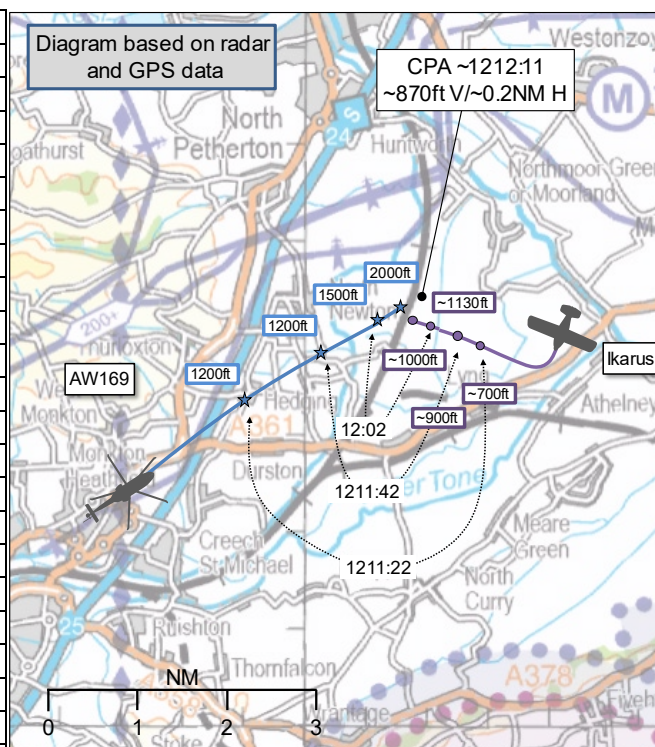


**AIRPROX REPORT No 2024262**

Date: 10 Oct 2024 Time: ~1212Z Position: 5104N 00258W Location: Hedging, Somerset

**PART A: SUMMARY OF INFORMATION REPORTED TO UKAB**

Recorded	Aircraft 1	Aircraft 2
Aircraft	AW169	Ikarus C42
Operator	HEMS	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	None
Provider	Yeovil Radar	N/A
Altitude/FL	2000ft	~1130ft
Transponder	A, C, S+	A, C
Reported		
Colours	Yellow	White, Blue
Lighting	'full'	Strobe
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	1400ft	NK
Altimeter	QNH	NK
Heading	110°	NK
Speed	120kt	70kt
ACAS/TAS	TCAS II	Not fitted
Alert	RA	N/A
Separation at CPA		
Reported	300ft V/100m H	NR
Recorded	~870ft V/~0.2NM H	



**THE AW169 PILOT** reports that they were transiting to Henstridge after completion of a tasking. A Basic Service was being provided by Yeovil Radar. Altitude was 1400ft. Approximately 5min into the flight, a proximity traffic return was noticed on TCAS and acknowledged by the PF and PM, however, neither crew member was visual. The PF started a climb to increase separation from traffic, which was indicating 300ft below. Yeovil Radar advised the crew of traffic, to which the crew replied 'not visual'. The TCAS alert developed into a TA, then a climb RA, which was immediately actioned by the PF to an altitude of 1800ft. The PM advised Yeovil Radar and, after clearance of the RA, the PF returned the aircraft to its original flight path. The remainder of the flight to Henstridge was uneventful. The conflicting aircraft had departed a light-aircraft landing strip nearby [they believed] and was not communicating with Yeovil Radar.

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

**THE IKARUS PILOT** reports that they were flying in the area at the time of the Airprox, and do remember passing a yellow helicopter on a rough reciprocal heading. Both the student and instructor saw the helicopter but did not consider it a near miss or Airprox, although they thought that they should have sighted it earlier.

**THE YEOVIL APPROACH CONTROLLER** reports that they were the Approach controller at the time of the TCAS RA on the AW169, they were working all radar frequencies bandboxed. The pilot initially called for a Basic Service enroute to Henstridge, climbing out of Taunton. Having provided this and the regional pressure, the controller informed the pilot that they would arrange a MATZ crossing for them. A 7000 squawking track then began to climb out ahead of the AW169. As the 7000 [squawk] tracked towards them, under duty of care they called it at 1 mile and 300ft below. During this call the AW169 was climbing and 400ft vertically separated from the 7000 squawk. The pilot then stated that they were taking a TCAS RA at 500/600ft vertical separation and at the point of confliction there was 700ft between

both aircraft. The controller opined that they did not perceive this as an Airprox as there was more than enough height separation between both aircraft and safety was not compromised.

The controller perceived the severity of the incident as 'None'.

**THE YEOVILTON SUPERVISOR** reports that they heard the [pilot of the AW169] call for a Basic Service and noted the request for a transit to Henstridge. They observed the controller commence a request for a MATZ crossing from the ADC. The Approach controller then called traffic to the AW169 pilot that was close by. They believed that the controller had discharged their duty of care by passing Traffic Information to the AW169 pilot.

