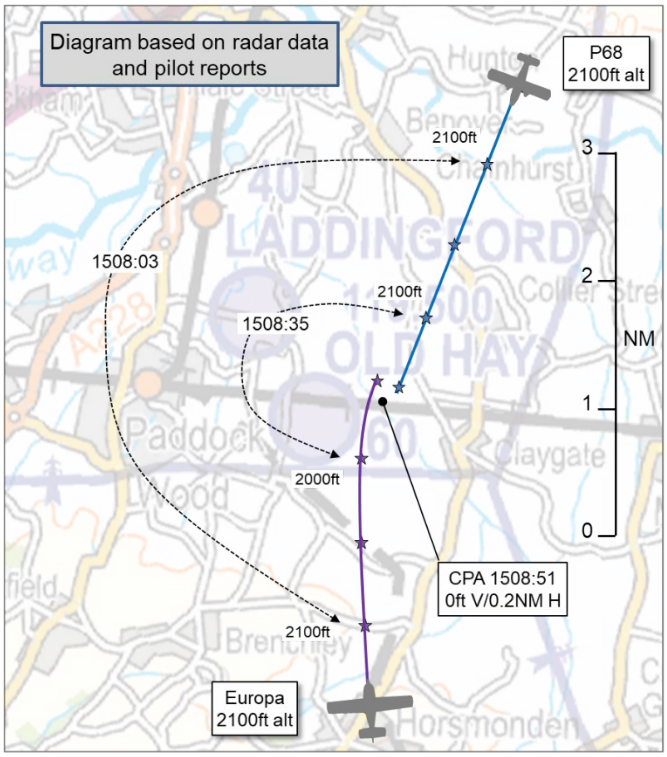
AIRPROX REPORT No 2023217

Date: 08 Sep 2023 Time: 1509Z Position: 5111N 00026E Location: 8NM WNW Headcorn

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	P68	Europa
Operator	Civ Comm	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Traffic	Basic
Provider	Farnborough East	Farnborough East
Altitude/FL	A021	A021
Transponder	A, C, S+	A, C, S
Reported		
Colours	White, blue	NR
Lighting	Navigation, strobe, beacon	NR
Conditions	VMC	NR
Visibility	>10km	NR
Altitude/FL	2100ft	NR
Altimeter	QNH (1018hPa)	NR
Heading	202°	020°[1]
Speed	115kt	118kt[2]
ACAS/TAS	TAS	SkyEcho
Alert	TA	None
Separation at CPA		
Reported	0ft V/100m H	NR
Recorded	0ft V/<0.2NM H	



THE P68 PILOT reports that they had been established on a survey going southbound heading 200° altitude 2100ft and had been speaking to Farnborough Radar on 123.225MHz and getting Traffic Information from transponding aircraft only. During a survey task, they report having plenty of traffic from all directions but [always] get information from ATC. Towards the end of the task they had a warning from ADS-B with traffic. Shortly after that the pilot reported that they had seen them approaching from the opposite direction slightly from left-to-right at the same altitude. They noticed that it had been banking slightly left noting that the correct right of way when converging is for both to bank right but since the P68 pilot had no idea if they had seen them and they had been banking slightly left they did not start a right bank but decreased their heading by 2-3° as they had been sure they had been more than 100m away. The other aircraft had not been on frequency and with no transponder [they opined] as they had not had information from ATC. This is a big problem when surveying in the south onshore since private pilots do not speak on frequency with Traffic Information and most are not equipped with or using their transponder. The pilot noted the need for a P2 for this type of survey in the future.

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

THE EUROPA PILOT reports their habit when crossing motorways, rivers and railways is to do so as close as possible to 90°. They report that the only explanation they have is that their passenger who is also a pilot had been looking for traffic following the railway between Redhill and Headcorn. They recall having been using SkyDemon coupled to [an EC device] and had not seen any alarms showing the

[1] Radar derived.
[2] Radar derived (groundspeed).

conflicting traffic. The purpose of the flight that day had been a flight test permit renewal. The pilot notes that they had been in contact with Farnborough East receiving a Basic Service for the whole flight.

