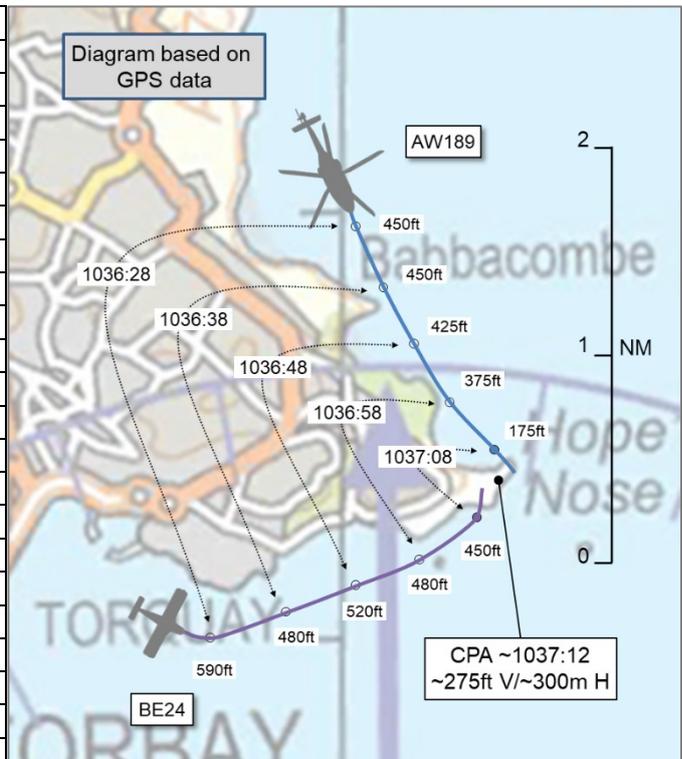


**AIRPROX REPORT No 2022183**

Date: 16 Aug 2022 Time: ~1037Z Position: 5028N 00329W Location: 4NM N BHD VOR

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

Recorded	Aircraft 1	Aircraft 2
Aircraft	AW189	BE24
Operator	Coast Guard	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	None
Provider	Exeter Radar	N/A
Altitude/FL	175ft	450ft
Transponder	A, C, S	A, C, S+
Reported		
Colours	Red, White	White, Blue
Lighting	'Full'	Beacon, Strobes
Conditions	VMC	VMC
Visibility	5-10km	5-10km
Altitude/FL	350ft	500ft
Altimeter	QNH (NK hPa)	QNH (NK hPa)
Heading	NK	070°
Speed	<60kt	110kt
ACAS/TAS	TCAS II	TAS/FLARM
Alert	TA	None
Separation at CPA		
Reported	50ft V/<0.25NM H	200ft V/200m H
Recorded	~275ft V/~300m H	



**THE AW189 PILOT** reports that they were tasked [to] Babbacombe Bay near Torquay. Their transit was conducted at medium level owing to low cloud and haze en-route, under a Basic Service from [another ATSU] and then Exeter ATC. Having passed Exeter Airport, they started descent from 3300ft QNH, avoiding scattered clouds to remain VMC whilst descending into the coastal area just north of Torquay/Babbacombe. Exeter ATC informed them of an aircraft overhead the Torquay area 1000ft above their altitude during the descent and this was seen on the HSI TCAS overlay. The cloudbase in the Babbacombe Bay area was noted at 700-800ft QNH with visibility reduced in haze. They [arrived] at 1034 and started a brief coastal search heading southbound at 350ft ASL along the coast. This placed the land on the right-hand side of the aircraft initially. On completion of this brief search, their intent was to turn northbound and conduct a search pattern. As they started to route around the headland at Torquay, a TCAS alert of 'TRAFFIC, TRAFFIC' was heard by the crew. The pilot flying, in the right-hand seat, checked the HSI TCAS display and noted that the traffic was 100ft above and very close (yellow circle was almost at centre of HSI), and very slightly to the right. Based on the previous situational call about the traffic from Exeter, they instinctively looked up at the headland in their 1 o'clock position to note [what they recall was] a predominantly white, twin-engine, low wing, fixed-wing light aircraft in a left banked turn around the same headland, coming towards them at a range of approximately 0.3-0.5NM and very slightly above. Having assessed a gentle crossing angle they positively turned left away from the fixed-wing aircraft to increase the crossing angle. The pilot monitoring maintained visual contact with the other aircraft and instructed them [the pilot flying] to descend. The area was quickly checked clear of hazards, a descent was commenced, and they levelled just below 150ft ASL. The tech crew member confirmed that the fixed-wing aircraft had continued along the coast and was now clear. They continued out to sea briefly before gently turning right back to Torquay to recommence their [tasking], and informed Exeter ATC that the fixed-wing had closely passed their position on their right-hand side. An Airprox was not called to Exeter ATC due to low-level comms being poor and the crew's priority was the [tasking]. The mission continued until they were stood-down and they returned to [base] without further incident. Owing to Exeter's traffic pattern as they

routed home, the crew decided they would inform Exeter ATC of the Airprox by phone on recovery to [base].

