

AIRPROX REPORT No 2011036

Date/Time: 14 Apr 2011 1340Z

Position: 5054N 00002E (16nm SE
Gatwick)

Airspace: LTMA (Class: A)

Reporting Ac Reported Ac

Type: B737-400(A) B737-400(B)

Operator: CAT CAT

Alt/FL: FL80 NR

Weather: VMC NR VMC NR

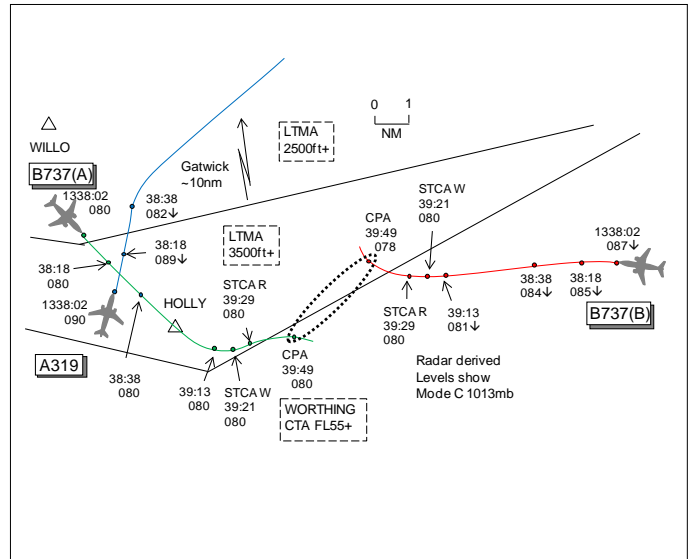
Visibility: 50km NR

Reported Separation:

200ft V/2.5nm H Not seen

Recorded Separation:

200ft V/3nm H



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE B737(A) PILOT reports inbound to Gatwick IFR and entering the WILLO hold via HOLLY at 220kt and FL80. In a L turn at HOLLY opposite direction traffic was noticed also at FL80 descending heading towards WILLO heading 270°. ATC issued an avoiding action heading, reversing their turn. The AP was disconnected and the turn was reversed maintaining FL80; TCAS generated a TA and they saw minimum separation of 200ft/2.5nm. Prior to the TA another flight, an A319, declared a PAN, owing to a medical emergency, at FL100 inbound to HOLLY which was given a N'y heading and immediate descent clearance towards their flight; this incident had raised their awareness.

THE B737(B) PILOT reports that being unaware of an Airprox until being informed post incident. Whilst inbound to Gatwick IFR another flight, an A319, suddenly declared an emergency and was quickly vectored ahead of other traffic, including their ac with associated rapid re-vectoring of various flights. At no time did he feel the safety of his flight was in any doubt nor recollect any TCAS TA or RA alerts.

THE LTC GATWICK INT DIR reports having not long taken over the position when an A319 flight declared a PAN with a pax in need of immediate medical assistance. The off-going controller, who was still at the desk, asked if she wanted to split the sector. She looked at the traffic levels and decided that it would probably be OK; it turned out to be the wrong call. She turned the A319 flight L onto 010°, telephoned the Tower, and then turned an ac, B737(B), at TIMBA L onto 270° to go behind, instead of in front of the A319. She then remembered thinking she had better descend the A319 as it was still at FL90. B737(A) was also on track HOLLY at FL80. Tower wanted more details about the pax so she asked the A319 crew for more details which were passed onto Tower. She had been aware of the ac she turned W to go behind the A319, B737(B), was not descending very quickly and was approaching B737(A) which was nearly at HOLLY and about to turn L. She gave the B737(B) flight a R turn onto 010° and then gave avoiding action R turn onto 120° to the B737(A) flight. Both flights then proceeded to flash white [STCA low severity alert] and then red [high severity] at FL80; she did not know if these two flights lost separation. Prior to being relieved she was unaware that there had been a loss of separation between the A319 and B737(A). She was uncertain how this had occurred.

ATSI reports that the Airprox occurred at 1339:18 UTC, in Class A, CAS, at a position 16.5nm, to the SE of Gatwick Airport.

