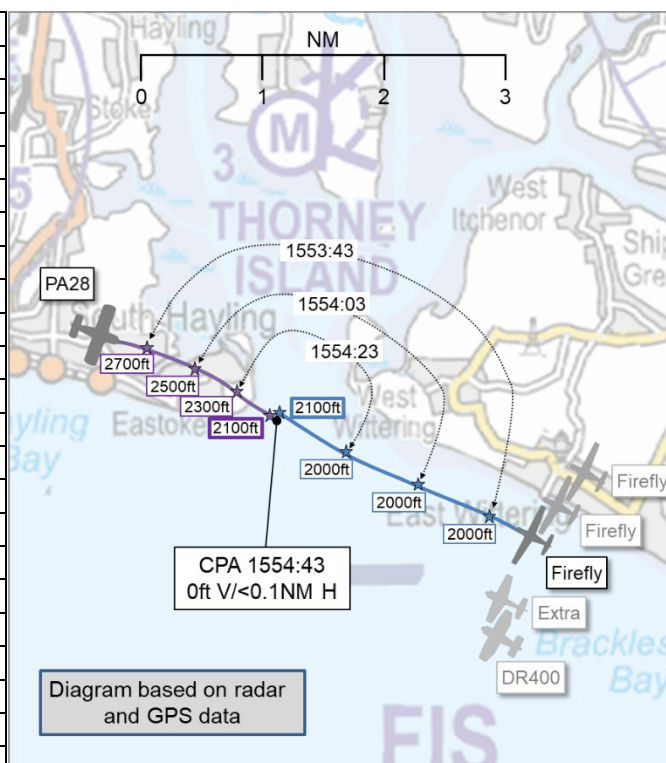


AIRPROX REPORT No 2026031

Date: 17 Mar 2026 Time: 1555Z Position: 5047N 00056W Location: ivo Hayling Island

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Firefly	PA28
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	Basic
Provider	N/A	Lee Information
Altitude	2100ft	2100ft
Transponder	A, C, S	A, C, S
Reported		
Colours	Yellow	White with red
Lighting	Strbs, nav, & ldg.	Anti-colls & bcn
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude	~2000ft	2000ft
Altimeter	QNH	QNH
Heading	~320°	90°
Speed	100kt	90kt
ACAS/TAS	TAS	Not fitted
Alert	None	N/A
Separation at CPA		
Reported	50ft V/0ft H	50ft V/100m H
Recorded	0ft V/<0.1NM H	



THE FIREFLY PILOT reports that they were a formation of 5 aircraft in a loose/close formation echelon right. There was a very late spot of the conflicting aircraft by most [of the pilots] in the formation. Very late avoiding action was taken by the 4 [formation and 1 camera-ship pilots], breaking up and out. The [pilot of the] conflicting aircraft also descended very late, [while the formation climbed].

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

THE PA28 PILOT reports that, after levelling off from a climb, they saw three aircraft flying in formation climbing towards them, they pitched down to lose altitude as [the formation] was still in the climb [they believed]. However, they believed a collision would not have happened even without them taking action to avoid a collision.

[After providing the pilot with information regarding relative altitudes], they later added that, after levelling off from the climb, they visually acquired the three-aircraft formation ahead and below, appearing to be climbing towards their position. Based on the visual picture and closing geometry, they assessed there was a risk of collision and therefore pitched down to increase vertical separation. This was a proactive "see and avoid" action taken while acting as instructor. Their decision to descend was based purely on the visual aspect at the time. They believed the action taken prevented a closer encounter.

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

THE PA28 STUDENT PILOT reports that they were the student flying at the time of the incident. From memory, the [other] aircraft seemed to appear above them with no visual warning. They assumed that [the other pilot] saw them late too as they climbed away from them pretty quickly after that.

THE LEE-ON-SOLENT AFISO reports that they were not aware of the Airprox report on the incident until [being notified by the UK Airprox Board] as it was not reported to them nor to any other member of staff at Lee-On-Solent.

