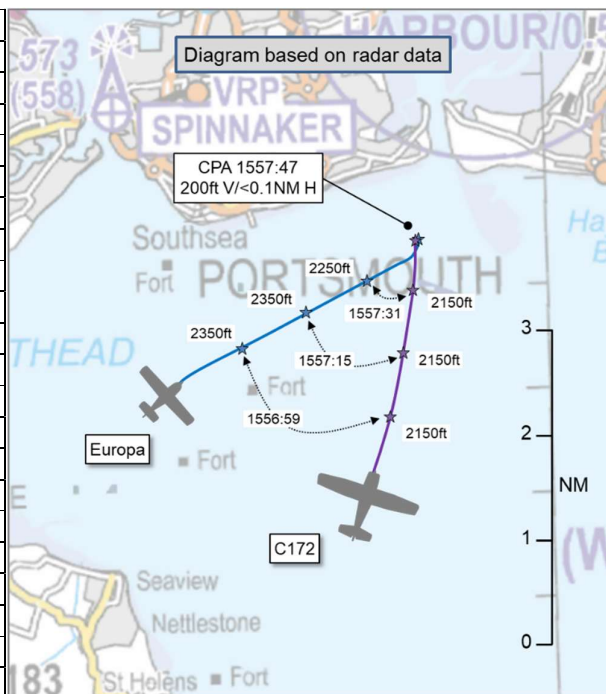


AIRPROX REPORT No 2025249

Date: 13 Dec 2025 Time: 1558Z Position: 5046N 00101W Location: 1NM south of Portsmouth

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Europa	C172
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	Basic
Provider	N/A	Farnboro' Radar
Altitude/FL	2350ft	2150ft
Transponder	A, C, S	A, C, S
Reported		
Colours	White	White, dark red
Lighting	Strobes	Nav, strobes
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	2400ft	2000ft
Altimeter	QNH (1027hPa)	QNH (1026hPa)
Heading	060°	360°
Speed	150kt	141kt
ACAS/TAS	FLARM, SkyEcho	PilotAware
Alert	None	None
	Separation at CPA	
Reported	100ft V/0.3NM H	Not seen
Recorded	200ft V/<0.1NM H	



THE EUROPA PILOT reports that they had been flying over the Solent, routing Ryde to Thorney Island. Just short of the shore of Portsmouth, their passenger alerted them to an aircraft; it appeared to be a Cessna within 100ft of their altitude, at a very close distance. They immediately entered a steep left-hand turn and applied full power to climb to increase vertical separation. [The pilot opines that] turning right would have turned into them and likely resulted in a collision. The other aircraft had been routing right-to-left on them. In the turn, the Europa pilot ensured that they had established visual contact with them and determined they were no longer a factor and resumed their routing. The other aircraft didn't appear to change altitude or heading. There was no warning of the aircraft on SkyDemon, which was connected to their [EC equipment] and had previously been giving warnings of other aircraft. The Europa pilot [reports that they] had not been in communication with an ATS facility as they had been out of range for Bournemouth Radar and Solent Radar will not provide a Basic or Traffic Service to non-zone transit traffic. The pilot believes [the other aircraft] was on the climb out from [...] and was in a blind spot for them in the left seat. They report that their passenger first noticed the aircraft and it subsequently came into view for them.

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

THE C172 PILOT reports that they had left [departure airfield] as the sun had been setting and they had climbed to 2000ft on a northerly heading. From the details provided, they had changed to Farnborough Radar and just configured the aircraft for cruise back to [destination airfield]. [The pilot notes that] the C172 is a high-wing plane and, being seated on the left side, it's possible the other aircraft wasn't visible even though they do keep a good lookout and don't rely on the [EC equipment] for total accuracy. The pilot would, though, like to apologise to the [other] pilot for this incident.

THE FARNBOROUGH CONTROLLER reports that they had been informed retrospectively of an Airprox between a Europa and a C172 that had happened on the 13th December but had no recollection of the event.

