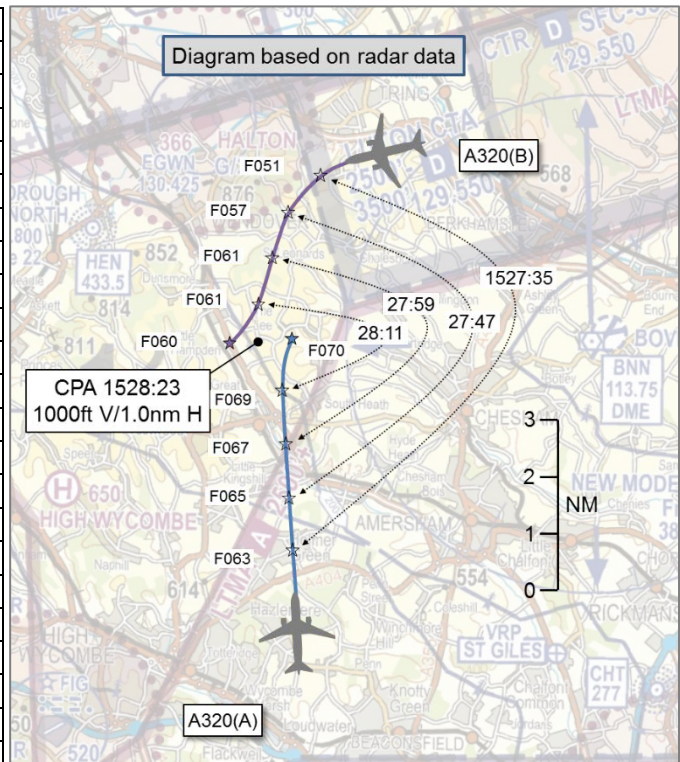


AIRPROX REPORT No 2017235

Date: 28 Sep 2017 Time: 1528Z Position: 5143N 00043W Location: Bovingdon VOR

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	A320(A)	A320(B)
Operator	CAT	CAT
Airspace	London TMA	London TMA
Class	A	A
Rules	IFR	IFR
Service	Radar Control	Radar Control
Provider	London TC NW	London TC NW
Altitude/FL	FL70	6100ft
Transponder	A,C,S	A,C,S
Reported		
Colours	Company	NK
Lighting	Strobes, landing	NK
Conditions	VMC	NK
Visibility	10km	NK
Altitude/FL	FL70	6000ft
Altimeter	1013hPa	QNH
Heading	010°	NK
Speed	NK	NK
ACAS/TAS	TCAS II	TCAS II
Alert	TA	Unknown
Separation		
Reported	Not seen	NK
Recorded	700ft V/3nm H separation lost 1000ft V/1.1nm H separation gained 1000ft V/1nm H CPA	



THE AIRBUS A320(A) PILOT reports that whilst levelling at FL70 under Radar Control from London he received a TCAS TA from a target climbing below. ATC gave an avoiding-action right turn heading 090°; the instruction was complied with. The pilot of the other aircraft was believed to have climbed through his level. ATC advised that the minimum separation was 500ft; no TCAS RA was received. He made no altitude deviation during the event and normal flight continued.

He assessed the risk of collision as ‘Low’.

THE AIRBUS A320(B) PILOT reports that he was maintaining 5000ft on his outbound SID. The crew thought that they had received clearance to turn left heading 150° and to climb to FL150. He read back the heading and climb instruction with his callsign. The Co-pilot started to turn and input the heading 150° into the autopilot. They then received an aural warning of traffic. He immediately pushed to level off at 6220ft; the other aircraft was at 7000ft. They did not receive a TCAS RA. He then descended to 6000ft. ATC asked if he had transmitted and he stated that he had been cleared to climb to FL150 and to turn left heading 150°. He was then instructed to maintain 6000ft, before receiving a further clearance. Approximately two minutes later, he heard an aircraft with, he thought, a very similar callsign. He considered that it was very dangerous to have two similar callsigns on frequency. Both he and the Co-pilot thought that the instruction was issued to his callsign, and he read back the instructions with his callsign; this was not queried by ATC. The FDM information indicated their highest vertical speed was up to 2000fpm, whilst approaching 5000ft (at 4500ft).

He assessed the risk of collision as ‘Low’.

