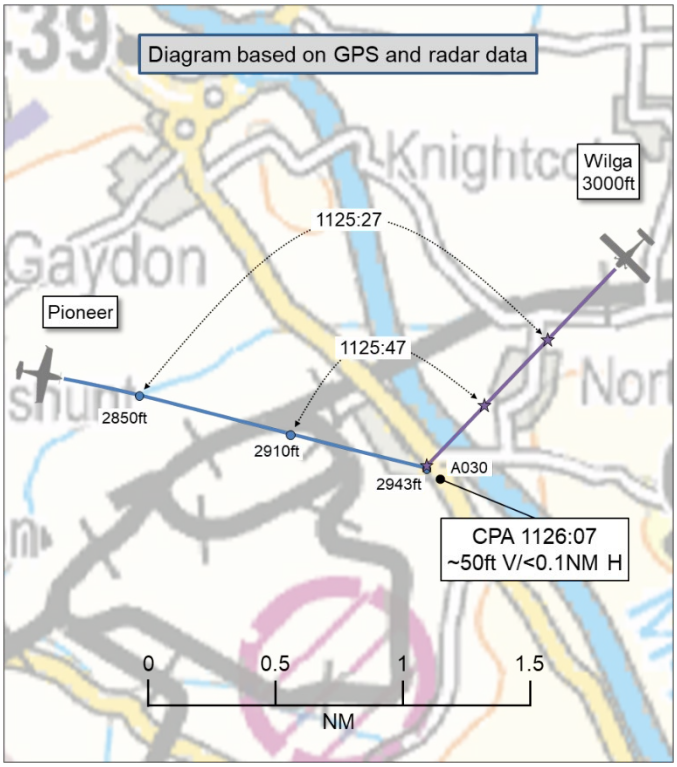
AIRPROX REPORT No 2025117

Date: 21 Jun 2025 Time: 1126Z Position: 5210N 00126W Location: 6.5NM NNW Banbury

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Pioneer	Wilga
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	None
Altitude/FL	2943ft	3000ft
Transponder	None[1]	A, C, S
Reported		
Colours	Silver, purple	Red, white
Lighting	Nav, strobes	Beacon, strobes
Conditions	VMC	VMC
Visibility	5-10km	>10km
Altitude/FL	2800ft	2500ft
Altimeter	QNH (1017hPa)	QNH
Heading	090°	224°
Speed	100kt	65kt
ACAS/TAS	Not fitted	SkyEcho
Alert	N/A	None
Separation at CPA		
Reported	100ft V/0m H	500ft V/0.25NM H
Recorded	~50ft V/<0.1NM H	



THE PIONEER PILOT reports that, nearing the top of their climb to 3000ft from [their take-off airfield], they became aware of the other aircraft in their 10 o'clock high position, heading roughly south. [The pilot of the Pioneer reported that they had first sighted the aircraft at a range of 400m]. Although it was very close, they quickly assessed that it would pass above them and that no avoiding action was needed. The other aircraft passed directly over them. Even though they had an ADS-B-out transponder, it may not have been transmitting at that time as, later in the flight, they noticed it was on standby.

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

THE WILGA PILOT reports that they were flying to [their destination] at 2500ft QNH when an aircraft was located less than 1NM to their right (approximately on a bearing of 90° at first but was changing as the aircraft got closer). The aircraft was approximately 500ft below them and was changing bearing further behind them which ensured that there would be no collision, so their best course of action was to maintain their track and avoid manoeuvring, whilst keeping visual with the other aircraft at all times. The aircraft passed behind and underneath them heading eastbound and continued without making any track adjustments.

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

Factual Background

The weather at Birmingham was recorded as follows:

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METAR EGBB 211120Z 18009KT 9999 FEW042 27/15 Q1017
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[1] The pilot of the Pioneer reported that the Pioneer was fitted with a transponder but it had been selected to 'standby'.

Analysis and Investigation

UKAB Secretariat

An analysis of the NATS radar replay was undertaken and the Wilga could be positively identified from Mode S data. The Wilga was depicted on the replay as having flown at Flight Levels (Figure 1). A suitable correction was used to determine its altitude. The Pioneer was not observed on the radar replay.

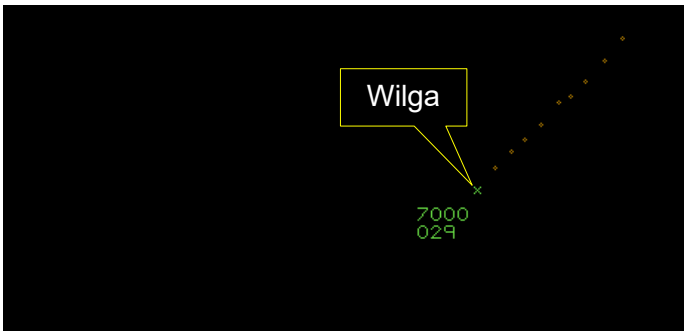

Figure 1 – 1126:10

The pilot of the Pioneer kindly supplied GPS track data for their flight (Figure 2). It was by combining the data sources that the diagram was constructed and the separation at CPA determined.