## **Factual Background**

The weather at Yeovilton was recorded as follows:

METAR EGDY 101150Z 02006KT 9999 SCT025 FEW080 12/08 Q1008 NOSIG RMK BLU BLU=

## **Analysis and Investigation**

### **NCHQ Investigation**

A mandatory local DASOR was raised and investigated by RNAS Yeovilton ATC (iaw RA1410), utilising radar replay and tape transcripts, following notification of the events of Airprox 2024262.

The Yeovilton Approach Controller (APP) correctly discharged their duties in accordance with national and local procedures and regulations. Under a Basic Service, the APP controller was not obliged to identify nor provide Traffic Information to the pilot, however, under a duty of care and iaw CAP 774 Ch2 para 2.5/2.6:

2.5 'Given that the provider of a Basic Service is not required to monitor the flight, pilots should not expect any form of traffic information from a controller/FISO'.

2.6. 'However, where a controller/FISO has information that indicates that there is aerial activity in a particular location that may affect a flight, in so far as it is practical, they should provide traffic information in general terms to assist with the pilot's situational awareness'.

The DASOR investigation found the APP controller acted swiftly to inform the [AW169 crew] of the possible confliction with the 7000 squawk aircraft that appeared ahead and below on radar. [The] APP [controller] made the first Traffic Information call at 1210:15, the [AW169 pilot] reported clear of the conflicting aircraft by 1211:33

The Traffic Information call by the APP controller, coupled with the TCAS RA, meant that the [AW169] was able to maintain safe separation from the conflicting 7000 squawk.

### **UKAB Secretariat**

An analysis of the NATS radar replay was undertaken and the AW169 could be identified using Mode S data, indicating FL014 (radar QNH 1007hPa). The Ikarus could not be seen on the radar replay (Figure 1). Although the radar return for the AW169 displayed some 'jitter', probably due to the height of the aircraft, a climb could be seen in the final few sweeps before CPA. An analysis of an ADS-B data tool also did not display the Ikarus, however, the Ikarus pilot provided GPS data of their flight and so the diagram at the top of the report was compiled by comparing both data sets and a separation could be approximated.