Farnborough Safety Investigation

Description of the event

The pilot of [C172 c/s] contacted the Farnborough LARS West frequency at 1556:56, reported overhead Portsmouth at 2100ft on QNH 1026hPa, and requested “*a Basic Service and a zone transit if possible through the Odiham overhead.*” A Basic Service was provided with SSR code 0460 issued. At the time this communication ended (1557:36), NODE radar displayed [C172 c/s] maintaining FL018 on a northerly track, converging with [Europa c/s] [which had been] maintaining FL019 on a northeasterly track. Both aircraft were displaying SSR Mode-A code 7000 on NODE radar, however, Farnborough Radar displayed altitude 2300ft for an aircraft on SSR code 7000 which correlated to the track of [Europa c/s] only. The London QNH was 1026hPa. Both aircraft were positioned on the boundary of Farnborough LARS area of responsibility. The closest point of approach was assessed as 0.2NM and 100ft. The pilot of [Europa c/s] stated in their Airprox report they ‘*immediately entered a steep left-hand turn and applied full power to climb to increase vertical separation*’.

Investigation

[Europa c/s] was outbound from [...] and inbound to [...]. The aircraft was not receiving an Air Traffic Service and had displayed SSR code 7000. [C172 c/s] was outbound from [...] and inbound to [...]. Radar and RT data displayed the pilot of [C172 c/s] had been in the process of requesting a Basic Service from Farnborough Radar at the time of the conflict, and had not yet been identified, validated or verified by the LF-LARS controller, with [C172 c/s] not displayed on the Farnborough radar display. Although the pilot of [C172 c/s] was issued a Farnborough LARS squawk, the aircraft Mode-A still displayed 7000 squawk at the time of the conflict, changing to 0460 at 1557:50 (CPA+3sec), however CAP774 2.4 states:

‘Identification of an aircraft in receipt of a Basic Service does not imply that an increased level of ATS is being provided or that any subsequent monitoring will take place. Controllers may allocate SSR codes to aircraft in receipt of a Basic Service. The issuance of such a code does not constitute the provision of a surveillance ATS.’

The pilot of [Europa c/s]’s Airprox report stated they had previously been receiving a Radar Control Service from Solent Radar prior to the conflict. Review of NODE radar displayed the Mode-A of [Europa c/s] changed from a Solent code to 7000 squawk at 1554:37 (CPA minus 3min10sec) whilst outside controlled airspace, indicating they were no longer receiving an ATS from Solent Radar at this time, and would have unlikely been aware of [C172 c/s] departing [...] at approximately 1554:13 (CPA minus 3min 34sec) to issue any potential traffic advice, however, CAP774 UK Flight Information Services Chapter 2.1 states:

‘a Basic Service relies on the pilot avoiding other traffic, unaided by controllers/ FISOs. It is essential that a pilot receiving this ATS remains alert to the fact that, unlike a Traffic Service and a Deconfliction Service, the provider of a Basic Service is not required to monitor the flight’.

The conflict was not reported on frequency.

Conclusions

[Europa c/s] had previously been receiving an ATS from Solent Radar but was subsequently squawking 7000 as they tracked northeast to coast in at Portsmouth. [C172 c/s] had departed [...] and was also coasting in at Portsmouth on a northerly track, on a converging track with [Europa c/s]. The pilot of [C172 c/s] was in the process of requesting a Basic Service from Farnborough LARS at the time of the conflict. The passenger of [Europa c/s] observed a conflicting aircraft resulting in the pilot taking

evasive action by turning immediately left and climbing to resolve. The confliction was not reported on the RT.

RT of event

RW24 in use at Farnborough. West and Zone were Banded with Approach split off.

