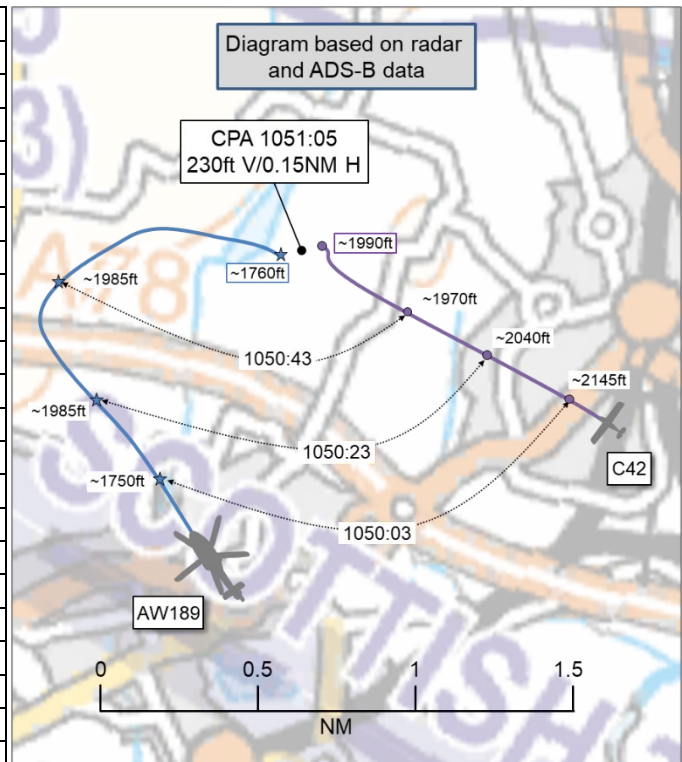


AIRPROX REPORT No 2025229

Date: 27 Oct 2025 Time: 1051Z Position: 5540N 00444W Location: NW of Kilwinning

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	AW189	C42
Operator	Coast Guard	Civ FW
Airspace	Scottish FIR	Scottish FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	Listening Out
Provider	Prestwick Tower	Bute Traffic
Altitude	~1760ft	~1990ft
Transponder	A, C, S	None ¹
Reported		
Colours	Red & White	White
Lighting	Standard	Tail strobe
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude	2000ft	2275ft
Altimeter	QNH	NK
Heading	NK	296°
Speed	90kt	60kt
ACAS/TAS	TCAS II	PilotAware
Alert	RA	Information
Separation at CPA		
Reported	100ft V/0.1NM H	100ft V/30m H
Recorded	~230ft V/0.15NM H	



THE AW189 PILOT reports that, whilst positioning to setup for the next run of a rotor track and balance (RTB) test flight, they encountered another aircraft in close proximity. They were just levelling off from a climb and turning to get a good track for the next RTB run when they visually acquired an aircraft at approximately 100ft above, heading towards them at 0.1NM range. They immediately manoeuvred to descend and turn away. Of note, the TCAS only acquired the proximate traffic after they had visually acquired it and begun their evasive manoeuvre. The associated TCAS RA was a 'descend now' command in line with the profile they had elected to fly upon visual acquisition. The proximate traffic continued on its course and, once the RA was resolved and they were satisfied there was no further conflict, they continued their test flight profiles without further incident. In flight, the Prestwick [controller] had advised them to look out as there was possibly uncontrolled traffic operating in the 'Kilmarnock gap', not talking to them [ATC], unknown altitude. The [AW189 crew] had discussed this threat on receipt of this information and had performed a full lookout and check of TCAS before manoeuvring, but on this occasion neither TCAS nor the crew had acquired the traffic before positioning.

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

THE C42 PILOT reports that, on heading for [their destination], they were starting to gain height for a [restricted area] over a power station. They were very aware, through [their electronic conspicuity equipment and viewing device], that there was a helicopter close to them. They received both an aural and visual alert, and saw the helicopter in their 9 o'clock at 2km, 500ft below on a similar heading. Both they and their experienced P2 were visual with the helicopter for the remainder of the Airprox and did not feel, at any time, that there was any risk. They discussed that [they thought] the helicopter pilot was just coming for a 'nosey'.

¹ The pilot of the C42 reported that their transponder was operating on Modes A,C, and S, but the aircraft was only detected as an intermittent primary return on radar.

