AIRPROX REPORT No 2025104

Date: 11 May 2025 Time: 0952Z Position: 5709N 00203W Location: Aberdeen

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	EMB190	H175
Operator	CAT	Civ Comm
Airspace	Aberdeen CTR	Aberdeen CTR
Class	D	D
Rules	IFR	VFR
Service	Radar Control	Radar Control
Provider	Aberdeen	Aberdeen
Altitude/FL	FL037	FL015
Transponder	A, C, S+	A, C, S+
Reported		
Colours	Company livery	Yellow
Lighting	NR	Position, Strobe
Conditions	VMC	VMC
Visibility	NR	>10km
Altitude/FL	1000ft	1650ft
Altimeter	NR	QNH
Heading	NR	NK
Speed	NR	145kt
ACAS/TAS	TCAS II	TCAS II
Alert	None	None
Separation at CPA		
Reported	NR	NK
Recorded	2200ft V/1.1NM H	

THE EMB190 PILOT reports that, after departure from Aberdeen, they turned towards point RIVOT. They started the turn at 1000ft; after the turn they noticed both visually, and on TCAS, traffic in their 1 o'clock moving right-to-left, maintaining 1900ft. As per NADP2, they accelerated at 800ft AGL but postponed the acceleration after noticing the VFR traffic, otherwise there would have been insufficient separation with the aforementioned VFR traffic. They asked for Traffic Information from Tower, which confirmed the traffic but did not give instructions for traffic avoidance. After they were clear of the traffic and in clean configuration, they asked for information from ATC about what went wrong. Apparently the position of the VFR traffic (helicopter) was misinterpreted by ATC. There was no TCAS RA/TA, the manoeuvre was solely based on visual separation and mentioned altitude of the traffic by ATC.

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

THE H175 PILOT reports that they were in the descent, returning VFR to Aberdeen following an air test. They were cleared to join VFR not above 2000ft. The EMB190 took off from RW16 and climbed, following the SID. They first saw the other aircraft at 4NM, initially below them. The EMB190 pilot queried with ATC their (H175) location as the EMB190 climbed. ATC said something along the lines of 'that's on me'. There was no perceived risk of collision.

The pilot assessed the risk of collision as 'None'.

THE ABERDEEN CONTROLLER did not submit a report.

Factual Background

The weather at Aberdeen airport was recorded as follows:

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METAR COR EGPD 110950Z AUTO 17010KT 9999 NCD 16/09 Q1014 NOSIG=
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Analysis and Investigation

NATS Safety Investigations

Executive Summary

The EMB190 departed from RW16 and turned to the southeast, climbing to FL110 under an IFR clearance. The H175 was inbound to Aberdeen on the Stonehaven Lane VFR route, operating not above altitude 2000ft.

Description of the event

During a quiet period of traffic when the Aberdeen Tower controller (RIT) was providing a combined Aerodrome and Approach Radar service using Radar in the Tower procedures, the H175 was conducting an air test to the south of Stonehaven.

0938:05 – The pilot of [the H175] reported their air test was complete and requested VFR rejoin. The controller issued a clearance to rejoin on the Stonehaven Lane VFR not above altitude 2000ft, which was correctly read back.

0945:38 – The pilot of [EMB190] reported they were ready for departure at holding point M9.

RIT: "[EMB190 C/S] *thanks, after departure, turn left direct RIVOT*."

EMB190: "*After departure left turn direct RIVOT*, [C/S]."

RIT: "[EMB190 C/S] *readback correct, via Mike 9, Runway 16, wind 170 at 10, cleared for take-off*."

EMB190: "*Mike 9, Runway 16 cleared take off* [C/S]."

0945:59 – RIT realised that the tolerance on the Calculated Take Off Time (CTOT) had not yet been reached.

RIT: "[EMB190 C/S] *sorry, cancel take-off, but you can line up and wait. You have another…about four minutes for your slot*."

EMB190: "*Errr…take-off clearance cancelled, line up Runway 16* [C/S]."

RIT: "*I'll try to get it brought forward for you*."

0949:26 - RIT: "[EMB190 C/S] *Runway 16, wind 170 at 10, cleared for take-off*."

EMB190: "*Runway 16 cleared for take-off* [C/S]."

At this time [H175 C/S] entered the CTR at the southern boundary, offshore on the Stonehaven Lane with Mode C indicating 2000ft (Figure 1).