As standard, CADS<sup>1</sup> was checked by the crew before departure from [departure airfield] and a PINS<sup>2</sup> aircraft was noted to be operating between Plymouth and Exeter overland and assumed to be at low-level. No other low-level traffic was notified in the SAR operating area. Although they believe the fixed-wing aircraft was terrain masked to them until very shortly before the 'TRAFFIC' call, horizontal lookout was likely to be reduced from the level normally associated with a low-level coastal transit, as the crew were biasing their lookout to search. On this occasion, based on relative speeds and topography, they do not believe this reduced horizontal lookout was a contributory factor. In the subsequent crew debrief, the tech crew member, who had maintained visual contact with aircraft as it passed their right abeam position, thought that as their aircraft manoeuvred left and descended, the fixed-wing tightened its turn slightly in order to avoid them, but they cannot be sure of this.

[The AW189 pilot adds that they] were listening on Guard and no calls were noted. As there was a slight crossing angle/vertical offset between the aircraft, they do not believe the aircraft would have collided had the avoiding action not been taken, but the aircraft would have come extremely close to each other. During telephone debrief with Exeter ATC, they were informed that the fixed-wing pilot did not communicate with them and continued eastbound along the coast remaining clear of their airspace. Although under a Basic Service, Exeter ATC's Traffic Information to them was a key contributing factor to the crew maintaining situational awareness, and quickly assessing the threat and facilitating a safe outcome; they pass their thanks to them.

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

**THE BE24 PILOT** reports that after overflying Torquay they were descending over the water in order to stay below the ceiling, on an east-northeasterly heading, to circumnavigate the coastline when they spotted the rescue helicopter in their 1 o'clock position, below them, heading south. They are not sure if they saw the traffic on the map display of their GTN750, however, it might be that they tried to identify the traffic after recognising the symbol on the display; it is also possible that they saw the traffic without notification from their traffic system. In any case, they never classified the other traffic as a threat so [deemed that] corrective action was not necessary.

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

**THE EXETER RADAR CONTROLLER** reports that at approximately 1040 they observed an unknown contact tracking towards [the AW189]. They called the traffic twice and a short while later [the AW189 pilot] reported that an aircraft had passed down their starboard side.

At 1217 the crew of [the AW189] telephoned Exeter ATC advising that an Airprox would be filed.

## Factual Background

The weather at Exeter was recorded as follows:

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METAR EGTE 161020Z 02005KT 9000 FEW025 19/18 Q1007
METAR EGTE 161050Z 02004KT 9999 FEW020 20/18 Q1007
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## Analysis and Investigation

### Exeter ATSU Investigation summary.

At 1037, on the 16<sup>th</sup> August 2022, [an AW189] had an encounter with another aircraft which resulted in the pilot filing an Airprox report.

<sup>1</sup> Centralised Aviation Data Service.

<sup>2</sup> Pipeline Inspection Notification System.

At 1031, [the AW189] was south of Exeter airport by 3NM indicating 2100ft on SSR Mode C and receiving a Basic Service from the Exeter Radar controller. The pilot reported that they were en-route to operate in the Teignmouth/Torbay area at low-level.

At 1034:50, [the AW189] was indicating 700ft when the radar controller called unknown traffic to [the AW189 pilot]. Figure 1.

Controller: “[AW189 c/s] if you read there’s traffic over Torbay at the moment, it’s routing towards the Exmouth direction indicating 1200 feet, inland at the moment but heading towards Exmouth”

[AW189 pilot]: “That’s copied, many thanks”



Figure 1 – 1034:50

At 1036:09, the radar controller updated [the AW189 pilot] on the position of the unknown traffic:

Controller: “[AW189 c/s] that unknown contact is believed to be about 2 miles ahead you now, the level is not known but it is now tracking towards the east, south.

No response was heard from [the AW189 pilot], Figure 2.



Figure 2 – 1036:09

At 1037:29, neither aircraft were showing on the controller's situation display but a transmission was received from [the AW189 pilot], which was readability 3, stating that the pilot was "*visual with that traffic*"

On returning to base, the pilot of [the AW189] contacted Exeter ATC by telephone and stated that they were going to file an Airprox.

The pilot of the unknown aircraft did not call Exeter Radar at any stage. Once off-console, the radar ATCA attempted to determine the identity of the unknown aircraft by looking online. Their research led them to believe that the aircraft was [the BE24].

