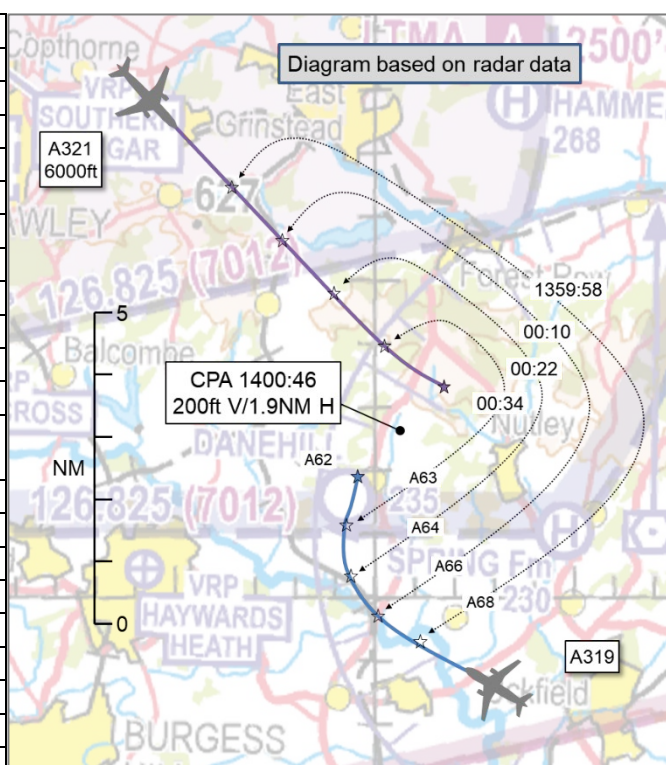


**AIRPROX REPORT No 2025166**

Date: 30 Jul 2025 Time: 1401Z Position: 5103N 00001E Location: 10NM SE Gatwick Airport

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

Recorded	Aircraft 1	Aircraft 2
Aircraft	A319	A321
Operator	CAT	CAT
Airspace	London TMA	London TMA
Class	A	A
Rules	IFR	IFR
Service	Radar Control	Radar Control
Provider	Swanwick KK APP	Swanwick TC SE
Altitude/FL	6200ft	6000ft
Transponder	A, C, S+	A, C, S+
Reported		
Colours	[company]	[company]
Lighting	Beacon, strobe, land	Strobe, nav, anti-col
Conditions	IMC	VMC
Visibility	NR	>10km
Altitude/FL	6100ft	6000ft
Altimeter	QNH (NR hPa)	QNH (NK hPa)
Heading	NR	~150°
Speed	220kt	250kt
ACAS/TAS	TCAS II	TCAS II
Alert	TA	TA
Separation at CPA		
Reported	300ft V/2NM H	0ft V/~1.5NM H
Recorded	200ft V/1.9NM H	



**THE A319 PILOT** reports during descent at around 6100ft, just after being instructed to turn right to heading 070°, opposite traffic about 500ft lower appeared on the [display] with an immediate “Traffic” alert. Within seconds, ATC instructed an immediate left turn to heading 270° quickly followed by an instruction in more urgent tone to turn left to heading 270° now as an evasive manoeuvre to avoid traffic. Initial action was to change the heading on the [autopilot control panel] from 070° to 270° but aircraft response was too slow. The Captain took manual control to increase the roll rate and, due to the urgency in the ATC instructions, increased bank angle beyond normal operating limits to successfully decrease the traffic closure rate to zero. When clear of traffic, the initial heading instruction of 070° was verified and ATC responded that that was indeed the instruction but that Gatwick Director was unaware of “Heathrow outbound traffic” that suddenly appeared in the area. No Resolution Advisory was generated.

The pilot assessed the risk of collision as ‘High’.

