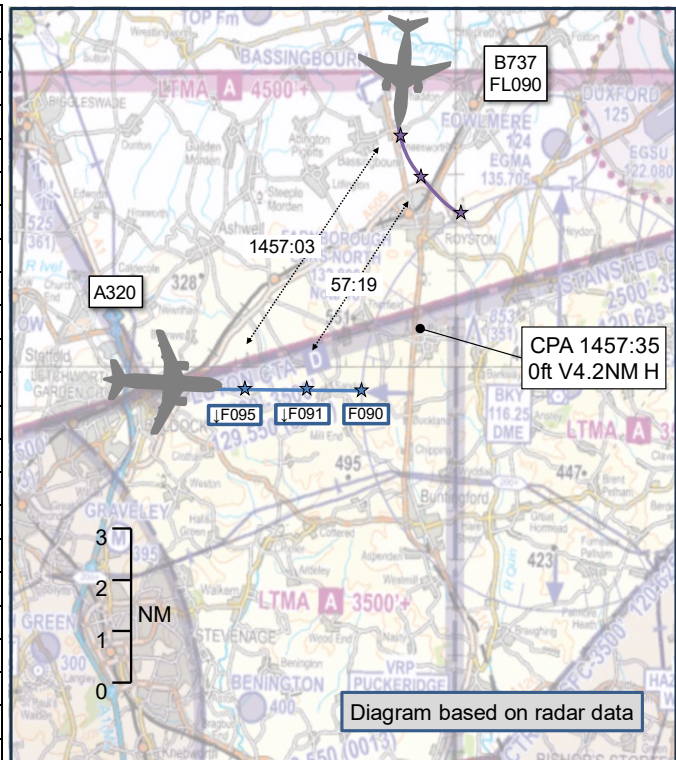


AIRPROX REPORT No 2023266

Date: 08 Dec 2023 Time: 1458Z Position: 5201N 00001W Location: 13NM NW Stansted

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	A320	B737
Operator	CAT	CAT
Airspace	London TMA	London TMA
Class	A	A
Rules	IFR	IFR
Service	Radar Control	Radar Control
Provider	Swanwick NW	Swanwick SS INT
Altitude/FL	FL090	FL090
Transponder	A, C, S+	A, C, S+
Reported		
Colours	Company	Company
Lighting	NK	'Standard'
Conditions	NK	VMC
Visibility	NR	>10km
Altitude/FL	FL090	NK
Altimeter	SPS	QNH
Heading	NK	NK
Speed	NK	NK
ACAS/TAS	TCAS II	TCAS II
Alert	Information	None
Separation at CPA		
Reported	NR	Not Seen
Recorded	0ft V/4.2NM H	



THE A320 PILOT reports that London ATC cleared their aircraft to descend to FL90. They descended and the Captain noticed an aircraft at the same level as they were cleared to, but TCAS was showing that the other aircraft was not converging. London then cleared them to contact STN radar. Upon frequency change, an ATC transmission was heard to the aircraft at the same level to turn to 080° on avoiding action. TCAS then showed the aircraft converging. The other aircraft was seen turning left from the flight deck and the Captain was happy that a conflict did not exist. The next transmission was for them to turn right heading 180°, which they complied with.

THE B737 PILOT reports that they had no recollection of an Airprox event from this flight.

THE SWANWICK TC NW CONTROLLER reports that they were on NW, which was band-boxed with a co-ordinator in place. When they first sat down on the sector it was relatively quiet, but the Group Supervisor (GS) warned that it was going to get busy. There was a wide mix of traffic, getting increasingly busy. There was nothing too unusual or complex, but a steady stream of departures from Luton, Heathrow and Stansted as well as multiple inbounds to those airfields. At the time of the overload there were multiple aircraft either transferred late, or waiting to check-in on frequency and they lost control of the RT. They were unable to make the calls that they wanted to, so in turn could not implement their plans and had aircraft in positions that they did not want them to be in. They made an unsafe clearance which resulted in SS INT taking avoiding action. At this point a colleague was trying to split the sector but they did not feel that they had the capacity to give a handover or to move the strips and make the changes in EXCDC in order to implement the split. They continued to work through, keeping the sector moving, but by this stage they were playing catch up. They opined that the fact that they were unable to plan ahead and made an obvious safety error suggests that they were certainly overloaded.