Figure 1

0950:16 – A vehicle driver was issued with an instruction to cross the RW16 threshold, indicating [the EMB190] had commenced their take-off roll.

0950:37 – [EMB190 C/S] appeared in surveillance coverage with Mode C indicating the aircraft was climbing through 1200ft (Figure 2).

Figure 2

0950:49 – [EMB190 C/S] commenced a left turn towards RIVOT (Figure 3).

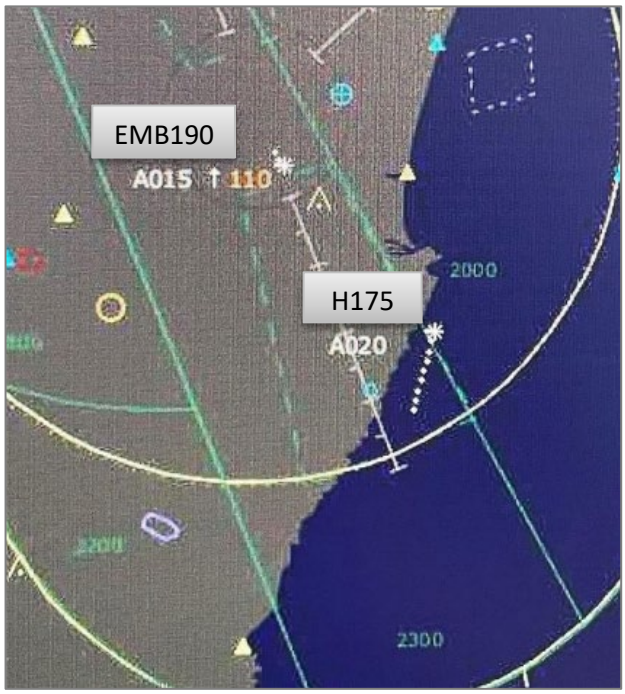


Figure 3

0951:18 – EMB190: "[C/S] *is there any traffic information…one o'clock*?"

RIT: "[EMB190 C/S] *there is a helicopter inbound to the field, VFR 1900ft*."

This was acknowledged by the EMB190 pilot (Figure 4).

Figure 4

0951:31 - 1000ft vertical separation was achieved, based on Mode C responses. This point is also the closest [vertical] point of approach (Figure 5).

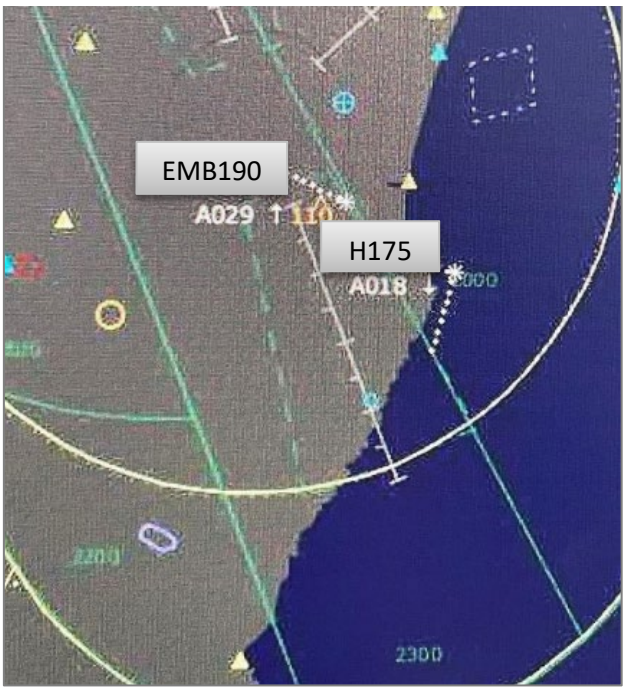


Figure 5

0951:48 - RIT: "[EMB190 C/S] *report passing altitude, confirm cleared level*."

EMB190: "*Passing altitude 3400ft QNH1014, Flight Level 110*, [C/S]".

The aircraft was transferred to PC Tyne sector shortly after this time.

0952:14 - Minimum lateral separation of 1.16NM (Figure 6).