**THE A321 PILOT** reports flying straight and level having departed Heathrow which was using its westerly configuration. Having been passed to London ATC, they were kept on a heading for an extended period of time at 6000ft. It felt like an extended heading, which they commented on, but given their proximity to Gatwick and the volume of traffic being worked they didn’t think it out of the ordinary. They received a Traffic Advisory, but this came at the same time as a heading from ATC, but they missed the call due to their callsign being clipped by the aircraft’s own TA alert, with associated PF/PM callouts. They currently have two standards of TCAS fitted to their fleet. Some have automatic TCAS, thus the actions for an RA are merely to confirm the mode has activated and to monitor [the response]. The rest of the fleet do not have this feature so response to an RA requires automatic disconnection. Both fits have differing calls from both PF and PM. As such there is generally a mini-brief following a TA to make absolutely sure they are following the correct actions for the aircraft’s fit. Their aircraft did

have automatic TCAS. Other than confirming 'TCAS' was shown as an armed mode on the PFD, there were no further actions at the TA stage. The pause when no one responded to ATC meant it was clear it was for them, so they responded promptly to the follow up call from ATC as they had been expecting it. In this case an 'avoidance heading' was given. This was flown using the aircraft's automatics. They saw the intruder aircraft get to circa 1.5NM from them but, given an RA hadn't been triggered, weren't concerned. Once they were handed over to the next sector, as normal, they initially gave it no further thought. Whilst this may have been revisited during their post flight review, they encountered a medical emergency [later in the flight] requiring a diversion with 'PAN PAN' priority. In all honesty, they were never realistically going to mentally go back over the TA at the start of the flight given the nature of [the medical] event.

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

**THE GATWICK APPROACH (KK APP) CONTROLLER** reports the sector was bandboxed with KK FIN and traffic was light to moderate, although made slightly more complex due to coordination of an air ambulance with the Tower and a possibility that the runway might be contaminated with FOD. [A319 C/S] had been turned downwind onto heading 070°, number three in sequence and descended from flight levels to 3000ft. As the aircraft was turning approximately through a track of 360°, they were alerted via conflict alert to traffic about 2NM northeast of [A319 C/S] that was tracking southeast and maintaining 6000ft. At this point, [A319 C/S] was descending through 6300ft. They issued avoiding action with a left turn heading 270° and passed Traffic Information. This had to be repeated to the pilot as [they did not] properly acknowledge the instruction. By the time any avoiding action had been initiated by the pilot of [A319 C/S] the aircraft were actually clear of conflict and they told the pilot they could roll out of their now left turn heading 360°. The aircraft subsequently turned downwind and landed without further incident.

**THE TC SOUTHEAST (TC SE) CONTROLLER** reports [A321 C/S] was on a DET departure from EGLL and was instructed to continue present heading on the SID awaiting climb, as is standard practice with EGLL DET departures, as there was traffic holding at BIG and this was intended to allow an earlier climb when clear of the traffic inbound to EGLL at OCK. However, they did not come back to the aircraft in a timely manner and next action was taken when southeast of Gatwick by about 5NM, still maintaining 6000ft, with Gatwick inbound traffic observed in close proximity at 6300ft and descending. Avoiding action turn onto 080° and phone [call to the Gatwick Approach controller]. However, they hung up when they heard [the Gatwick controller] passing their own avoiding action turn, which was reiterated along with Traffic Information. No further action taken when clear.

## Factual Background

The weather at Gatwick Airport was recorded as follows:

METAR EGKK 301420Z 29008KT 9999 SCT035 23/14 Q1018=

METAR EGKK 301350Z 30007KT 250V330 9999 SCT035 23/14 Q1019=

## Analysis and Investigation

### UKAB Secretariat

The A319 and A321 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>.

### NATS Ltd Occurrence Investigation

#### Executive summary

[A321 C/S] departed from Heathrow on the DET2G SID. The TC South East controller released the speed restriction and locked the aircraft on a radar heading, however the presence of the aircraft

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

temporarily left the working memory of the controller. The controller later noticed the aircraft, however, this was then within the Gatwick Radar Manoeuvring Area (RMA). Avoiding action was issued to the pilot, however, separation minima were eroded between [A321 C/S] and [A319 C/S], an aircraft inbound to Gatwick in communication with the KK APP controller, who also issued avoiding action.

### Description of the event

The TC South East (TC SE) sectors were being operated in a bandboxed configuration, as were the Gatwick Approach (KK APP) positions.

The pilot of [A321 C/S], an Airbus A321 from Heathrow to [destination], called onto the TC SE frequency at 1355:14 (all times UTC), climbing to 6000ft on the DET2G departure from Heathrow. The TC SE controller instructed the pilot that there was no speed restriction and to continue on the present radar heading. This was read back correctly by the pilot.

[A321 C/S] levelled at 6000ft and increased to an indicated airspeed of 300kt. The heading resulted in the aircraft entering the Gatwick RMA.

