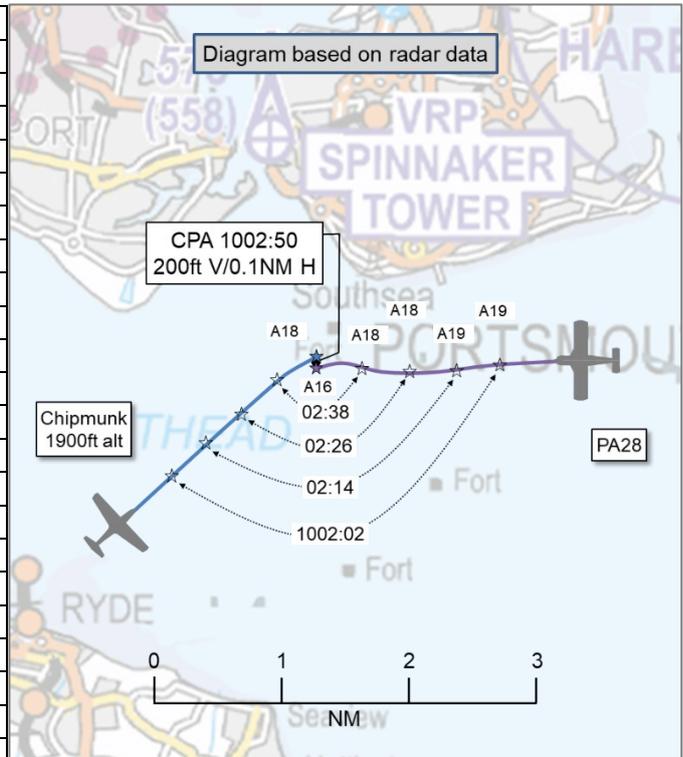


AIRPROX REPORT No 2024163

Date: 14 Jul 2024 Time: 1003Z Position: 5046N 00106W Location: Spitbank Fort

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Chipmunk	PA28
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Listening Out	AFIS
Provider	(Solent Radar)	Lee on Solent
Altitude/FL	1800ft	1600ft
Transponder	A, C, S	A, C, S
Reported		
Colours	Red/white	White/green
Lighting	Nav	Nav, landing
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	1800ft	1700ft
Altimeter	QNH (1012hPa)	QNH (1012hPa)
Heading	030°	271°
Speed	95kt	NK
ACAS/TAS	SkyEcho	PilotAware
Alert	None	Information
Separation at CPA		
Reported	100ft V/200m H	50ft V/800ft H
Recorded	200ft V/0.1NM H	



THE CHIPMUNK PILOT reports carrying out a GA flight around Solent/Southampton airspace. Whilst flying along the north coast of the Isle of Wight from Cowes to Ryde, [the TAS] alerted them to [an aircraft] well clear to the north. Having flown around the Isle of Wight several times, they were aware there was often a lot of GA traffic when the weather was good at the weekend. Overhead Cowes they saw a PA28 about 1NM to the north and an aircraft well clear to the southeast (neither of which appeared on [the TAS display] via [the TAS]). They noted that they were used to their [TAS] only reporting traffic that was very close, about 1NM. The amount of traffic was significantly lower than they had experienced previously and they did not feel their workload was high. From Ryde, they crossed to Portsmouth, heading to Southsea pier. They climbed to 2000ft to make the water crossing. Once trimmed and stabilised, they moved the headset audio cable and adapter to the side as the length of the cable meant it was in the way of the trim wheel and crackled slightly when they moved within the cockpit. They were then approximately 2 miles southwest of Southsea Castle and carried out a FREDA check. Almost immediately after completing the FREDA check, having noticed they had inadvertently descended to 1800ft, they observed an aircraft in the 3 o'clock which began banking to its left and which passed behind and below. They initially thought nothing of it, however, on subsequent consideration they considered that it was particularly close. When the aircraft passed, it was close enough that they could clearly see the make, model, colour and registration. They perceived the roll rate of the PA28 to be fairly rapid for the type, and the angle of bank relatively steep. The late bank, as well as the roll rate and bank angle led them to believe that it was a late sighting by the other [pilot]. As the PA28 was converging from the right they should have given way to that aircraft and flown behind it but they did not see the PA28 until it was clear that it would pass behind and below. Throughout, they were listening in on Solent Radar. If the other [pilot] was talking to Solent Radar they did not hear the transmissions. They did not request a service from Solent Radar because they understood the LARS providers for that area to be Bournemouth and Farnborough. Reflecting on the flight, they decided to look at [an internet-based track] replay function to see what the other aircraft was. Upon doing so, they considered that the separation was worthy of reporting. They did not feel alarmed by the separation, but felt it was close.