The pilot further stated that, as an avoiding action, they made a slight turn towards the right and wobbled their wings to alert the [pilot of the] incoming helicopter.

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

THE PRESTWICK CONTROLLER reports that, whilst the [AW189] was still within Class D airspace, essential Traffic Information was passed on unknown traffic, that was not squawking, north of the zone operating within Class G airspace. Once the [AW189] left Class D [airspace] it was given a Basic Service. At 1053 [the AW189 pilot] reported having a TCAS RA but was not filing an Airprox.

Factual Background

The weather at Prestwick Airport was recorded as follows:

METAR EGPK 271050Z 32011KT 300V360 9999 FEW025 10/04 Q1006

Analysis and Investigation

Prestwick Airport

The recordings were listened to, log books checked and the individual spoken to. The ATCO was on day 2 of 6 and had been in position for 13min.

Actions carried out by the ATCO were appropriate and in accordance with the [Basic Service] provided. With better SSR coverage, perhaps the Traffic Information could have been updated to include height information, but this was not required under the type of ATSOCAS [sic] service provided. No issues with controller competency have been identified.

CAA ATSI

The Prestwick Tower controller effectively discharged their responsibilities in the provision of a Basic Service to the AW189 pilot, by issuing the pilot with a warning of the C42 traffic operating in the Kilmarnock gap, when the aircraft were 2.5NM apart. The intentions of the C42 pilot were unknown to the controller due to the pilot of this aircraft not being in contact with Prestwick ATC. The C42 SSR transponder output was not displayed on the controller display and, as such, no height information on the C42 could be determined or passed to the AW189 pilot. Lowther Hill Secondary Surveillance Radar (SSR) coverage is not aligned with the coverage of the Prestwick Primary Surveillance Radar (PSR), Lowther Hill being some 30NM to the east-southeast of Prestwick Airport. As such, the vertical coverage of the Lowther Hill SSR at lower levels may have been insufficient for the output of the C42 transponder to have been captured by the SSR and displayed on the Prestwick Aerodrome Traffic Monitor. This may explain why TCAS alerts were generated within the AW189 when the radar contact of the C42 was displayed to the controller as a PSR contact only. The reference within the Prestwick Investigation report to 'essential' Traffic Information having been passed to the AW189 pilot, was queried with the unit and this term was confirmed to have been used in error.

UKAB Secretariat

An analysis of the NATS radar replay was undertaken and the AW189 was identified using Mode S data, while the C42 was identified by GPS track comparison to a primary radar return. The last primary return for the C42 prior to CPA was seen at 1050:59 (Figure 1).

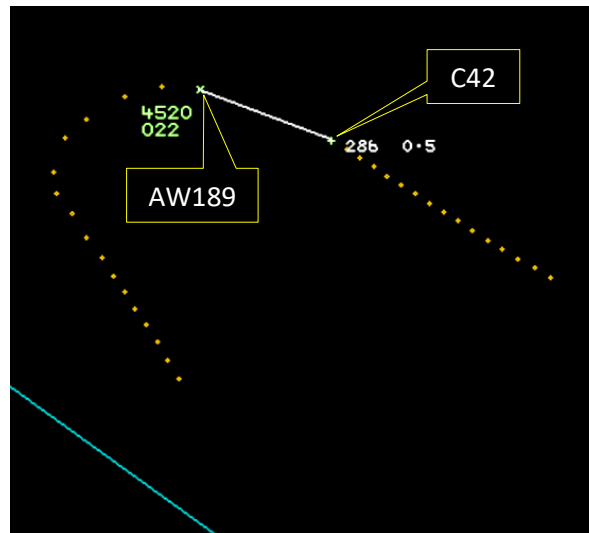


Figure 1 – Time 1050:59

Further analysis of third-party aircraft tracking software was undertaken and both aircraft were identified via ADS-B sources (Figure 2).



Figure 2 – Time 1051:03

CPA was assessed to have occurred at 1051:05 with 0.15NM lateral and approximately 230ft vertical separation.

The AW189 and C42 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard.² If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right.³

Summary

An Airprox was reported when an AW189 and a C42 flew into proximity northwest of Kilwinning at 1051Z on Monday 27th October 2025. Both pilots were operating under VFR in VMC, the AW189 pilot in receipt of a Basic Service from Prestwick Tower and the C42 pilot listening out on the Bute Traffic frequency.