[A319 C/S], an Airbus A319 from [departure] to Gatwick was established on the KK APP frequency inbound for an ILS Approach to Runway 26L at Gatwick descending to FL70. At 1359:00 the KK APP controller cleared the pilot of [A319 C/S] to descend to 6000ft, QNH 1019. This was followed at 1359:52 by a clearance to turn right heading 070°, which was read back correctly by the pilot.

[A321 C/S] continued to track on the heading and entered the Gatwick RMA.



Figure 1

The TC SE controller subsequently observed [A321 C/S] south of the Gatwick Runway 26L extended centreline and at 1400:13, instructed [A321 C/S], *"Avoiding Action, turn left heading zero eight zero degrees."* (Figure 1)

Low-level Short Term Conflict Alert (STCA) activated at 1400:18.

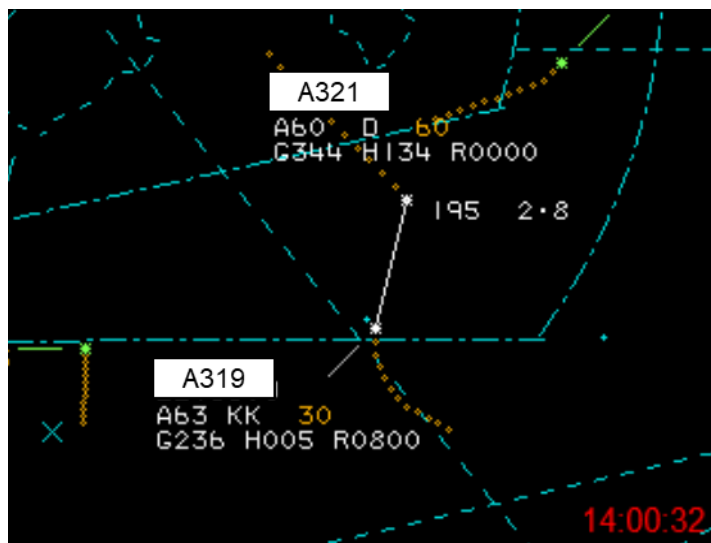
There was no response to the avoiding action transmission, so this was repeated by the TC SE controller at 1400:19, with the inclusion of the word, *"immediately"*, which was then read back correctly by the pilot of [A321 C/S]. The TC SE controller then passed Traffic Information to the pilot of [A321 C/S], to which the pilot reported they had the traffic on TCAS.

Simultaneous with the second transmission, the TC SE controller telephoned the KK APP controller.

At 1400:16, the KK APP controller had cleared [A319 C/S] to descend to 3000ft, which was read back correctly by the pilot. As STCA activated at 1400:18, the KK APP controller observed the conflict between the two aircraft and, at 1400:22, transmitted to the pilot of [A319 C/S], *"Left turn now heading two seven zero degrees, this is avoiding action, you've got traffic north of you by two miles."* The pilot of [A319 C/S] requested the controller to, *"say again"* to which the KK APP controller repeated the avoiding action to turn left heading 270° as avoiding action. Traffic information was

again passed to the pilot. There was no response from the pilot, however a left turn was commenced by the [A319 C/S].

The TC SE controller heard the KK APP controller issuing avoiding action and terminated the telephone call.



Separation minima between [A319 C/S] and [A321 C/S] were eroded at 1400:32 (Figure 2).

Figure 2

Updated Traffic Information was passed to the pilot of [A321 C/S] by the TC SE controller at 1400:36, to which the pilot reported they were visual with the traffic.



Minimum separation between [A319 C/S] and [A321 C/S] occurred at 1400:44, measured on the Multi-Track Radar as 1.9NM and 200ft where 3NM or 1000ft were required (Figure 3).

Figure 3

STCA deactivated between the two aircraft at 1400:54 and lateral separation was restored at 1401:00.

The pilot of [A319 C/S] subsequently queried if they had been given a heading of 070° initially to which the KK APP controller responded, *"I had previous, yes, but was then made aware of the conflict."*

The UK Airprox Board advised NATS that the pilot of [A319 C/S] reported this event as an Airprox.