THE TC NW CONTROLLER reports that A320(B) was outbound at 5000ft, opposite direction to A320(A), which was climbing through 6000ft to FL70. The pilot of a same company callsign as A320(B) was inbound to the London TMA to land and checked in on frequency, descending to FL150, heading 155° [in fact 150°]. The pilot of A320(B) mistakenly took this as clearance for him to climb to FL150. The pilot's read-back was blocked by his reply to the other aircraft, but he just caught the end of his callsign. He asked him to repeat what he had said. On the second attempt the pilot replied "Climbing FL150, heading 155." His data block was garbling under the Bovingdon (BNN) hold so he asked the pilot to repeat, and then noticed his selected level was FL150 and that he had begun to climb. He instructed him to stop climb at 6000ft. He was now approximately 4nm from A320(A), which had vacated 6000ft. Instead of just reading back the instruction, the A320(B) pilot began explaining that he believed he had been climbed to FL150. By this point a loss of separation was inevitable so he waited for A320(B) pilot to stop transmitting then gave avoiding action, first to the A320(A) pilot to turn right 090°, then to the A320(B) pilot to turn right heading 270°.

Factual Background

The weather at Heathrow was recorded as follows:

EGLL 281520Z AUTO 23007KT 170V300 9999 FEW036 19/11 Q1019 NOSIG=

Analysis and Investigation

CAA ATSI

ATSI had access to reports from the pilots of both aircraft and the controller involved. The area radar and radio recordings were reviewed for the period of the incident. Screenshots produced in this report are provided using recordings of the Swanwick MRT Radar. All times UTC. A320(A) was an IFR departure and was in receipt of a Radar Control Service from London TC North West Sector. A320(B) was also an IFR departure and was in receipt of a Radar Control Service from the same sector.

At 1524:40, the A320(A) pilot was airborne and called the London TC North West Controller, advising that they were passing 3200ft climbing to altitude 6000ft.

At 1525:20, the A320(B) pilot was airborne and called London TC North West Controller, advising that they were passing 3800ft. The controller responded with an instruction to maintain 5000ft and the pilot read back "*maintain five thousand*".

At 1526:40, the controller instructed the A320(A) pilot to climb to FL70 and the pilot provided an accurate readback (Figure 1).

At 1527:00, the pilot of a third aircraft, an A319 routing into Luton, made his initial call to the London TC North West Controller: "*London hello [C/S] descending FL150, heading 150 degrees*". [Note: The callsign of this third aircraft contained the same trigraph, different numbers and a similar suffix to A320(B). This third aircraft does not appear in any of the screenshots as it did not contribute to the incident, other than the callsign confusion].

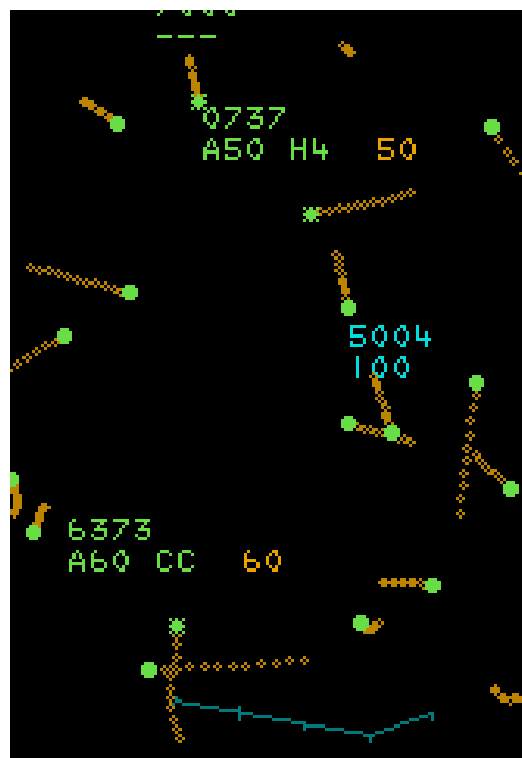


Figure 1 - 1526:40.

The controller responded to the A319 pilot with: “[C/S] good afternoon, descend Flight Level one one zero”. Before the A319 pilot could respond to this instruction there was an unintelligible clipped transmission ending with one of the numbers and the suffix from the callsign of A320(B). This was followed immediately by the response from the A319 pilot: “descend Flight Level one one zero, [C/S]”.

The controller then asked the A320(B) pilot to say again but did not receive a response. The controller tried again: “[C/S] did you say something?” The pilot responded: “yes we have been cleared to turn on heading one five zero and climb level to one five zero”.

At 1527:45, the controller responded with a request for the pilot to say again and then immediately issued an instruction to the pilot: “[C/S] maintain altitude six thousand feet stop your climb at six thousand feet.” The A320(B) pilot responded: “actually we received a clearance to (unintelligible) five zero climbing five thousand feet now we are maintaining five thousand feet”. Simultaneously the controller was heard saying: “stop your (unintelligible)”.