THE SWANWICK TC CO-ORDINATOR NORTH reports that they were told by the GS that NW was due to get busy, so they looked at the long-range radar and agreed with the NW controller to open the co-ordinator position. Initially, NE was the busier sector of the two, but it was winding down, whilst NW was clearly going to be busy with inbounds. They attempted to do a couple of things to make the sector as simple as possible, for example an aircraft was in AC Sector 23 airspace inbound to Cambridge and wanted to go direct from the KENET area, but they refused and asked TC Capital to keep it and they routed it via TC NE instead. There was little else they could do to reduce the complexity, a training flight was already in the sector, and a 'clump' of inbounds to Heathrow, Stansted and Luton arrived at almost the exact same time as all three of those airfields began launching departures into the sector. The NW controller was clearly struggling with the RT loading and, in discussion with the GS, it was decided to split TC BNN. They helped the incoming controller by adjusting the long-range radar to a usable setup for BNN and continued trying to help the NW controller. They cancelled a full release on a Gatwick inbound as the situation had become much too complex.

THE SWANWICK SS INT CONTROLLER reports that they were controlling with a trainee, the sector was split with another controller in the SS FIN position. The B737 was at FL090 in the LOREL hold, but had been instructed to make a left-hand turn onto a heading of 135° to fit into the sequence. Whilst they were then concentrating on the traffic east of Stansted, they observed the A320 approaching from the west into BKY [airspace] in conflict with the B737. The trainee promptly gave avoiding action to the B737 pilot, with a left turn onto 080°. The pilot then queried the instruction, so the Instructor took the frequency and repeated it. They then called the A320 pilot, who had not made their first call on the frequency yet, and gave them avoiding action as well, with a tight right turn onto south. The situation was easily resolved with no loss of separation.

Factual Background

The weather at Stansted was recorded as follows:

METAR EGSS 081450Z AUTO 22010KT 9999 BKN022 10/07 Q1005=

Analysis and Investigation

NATS Occurrence Investigation

This event took place during a period of excessive workload reported by the TC NW controller; at the time of writing this report currently under investigation separately.

[A320 C/S] an Airbus A320 inbound to Stansted, was under the control of the TC North West (TC NW) controller. The TC NW sector was being operated in a band-boxed configuration, with a Coordinator in-situ to assist with workload. An electronic release had been obtained relating to [the A320] from the TC NW to the SS INT controller as '9A', which indicated that the aircraft could be accepted by the SS INT controller at FL90, but only after the previous aircraft, in this case [B737 C/S], had vacated the level.

[B737 C/S] inbound to Stansted, was under the control of the Stansted Intermediate Approach (SS INT) controller, maintaining FL90. The SS INT position was being operated by a controller Under Training (SS INT U/T) and On-The-Job Training Instructor (OJTI). The B737 had previously been in the LOREL hold and had been cleared by the SS INT U/T to carry out a left turn onto heading 135°, which was read back correctly by the pilot.

At 1456:07, the TC NW controller cleared [A320] to descend to FL90 (Figure 1).

[B737 C/S] was turning left onto the previously issued heading of 135°.



Figure 1

[The A320] was transferred by the TC NW controller to the SS INT frequency at 1457:02.

The Low-Level Short-Term Conflict Alert (STCA) activated at 1457:08 between the two aircraft (Figure 2) and at 1457:12 the SS INT U/T issued avoiding action to the pilot of [the B737] to turn left immediately heading 075°. Only the word, “heading” was received in response.