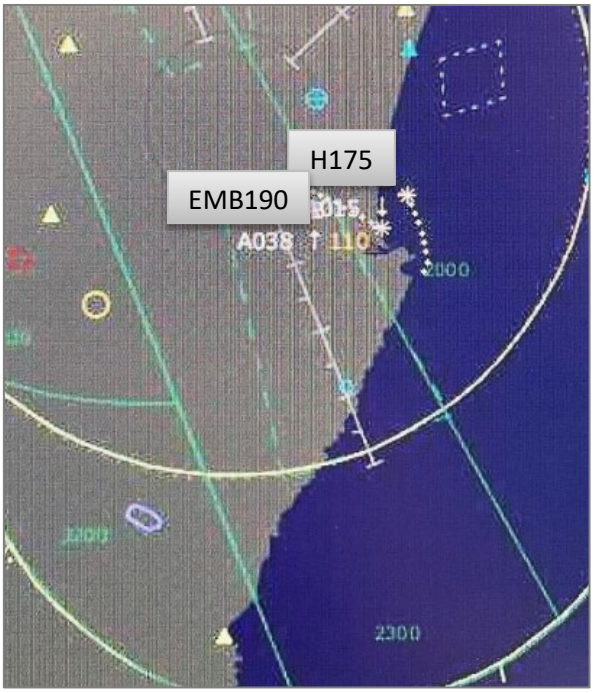


Figure 6

Investigation

The crew of [the EMB190] did not mention they considered this event to be an Airprox on the day of the event and neither pilot reporting receiving a TCAS RA. A period of 23 days had elapsed before this event was brought to the attention of the unit. As a result, no controller report exists with this investigation conducted in lieu of a controller report.

CAP493 REQUIREMENTS

CAP493 Section 1, Chapter 1, Paragraph 2.1, table 1 contains the minimum services to be provided by an ATC unit in Class D airspace. Specifically:

(a) Separate IFR flights from other IFR flights;
(b) Pass traffic information to IFR flights and SVFR flights on VFR flights and give traffic avoidance advice when requested;
(c) Pass traffic information to VFR flights on all other flights and provide traffic avoidance advice when requested.

In this event, lines (b) and (c) pertain; however, in order to balance pilot and controller workload it is acknowledged that Traffic Information is only passed where it is relevant.

At Aberdeen, standard separation between two IFR aircraft is 3NM or 1000ft. With [the EMB190 C/S] operating IFR and [H175 C/S] operating VFR, there was no separation requirement.

AIRCRAFT ROUTEINGS

[EMB190 C/S] was issued with an after departure instruction to route direct to reporting point RIVOT, which gives an initial track of approximately 115°. The crew adopted this track on departure from Aberdeen and did not deviate from it.

[H175 C/S] was following the Stonehaven Lane VFR Entry/Exit route which requires the crew to remain offshore until reaching the Bridge of Don. The controller issued a circuit joining clearance to follow after passing Bridge of Don and this was complied with.

CONTROLLER ACTIONS

Having initially issued a take-off clearance to [EMB190 C/S] at 0945:59 the controller recognised that the aircraft would depart outside the CTOT tolerance of -5/+10 minutes, so cancelled the take-off clearance and instructed the crew to hold on the runway. At this time, the H175 was 4NM southeast of Stonehaven and, as such, would not be considered to be relevant traffic for the crew of the EMB190.

When the second take-off clearance was issued, the H175 was at the southern CTR boundary, at a point 10NM south of the airfield. With [the EMB190] already lined up on RW16 there was reasonable assurance that the aircraft would depart with little delay and, given the initial climb rate of an EMB190 aircraft, it would be expected to climb above the maximum cleared altitude of 2000ft of the H175 without this aircraft becoming relevant traffic to the crew of the EMB190.

CONTROLLER INTERVIEW

In the absence of a report from the controller, a discussion was conducted with them, with the following points noted:

- Despite the time that had elapsed from the day of the event, the controller could recall the sequence of events with reasonable accuracy.
- When they first issued a take-off clearance to [EMB190 C/S], [H175 C/S] was a considerable distance away, so the aircraft were not considered to be of relevance to each other.
- Having cancelled the take-off clearance issued to the EMB190, when this clearance was re-issued, the controller was still satisfied that the tracks that would be flown by both aircraft and the climb performance of the EMB190 did not warrant the passing of Traffic Information and, as the scenario progressed, they were satisfied that the situation remained safe.
- The controller recalled the pilot of the EMB190 requesting Traffic Information but was not informed by them that they considered it to be a problem.