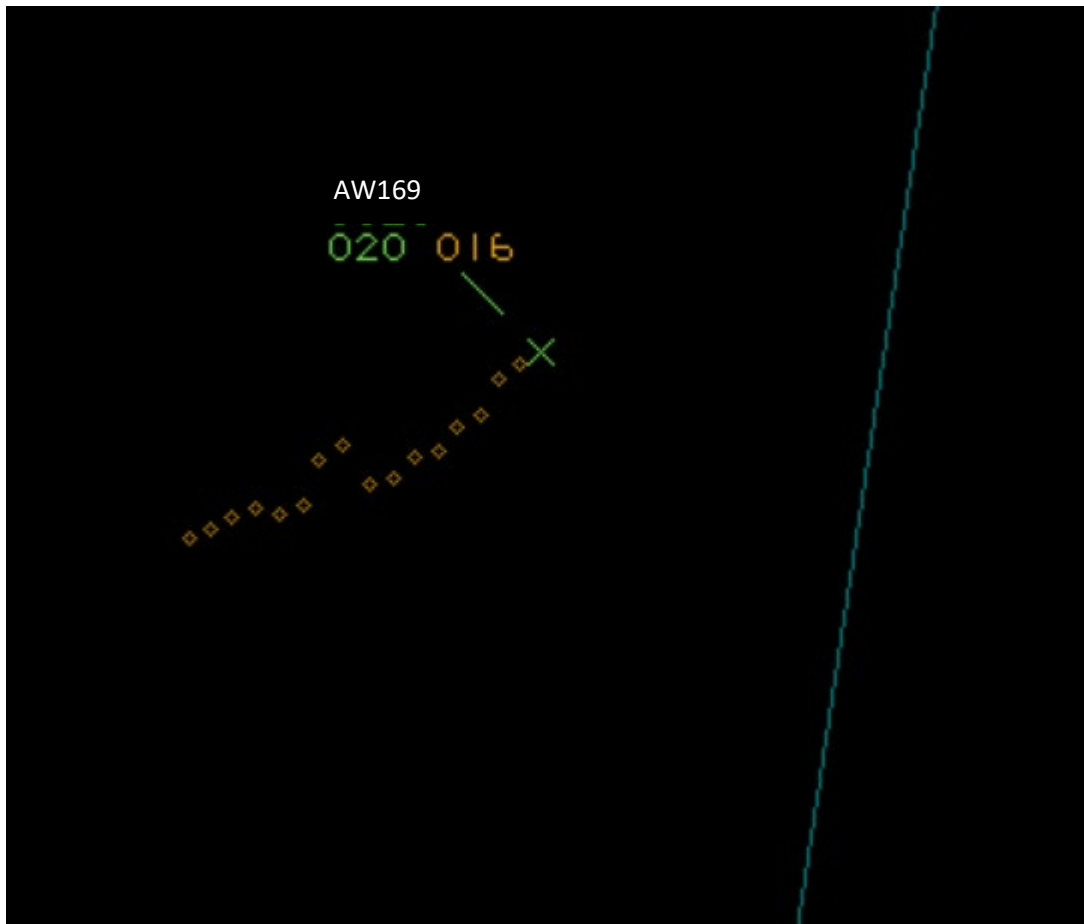


Figure 1 – 1212:11 approximate CPA

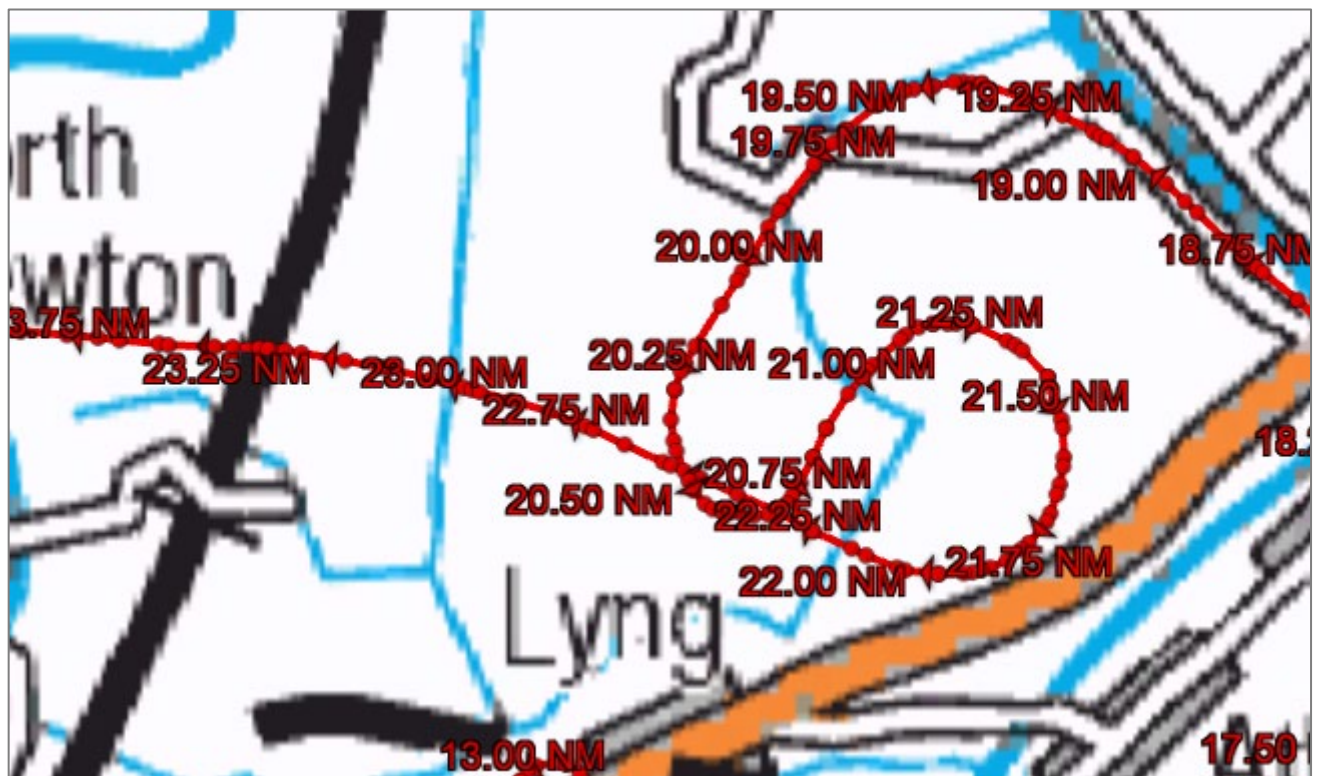


Figure 2 – A portion of the GPS track provided by the Ikarus pilot

Yeovilton provided a radar replay of their radar. The timing on the radar replay was nearly two minutes adrift of the NATS radar replay and the replay could not be manipulated to be able to measure the separation between the two aircraft. At Figure 3 the AW169 and the aircraft believed

to be the Ikarus could be seen on the Yeovilton radar (radar range 40NM). CPA on the Yeovilton radar was timed at 1210:47 (Figure 4) with an indicated 700ft radar separation (radar QNH not known).