#### Investigation

Information available to the investigation included:

- [Report] from the TC South East controller
- [Report] from the Gatwick Approach controller
- Initial Watch Management Investigation Report
- Human Factors findings
- LTC MATS Part 2
- UK AIP
- Interviews with the TC South East & Gatwick Approach controllers
- UK Airprox Board Notification 2025166

## Background and Workload

The [TC SE controller report] noted that the TC SE position was operating in a bandboxed configuration and workload was '*relatively low.*' This was corroborated at interview with the TC SE controller who noted the session was "*very quiet.*" A coordinator was also in situ for the TC South positions. The KK APP position was also operating in a bandboxed configuration with no delay for arriving aircraft. At interview, the KK APP controller noted that immediately prior to the event the workload had increased a little due to crossing traffic and a reported birdstrike at Gatwick, however, this was "*nothing to be concerned about*" and that they were "*very comfortable.*" Both controllers noted they were well rested prior to their afternoon shifts.

Both controllers involved in the event were experienced, although the TC SE controller had extended onto the TC South position earlier in the year and had been valid on the position for between four and five months.

## TC SE perspective and actions

[A321 C/S] departed from Heathrow following the DET2G departure, climbing to 6000ft. The departure included a route to EPM, then a left turn direct to DET (Figure 4).

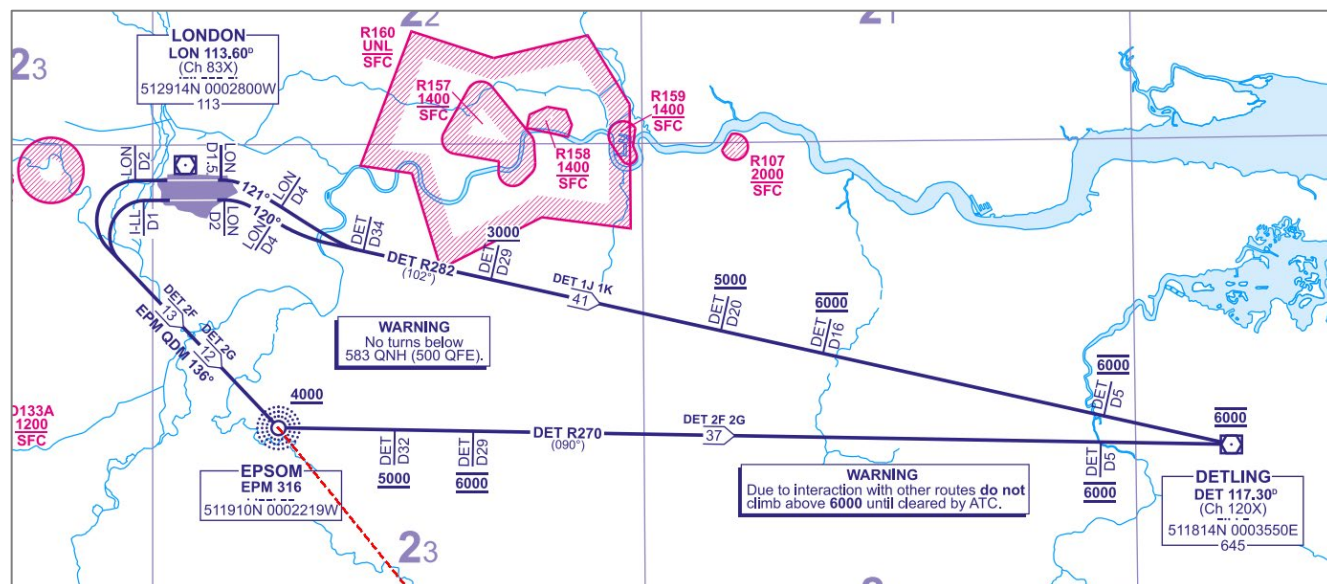


Figure 4

The TC SE controller explained that normal procedure for these aircraft was to lock the aircraft on the heading. This would result in the aircraft following a track similar to that depicted by a red hashed line above. This heading ensured the track would avoid aircraft in the BIG hold, and permitted further climb to take place. The controller noted that you would have around a minute at 6000ft to go back to the aircraft and issue further climb, and that this was a very regular occurrence. However, on this occasion the controller stated they "*just hadn't assimilated it.*" As a result, [A321 C/S] temporarily left the working memory of the controller. The controller stated they were, "*annoyed at such a basic error for something we do every day.*"



On departure within the London TMA below FL100, aircraft were restricted to 250kt IAS maximum. On first contact with the TC SE sector, the controller advised the pilot there was no speed restriction. The controller stated at interview this was released due to the quietness of the sector, although they recognised that this may have contributed to a reduction in timeliness of avoiding action taken by the pilot of [A321 C/S] due to the [radius] of turn being greater with a greater speed.