THE LARS EAST CONTROLLER reports that they had been advised that a P68 had reported an Airprox on 8th September. The controller notes that they had not been advised of this at the time/date of the incident and therefore had no recollection of the flight or the event. They have been advised that the aircraft had been on a Traffic Service and traffic had been called.

Factual Background

The weather at Gatwick was recorded as follows:

```
METAR EGKK 081450Z VRB03KT CAVOK 29/16 Q1016=
```

Analysis and Investigation

NATS

LARS North and East had been operated in a bandboxed configuration. Medium traffic, daylight hours, VFR weather conditions.

1323: The P68 pilot had checked-in on frequency. They had been issued with a squawk of 1732 and the ATCO stated: '[P68 c/s] identified Traffic Service, reduced Traffic Information in your area transponding aircraft only.' This had been read back by the pilot, including the reduction in service. The aircraft had then operated in the area on a survey flight, west of Gatwick on north/south lines, the service had remained unchanged.

1508: The P68 had just turned southbound again, northwest of Gatwick. Another aircraft had been 3NM south tracking north squawking 1730. That aircraft had been a Europa operating VFR routeing [departure airfield] to [destination airfield] under a Basic Service.

1508:05; 'P68 Traffic 12 o'clock 2NM northbound slightly below.....(further traffic passed)'. That aircraft had been the Europa.

1508:11: 'All copied P68'. The P68 did not alter track or altitude based on that information.

1508:44 The Europa climbed to 2100ft. The P68 had maintained 2100ft. The ATCO had been talking to [the pilot of] another aircraft who had checked in on the frequency. The Europa pilot had not been warned about the P68 but had been on a Basic Service and there is no requirement to do so.

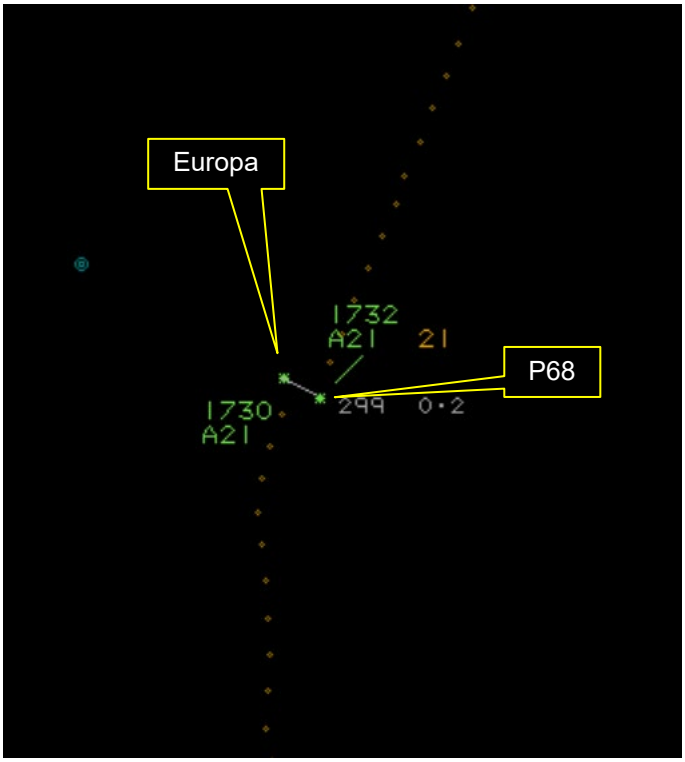
1508:51 The P68 and Europa merged at 2100ft.

1508:55 'P68 previously called traffic passing … past you now.' The P68 pilot did not reply. They did not report an Airprox on the frequency. The contacts had then passed.

The Unit Investigator reports that they had reviewed the RT and radar recordings in conjunction with the 4114 and 4118. Both aircraft had been on the LARS East frequency. The P68 pilot had been under a Traffic Service, Traffic Information had been passed on the Europa but it had not been passed before the aircraft had been 5NM apart due to controller workload. The Europa [pilot] had been under a Basic Service. The Unit Investigator noted that there is no requirement to pass Traffic Information to the Europa and the ATCO had been focused on other tasks in the seconds leading up to the Airprox. The P68 pilot had been conducting a survey flight and may not have wanted to deviate from this task to avoid the traffic.