1556:56 – [C172 c/s] – “*Farnborough Radar, [C172 c/s].*”

1557:03 - (West+Zone) – “[C172 c/s], *Farnborough Radar, pass your message.*”

1557:05 – [C172 c/s] – “[C172 c/s], *Cessna 172 [departure airfield] to err [destination airfield] currently overhead err Portsmouth at 2100ft [...]. Request a Basic Service and a zone transit if possible through the Odiham overhead.*”

1557:26 - (West+Zone) – “[C172 c/s] *roger, squawk 0460, Basic Service QNH correct.*”

1557:31 – [C172 c/s] – “*Squawk 0460, Basic Service [C172 c/s].*”

1557:45 - 0460 squawk [C172 c/s] observed for first time in very close proximity to a “V” squawk. 0.05NM/200ft distance between two contacts. 2.5NM SSE of the Spinnaker Tower VRP.

[CPA at 1557:47 – 200ft/<0.1NM]

1557:49 – “V” Squawk initiated a sharp left hand [full 360°] turn to roll out on previous track.

1558:09 – “V” Squawk identified via Mode S as [Europa c/s].

Factual Background

The weather at Southampton Airport was recorded as follows:

METAR EGHI 131550Z 18004KT 9999 FEW016 09/06 Q1027=

Analysis and Investigation

CAA ATSI

ATSI had nothing to add to the Farnborough safety investigation.

UKAB Secretariat

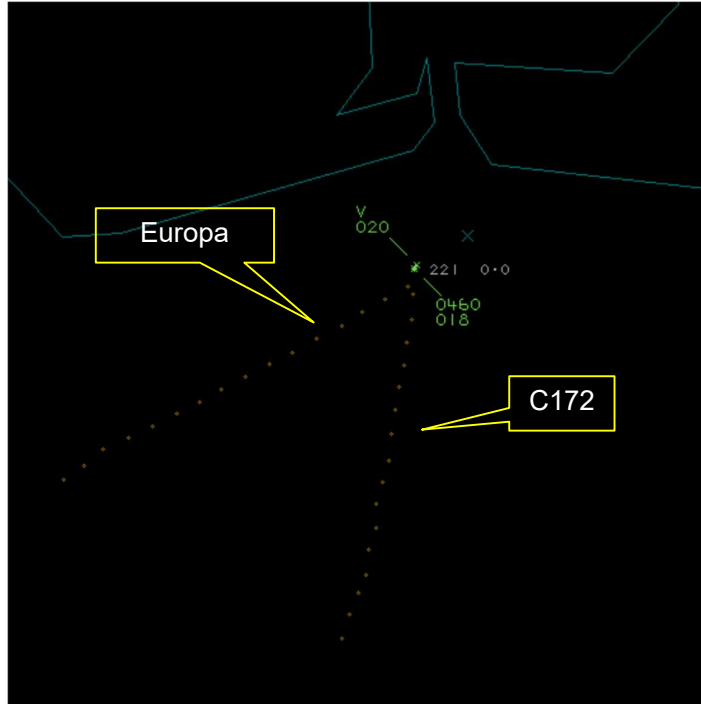


Figure 1: At CPA (1557:47)