Figure 3 – screenshot taken from Yeovilton radar replay at 1209:41



Figure 4 – Yeovilton radar at 1210:47

The AW169 and Ikarus pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard.<sup>1</sup> If the incident geometry is considered as converging then the AW169 pilot was required to give way to the Ikarus.<sup>2</sup>

## Summary

An Airprox was reported when an AW169 and an Ikarus flew into proximity in the vicinity of Hedging at around 1212Z on Thursday 10<sup>th</sup> October 2024. The AW169 pilot was operating under VFR in VMC in receipt of a Basic Service from Yeovil Radar and the Ikarus pilot was operating under VFR in VMC, not in receipt of an ATS.

## **PART B: SUMMARY OF THE BOARD'S DISCUSSIONS**

Information available consisted of reports from both pilots, radar photographs/video recordings, GPS track data for the Ikarus, reports 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 looked at the actions of the AW169 pilot. They had been transiting at 1400ft and had been in receipt of a Basic Service from Yeovil Radar. The TCAS had provided the pilot with information about traffic in the vicinity, the Ikarus, which the crew had monitored and they had chosen to climb to increase the separation. Traffic Information had also been provided by the Yeovilton controller, although members thought it likely that this had been passed coincident with the pilot receiving information from the TCAS. Nevertheless, members agreed that, once in receipt of the information, the pilot had made adjustments to their height, culminating in the climb in response to the TCAS RA, which had ensured adequate separation between the two aircraft.

Turning to the actions of the Ikarus pilot, members noted that they had not been receiving an ATS and opined that, had they called Yeovil Radar for a LARS, they may well have received Traffic Information on the AW169. The Ikarus had also not been fitted with any form of CWS and so the pilot had not

<sup>1</sup> (UK) SERA.3205 Proximity.

<sup>2</sup> (UK) SERA.3210 Right-of-way (c)(2) Converging.

received any information on the presence of the AW169 until they became visual but, once visual, they had not been concerned by its proximity.

The Board briefly considered the actions of the Yeovil Radar controller. They had been providing a Basic Service to the AW169 pilot and had been in the process of obtaining a MATZ crossing for the pilot when they had seen the track of the Ikarus had been likely to conflict and so had provided Traffic Information to the AW169 pilot. They had not been providing the Ikarus pilot with a service and so any further information on the Ikarus, such as routeing, had not been available to the controller and members agreed that there had been little more that the controller could have done in the circumstances.

Concluding their discussion, members agreed that, whilst the TCAS RA and subsequent sighting of the Ikarus had caused the AW169 pilot concern, the separation between the aircraft had been sufficient that normal safety margins had pertained. Members were satisfied that there had not been a risk of collision and agreed on the following contributory factors and outcomes:

**CF1:** The Ikarus pilot had not received any situational awareness that the AW169 had been in the vicinity.

**CF2:** The AW169 pilot had been concerned by the information received on their TCAS.

**CF3:** The AW169 pilot received a TCAS RA.

## **PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK**

### Contributory Factors:

	2024262			
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
	<b>Flight Elements</b>			
	<b>• Situational Awareness of the Conflicting Aircraft and Action</b>			
1	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
2	Human Factors	• Unnecessary Action	Events involving flight crew performing an action that was not required	Pilot was concerned by the proximity of the other aircraft
	<b>• Electronic Warning System Operation and Compliance</b>			
3	Contextual	• ACAS/TCAS RA	An event involving a genuine airborne collision avoidance system/traffic alert and collision avoidance system resolution advisory warning triggered	

Degree of Risk: E.

### Safety Barrier Assessment<sup>3</sup>

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

### **Flight Elements:**

**Situational Awareness of the Conflicting Aircraft and Action** were assessed as **ineffective** because the Ikarus pilot had received no prior situational awareness that the AW169 had been in the vicinity.

<sup>3</sup> 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: 2024262		Outside Controlled Airspace				
Barrier		Provision	Application	Effectiveness		
				0%	5%	Barrier Weighting
						10% 15% 20%
Ground Element	Regulations, Processes, Procedures and Compliance	✓	✓	<div></div>		
	Manning & Equipment	✓	✓	<div></div>		
	Situational Awareness of the Confliction & Action	✓	✓	<div></div>		
	Electronic Warning System Operation and Compliance	⊖	⊖	<div></div>		
Flight Element	Regulations, Processes, Procedures and Compliance	✓	✓	<div></div>		
	Tactical Planning and Execution	✓	✓	<div></div>		
	Situational Awareness of the Conflicting Aircraft & Action	✗	✓	<div></div>		
	Electronic Warning System Operation and Compliance	⚠	✓	<div></div>		
	See & Avoid	✓	✓	<div></div>		
<b>Key:</b>		Full	Partial	None	Not Present/Not Assessable	Not Used
Provision		✓	⚠	✗	⊖	
Application		✓	⚠	✗	⊖	⊖
Effectiveness		■	■	■	■	■