Conclusions: The P68 pilot had been passed appropriate Traffic Information on the Europa, with the P68 not appearing to deviate track. There had been a subsequent conflict between the P68 and Europa outside controlled airspace.

UKAB Secretariat



CPA: 1508:51 <100ft V/0.2NM H

Both aircraft were tracked by radar and their respective flightpaths shown above. Although at the CPA both aircraft showed the same level (2100ft on SPS (1013hPa)) and the CPA is recorded as '0ft V', the Europa in its approach to that point and afterwards fluctuated from 2000ft to 2100ft and the vertical separation may well therefore have been best described as '<100ft'.

The P68 and Europa pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard.[3] If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right.[4]

Summary

An Airprox was reported when a P68 and a Europa flew into proximity 8NM west-northwest of Headcorn at 1509Z on Friday 8th September 2023. Both pilots were operating under VFR in VMC, the P68 pilot in receipt of a Traffic Service from Farnborough LARS East and the Europa pilot in receipt of a Basic Service from Farnborough LARS East.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, reports from the air traffic controllers involved and a report from the controller operating organisation. 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.

Board members firstly discussed the actions of the P68 pilot. They noted that at the time of the reported Airprox, they had been in receipt of a reduced Traffic Service from Farnborough whilst carrying out a surveying task. They had been passed Traffic Information regarding the Europa with the distance between the 2 aircraft recorded as 2NM and the P68 had not been seen by the controller to have changed direction or altitude based on that information. The P68 pilot reports that, having received a

[3] (UK) SERA.3205 Proximity.
[4] (UK) SERA.3210 Right-of-way (c)(1) Approaching head-on.

TA from their TAS unit (**CF4**), they had visually acquired the Europa in a gentle left turn and, although the correct course of action for traffic converging had been for both aircraft to turn right, had actually decreased their heading in the same sense by 2-3° as they had not been sure that the Europa pilot had seen them. Members wondered whether the P68 pilot had appropriately balanced the need to increase separation from the Europa with the need to complete their task (**CF2**). The Board noted that the Farnborough controller had made a further Traffic Information call to the P68 at the point the 2 aircraft had passed each other. Ultimately, the separation at CPA had meant that the P68 pilot had been concerned by the proximity of the Europa (**CF7**). The Board was heartened that the P68 pilot had recognised in their report the need for a 2nd pilot in future tasks of this nature to share lookout and task responsibilities.

Turning to the Europa pilot, members noted the nature of the flight in progress and that they had been accompanied by a second pilot for this flight. Although in receipt of a Basic Service, and with the same service provider as the P68 pilot, they wondered whether a higher service level, such as Traffic Service (**CF1**), might have better informed the Europa pilot's lack of situational awareness (**CF3**) in this case. Both the P68 and the Europa had carried electronic conspicuity equipment and it had been disappointing to note that, although the TAS carried by the P68 had alerted, the equipment onboard the Europa had not registered any emissions from the P68 (**CF5**) and that, tied to the Basic Service they had been under, had contributed to the Europa pilot having had no sight of the P68 at any time (**CF6**).

The Board turned to the contribution by the Farnborough LARS East controller, recognising that they had simultaneously been providing a Traffic Service to the P68 pilot and a Basic Service to the Europa pilot and that under the latter, the controller is not obliged to monitor the flight. Members discussed the potential added value that might have been gained by proactively alerting the Europa pilot to the presence of the P68 in this case. Members did accept that with the initial Traffic Information call having come at 2NM separation, the opportunity for the controller to review manual scripts, identify the Europa and transmit a reciprocal traffic call had almost certainly passed by the time the 2 aircraft were at their closest.