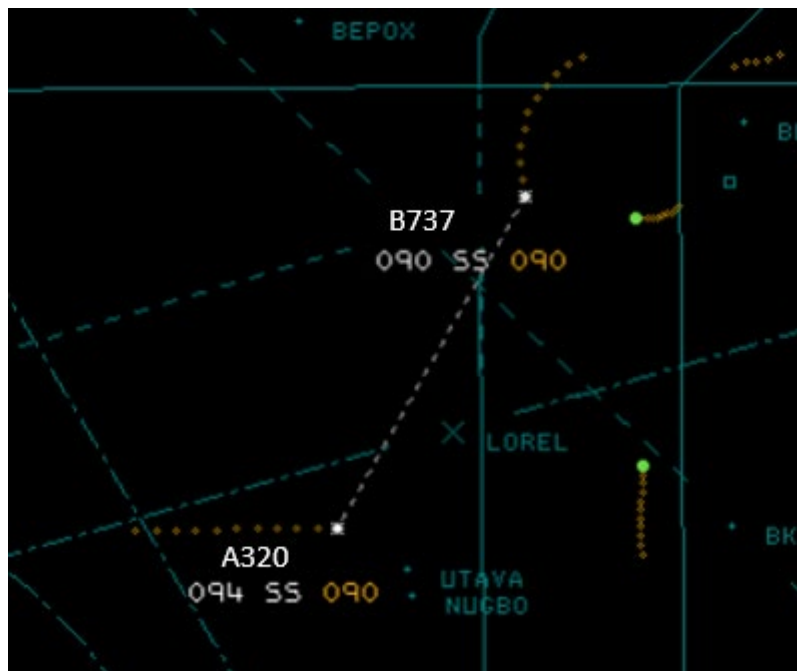


Figure 2

The SS INT OJTI took control of the frequency and at 1457:23 issued avoiding action to the pilot of [the B737] to turn left heading 080°. This was read back correctly by the pilot.

As the pilot of [the A320] had not reported onto the frequency by this time, the SS INT OJTI made a transmission requesting if the pilot was on the frequency. The pilot responded that they were and avoiding action was issued to the pilot to turn right heading 180°, which was read back by the pilot.

STCA deactivated at 1457:31.

The closest point of approach between [B737 C/S] and [A320 C/S] occurred at 1457:39, measured on the Multi-Track Radar as 4.2NM and 0ft, where 3NM or 1000ft were required (Figure 3). As such, there was no loss of separation associated with this event.

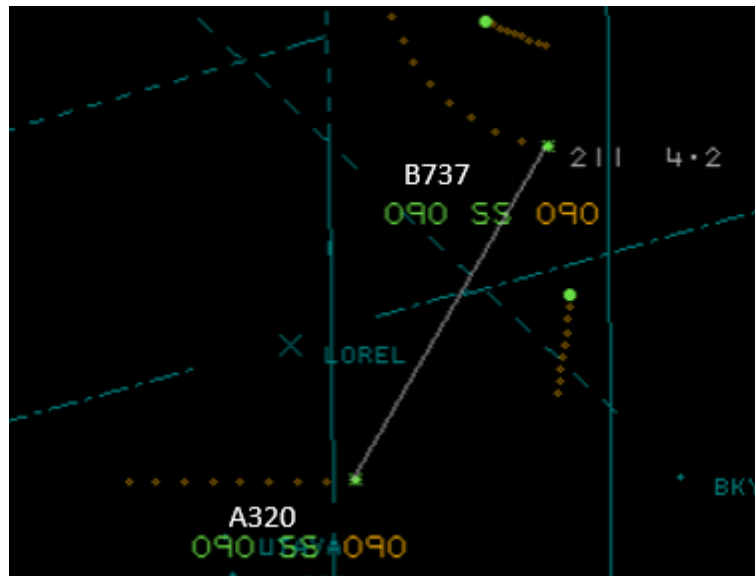


Figure 3 – CPA

The SS INT OJTI stated to the pilot of [the A320] that they had been issued an incorrect level, and advised the pilot that they were, “well clear of the traffic on your port side now.” Subsequent to the event, the A320 pilot reported the event as an Airprox to the UK Airprox Board.

Investigation

At 1456:07, the TC NW controller cleared [the A320 pilot] to descend to FL90. The TC NW controller stated at interview that they viewed the radar, believed that the conflicting traffic (the B737) had gone i.e. vacated or departed the holding area, and so descended [the A320] to FL90. The TC NW controller had previously issued descent clearances to [the A320 pilot] which were vertically separated from and descending above [the B737]. The NATS4118 stated, ‘the reporting controller had been correctly executing a plan to descend on top of [B737 C/S].’

Relating to the cause of the event, the NATS4118 detailed that the ‘controller had felt that their ability to formulate and execute plans had been impaired by the sector complexity and R/T loading at the time. The controller stated that they had earlier been given information that the sector was going to get busy but both they, and the coordinator, felt that the traffic levels were going to be manageable in the current band-boxed configuration. However, the workload rose to a point that they were overloaded for approximately 4-5min. This led to an unsafe clearance being issued to descend the [A320 C/S] to FL90 bringing it into conflict with [the B737] which was working SS APC at the same level.’

Note: Given the aircraft relative geometry and subsequent distances, Safety Investigations assessed that separation would have been maintained as a result of the resolution instruction issued solely to [the B737 pilot], regardless of the subsequent resolution instruction issued to [the A320 pilot].

Subsequent to the event, the pilot of [the A320] reported the event as an Airprox to the UK Airprox Board. The Air Safety Report submitted by the pilot of [the A320] noted that they assessed the safety of the aircraft was not compromised.