The Airprox involved 2 Boeing 737-400 ac, B737(A) and B737(B). At the same time an Airbus A319 ac declared a medical PAN. All 3 ac were inbound for Runway 26L at Gatwick with 2 other ac ahead in the traffic sequence. B737(A) was inbound IFR from Glasgow, routeing from the NW to HOLLY. B737(B) was inbound from Cagliari (Sardinia), routeing from the SE to TIMBA.

The Gatwick INT controller had just taken over the position and was operating the sector bandboxed, providing a RCS as radar director. An authorised airline pilot visitor had been plugged into the sector prior to the controller taking over. The visitor and outgoing controller remained in the vicinity of the sector. Traffic levels were assessed by CAA ATSI as medium.

The controller was not initially aware of the Airprox and had reported an ATC Incident with a loss of separation between the A319 aircraft and B737(A).

CAA ATSI had access to RTF and radar recordings, together with the controller, unit and pilot written reports.

METAR EGKK 131020Z 23006KT 190V280 9999 SCT032 SCT040 13/08 1021=

The controller had just taken over the position and had planned a traffic sequence with 5 ac in the traffic pattern.

At 1336:30, 2 ac were already established in the pattern followed by:

B737(B) from the SE, descending to FL080 routeing to TIMBA,

B737(A) from the NW, at FL080 routeing to HOLLY then WILLO

A319 from the SW, descending to FL090 routeing HOLLY then WILLO.

At 1336:55, the B737(B) flight at FL096, 26nm SE of Gatwick, was turned L onto a heading of 290° and given descent to FL070. At this point the range between the 2 B737 ac was 23nm. The projected heading did not ensure separation from the WILLO stack. LTC MATS Part 2, GAT 4.6.1 states:

'If KK [Gatwick] INT vectors an aircraft that is at, or above, the Minimum Stack Level from one holding stack towards the other, the relevant flight progress strip is to be moved to the appropriate stack designator to indicate that it has become traffic to aircraft in that stack. KK SPT is to be kept informed.'

The controller decided not to move the strip of B737(B) from the TIMBA to WILLO stack (or 'cock-out' the strip which was the controllers preferred method). Had this been done it would have highlighted the conflict. The controller intended to monitor the interaction between the 2 B737 ac and planned to turn B737(B) R into the downwind traffic pattern before coming into conflict with B737(A).

The controller confirmed that the Vertical Stack Lists (VSLs) were not displayed and did not feel that the sector was busy enough to warrant them. Had the VSLs been displayed it may have helped to highlight the conflict. LTC MATS Part 2, DAT 8.9.6.1 states:

'...Where stack management is part of the role of the sector,, the appropriate VSL palettes should be displayed at all times,.....'

At 1337:07, the A319 flight declared a medical PAN. The controller elected to change the order of the arrival sequence, giving the A319 priority, ahead of the 2 B737 ac. This changed the dynamics of the earlier plan. The controller removed the A319 fps from the WILLO display and held it, whilst advising the outgoing controller of the PAN. The strip was then moved to the fps display directly in front of the controller (note: this is common practice when ac are no longer in conflict). The outgoing

controller offered to split the position but the INT controller assessed the workload as acceptable for boxed operations and declined the offer. Later, the INT controller acknowledged that this was the wrong decision.

At 1337:49, the distance between the 2 B737 ac was 16nm. B737(B) flight, now passing FL089, was turned L onto a heading 270°. Because of the increased workload and non-standard configuration of the strip management, the conflict between the B737 ac was not highlighted. The ATSU reports that the controller momentarily forgot about the presence of B737(A), most likely because the controller became focused (note: tunnelling effect) on moving the A319 forward in the approach sequence.

At 1338:01, the A319 flight, level at FL090 and converging with B737(A) at FL080, was instructed to descend to an altitude of 4000ft. This resulted in a loss of separation as the 2 ac passed. Because of the ac trajectories and relative positions as the 2 ac diverged, STCA did not activate. The minimum separation was reported as 2nm and 400ft as the ac diverged. The written report from the pilot of B737(A) indicated the crew were aware of the early descent given to the A319, which heightened their situational awareness, as they monitored the A319 on TCAS.

[UKAB Note (1): The CPA between the A319 and B737(A) occurs at 1338:18 with the A319 0.5nm NE of B737(A), 900ft above and descending.]