² (UK) SERA.3205 Proximity.

³ (UK) SERA.3210 Right-of-way (c)(1) Approaching head-on.

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 flight of the C42, 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.

The Board first considered the actions of the AW189 pilot, and noted that they had been performing rotor track and balance (RTB) tests. Members discussed whether it had been necessary for the AW189 pilot to have manoeuvred into Class G airspace under a Basic Service when, in their view, the flight may have remained within Class D airspace and in receipt of a Traffic Service from Prestwick Radar. An experienced helicopter pilot member considered that, given that RTB activity typically requires 'eyes-in' to monitor instrumentation, even with an observer on board, operating within Class D airspace, with enhanced surveillance, may have provided greater assurance to the crew. It was also observed that conducting the RTB tests over the sea was not, in itself, a concern, provided the task could be flown out of sun. The Board also wondered why the pilot had remained on the Tower frequency, particularly once they had left the CTR, and it was noted that the onus had been on the pilot operating in Class G airspace to have selected their service provider and type, although members felt that the Tower controller could have helped by suggesting that they contact Radar, for example. However, members agreed that, had the option to remain in Class D airspace not been available to the AW189 pilot then it may have been prudent for them to have requested a Traffic Service within a block of airspace whilst performing their tasks in the Class G airspace bordering the northern edge of the Prestwick CTR. Nonetheless, the Board noted that the pilot had received generic Traffic Information, with no height, on unknown traffic (the C42) in any case and that, despite looking, neither crew member had been able to visually acquire the traffic. Members agreed, therefore, that the AW189 pilot had only had generic situational awareness of the presence of another aircraft (**CF2**). The Board noted that the pilot, after having looked but seen no traffic to affect them, had manoeuvred their aircraft to initiate an RTB test run and that this had put them directly into conflict with the C42. The Board further noted that the pilot, on seeing the C42, had immediately turned and descended away from it, after which the pilot had received an RA from their TCAS (**CF4**) and members agreed that the pilot had been concerned about the proximity of the C42 (**CF3**).

The Board then turned their attention to the actions of the C42 pilot, and noted that they had been aware of the presence of the AW189 by virtue of the information displayed on their navigation device through the electronic conspicuity (EC) equipment carried on board (**CF5**). The Board also noted that the C42 pilot had been listening out on the frequency of their destination airfield. Although members considered this to have been reasonable, given the C42's distance to run to destination, they were disappointed that the pilot had not contacted Prestwick prior to switching to their enroute frequency. The Board acknowledged that the pilot had maintained good situational awareness on the AW189 ahead, however, had they remained on frequency, both Prestwick ATC and other pilots in the vicinity would have had improved situational awareness of the C42's position and intentions. Members agreed that the C42 pilot could have requested a surveillance-based FIS from Prestwick (**CF1**).

The Board finally considered the actions of the Prestwick Tower controller, and noted that they had been providing a Basic Service to the AW189 pilot outside the Prestwick CTR. Controller members questioned why this had occurred, given that Tower controllers would ordinarily hand aircraft over to Approach once they are operating beyond the vicinity of the aerodrome. However, as it was unclear whether the controller had been operating a combined Tower/Approach position at the time, members were satisfied that the controller had nevertheless been in a position to provide generic Traffic Information on the C42, thereby discharging their duty of care to the AW189 pilot.

On assessing the collision of risk, the Board noted that, although the AW189 pilot had had only generic situational awareness, the C42 pilot had been fully aware of the presence of the AW189. Members agreed that safety had been degraded once the AW189's track and altitude had become opposite to that of the C42. However, they concluded that, as both pilots had taken timely and effective avoiding action, there had been no risk of collision. As such, the Board assigned Risk Category C to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK**Contributory Factors:**

2025229				
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
• Situational Awareness of the Conflicting Aircraft and Action				
2	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
3	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
• Electronic Warning System Operation and Compliance				
4	Contextual	• ACAS/TCAS RA	An event involving a genuine airborne collision avoidance system/traffic alert and collision avoidance system resolution advisory warning triggered	
5	Contextual	• Other warning system operation	An event involving a genuine warning from an airborne system other than TCAS.	

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:

Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because the C42 pilot could have requested a surveillance-based ATS from Prestwick ATC prior to selecting their destination frequency.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the AW189 pilot had only generic situational awareness of the presence of another aircraft in the vicinity.

⁴ 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: 2025229		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								