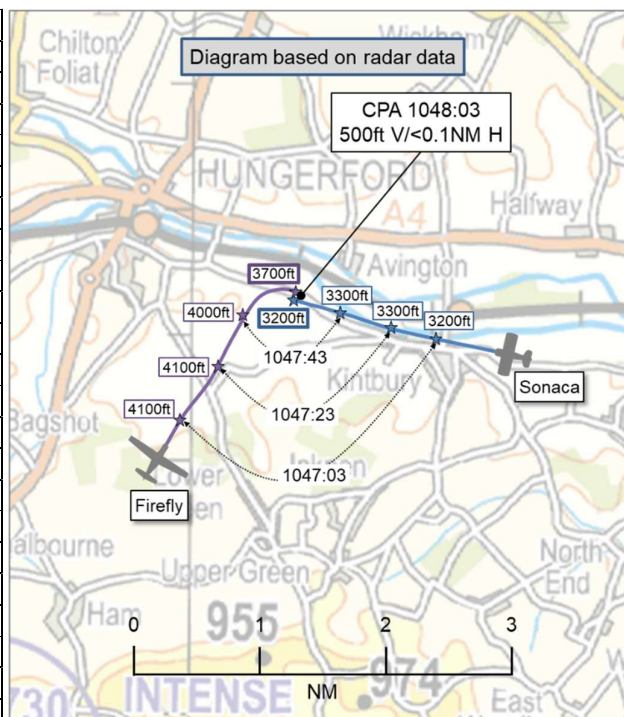


AIRPROX REPORT No 2026018

Date: 10 Mar 2026 Time: 1048Z Position: 5124N 00129W Location: E of Hungerford

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Sonaca	Firefly
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None ¹	Unknown
Provider	N/A	N/A
Altitude	3200ft	3700ft
Transponder	A, C, S	A, C, S
Reported		
Colours	Silver	Yellow
Lighting	Nav, strb, ldg	Ldg, taxi, strb, nav
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	3200ft	NK
Altimeter	QNH (1015hPa)	NK
Heading	260°	NK
Speed	85kt	NK
ACAS/TAS	FLARM/SkyEcho	Not fitted
Alert	None	N/A
	Separation at CPA	
Reported	100ft V/0m H	NK
Recorded	500ft V/<0.1NM H	



THE SONACA PILOT reports that during the flight they came in close proximity to another aircraft. The visibility was 10km or more with a layer of scattered cloud from approximately 2400ft to 2800ft. After their departure, they received a Basic Service from Farnborough Radar on 125.250MHz, which was terminated just before reaching Hungerford at approximately 1046. They were in the process of changing frequency to Brize Radar when the incident occurred. At this time [their student] was flying the aircraft on a heading of 260° at 3200ft and 85kt. At approximately 1047, an aircraft was sighted approximately 300ft above them on a reciprocal heading, which appeared to be flying straight and level. Just prior to the aircraft passing overhead at approximately 1048, the other aircraft inverted and initiated a vertical dive/descent. They immediately took control and initiated a descending left turn to avoid the other aircraft, which appeared to be descending vertically toward them at high speed. [The Sonaca pilot's] descent was maintained at approximately 130kt down to 2000ft, at which point they determined that the other aircraft was no longer a factor and handed back control to [the student] who resumed their planned flight without further incident.

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

THE FIREFLY PILOT reports that they were conducting commercial Upset Prevention and Recovery Training (UPRT) with a trainee airline pilot student. During March 2026 they flew 35 such flights totalling 48.6hrs. The flight was unremarkable as far as they were able to recall. The nature of the training involves spinning, advanced stalling and recoveries from a variety of other extreme attitudes involving frequent changes of heading, altitude and speed. Consequently, lookout is important. The student is also briefed that they have a responsibility in this regard. Other aircraft are often seen and avoided. In the absence of any further information, they were unable to recall any other information about this flight.

¹ The pilot of the Sonaca was changing frequency at the time of the Airprox.

The pilot further reported that they had flown 4 UPRT sorties that day averaging 1.5hr per flight, resulting in 6hr of high intensity flying. They did not recall whether they had spoken to a FIS provider but would typically, on days with good visibility, display the 7000 VFR conspicuity squawk without selecting a FIS, occasionally displaying a 7004 aerobatic squawk when performing high intensity manoeuvres. When the airspace appeared to be busy they would monitor Farnborough West LARS on 125.250MHz and display the monitoring squawk of 4572. If a climb through cloud to reach VMC 'on top' was required, they would obtain a Traffic Service until clear of cloud before reverting to a Basic Service. These practices were adopted to minimise distraction during manoeuvres requiring maximum concentration, particularly during recovery phases, and due to the pilot's concern that they may not be able to respond promptly to a controller at such times.

THE FARNBOUROUGH RADAR CONTROLLER reports that [the Airprox] was reported after the event of which they had no recollection and they had also been informed that the aircraft was not on their frequency.