The controller turned the A319 downwind and requested details of medical emergency. The pilot passed the details and confirmed that the company were aware and had requested an ambulance.

At 1339:13, the distance between the 2 B737 ac was 7nm. B737(B) was passing FL081 in the descent to FL070, with B737(A) maintaining FL080. The controller instructed B737(B) to turn R onto a heading of 010°. At the same time B737(A), on a SE'ly track and approaching HOLLY, was commencing a L turn towards WILLO.

The outgoing controller who was monitoring the situation, alerted the controller to the conflict and at 1339:19, the controller issued avoiding action, "*(B737(A))c/s avoiding action turn right heading one two zero degrees.*" The B737(A), already commencing a L turn towards HOLLY, reversed the direction of turn. At 1339:49 radar recording showed the required minimum separation of 3nm was maintained with vertical separation of 200ft.

The Airprox was attributed to the Gatwick INT controller momentarily forgetting about B737(A), when providing vectors to B737(B), which brought the 2 ac into conflict. The crew of B737(A), already at a heightened state of awareness because of the loss of separation with the A319, became concerned about the proximity of B737(B).

A number of factors were considered to be contributory:

- a) The controller did not accept the offer to split the sector which would have eased the workload and may have prevented the incident.
- b) The medical PAN increased the workload significantly, resulting in the controller's change of plan and caused the controller to request for full details of the medical emergency, when these had already been passed to the company and an ambulance arranged.
- c) The short period of time since the handover and the presence of a visitor in the vicinity of the sector were considered to have been an added distraction.
- d) The controller was not using the vertical stack lists (VSLs) which may have alerted the controller to the potential confliction.
- e) The controller's plan to turn B737(B) towards the WILLO stack, and monitor the separation as the ac descended, did not provide appropriate safeguards once the controller's attention was diverted by the medical PAN.

- f) The controller did not correctly move the B737(B) strip to the WILLO stack in accordance with MATS Pt2 instructions. This would have highlighted the conflict.

The incident was resolved by the action of the outgoing controller, who, aware of the medical PAN, continued to monitor the situation and alerted the controller to the confliction. This showed good team resource management and resulted in avoiding action, which prevented a loss of separation between the 2 B737s.

The crew of B737(A) also monitored, on TCAS, the A319 being given early descent, which resulted in the loss of separation and which raised the level of awareness of the B737(A) crew.

The ATSU has completed a unit investigation and will make appropriate recommendations to:

- 1) Ensure that if a pilot in such circumstances has already arranged medical assistance, they simply advise ATC of the medical PAN.
- 2) Issue an OPNOT reminding controllers of the correct methods of strip moving when vectoring ac from the confines of one hold to another.
- 3) Ensure that the MATS Pt2 guidance for the use of VSLs is amended from 'should' be displayed at all times to 'shall' be displayed at all times.

CAA ATSI is content with the actions and proposed actions of the ATSU provider.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from the pilots of both ac, transcripts of the relevant RT frequencies, radar video recordings, reports from the air traffic controllers involved and reports from the appropriate ATC authorities.

Members could add little to this report. When INT DIR changed her arrival sequence order, owing to the A319 emergency, she placed B737(B) on a new radar heading of 270° whilst it was descending to FL70, through the level of B737(A). A controller Member familiar with LTC operations noted that B737(B) was descending slowly when it would normally be expected to have descended below an ac in the HOLLY area. However, INT DIR had forgotten about B737(A) when she vectored B737(B) and this had brought the ac into conflict and caused the Airprox.

As she noted in her report, with hindsight the offer to split the sector should have been taken up but at the time the controller believed traffic levels were acceptable. Members applauded the Team Resource Management shown when the off-going controller, who had remained close-by and monitored the situation, pointed out the confliction prior to STCA activating. INT had just issued B737(B) flight a R turn onto 010° for sequencing behind the A319 before she issued an avoiding action turn onto 120° to B737(A). B737(A) crew was already at a heightened state, owing to the A319 flight having descended when it passed O/H their ac. They had noticed the approaching B737(B) and had promptly actioned the avoiding action turn away from it, resulting in no erosion of separation. All of these elements when combined allowed the Board to conclude that any risk of collision had been quickly and effectively removed.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The Gatwick INT DIR vectored B737(B) into conflict with B737(A).

Degree of Risk: C.