Conclusion

The Airprox occurred when the TC North West controller cleared [the A320] to FL90 when the level was occupied by [the B737].

The scenario was mitigated by the Stansted Intermediate Approach controller under training and OJTI recognising the confliction and issuing avoiding action to both pilots. There was no loss of separation relating to this event, with the crew of [the A320] stating safety of their aircraft was not compromised.

UKAB Secretariat

The A320 and B737 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

Summary

An Airprox was reported when an A320 and a B737 flew into proximity 13NM northwest of Stansted at 1458Z on Friday 8th December 2023. Both pilots were operating under IFR in VMC, at the time of the Airprox both pilots were in receipt of a Radar Control Service from TC SS INT.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs, 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 looked at the actions of the pilots. Members noted that the A320 pilot had become concerned by the position of the B737 via information displayed on their TCAS, and then this concern had been exacerbated when they had been called by the controller before checking-in on the frequency and immediately given avoiding action, which had further alarmed the crew (**CF6**). Members quickly agreed that this event had been as a result of ATC rather than pilot actions. However, whilst the event had been as a result of ATC actions, it had also been resolved quickly by ATC without a loss of separation, and resolved well before the TCAS had needed to offer deconfliction advice or visual avoiding action had become necessary. For their part, the B737 crew had considered it such a benign event, they had not recalled the incident subsequently.

Turning to the actions of ATC, members were told that the traffic prediction tools had indicated that traffic levels would increase and the Supervisor had made arrangements for the NW sector to be split. However, the increase in traffic loading had happened much more quickly than expected, so the NW controller had been unable to conduct a handover to split the sector. Noting the need to utilise all resources effectively by manning consoles according to the traffic loading, still members thought it had been a missed opportunity not to have conducted the split before the traffic loading had increased significantly (**CF2**). As a consequence, the NW controller had become overloaded and the frequency had become congested (**CF4**). The NW controller had been given an electronic clearance to send the A320 pilot over to SS INT, and that clearance had required the aircraft to be 1000ft above the B737, ahead in the approach pattern order. However, in the heat of the moment, the NW controller had issued a clearance for the A320 to descend to FL090, the same level as that occupied by the B737 (**CF1, CF3**). Fortunately, the STCA had alerted (**CF5**) which had prompted the SS INT trainee to issue avoiding action to the B737 pilot. When it had become unclear whether the pilot had received the message, the OJTI had stepped in and had issued further avoiding action to the B737, and had also called the A320 pilot to provide avoiding action to them. These actions had ensured that standard separation had been maintained at all times.

¹ (UK) SERA.3205 Proximity.

When determining the risk, the Board took into consideration the reports from the pilots and controllers, together with the radar screenshots. The separation required within this airspace had been 3NM or 1000ft, regardless of which controller had the aircraft concerned on frequency. This meant that there had not been a loss of separation, leading some members to express the opinion that normal safety standards had pertained (Risk Category E). However, because there had been an unsafe clearance given, which had required avoiding action, other members countered that this had not been completely benign, and that safety had been degraded. The latter view prevailed and the Board agreed on Risk Category C.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

2023266				
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
Ground Elements				
• Regulations, Processes, Procedures and Compliance				
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
• Manning and Equipment				
2	Organisational	• ATM Staffing and Scheduling	An event related to the planning and scheduling of ATM personnel	
• Situational Awareness and Action				
3	Human Factors	• Inappropriate Clearance	An event involving the provision of an inappropriate clearance that led to an unsafe situation	
4	Contextual	• Frequency Congestion	An event involving frequency congestion that reduces the effectiveness of communications	
• Electronic Warning System Operation and Compliance				
5	Technical	• STCA Warning	An event involving the triggering of a Short-Term Conflict Alert (STCA) Warning	
Flight Elements				
• Situational Awareness of the Conflicting Aircraft and Action				
6	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

Degree of Risk: C.

Safety Barrier Assessment²

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 **ineffective** because the NW controller had issued an incorrect clearance.

Manning and Equipment were assessed as **ineffective** because the NW controller had been overloaded and had been too busy to effect a handover to split the sector.

Situational Awareness of the Confliction and Action were assessed as **ineffective** because the NW controller had been overtasked which led to issuing an inappropriate clearance.

² 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: 2023266		Within 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:		<u>Full</u>	<u>Partial</u>	<u>None</u>	<u>Not Present/Not Assessable</u>	<u>Not Used</u>		
Provision	✓	⦿	✗	●	○			
Application	✓	⦿	✗	●	○			
Effectiveness	■	■	■	■	■			