Factual Background

The weather at Boscombe Down Airfield was recorded as follows:

METAR EGDM 101050Z 22010KT 9999 FEW015 BKN100 09/05 Q1015 NOSIG RMK BLU BLU

Analysis and Investigation

NATS Farnborough

This investigation covers the occurrence reports and description of event. [The Sonaca pilot] had been in receipt of a Basic Service from LARS West [on a squawk of] 0432 just before the reported Airprox occurred. The second aircraft, reported by [the Sonaca pilot] to be [the Firefly], was indicating [a 7000 VFR conspicuity squawk]. In the period prior to [the Sonaca pilot] leaving the frequency, [the pilot of the Sonaca] had been maintaining 3200ft ALT and the aircraft [with the 7000 squawk] had been maintaining between 4100ft and 4300ft ALT.

At 1047:01 the LARS West controller instructed [the Sonaca pilot] to squawk conspicuity and to free call enroute as they were reaching the edge of their radar coverage. [The Sonaca] was on a westerly track at 3200ft ALT and [the aircraft with the 7000 squawk] was in [the Sonaca's] half past 11 [position], range of 2NM, converging on a northerly track indicating 4100ft ALT. Traffic Information was not passed to [the pilot of the Sonaca] as, under the provisions of a Basic Service, it was not required unless a risk of collision was believed to exist.

The controller could not recall the specifics of the event but, when advised of the relative geometries of the aircraft, the periods of sustained level flight and that there was 900ft between the aircraft, they advised they would not have deemed a risk of collision to exist at the time of [the Sonaca pilot] leaving the frequency.

There was a period of label garbling on the radar display as [the Sonaca pilot], now also on a 7000 squawk, and the [pilot of the aircraft with the original 7000 squawk] reported as being [Firefly C/S] continued on their converging tracks.

At 1048:01 the two radar contacts merged. Due to the label garbling, it was not possible to assess closest point of proximity but, as the labels split at 1048:18, [The Sonaca] was indicating 2000ft ALT continuing on a westerly track and the [aircraft with the 7000 squawk] was indicating 3600ft ALT and continuing on a northerly track.

As [the Sonaca pilot] had left the frequency prior to the occurrence, there were no reports of the Airprox on frequency at the time of the event.

The events described were not checked for accuracy against the appropriate radar and/or RTF recordings.

CAA ATSI

On the basis that a Basic Service was being provided to the [Sonaca] pilot, and the observed trajectories and level readouts of both aircraft at the point of transfer indicated that there was no risk of collision, i.e., that the [Firefly] would pass ahead of and above the [Sonaca], ATSI believed it was a reasonable assumption by the controller that no definite hazard existed.

After reviewing the Farnborough investigation and NATS radar, ATSI was satisfied that they had nothing further to add.

UKAB Secretariat

An analysis of the NATS radar replay was undertaken and both aircraft were detected using Mode S data. CPA was assessed to have occurred at 1048:03 with 500ft vertical and less than 0.1NM horizontal separation (Figure 1) although, due to the dynamic nature of the aircraft involved, the altitude readouts displayed are likely to have suffered from a degree of 'lag' and, therefore, the recorded vertical separation may not be accurate. See Figure 2 for the next radar sweep 4sec after CPA.

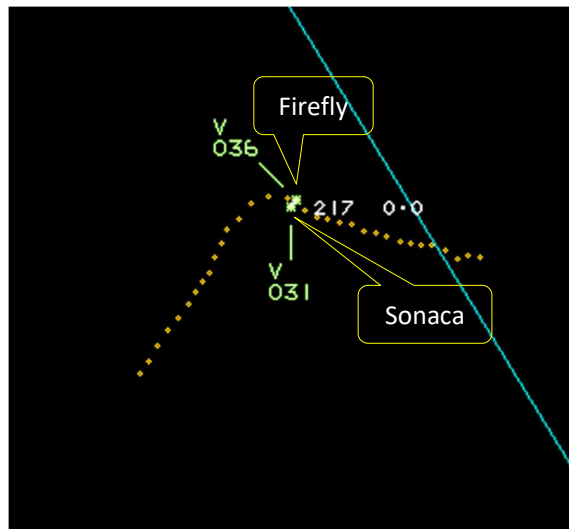


Figure 1 – Time 1048:03 CPA

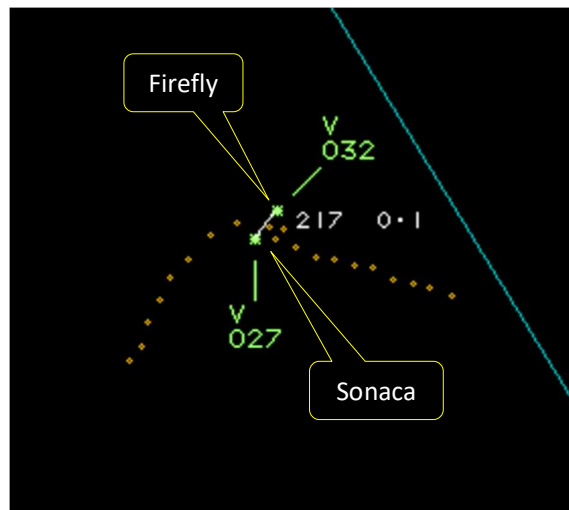


Figure 2 – Time 1048:07 4sec after CPA

Further analysis of third-party aircraft tracking software was undertaken and neither aircraft was detected using ADS-B data.