AIRCRAFT POSITION DATA

Table Indicating Mode C, aircraft track and relative position data

Time (UTC)	EMB190 Mode C and Track (°M)	H175 Mode C and Track (°M)	Distance, altitude and relative bearing of H175 from EMB190
0950:49	1500ft / In left turn	2000ft / 015°	6.13nm / +475ft/ 140°
0951:07	2000ft / 120°	2000ft / 015°	4.98nm / 0ft/ 135°
0951:18 (Note1)	2500ft / 120°	1900ft / 015°	4.24nm / -525ft / 125°
0951:31 (Note 2)	2900ft / 120°	1800ft / 015°	3.53nm / -1000ft / 120·
0951:37	3100ft / 120·	1800ft / Left turn, passinq 360°	3.13nm / -1350ft / 120·
0951:44	3300ft / 120·	1800ft / 350°	2.71nm/ -1575ft / 135°
0951:49	3400ft / 120°	1700ft / 350°	2.29nm / -1700ft / 115°
0951:56	3400ft / 120°	1600ft / 350°	1.87nm / -1850ft / 105°
0952:01	3600ft / 120°	1600ft / 345°	1.49nm / -1950ft / 090°
0952:07	3600ft / 120°	1600ft / 345°	1.21nm/ -2075ft / 070°
0952:14 (Note 3)	3800ft / 120°	1500ft / 345°	1.16nm / -2225ft / 030°

Notes:

Note 1: Pilot queried the presence of traffic in their one o'clock position.
Note 2: 1000ft vertical separation achieved. This is also the closest point of approach.
Note 3: Minimum lateral separation.

[UKAB NOTE: for Airprox assessment, CPA was determined to have been at 0952:14]

The climb profile of the EMB190, as determined by successive Mode C responses, indicated a rate of climb of ~2000fpm until reaching 3300ft when this reduced to ~1500fpm. This is a typical climb profile adopted by an EMB190 aircraft when departing from Aberdeen Airport.

Conclusion

Traffic Information was not passed by the Tower controller to the EMB190 pilot or to the H175 pilot, however, the climb profile of the EMB190, which appeared to be consistent with normal operations, resulted in the aircraft climbing above the H175 prior to the two aircraft becoming laterally proximate. No avoidance manoeuvre appeared to be taken by either aircraft, with them remaining separated by 3NM or 1000ft throughout the event, even though these separation values were not required for an IFR/VFR traffic scenario.

CAA ATSI

It was the ATCO's opinion that neither aircraft was relevant traffic to the other based on the anticipated climb performance of the EMB190, and so they did not pass Traffic Information to either pilot. The use of defensive controlling techniques, including the passing of Traffic Information, may have negated the need for the EMB190 pilot to postpone acceleration and prompting them to actually request Traffic Information on the H175 from the controller.

ATSI acknowledges that an investigation report has since been received from the unit, but has queried the lack of initial report from the controller involved, once the unit had been notified of the occurrence by UKAB.

UKAB Secretariat

The EMB190 and H175 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 head-on or nearly so then both pilots were required to turn to the right.[2] Within

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

Class D airspace IFR and VFR flights are permitted and all flights are provided with Air Traffic Control Service. IFR flights are separated from other IFR flights, receive Traffic Information in respect of VFR flights and traffic avoidance advice on request. VFR flights receive Traffic Information in respect of all other flights and traffic avoidance advice on request.[3]

Summary

An Airprox was reported when an EMB190 and an H175 flew into proximity at Aberdeen at 0952Z on Sunday 11th May 2025. The EMB190 pilot was operating under IFR in VMC in receipt of a Radar Control Service from Aberdeen, and the H175 pilot was operating under VFR in VMC also in receipt of a Radar Control Service from Aberdeen.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, 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 Aberdeen controller. The controller had assessed the positions of both aircraft when they had first given the take-off clearance to the EMB190, and had judged that the H175 would not have been a factor to the EMB190. However, having delayed the departure clearance to comply with the CTOT, the situation had changed. That being said, the controller had still believed that the H175 would not have become a factor, and so had not passed Traffic Information to either pilot. The Board acknowledged that there had been no separation standards to adhere to in this situation and the two aircraft had not broken any separation standards required even if they had both been IFR. However, members thought that the passing Traffic Information to both pilots would have reassured the EMB190 pilot that the helicopter had not been a factor.

When looking at the actions of the pilots, the Board agreed that the H175 pilot had been fully aware of the unfolding situation, they had seen the EMB190 take-off and climb out on the SID and had not been concerned by its routeing. By way of contrast, the EMB190 pilot had not been aware of the positioning of the H175 and so, when they had become visual with it at the same time as they received information on their TCAS, they had felt that they had needed to delay their acceleration to remove any threat of conflict.