This was not in line with LTC MATS Part 2, GEN 2.5.5.3, which stated:

#### 2.5.5.3 ATC Speed Restriction

Aircraft departing on SIDs from Heathrow, Gatwick, Stansted, Luton, London City, Northolt and Birmingham are required to observe an IAS limit of 250kts below FL100.

B747-400 series aircraft will observe an IAS limit of 275kts +/- 5kts below FL100.

LTC controllers shall not cancel this speed restriction unless:

- there are overriding safety reasons for doing so;
- the pilot reports that they are unable to comply with the speed restriction due to the aircraft configuration.

If it has been necessary to remove the departure speed restriction, and the subject aircraft will enter the airspace of a receiving LTC sector below FL100, coordination with the receiving sector shall be effected accordingly.

At the time of the event, there were two aircraft to the northeast of the sector which required radar vectoring to provide separation, [callsigns], together with a slow westbound flight, [callsign], at FL80. Although their attention was drawn to this separate part of the radar screen, the TC SE controller stated they didn't think they were distracted by this at the time of the event. However, [their report] had detailed, *'their attention then turned to the NE corner of their airspace where they focused on resolving the inbound v outbound cross over between the [callsigns]. After this had been resolved and after they had responded to [callsign] checking in for LC, their attention turned back to the [A321 C/S] which they realised was now in the KK RMA and in conflict with [A319 C/S] working KK INT.'*

The TC SE ExCDS display showed that all three of the aircraft to the northeast and [A321 C/S] were all shown under the same DET strip bay.

The TC SE controller noted that they were controlling primarily from the radar display as the TC operation was a *"heads up environment"* which was more radar-based than strip-based.

Following resolving the conflict to the northeast, the TC SE controller noted [A321 C/S] during a scan around their radar. They noted an aircraft at 6000ft with a 'D' intention code and realised the aircraft should be under their control, however it was not within their working memory that they had the aircraft on the frequency, although it was marked in the ExCDS strip display. The scan pattern was described as being one where they were always looking out for aircraft which were out of the ordinary, as ExCDS did not always show the conflicts between aircraft well. It was used primarily as a recording device and the radar was where you would recognise when things were not taking place as expected. In this case, the controller recognised that their scan *"was not robust enough"*. They noted that during a quiet session you may not scan as much, as you should know where the aircraft were within your sector. It was noted, *"when underloaded, it's easy to do the basics wrong."*

A Human Factors expert noted, *'On the day of the incident, the traffic level was assessed as low, both in terms of volume and complexity. Such conditions can be associated with a cognitive underload, which in turn can be linked to a potential reduction in sustained alertness. This reduction of alertness may have contributed to a less-than-optimal scanning pattern, resulting in the proactive controlling technique not applied in this instance. When a traffic scenario is considered 'less difficult' by a controller, research has shown the human response to be proportionate – that is attentional capacity reduces when the task demands less from an individual. In addition, when mental workload is deemed to be reduced, eye tracking shows that attention is not as widely distributed, i.e. extent of scan can be reduced.'*

*The familiarity with the area in which the [A321 C/S] was flying at the time of the incident may have introduced an element of expectation bias, whereby the developing situation was initially perceived as stable, especially in the context of low volume and complexity. Although the ATCO checked both the radar and the EFPS, information relating to the [A321 C/S] was not assimilated at the time. This can indicate that a momentary lapse in the integration of information from strips and radar took place.'*

Upon becoming aware of [A321 C/S], the TC SE controller immediately issued avoiding action. This was prior to the activation of STCA and the aircraft was detected as a part of the normal radar scan. A telephone call was made to the KK APP position using the normal telephone line. Although it was recognised that the priority telephone line may have been used, the line was picked up almost immediately by the KK APP controller, so on this occasion this did not affect the event. The TC SE controller heard the KK APP controller issuing avoiding action with a left turn and immediately recognised this was complementary to the avoiding action already issued to [A321 C/S]. As such, the call was terminated.