The Sonaca and Firefly 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 head-on or nearly so then both pilots were required to turn to the right.³

Summary

An Airprox was reported when a Sonaca and a Firefly flew into proximity to the south of Hungerford at 1048Z on Tuesday 10th March 2026. The Sonaca pilot was operating under VFR in VMC and in the process of changing frequencies with no FIS, and the Firefly pilot was operating under VFR in VMC, likely also not in receipt of a FIS.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, a report from the air traffic controller involved and a report from the appropriate operating authority. 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 Firefly pilot, and noted that the pilot had been teaching dynamic manoeuvres and recoveries, which members acknowledged as a highly demanding workload. The Board further discussed the procedures that the pilot had considered prior to their flight, such as the selection of an aerobatic squawk, to indicate to local FIS providers that their aircraft would likely have been performing unpredictable and high energy manoeuvres, or alternatively by requesting a Traffic Service as required and, when able to, react and respond to any Traffic Information passed to them. Members noted, however, that company procedures had only recommended the use of a 7004 aerobatic squawk, which the Firefly pilot had not selected on this occasion, and the Board agreed that it may have been advisable to have done so (**CF3**), given the dynamic nature of the exercises being flown. The Board consequently agreed that the company's transponder procedures had, therefore, not met the needs of the situation (**CF1**) and members were heartened to learn that the 7004 transponder selection has since been mandated for UPRT exercises in company aircraft. The Board then discussed the use of a FIS and agreed that, had the Firefly pilot established a service with Farnborough and informed the controller of their intended activity, this exchange could have assisted them with their own situational awareness regarding the presence of the Sonaca, as well as improving the situational awareness of the controller and the Sonaca pilot with respect to the Firefly's presence (**CF2**). As it was, members agreed that the Firefly pilot had had no situational awareness of the presence of the Sonaca (**CF4**) and had not seen it either (**CF7**).

The Board then discussed the actions of the Sonaca pilot, noting that they had been in receipt of a Basic Service from Farnborough LARS West. Members noted that it had been most unfortunate timing for the Sonaca pilot to have been changing frequency when the Firefly pilot had initiated a high vertical descent rate above them, and members familiar with the area of the Airprox noted that the frequency change would typically happen at that geographical point when receiving a FIS from Farnborough West, due to radar coverage and as a convenient handover area to Brize. The Board agreed that, had the Sonaca pilot remained in receipt of a FIS, they would likely have received Traffic Information on the manoeuvring Firefly (**CF2**) which could have provided the Sonaca pilot with situational awareness of the Firefly's UPRT status. Members noted that, although the Sonaca pilot had initially seen the Firefly flying straight and level above them, they had had no situational awareness of the Firefly pilot's intentions to manoeuvre their aircraft as they had (**CF4**). Members also considered that the Sonaca's electronic conspicuity (EC) equipment may have prompted the pilot to monitor the Firefly's manoeuvring, however, the EC device in the Sonaca had not been able to detect any emissions from the Firefly (**CF5**). The Board agreed that the Sonaca pilot had understandably not recognised the potential threat posed by the Firefly until they had seen the aircraft descending towards them at a late stage (**CF6**).

² (UK) SERA.3205 Proximity.

³ (UK) SERA.3210 Right-of-way (c)(1) Approaching head-on.

Concluding their discussion, the Board noted that communication, alerting devices, and subsequent situational awareness of both the Sonaca and Firefly pilots had been significant factors in this event. Members agreed that the unanticipated and dynamic manoeuvring of the Firefly towards the unseen Sonaca had reduced safety margins much below the norm (**CF8**). The Board noted that the pilot of the Sonaca had taken emergency avoiding action at the last minute and, as such, assigned a Risk category B to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2026018			
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
Flight Elements				
• Regulations, Processes, Procedures and Compliance				
1	Organisational	• Flight Operations Documentation and Publications	Flight Operations Documentation and Publications	Inadequate regulations or procedures
• 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.	
3	Human Factors	• Transponder Selection and Usage	An event involving the selection and usage of transponders	
• 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	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				
6	Human Factors	• Identification/ Recognition	Events involving flight crew not fully identifying or recognising the reality of a situation	
7	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				
8	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:

Flight Elements:

Regulations, Processes, Procedures and Compliance were assessed as **partially effective** because the Firefly company's procedures had not mandated use of the 7004 aerobatic squawk during UPRT exercises.

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

Tactical Planning and Execution was assessed as **partially effective** because neither the pilot of the Sonaca nor the pilot of the Firefly had been in receipt of a FIS nor, in the case of the Firefly, had the aircraft been displaying a 7004 aerobatic squawk.

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

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the electronic conspicuity equipment fitted in the Sonaca had been unable to detect the Firefly.

See and Avoid were assessed as **partially effective** because the Firefly pilot had not seen the Sonaca, and the Sonaca pilot had little time to react to the manoeuvring of the Firefly.