Factual Background

The weather at Southampton Airport was recorded as follows:

METAR ECHI 171550Z 14009KT 110V180 CAVOK 12/07 Q1014

Analysis and Investigation

Lee-On-Solent Airport

The PA28 pilot was in receipt of a Basic Service from Lee Information (118.930MHz) at the date and time of the reported incident. They departed [the airfield] on a local flight at 1543, requested, and were provided with, a Basic Service from 1548.

[The Firefly pilot] was not on frequency with Lee Information at the date and time of the incident, and therefore was not known to the duty AFISO.

CAA ATSI

Only the PA28 pilot was on the Lee-On-Solent frequency. The Lee-On-Solent AFISO would not have been aware of the presence of the Firefly [formation] and so could not have passed Traffic Information.

UKAB Secretariat

An analysis of the NATS radar replay was undertaken and both aircraft were detected and identified using Mode S data (Figure 1).

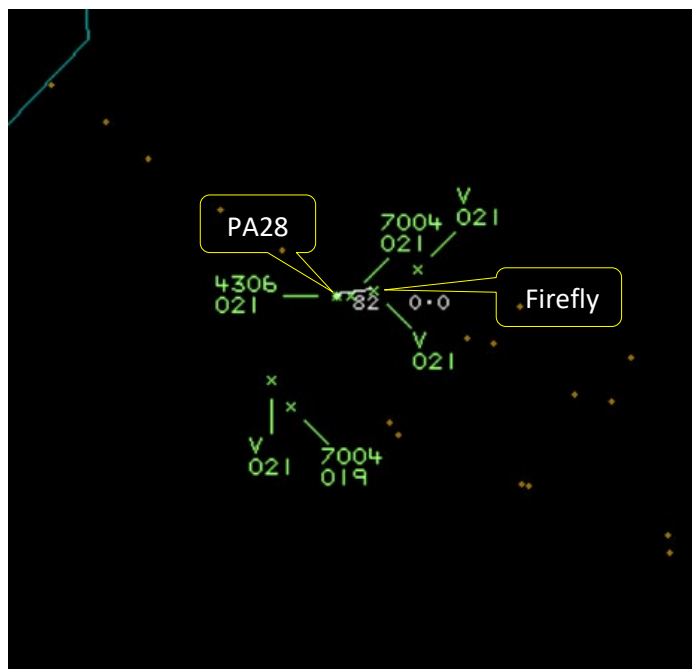


Figure 1 – Time 1554:43

Further analysis of third-party aircraft tracking software was also undertaken and the Firefly was detected using ADS-B data, with the PA28 visible using MLAT sources only (Figure 2). The Firefly pilot was also able to provide their GPS navigation track file which was coincident with the radar

track. CPA was assessed to have occurred at 1554:43 with a horizontal separation of <0.1NM and a vertical separation of 0ft.



Figure 2 Time 1554:40

The Firefly 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.¹ If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right.²

Summary

An Airprox was reported when a Firefly and a PA28 flew into proximity in the vicinity of Hayling Island at 1555Z on Tuesday 17th March 2026. Both pilots were operating under VFR in VMC; the Firefly pilot not in receipt of a FIS, and the PA28 pilot in receipt of a Basic Service from Lee Information.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, the student pilot in the PA28, radar photographs/video recordings, GPS track data for the flight of the Firefly, a report from the Lee-On-Solent AFISO and reports from the appropriate operating authorities. 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 PA28 pilot, who had been on an instructional exercise and climbing approximately eastbound along the coastline to level off at 2900ft. The Board noted that the PA28 pilot could not have known about the formation transiting in the opposite direction, as the Firefly pilot had not been on the Lee-On-Solent frequency. Furthermore, the PA28 had not been equipped with additional electronic conspicuity equipment to assist them. Members agreed that the PA28 pilot had had no situational awareness of the Firefly formation prior to sighting them (**CF4**). The Board further noted that the instructor had, reportedly, seen a formation of three aircraft climbing towards them and had chosen to pitch down and descend to 'increase vertical separation'. Members had wondered if there had been some confusion and maybe the pilot had seen the formation later than originally thought, however, the report had been confirmed by the instructor, including after having learned that the vertical separation had initially been 900ft and the formation had not climbed. The Board wondered if the PA28 pilot had actually seen the Firefly formation at 3NM, as they reported, and members considered that it

¹ (UK) SERA.3205 Proximity.