Had the PA28 [pilot] not taken avoiding action, they believed it would still have passed 100ft below and about 100m behind. They expressed disappointment that they had not maintained sufficient lookout, partly as a result of the distraction of sorting out the headset cable. They were once again disappointed that [the TAS] (positioned on the right-hand side of the forward canopy) had not picked up converging traffic in clear line of sight of the unit.

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

THE PA28 PILOT reports on a VFR flight to [destination]. As they approached Portsmouth from the east they changed frequency from Farnborough Radar to Lee-on-Solent. They were requested to report passing the Spinnaker Tower and given a squawk code of 4036. They were keeping a good lookout as there was a fair amount of traffic in the area. Their [TAS] via [the TAS display] alerted them to traffic in the 10 o'clock position. The aircraft appeared suddenly on [the TAS]. They looked in that direction and saw a Chipmunk at about their altitude and on a converging track. The other aircraft did not appear to be taking any avoiding action and maintained its track despite them being to the right of that aircraft. A right turn would have increased any conflict with the other aircraft and the rising of their left wing would have obscured their view of the other aircraft so they immediately turned left with a slight descent to maintain visual with the other aircraft to ensure the conflict risk was lowered. They also turned on the landing light to increase the other pilot's awareness of their aircraft and intentions. The other aircraft then passed down the right-hand side and did not appear to deviate from its course or altitude. They continued their planned flight and landed without incident.

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

THE LEE-ON-SOLENT AFISO reports [PA28 C/S] was on the Lee frequency at the time but no Airprox was reported, so they were unaware of the event.

Factual Background

The weather at Southampton was recorded as follows:

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METAR EGHI 141020Z 18006KT 140V240 9999 SCT028 19/11 Q1012=  
METAR EGHI 140950Z 25003KT 210V270 9999 SCT026 18/11 Q1012=
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Analysis and Investigation

UKAB Secretariat

The Chipmunk 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 converging then the Chipmunk pilot was required to give way to the PA28.²

Summary

An Airprox was reported when a Chipmunk and a PA28 flew into proximity near Spitbank Fort at 1003Z on Sunday 14th July 2024. Both pilots were operating under VFR in VMC, the Chipmunk pilot not in receipt of a FIS and the PA28 pilot in receipt of an AFIS from Lee-on-Solent.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings and a report from the AFISO involved. 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.

¹ (UK) SERA.3205 Proximity.

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

Board members first discussed the pilots' actions and commended the Chipmunk pilot for their honest and open report. Members noted that they had been operating within the area of Bournemouth LARS provision and that they may have been better placed by obtaining a FIS, rather than listening out with an ANSP that did not provide a LARS. Members also felt that if the Chipmunk pilot had wished to just listen out, it may have been more useful to have done so with Lee Information (CF3). The Board agreed that, in general, a higher degree of mitigation to mid-air collision could be gained by obtaining a FIS, preferably surveillance-based, rather than listening out. In the event, the Chipmunk pilot had had no situational awareness of the PA28 (CF4), their EC had been incompatible with that of the PA28 (CF5), they had inadvertently descended towards the PA28's level (CF2) and had seen it at a late stage (CF7). Conversely, the PA28 pilot's TAS had alerted (CF6) and cued their lookout towards the Chipmunk which they had seen in time to take effective avoiding action. The Lee AFISO had provided an AFIS to the PA28 pilot and was therefore not required to monitor the flight (CF1) and could not assist in collision mitigation because they had had at most only generic situational awareness on the PA28 and none on the Chipmunk. Members discussed the provision of LARS and agreed that it was regrettable that Solent Radar no longer provided a LARS service, especially given the traffic density in the area of The Solent. The Board was informed by a CAA airspace advisor that LARS provision was to be included in the CAA Future Airspace Modernisation Strategy. Turning to risk, one Board member felt that normal procedures had pertained, Risk E, but the majority felt that the situation was best described as risk of collision averted, Risk C.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2023163			
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
Ground Elements				
• Situational Awareness and Action				
1	Contextual	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Action Performed Incorrectly 	Events involving flight crew performing the selected action incorrectly	Incorrect or ineffective execution
3	Human Factors	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	Contextual	<ul style="list-style-type: none"> Other warning system operation 	An event involving a genuine warning from an airborne system other than TCAS.	
• See and Avoid				
7	Human Factors	<ul style="list-style-type: none"> Identification/ Recognition 	Events involving flight crew not fully identifying or recognising the reality of a situation	Late sighting by one or both pilots

Degree of Risk: C.

Safety Barrier Assessment³

³ The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).

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 position or potentially conflicting traffic.

Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because the Chipmunk pilot had inadvertently descended slightly and had been operating without a FIS in an area of LARS coverage.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the Chipmunk pilot had had no situational awareness of the approaching PA28.

Airprox Barrier Assessment: 2023163		Outside Controlled Airspace						
Barrier	Provision	Application	Effectiveness					
			Barrier Weighting					
			0%	5%	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								