Figure 2 displays A320(B) at altitude 5600ft at the time of these transmissions.

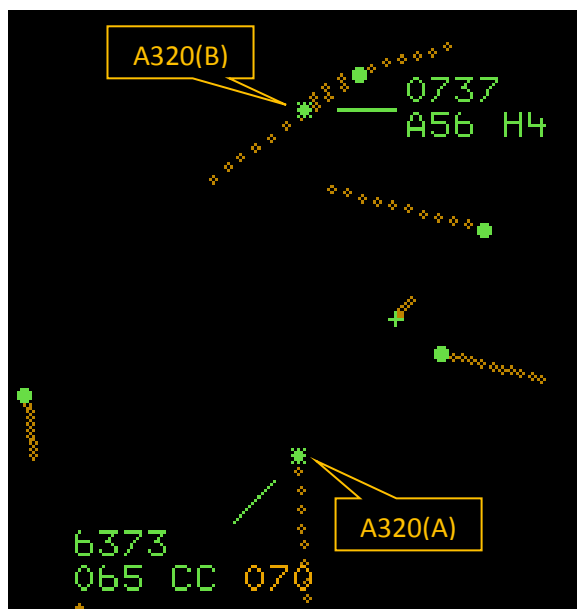


Figure 2 – 1527:45.

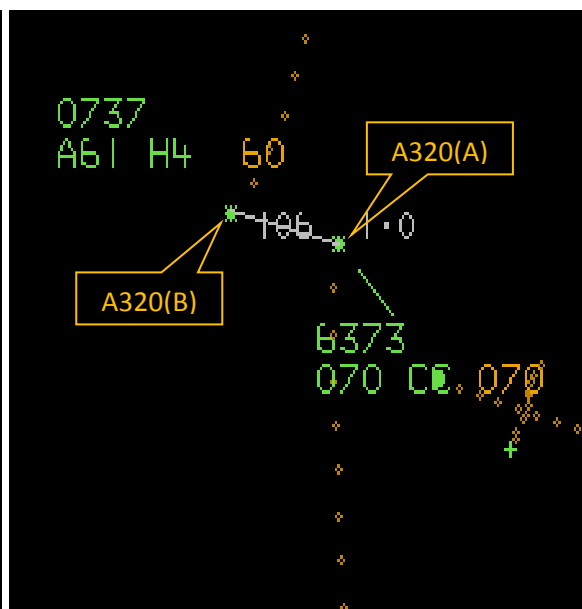


Figure 3 – 1528:25.

At 1528:00, the controller issued an avoiding action right turn heading 090° to the A320(A) pilot, and there was a slight delay where the transmitter was ascertained as being open but there was no modulation (voice); this was followed by the A320(A) pilot providing an accurate readback. This was immediately followed by an avoiding action instruction to the A320(B) pilot to turn right heading 270° and the pilot provided an accurate readback.

At 1528:20, the A320(B) pilot advised the controller: “and maintaining six thousand heading two seven zero”.

At 1528:25 (Figure 3), CPA occurred. The aircraft are displayed as being laterally separated by 1.0nm with vertical separation of 1100ft. The display shows A320(A) at FL70 on the standard pressure setting of 1013hPa and A320(B) at altitude 6100ft on QNH 1019hPa.

The pilot of A320(B) took the initial contact call of the third aircraft to the controller as an instruction for them, and commenced a climb to FL150. Despite having several other aircraft on frequency at the time, the controller remained alert and proactive in challenging the pilot of A320(B) when he heard part of their callsign, at the end of the readback of what the pilot believed to be an instruction to climb to FL150.

The timely and effective actions taken by the controller to resolve the conflict averted what could have been a much more serious incident. The controller not only effectively discharged their responsibilities under a Radar Control Service but should be commended for their alertness and defensive controlling techniques.

UKAB Secretariat

Notwithstanding that, in Class A airspace, ATC were required to separate the aircraft the A320(A) and A320(B) pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard¹. If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right². ATC issued avoiding action right turns to both pilots.

Comments

A320(B) Operating Company

Good awareness, no further action required.

Summary

An Airprox was reported when A320(A) and A320(B) flew into proximity at 1528hrs on Thursday 28th September 2017. Both pilots were operating under IFR in receipt of a Radar Control Service from the TC NW Sector.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from both pilots, the controllers concerned, area radar and RTF recordings and reports from the appropriate ATC and operating authorities.