² (UK) SERA.3210 Right-of-way (c)(1) Approaching head-on.

had been possible under the clear weather conditions on the day. The Board noted that the pilot's descent towards the formation had significantly reduced safe vertical separation, and members agreed that the PA28 pilot had not effectively executed their avoiding action by descending toward the Firefly (CF2) but had, instead, flown into close proximity with the formation consisting of 3 Firefly aircraft, 1 Extra and a DR400 camera-ship (CF6). The Board wondered why the pilot had not turned either to the right or left of their track to avoid the formation on first seeing it, rather than continue towards it, and members agreed that that the PA28 pilot's visual perception had led them to select an unsuitable course of action by descending (CF8) and that they had not adequately adapted their flightpath so as to avoid the formation (CF3).

Moving their attention to the actions of the Firefly pilot, the Board noted that they had not been in receipt of a FIS. Members discussed that the formation had been operating in an area of poor LARS provision, being on the operational boundary of both Bournemouth and Farnborough LARS, and that although the formation had appeared to be routing towards Lee-On-Solent, they had subsequently made a 180° turn back to the east. Members agreed that Lee Information had not been a practical option for RT under the circumstances, and noted that the pilots would likely have been occupied with discrete communications among themselves in any case. However, the Board is keen to promote the use of a Traffic Service where practical, and felt that it would have been prudent for the formation lead to have perhaps notified the activity to other air users and to seek all means of safety mitigation available to them in the future. The Board noted that the Firefly had been fitted with additional electronic conspicuity (EC) equipment which had, unfortunately, been unable to detect the PA28 (CF5), and members agreed that, with no information from either their EC or the RT, the Firefly pilot had had no situational awareness of the presence of the PA28 (CF4). In discussing formation flights in the visual arena, the Board acknowledged that the lead pilot of the formation would have been responsible for the overall lookout, while pilots 2 and 3 of the 'echelon right' formation would have been concentrating on holding their position relative to the lead aircraft. However, all pilots would have had some peripheral view and members agreed that, in this case, none of them had seen the PA28 until it had been immediately in front of and slightly below them, effectively a non-sighting (CF7).

In considering the actions of the Lee-On-Solent AFISO, the Board noted that they could not have been aware of the presence of the Firefly formation more than 10NM away from their ATZ, and that they had not been required to monitor the PA28 under the terms of a Basic Service in any case (CF1).

In assessing the risk category and concluding their discussion, some members felt that safety had been reduced to a bare minimum with a serious risk of collision (risk A) while others considered that safety had not been assured and that safety margins had been reduced much below the norm (risk B). The Chair put it to a vote, and members agreed, by a small majority, that the climb reaction by the Firefly formation while the PA28 had passed immediately in front of them in a descent had averted a likely collision (CF9). As such, the Board assigned Risk Category B to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2026031			
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	• Action Performed Incorrectly	Events involving flight crew performing the selected action incorrectly	Incorrect or ineffective execution
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
	• 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	Contextual	• Loss of Separation	An event involving a loss of separation between aircraft	Pilot flew into conflict
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
8	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	
• Outcome Events				
9	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 Assessment³

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 Lee-On-Solent AFISO was not required to monitor the PA28 under the terms of a Basic Service.

Flight Elements:

Tactical Planning and Execution was assessed as **ineffective** because the PA28 pilot's execution of their avoidance manoeuvre did not ensure adequate separation from the Firefly.

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 until sighted.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the Firefly's electronic conspicuity device had been unable to detect the PA28.

See and Avoid were assessed as **ineffective** because the PA28 pilot's manoeuvre brought them into close proximity with the Firefly formation, and the Firefly pilot had not seen the PA28 until at or around CPA.

³ 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: 2026031		Outside Controlled Airspace				
Barrier		Provision	Application	Effectiveness		
				0%	5%	Barrier Weighting
						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						