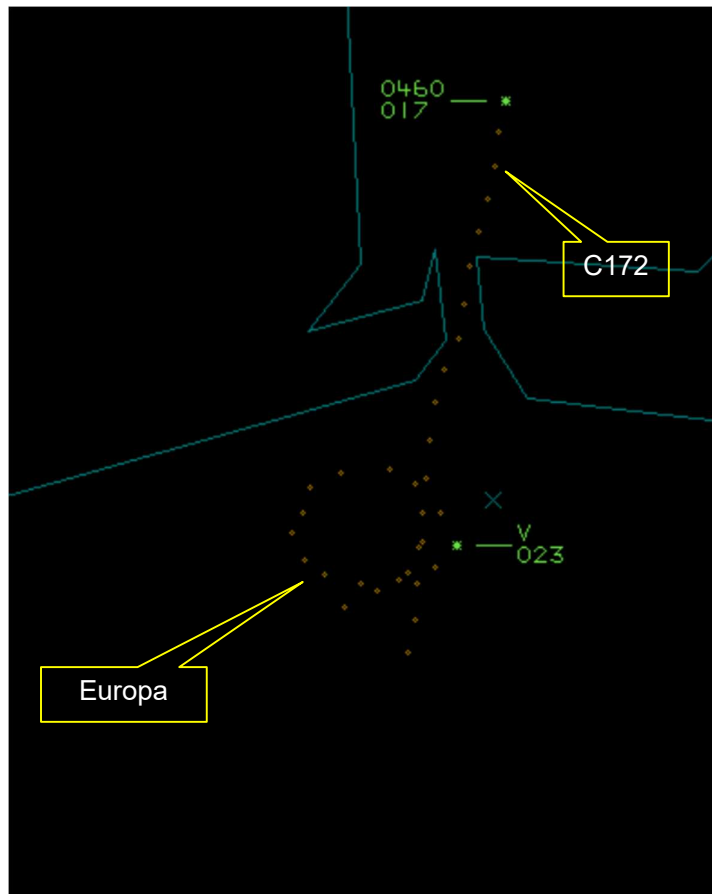


Figure 2: At CPA +50sec – Europa has completed a full 360° turn and C172 has maintained its original flightpath.

Both aircraft were tracked by radar and identified via Mode S data. The diagram at page 1 was created using radar data.

The Europa and C172 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 converging then the Europa pilot was required to give way to the C172.² If the incident geometry is considered as overtaking then the C172 pilot had right of way and the Europa pilot was required to keep out of the way of the other aircraft by altering course to the right.³

Summary

An Airprox was reported when a Europa and a C172 flew into proximity 1NM south of Portsmouth at 1558Z on Saturday 13th December 2025. The Europa pilot was operating under VFR in VMC and not in receipt of a Flight Information Service, and the C172 pilot was operating under VFR in VMC in receipt of a Basic Service from Farnborough Radar.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, GPS data, a report from the air traffic controller involved 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.

Members firstly considered the actions of the Europa pilot, noting that they had been operating VFR in uncontrolled airspace and had not been in receipt of an air traffic service. Board members stressed that situational awareness is built through inputs from air traffic control and electronic conspicuity (EC), and that a surveillance-based service offers the greatest level of support without affecting the planned activity of the pilot (**CF3**). Although the Europa had been equipped with a comprehensive EC suite, it had not detected any electronic emissions from the C172 (**CF5**). This, combined with the lack of an air traffic service, had left the pilot with no situational awareness of the presence of the C172 (**CF4**). Board members recognised that the Europa pilot had fortuitously gained visual acquisition of the C172 at very close range and had initiated avoidance action (**CF7**) thereby, in the Board's view, reducing the risk of a collision.

Moving to the actions of the C172 pilot, the Board acknowledged that they had been in the process of establishing an air traffic service with Farnborough, with members supporting that action and wishing to remind all pilots that the highest level of service possible tends to grant the greatest situational awareness for a pilot and, in this case, a Traffic Service may have been available (**CF3**). The Board recognised that the request had been made very close to the event and at the limits of coverage for Farnborough. They opined that with Bournemouth equally distant, perhaps a suitably-equipped air traffic unit in the immediate area could have been a second option. It was noted that the C172 had been equipped with a commonly utilised EC unit which, although capable of receiving electronic emissions from the Europa, had not done so (**CF6**). The lack of an air traffic input and EC support had left the C172 pilot with no situational awareness of the presence of the Europa (**CF4**). Ultimately, the C172 pilot had not seen the Europa at any stage (**CF8**) and a potential collision had been avoided through the actions of the Europa pilot.