### Conclusion

The Exeter Radar controller was alert to the potential confliction and passed timely Traffic Information to [the AW189 pilot].

### CAA ATSI

CAA ATSI has reviewed this event and is satisfied that appropriate Traffic Information was passed by the controller to the AW189 pilot.

### UKAB Secretariat

An analysis of the NATS radar replay was undertaken and, although both aircraft were detected prior to the Airprox, at the time of the event neither were visible due to both being below the level of radar cover in that area. However, GPS data was available to the UKAB Secretariat and this has been used to construct the diagram and determine CPA. CPA occurred between data points and therefore some interpolation was required to determine the time and separation and as such these figures have been recorded as an approximation.

The AW189 and BE24 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>3</sup> If the incident geometry is considered as converging then the AW189 pilot was required to give way to the BE24.<sup>4</sup>

### Summary

An Airprox was reported when an AW189 and a BE24 flew into proximity 6NM north of Berry Head at approximately 1037Z on Tuesday 16<sup>th</sup> August. Both pilots were operating under VFR in VMC, the AW189 pilot in receipt of a Basic Service from Exeter Radar and the BE24 pilot 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, reports from the air traffic controllers 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 had been encouraged that the pilot had, prior to departure, checked for low-level traffic in the area. Members discussed that, at the level at which the AW189 had been operating, it would be unusual to encounter other traffic, and that it can be easy to become task orientated in situations such as this. However, members agreed that the AW189 pilot had visually acquired the BE24 in good time, aided by the receipt of Traffic Information from the Exeter Radar controller and a TCAS TA (**CF4**).

<sup>3</sup> (UK) SERA.3205 Proximity.

<sup>4</sup> (UK) SERA.3210 Right-of-way (c)(2) Converging

Next, members discussed the actions of the BE24 pilot and, noting that they had reported challenging weather conditions, wondered whether it may have been more appropriate for them to have adapted their plan (CF2) and either sought an alternative routing or returned to their departure airfield. The Board was encouraged that the BE24 pilot had been carrying a variety of EC equipment, however, the pilot had not been able to recall whether they had received an alert regarding the AW189 (CF5), leading members to agree that the BE24 pilot had not had any awareness of the presence of the AW189 prior to sighting it (CF3).

The Board then turned its attention to the ground element involvement and a civil controller member stated that, although the AW189 pilot had been in receipt of a Basic Service, the controller had passed a good level of Traffic Information regarding the BE24, and that this had continued after the BE24 had faded from radar, albeit in a more generic form (CF1).

Finally, the Board considered the risk of collision involved in this Airprox. Members discussed that, whilst the BE24 pilot had not had any prior awareness of the AW189, the AW189 pilot had had good awareness of the BE24, having received both Traffic Information and a TCAS TA. Members agreed that the pilots of both aircraft had become visual with the other early enough to enable them to take appropriate avoiding action. The Board concluded that, although safety had been degraded, there had been no risk of collision. Consequently, the Board assigned a Risk Category C to this event.

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

### Contributory Factors:

	2022183			
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
<b>Ground Elements</b>				
<b>• Situational Awareness and Action</b>				
1	Contextual	• Traffic Management Information Action	An event involving traffic management information actions	The ground element had only generic, late, no or inaccurate Situational Awareness
<b>Flight Elements</b>				
<b>• Tactical Planning and Execution</b>				
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
<b>• Situational Awareness of the Conflicting Aircraft and Action</b>				
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
<b>• Electronic Warning System Operation and Compliance</b>				
4	Contextual	• ACAS/TCAS TA	An event involving a genuine airborne collision avoidance system/traffic alert and collision avoidance system traffic advisory warning triggered	
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

Degree of Risk: C

### Safety Barrier Assessment<sup>5</sup>

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

<sup>5</sup> The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).

**Flight Elements:**

**Tactical Planning and Execution** was assessed as **partially effective** because the BE24 pilot had not sufficiently adapted their plan on encountering low cloud, electing to continue and descend to low-level over the water.

**Situational Awareness of the Conflicting Aircraft and Action** were assessed as **ineffective** because the BE24 pilot had not had any awareness of the presence of the AW189 prior to sighting it.

Airprox Barrier Assessment: 2022183		Outside Controlled Airspace		Effectiveness				
Barrier		Provision	Application	Barrier Weighting				
				0%	5%	10%	15%	20%
Ground Element	Regulations, Processes, Procedures and Compliance	✓	✓					
	Manning & Equipment	✓	✓					
	Situational Awareness of the Conflication & 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	✓	✓					
<b>Key:</b>		Full	Partial	None	Not Present/Not Assessable	Not Used		
Provision	✓	⚠	✗	⊘				
Application	✓	⚠	✗	⊘	⊘			
Effectiveness	■	■	■	■	□			