Concluding their discussion, members were satisfied that the actions taken by each involved party had ensured that no risk of collision had existed. Whilst acknowledging that the pilot of the EMB190 had been concerned by the encounter, and that the passing of Traffic Information may have allayed that concern, still members were in agreement that normal safety margins had pertained.

The Board assigned Risk Category E to this event and members agreed on the following contributory factors:

CF1. The controller had not provided Traffic Information to either pilot.

CF2. The EMB190 pilot had no situational awareness on the presence of the H175 until they sighted it.

CF3. The pilot of the EMB190 had been concerned by the proximity of the H175.

[3] (UK) SERA 6001 Classification of airspaces.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2025104			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Ground Elements			
	• Situational Awareness and Action			
1	Human Factors	• ANS Traffic Information Provision	Provision of ANS traffic information	TI not provided, inaccurate, inadequate, or late
	Flight Elements			
	• 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
	• See and Avoid			
3	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

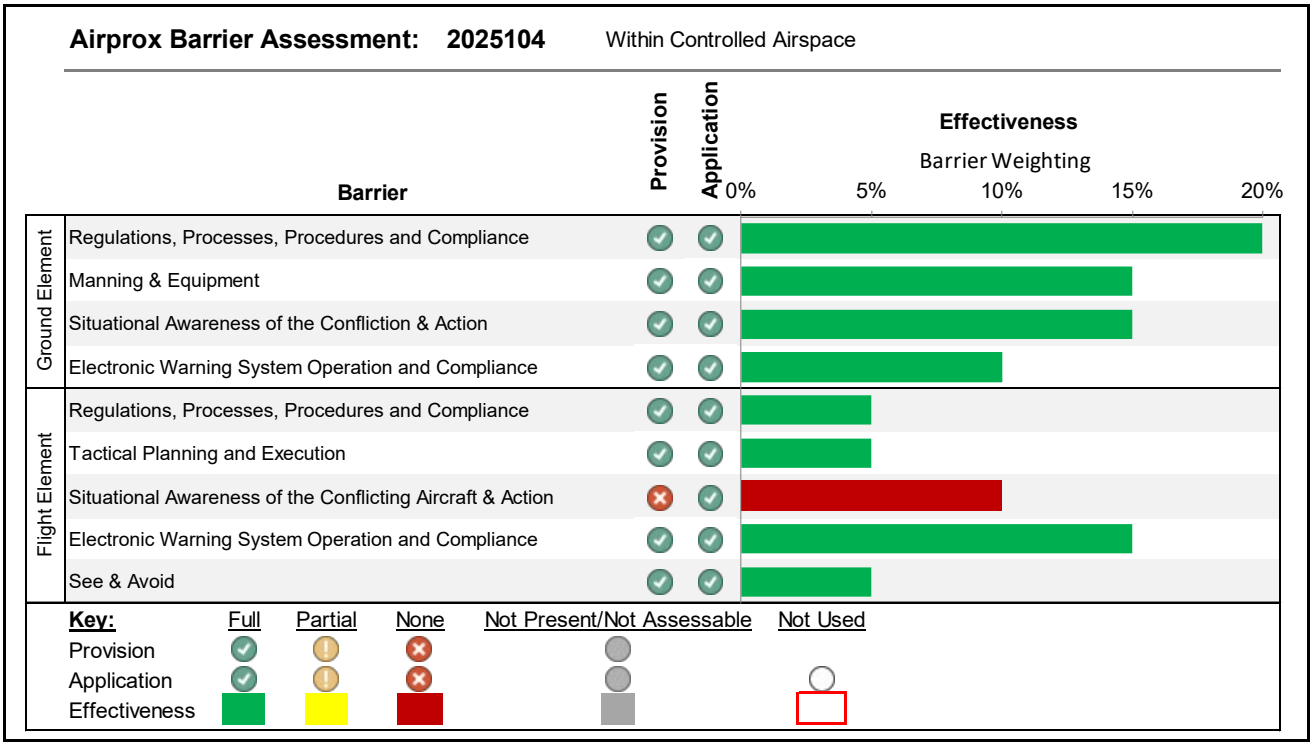
Degree of Risk: E.

Safety Barrier Assessment[4]

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 EMB190 pilot had not received any prior situational awareness on the presence of the H175.



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