When determining the risk of the Airprox, the Board considered the reports from both pilots together with that of the controller. They noted that, although the P68 pilot had seen the Europa in good time, they had made only a minor adjustment to their heading, meaning that separation at CPA had been less than it could have been had the P68 pilot taken more positive action. The Board therefore agreed that, although there had been no risk of collision, safety had nonetheless been degraded; Risk Category C.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2023217			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Flight Elements			
	• Tactical Planning and Execution			
1	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
2	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			
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
	• Electronic Warning System Operation and Compliance			
4	Contextual	• Other warning system operation	An event involving a genuine warning from an airborne system other than TCAS.	

5	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			
6	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
7	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	Pilot was concerned by the proximity of the other aircraft

Degree of Risk: C.

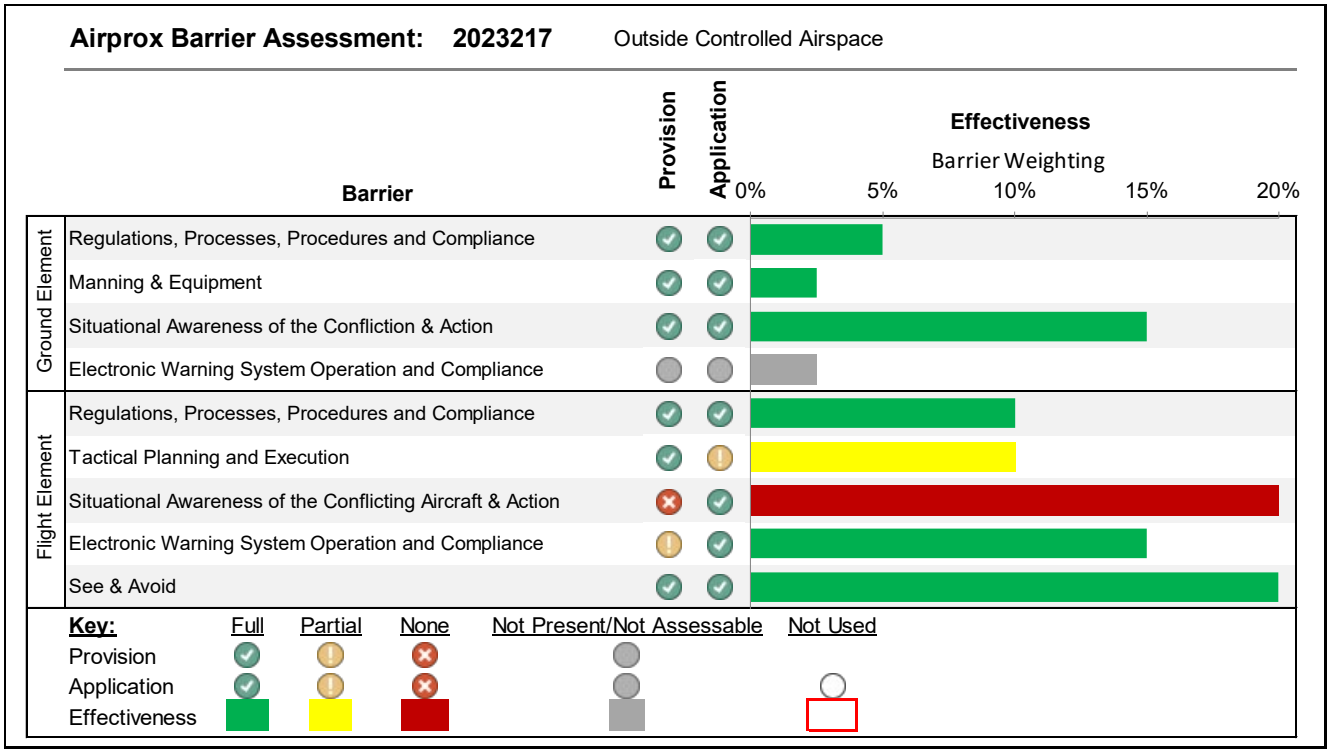
Safety Barrier Assessment[5]

In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because, having gained visual with the Europa, the P68 pilot could have considered further increasing separation between the 2 aircraft and the Europa pilot could have considered taking a higher level of Air Traffic Service in that operating area.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the Europa pilot had no situational awareness of the presence of the P68.



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