In reviewing the contribution from Farnborough Radar, members noted that the C172 pilot had initiated the request for a Basic Service and zone transit almost at the closest point of approach between the 2 aircraft. Additionally, the C172 had been at the limits of radar coverage for Farnborough at that altitude and range and no service had been established. This, combined with the responsibilities associated with the provision of a Basic Service (**CF1**), had precluded any viable input to the event from the Farnborough controller. Additionally, although Farnborough West is equipped with a Short Term Conflict

¹ (UK) SERA.3205 Proximity.

² (UK) SERA.3210 Right-of-way (c)(2) Converging.

³ (UK) SERA.3210 Right-of-way (c)(3) Overtaking.

Alert protocol, the transponder codes displayed by both aircraft would have set this event outside the select frame of that safety barrier (**CF2**).

Members discussed the apparent difficulty in securing a radar service from south coast-based providers and acknowledged that, in this case, both Farnborough and Bournemouth would be at the respective limits of their coverage, but operators could contact other radar-equipped providers for a service. In the event that such services were denied or unavailable, members reminded all that the completion of a CAA form FCS1522 ([AIRSPACE REFUSAL](#)) allows an evidence database to become compelling for future service provision plans.

Concluding their discussion, members summarised their thoughts. It was agreed that, although neither pilot had gained any situational awareness of the other aircraft ahead of the encounter, the pilot of the Europa had sighted the C172 in time to take effective avoiding action which had resolved the encounter. Members were in agreement that safety standards had been degraded, however, they were satisfied that there had not been a risk of collision. The Board assigned Risk Category C to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

2025249				
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
• Electronic Warning System Operation and Compliance				
2	Technical	• Conflict Alert System Failure	Conflict Alert System did not function as expected	The Conflict Alert system did not function or was not utilised in this situation
Flight Elements				
• Tactical Planning and Execution				
3	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				
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
6	Human Factors	• Response to Warning System	An event involving the incorrect response of flight crew following the operation of an aircraft warning system	CWS misinterpreted, not optimally actioned or CWS alert expected but none reported
• 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	• 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

Degree of Risk: C.

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:

Ground Elements:

Situational Awareness of the Confliction and Action were assessed as **not used** because, under a Basic Service, the Farnborough Radar controller was not required to monitor the flight of the C172.

Electronic Warning System Operation and Compliance were assessed as **not used** because the SSR codes of the aircraft involved had been outside the select frame of the system.

Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because both the Europa and the C172 pilots could have sought a surveillance-based service from Farnborough.

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.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the equipment carried by the Europa had been unable to detect any electronic emissions from the C172, and the C172 had not received any electronic emissions from the Europa.

See and Avoid were assessed as **partially effective** because the Europa pilot had achieved only a late sighting of the C172, whilst the pilot of the C172 did not visually acquire the Europa throughout this event.

Airprox Barrier Assessment: 2025249		Outside Controlled Airspace						
Barrier	Provision	Application	Effectiveness					
			Barrier Weighting					
			0%	5%	10%	15%	20%	
Ground Element	Regulations, Processes, Procedures and Compliance	✓	✓	[Green bar to 5%]				
	Manning & Equipment	✓	✓	[Green bar to 2.5%]				
	Situational Awareness of the Confliction & Action	✓	○	[Red bar to 15%]				
	Electronic Warning System Operation and Compliance	✓	○	[Red bar to 2.5%]				
Flight Element	Regulations, Processes, Procedures and Compliance	✓	✓	[Green bar to 10%]				
	Tactical Planning and Execution	✓	⚠	[Yellow bar to 10%]				
	Situational Awareness of the Conflicting Aircraft & Action	✗	✓	[Red bar to 20%]				
	Electronic Warning System Operation and Compliance	⚠	✗	[Red bar to 15%]				
	See & Avoid	⚠	⚠	[Yellow bar to 20%]				
Key:								
Provision	✓	⚠	✗	●	○			
Application	✓	⚠	✗	●	○			
Effectiveness	[Green]	[Yellow]	[Red]	[Grey]	[Red outline]			

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