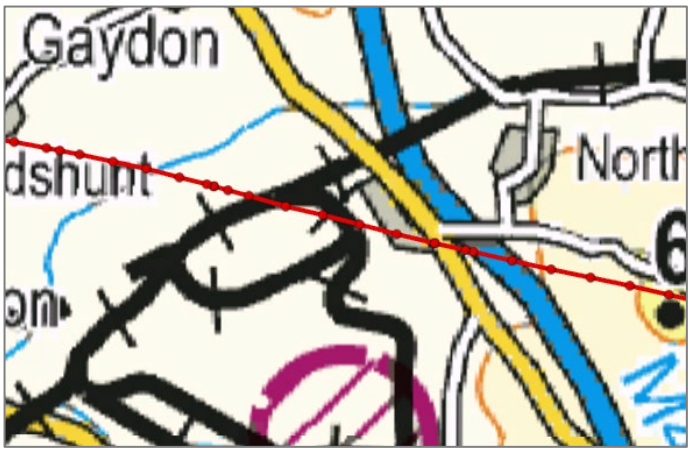

Figure 2 – The track of the Pioneer

The Pioneer and Wilga 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 Wilga pilot was required to give way to the Pioneer.[3] 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.[4]

Summary

An Airprox was reported when a Pioneer and a Wilga flew into proximity 6.5NM north-northwest of Banbury at 1126Z on Saturday 21st June 2025. Both pilots had been operating under VFR in VMC, neither in receipt of an ATS.

[2] (UK) SERA.3205 Proximity.
[3] (UK) SERA.3210 Right-of-way (c)(2) Converging.
[4] (UK) SERA.13001 Operation of an SSR transponder (a)

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings and GPS track data for the flight of the Pioneer. 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 noted that neither pilot had been in receipt of an ATS at the time of the Airprox. Members agreed that it may have been prudent for both pilots to have sought the highest level of surveillance-based service available (**CF2**) and noted that Brize Norton had been the nearest LARS provider at their location. It was suggested that, had they been in receipt of an ATS, the pilots may have gathered an awareness of the traffic situation along their respective routes.

Members next considered the actions of the pilot of the Pioneer and noted that their aircraft had not been fitted with an additional EC device. Members were keen to emphasise that, with a reduced number of safety barriers in place, it had been imperative that they maintained a very thorough and effective lookout. Members strongly encouraged the use of EC equipment and pointed out that, had a suitable device been fitted, it may have provided a timely alert to the presence of the Wilga. However, members agreed that the pilot of the Pioneer had not had situational awareness of the Wilga until it had been visually acquired (**CF5**). It was noted that the Pioneer pilot had reported that they had sighted the Wilga at a range of 400m and members calculated that that had provided a little over 5sec in which to assess the situation and determine the safest course of action. Members were in agreement that the Wilga had been sighted late (**CF7**) but noted that the perceived risk of collision provided by the Pioneer pilot had been 'Low' despite a recorded vertical separation of approximately 50ft.

Turning to the matter of their transponder, members agreed that the pilot of the Pioneer had not complied with the regulation concerning its use (**CF1**) and agreed that, from the perspective of their flight planning and execution, they had not operated the transponder correctly (**CF4**). Consequently, members agreed that that had denied an opportunity for the electronic conspicuity safety barrier to have been effective in this encounter. It was noted that returns from the transponder were observed on the radar replay 15min after CPA and an ADS-B-out signal was also detected.

Members next considered the actions of the pilot of the Wilga. It was agreed that the EC device fitted to the Wilga would not have been expected to have detected the presence of the Pioneer as there had been no ADS-B emissions from the Pioneer at the time of the Airprox (**CF6**). Members agreed that the pilot of the Wilga had not had situational awareness of the presence of the Pioneer until it had been sighted at a reported range of 1NM to their right (**CF5**). Some members suggested that the Wilga pilot may not have continued to have monitored the flight of the Pioneer adequately and may not have appreciated that it had been climbing towards them. Indeed, members noted that the Wilga pilot had reported that the separation had been 500ft vertically and 0.25NM horizontally at the closest point of approach. Members were in agreement that the pilot of the Wilga had not adapted their dynamic plan sufficiently to have met the needs of the situation (**CF3**), particularly as the Pioneer had been converging from their right and they had been required to give way. In further consideration of the disparity between the reported and the recorded separation, members agreed that the Wilga pilot had not fully appreciated the risk of maintaining their track, nor their decision to 'avoid manoeuvring' as they had described (**CF8**).

Concluding their discussion, members noted that several safety barriers had either been ineffective or had not been engaged during this encounter. Whilst neither pilot had appeared to have described the encounter as alarming, members agreed that safety margins had been reduced. The Board was satisfied that there had not been a risk of collision and assigned Risk Category C to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2025117			
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	• 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
3	Human Factors	• Insufficient Decision/Plan	Events involving flight crew not making a sufficiently detailed decision or plan to meet the needs of the situation	Inadequate plan adaption
4	Human Factors	• Transponder Selection and Usage	An event involving the selection and usage of transponders	
	• 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
	• Electronic Warning System Operation and Compliance			
6	Technical	• ACAS/TCAS System Failure	An event involving the system which provides information to determine aircraft position and is primarily independent of ground installations	Incompatible CWS equipment
	• See and Avoid			
7	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
8	Human Factors	• Lack of Individual Risk Perception	Events involving flight crew not fully appreciating the risk of a particular course of action	Pilot flew close enough to cause concern

Degree of Risk: C.

Safety Barrier Assessment[5]

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 **partially effective** because the pilot of the Pioneer had not complied with the regulation concerning the use of their transponder.

Tactical Planning and Execution was assessed as **ineffective** because the pilot of the Wilga had not adapted their dynamic plan sufficiently to have met the needs of the situation.

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

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

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the electronic conspicuity device fitted to the Wilga would not have been expected to have detected the presence of the Pioneer as the transponder fitted to the Pioneer had not been operated.