The Board noted that both aircraft were under the control of the same TC Sector NW controller and were outbound from different London airports; A320(A) was initially climbing to 6000ft and A320(B) to 5000ft. The controller then cleared the A320(A) pilot to climb to FL70 and, after the pilot read back the clearance, another pilot called reporting descending to FL150 heading 150°. The controller responded clearing the pilot to descend to FL110 but before this pilot could respond there was an unintelligible clipped transmission ending with one of the numbers and the suffix from the callsign of A320(B). Although with little information, the controller made out that the unintelligible transmission was probably from the A320(B) pilot and asked him if he had transmitted, a question he had to repeat as there had been no reply from the first enquiry. The pilot then responded saying that he had been cleared on heading 150° to climb to FL150. The controller instructed him to stop his climb at 6000ft. There was another comment from the A320(B) pilot about his asserted climb clearance and adding that he was now at 5000ft (although the radar recording shows that the aircraft was actually at 5600ft at the time). The Board noted the A320(B) pilot's somewhat verbose and unnecessary responses to the controller's calls, and considered that these had delayed the controller's subsequent endeavours to maintain separation. In the busy airspace of the London sectors, the Board cautioned that pilots should keep calls to only that necessary, and the minimum required, rather than engage in protracted explanations of what they thought had happened or they had been previously told. Members agreed that the protracted calls from the A320(B) pilot had been a contributory factor to the Airprox.

It was apparent to the Board that the A320(B) pilot had believed that the call made by the pilot descending to FL150 had been an instruction for him to climb to that level. They also noted that he had reported that the callsigns of the two flights were very similar. The Board discussed this at length and noted that although the company callsign was indeed the same, there appeared to be sufficient difference in the numbers with only one of the callsigns' suffix letters being the same. Airline pilot

¹ SERA.3205 Proximity.

² SERA.3210 Right-of-way (c)(1) Approaching head-on.

members opined that they did not consider that the two callsigns were similar enough to explain why the A320(B) pilot had thought the call was for him, and particularly because the associated transmission had included the words 'descending' rather than 'climbing' FL150, which would not make sense to the A320(B) pilot.

The Board then further discussed the actions of the A320(B) pilot and noted that he had reported that, he had levelled off after receiving an aural warning of traffic from TCAS. The airline pilot members commented that TCAS SOPs were clear that pilots should only normally react to RA warnings. ICAO PANS-OPS Doc 8168 states that '*pilots should be confident that the TCAS RA will allow them time to react to a conflict if necessary and should not manoeuvre on TCAS TAs*'. That being said, it adds that '*Nothing in the procedures ... shall prevent pilots-in-command from exercising their best judgement and full authority in the choice of the best course of action to resolve a traffic conflict or avert a potential collision*'. On this occasion, the airline pilot members thought that he had probably received an instruction from ATC to stop his climb at about the same time as he had received the aural warning and so it was a moot point whether he might have unintentionally introduced a conflict with other aircraft by acting autonomously.

The Board commended the actions of the TC controller for realising the significance of the unintelligible transmission from the A320(B) pilot and acting as soon as possible to issue avoiding instructions to both pilots. It was unfortunate that the delay caused by the A320(B) pilot's transmissions had then probably resulted in a loss of standard separation, albeit comparatively minor.

The Board then turned its attention to the cause and risk of the Airprox. It was quickly and unanimously agreed that the Airprox had occurred because the A320(B) pilot had mistaken another pilot's R/T transmissions as his ATC clearance and had climbed into conflict with A320(A). As for the risk, although standard separation had been initially lost at 3nm with only 700ft vertical separation achieved (1000ft required), the Board noted that at CPA the standard separation had been recovered with 1100ft vertical and 1nm horizontal separation, and neither pilot had received a TCAS RA. Therefore, although it was considered that normal safety standards had not pertained throughout, it was agreed that there had been no risk of a collision. Accordingly, the Airprox was assessed as risk Category C.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The A320(B) pilot had mistaken another pilot's R/T transmissions as an ATC clearance and climbed into conflict with A320(A).

Contributory Factor: The A320(B) pilot's verbose responses delayed the controller's endeavour to maintain separation.

Degree of Risk: C.

Safety Barrier Assessment³

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

Flight Crew:

Regulations, Processes, Procedures, Compliance and Instructions were assessed as **ineffective** because the A320(B) pilot did not comply with ATC instructions and also had reacted autonomously to an aural warning that was not a TCAS RA.

³ The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).

Situational Awareness and Action were assessed as **ineffective** because the A320(B) pilot heard an R/T call made by another pilot, thought that it was an instruction from ATC to him, and climbed without a clearance.

See and Avoid was assessed as **not used** because the two aircraft did not come into such proximity that this barrier was employed.