### KK APP perspective and actions

Aircraft were inbound to Gatwick in a steady stream with no holding taking place. Immediately prior to the event, one VFR crossing aircraft had vacated the Gatwick Zone and was proceeding enroute towards Biggin Hill. A second VFR crossing aircraft inbound to Redhill called onto the KK APP frequency and requested a transit from south-to-north through the Gatwick Zone. The KK APP controller telephoned the Gatwick AIR position to coordinate the crossing track and a clearance was issued to the Southern Maintenance Hangar, VFR. As a part of this telephone call, the KK APP controller was made aware that a departing aircraft had been involved in a birdstrike. Coordination was reached to 'pack' two inbound aircraft to Gatwick, which would result in 3NM spacing being required instead of 6NM.

[A319 C/S] was issued descent to 3000ft, together with an instruction to turn right from heading 320° to heading 070°. This heading and descent clearance was read back correctly by the pilot. As the pilot was reading back the descent clearance, STCA activated. The KK APP controller noted that STCA drew their attention to the conflict which had not previously been noted. At interview, the KK APP controller stated that positioning aircraft onto the ILS at Gatwick was part of the role of the controller, and the Gatwick RMA was a known traffic environment. Looking at the radar display at their area of responsibility, there were many aircraft which were outside or above the area which were discounted. Experience of controlling meant that the brain was trained to discount this traffic, described by the KK APP controller as being "*programmed to do the job*". In this instance, even when viewing a replay of the event, the KK APP controller did not immediately notice [A321 C/S] in confliction.

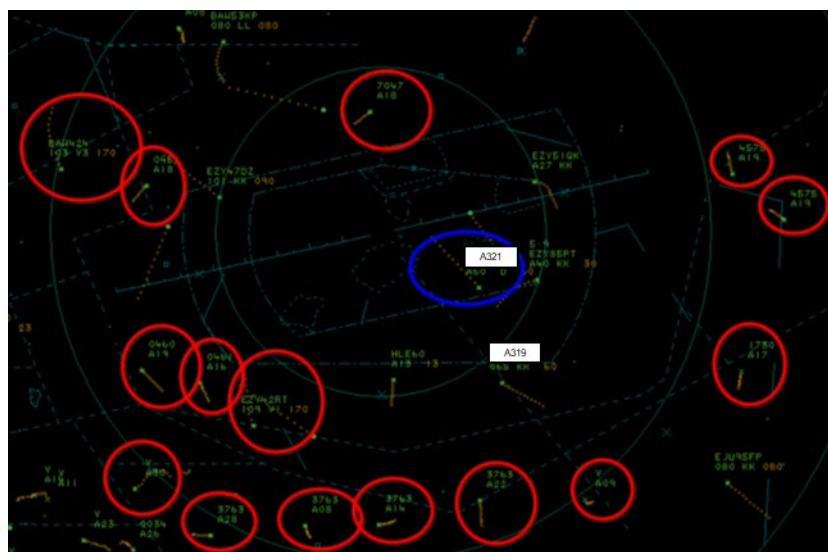


Figure 5

At the time of the event, although there was nothing in the direct vicinity of Gatwick to be discounted, all aircraft shown in red were not of interest to the KK APP controller. The position of [A321 C/S] is highlighted in blue (Figure 6).

The KK APP controller stated that DET departures from Heathrow are almost always put on a radar heading towards the Gatwick RMA, and that sometimes the headings will position aircraft south of the final approach track for Runway 26L at Gatwick, as occurred in this instance. However, the TC SE controller would always climb these aircraft above the Gatwick traffic. As such, you may see a track but would have a mental model that the aircraft would be above your airspace.

The KK APP controller was made aware of the confliction by STCA. They noted at interview that if STCA had not activated, they likely would not have been aware of the event at all, causing this to be a much more serious event. As such, the safety tool in this case had mitigated against a more serious event.

#### Considerations for future prevention

At interview, the KK APP controller noted that the event could have been prevented if, [when] any other aircraft entered your area of responsibility when not in communication with the sector, this could be highlighted in some way to draw attention to any potential conflict.

Two events in 2024 highlighted that Medium Term Conflict Detection would have aided the conflict detection, [reference] (7/Feb/2024) and [reference] (8/May/2024). Recommendations 22519 and 22520 were raised following the first of these events which stated:

**Rec 22519:** *In this event, the TC NW controller did not detect or see a potential conflict when issuing climb clearance to an aircraft. It was posited that a Medium Term Conflict Detection (MTCD) tool may have aided this conflict detection.*

*It is recommended that NATS undertakes an analysis of historical relevant conflicts (including 'Not see' & 'misjudge' events) across the Enroute Lower airspace environment to support identification of:*

- o *Any emergent risks to the operation;*
- o *Associated opportunities for tool support which would mitigate against these events occurring.*

*The output of this analysis should inform Recommendation 22520 as to what controller tool support should be considered for introduction across the Enroute Lower airspace environment.*

**Rec 22520:** *The inclusion of a MTCD or trajectory based alert is currently envisaged to be introduced no sooner than 2035, alongside iTEC v3, within the EnRoute Lower Airspace environments. If the output from Recommendation 22519 supports the introduction of further controller support tools, it is recommended that NATS carries out a Feasibility and Option analysis as to potential system changes and/or improvements.*

*If this Feasibility and Option analysis is assessed as not viable, NATS should explore alternative methods to mitigate any identified emergent risks from Recommendation 22519.*

These events were incorporated into REC65 following transition to the new STAR system at NATS. At the time of writing this report, REC65 was displaying a Pending status.

A Safety Improvement Manager stated that REC65 had previously been raised with the intention of potentially introducing MTCD tools ahead of the currently planned implementation of iTEC v3 in 2035. Due to the complexity of such a change, the recommendation was still being impact assessed and therefore, at the time of writing, it could not be confirmed whether MTCD tools would be introduced into TC ahead of 2035.

#### Conclusions

- [A321 C/S] departed from Heathrow on the DET2G SID. The TC SE controller released the 250kt speed restriction on initial contact contrary to MATS Part 2 procedure.
- Potentially due to underload, the presence of [A321 C/S] was temporarily absent from the TC SE controller's working memory and the aircraft entered the Gatwick RMA at 6000ft in confliction with [A319 C/S].



- The TC SE controller observed [A321 C/S] prior to STCA and issued effective avoiding action and Traffic Information to the pilot.
- The KK APP controller did not initially notice [A321 C/S] within the Gatwick RMA but detected the conflict following activation of STCA.
- The KK APP controller issued effective avoiding action and Traffic Information to the pilot of [A319 C/S].

## Summary

An Airprox was reported when an A319 and an A321 flew into proximity 10NM southeast of Gatwick Airport at 1401Z on Wednesday 30<sup>th</sup> July 2025. Both pilots were operating under IFR in receipt of a Radar Control Service, the A319 pilot in IMC from the Gatwick Approach controller and the A321 pilot in VMC from the TC South East controller.

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

Information available consisted of reports from both pilots, radar photographs/video recordings, reports from the air traffic controllers 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 members first discussed the nature of the volume of airspace within which the Airprox occurred and agreed that it was routinely a very busy sector of the London TMA. The Gatwick Approach (KK APP) controller had been bandboxed on the day but members felt this had had no material effect on their performance. A Swanwick controller member noted that the KK APP and TC SE controllers had been located in the same room, albeit with consoles some 15m apart. The east-bound leg of the DET 2F/2G SID between EPM and DET (Figure 4) routes in proximity to the southern edge of the Heathrow RMA and so the TC SE controller normally routed aircraft southeast from EPM until clear and climbed to clear the Gatwick RMA. The TC SE controller had locked the A321 on a radar heading but its routing and level had left the controller's working memory (**CF6**) and they had subsequently allowed it to enter the Gatwick RMA without coordination (**CF7**). Members felt that this may at least in part have been due to a degree of under arousal. It was noted that the TC SE controller had released the A321 pilot from the required 250kt speed restriction (contrary to the MATS Part 2 procedure (**CF1**)), which had reduced the time available to detect a conflict and had increased the turn radius of any avoiding action turn. The KK APP controller had not assimilated that the outbound A321 had entered the Gatwick RMA; members opined because controllers were conditioned to expect traffic southeast-bound from EPM to be above the Gatwick RMA airspace and because the A321 radar label would have displayed just a 'D' (for the Detling SID) and altitude, but the controller had not assimilated its altitude because the aircraft had been expected to be higher, expectation bias (**CF4**). The TC SE controller had detected the conflict before STCA had been activated and had issued effective avoiding action and Traffic Information to the A321 pilot, and the KK APP controller had detected the conflict at a late stage (**CF2**) due to STCA activation (**CF8**) and had issued effective avoiding action, albeit also at a late stage (**CF3**), and Traffic Information, in this case to the A319 pilot. The A319 pilot had taken manual control because they had been concerned by the proximity of the A321 (**CF9**). Members discussed the advantages and disadvantages of allowing the autopilot to fly an avoiding action turn or of taking manual control to expedite the avoiding action turn. Controller members were of the opinion that a manually flown turn was preferred, in order to expedite the intent of the instruction, whilst some airline pilot members noted that their Ops Manuals stated that the autopilot should normally be left engaged in order to avoid the risk of upset in what could well be a non-standard turn. They agreed that the tone, volume and speed of a controller's avoiding action instruction would no doubt inform that decision.

With regard to risk, members noted that radar deconfliction minima of 3NM or 1000ft had been required but, despite separation at CPA of 1.9NM and 200ft (**CF5**), both pilots had taken correct avoiding action and both TCAS had issued just a TA (**CF10**). Although separation minima had been lost, in terms of collision risk the Board felt that any risk of collision had effectively been averted, Risk C.

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

	2025166			
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
<b>Ground Elements</b>				
<b>• Regulations, Processes, Procedures and Compliance</b>				
1	Human Factors	• ATM Regulatory Deviation	An event involving a deviation from an Air Traffic Management Regulation.	Regulations and/or procedures not fully complied with
<b>• Situational Awareness and Action</b>				
2	Human Factors	• Conflict Detection - Detected Late	An event involving the late detection of a conflict between aircraft	
3	Human Factors	• Conflict Resolution - Provided Late	An event involving the late provision of conflict resolution	
4	Human Factors	• Expectation/ Assumption	Events involving an individual or a crew/ team acting on the basis of expectation or assumptions of a situation that is different from the reality	Concerned by the proximity of the aircraft
5	Human Factors	• Separation Provision	An event involving Air Navigation Services separation provision.	
6	Human Factors	• Task Monitoring	Events involving an individual or a crew/ team not appropriately monitoring their performance of a task	
7	Human Factors	• Traffic Management Information Provision	An event involving traffic management information provision	The ANS instructions contributed to the Airprox
<b>• Electronic Warning System Operation and Compliance</b>				
8	Technical	• STCA Warning	An event involving the triggering of a Short-Term Conflict Alert (STCA) Warning	
<b>Flight Elements</b>				
<b>• Situational Awareness of the Conflicting Aircraft and Action</b>				
9	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>				
10	Contextual	• ACAS/TCAS TA	An event involving a genuine airborne collision avoidance system/traffic alert and collision avoidance system traffic advisory warning triggered	

**Degree of Risk:** C.**Safety Barrier Assessment<sup>2</sup>**

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

**Ground Elements:**

**Regulations, Processes, Procedures and Compliance** were assessed as **partially effective** because the TC SE controller had released the A321 pilot from the required 250kt speed restriction, thereby reducing the time available to detect confliction and increasing the radius of any avoiding action turn.

**Situational Awareness of the Conflicting Aircraft and Action** were assessed as **partially effective** because the position of the A321 within the Gatwick RMA was temporarily absent from the TC SE controller's working memory and was not detected by the KK APP controller until activation of STCA.

<sup>2</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: 2025166		Within Controlled Airspace				
Barrier		Provision	Application	Effectiveness		
				Barrier Weighting		
				0%	5%	10% 15% 20%
Ground Element	Regulations, Processes, Procedures and Compliance	✓	!	20%		
	Manning & Equipment	✓	✓	15%		
	Situational Awareness of the Confliction & Action	✓	!	15%		
	Electronic Warning System Operation and Compliance	✓	✓	10%		
Flight Element	Regulations, Processes, Procedures and Compliance	✓	✓	5%		
	Tactical Planning and Execution	✓	✓	5%		
	Situational Awareness of the Conflicting Aircraft & Action	✓	✓	10%		
	Electronic Warning System Operation and Compliance	✓	✓	15%		
	See & Avoid	✓	✓	5%		
<b>Key:</b>		Full	Partial	None	Not Present/Not Assessable	Not Used
Provision		✓	!	✗	●	
Application		✓	!	✗	●	○
Effectiveness		■	■	■	■	□