

AIRPROX REPORT No 2012154

Date/Time: 3 Oct 2012 1719Z

Position: 5108N 00017W (3.5nm W
Gatwick - elev 203ft)

Airspace: CTR/LTMA (Class: D/A)

Reporter: LTC SW DEPS

1st Ac **2nd Ac**

Type: DHC8 A319

Operator: CAT CAT

Alt/FL: 2000ft↑ NK
(QNH) (NK)

Weather: IMC KLWD NK NR

Visibility: NR

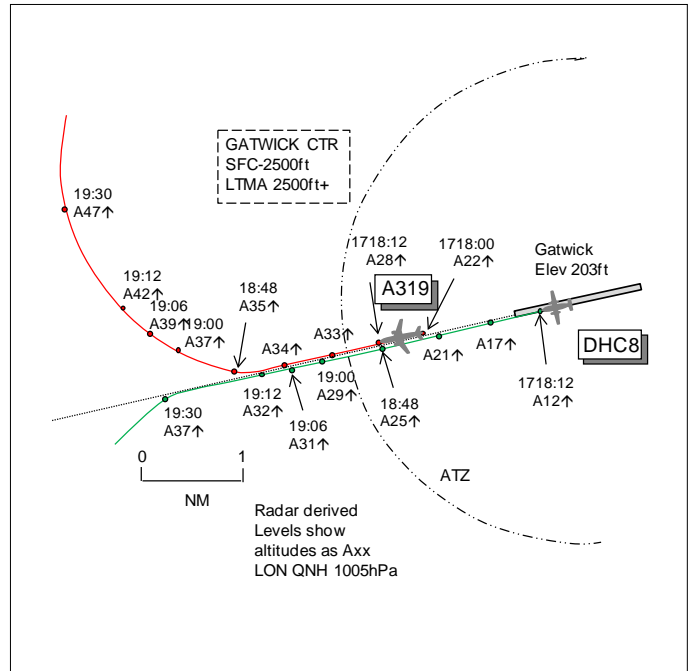
Reported Separation:

NR NR

SW DEPS 400ft V/1nm H

Recorded Separation:

800ft V/1.5nm H



CONTROLLER REPORTED

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE LTC SW DEPS reports that the DHC8 flight called on departure from Gatwick following a SAM SID. Without identifying the flight formally she observed the ac to be 400ft, she thought, and approximately 1nm from the previous departing A319 on a DVR SID which was in a R turn. She gave the DHC8 flight an avoiding action L turn onto heading 240° and the ac were seen to pull apart. She asked the DHC8 crew whether they had been visual with the ac ahead and they replied negative.

THE GATWICK AIR CONTROLLER reports the A319 departed on a R turn DVR SID and the DHC8 was departed behind on a SAM SID. The A319 flight was transferred early passing 2300ft with the DHC8 just getting airborne. He noted the A319 GS was slow so he ensured that it was established in the R turn before looking to transfer the DHC8 flight noting that there was 1000ft separation. Shortly afterwards he noted the DHC8 had been turned L off the SID but the next departure was a R turn so would not be affected.

THE DHC8 PILOT reports on departure from Gatwick, IFR and in communication with Gatwick Tower and then London on 134.12MHz, squawking an assigned code with Modes S and C. Gatwick cleared them for departure from the full length of RW26L after having just cleared an A319 for take-off and its wheels had just left the RW. Heading 259° climbing through 2000ft they lost sight of the A319 in cloud but thought nothing of it as it was normal at Gatwick for departures to be close. They started to accelerate to 210kt in the climb to 4000ft on the SAM2M departure as Gatwick handed them over to London. As soon as they selected the London frequency they were given avoiding action onto heading 230° by the controller. They had not received a TCAS warning but the ac ahead was displayed on their TCAS screen. The avoiding action was carried out and then the controller said they would be filing a report owing to Gatwick ATC departing their ac so soon after another ac. He assessed the risk as low.

THE A319 PILOT reports being unaware of an Airprox during their departure from Gatwick so they were unable to provide any detailed information about the incident.

ATSI reports that the Airprox was reported by the LTC SW (Deps) controller in Class A airspace, when avoiding action was given to the DHC8 after departure from London Gatwick Airport, due to the DHC8 having less than the required radar separation (3nm/1000ft) against a previous departing A319.

The A319 was operating IFR on a flight from Gatwick to Frankfurt and was in receipt of a RCS from LTC BIG on frequency 120.525MHz.

The DHC8 was operating IFR on a flight from Gatwick to Nantes and was in receipt of a RCS from LTC SW (Deps) on frequency 134.125MHz.

CAA ATSI had access to written reports from both pilots, the Gatwick AIR controller, the LTC SW (Deps) controller, area radar recordings, RT recordings and transcripts of the Gatwick Tower frequency and the SW (Deps) frequency together with the unit investigation report from London Terminal Control.

The Gatwick METARs are provided for 1650 and 1720 UTC:

EGKK 231650Z 21008KT 180V240 9999 FEW024 13/09 Q1006= and EGKK 231720Z 22007KT 9999 FEW022 BKN046 13/09 Q1006=

At 1717:15 UTC the A319 became airborne on a DVR8M SID, which requires a climb to altitude 4000ft with a R turn at 2.3DME from I-WW at Gatwick.

At 1717:42 (27sec after the A319 was airborne) the DHC8 became airborne on a SAM2M SID climbing to altitude 4000ft, initially straight ahead before a slight L turn at 8DME from MID. The AIR controller was using reduced separation in the vicinity of the aerodrome. CAP493 Section 1, Chapter 3, Page 1, Paragraph 3.2 states:

'In the vicinity of aerodromes, the standard separation minima may be reduced if:

- a) adequate separation can be provided by the aerodrome controller when each aircraft is continuously visible to this controller;' or
- b) each aircraft is continuously visible to the pilots of other aircraft concerned and the pilots report that they can maintain their own separation; or
- c) when one aircraft is following another, the pilot of the succeeding aircraft reports that he has the other aircraft in sight and can maintain own separation.'

At 1718:00 the A319 was transferred to LTC BIG. At 1718:39 the Mode S SFL changed to indicate that the A319 was climbing to 6000ft. The climb rate of the A319 was 896fpm while the climb rate of the DHC8 was 1856fpm.

[UKAB Note (1): The DHC8 first appears on radar at 1718:18 climbing through altitude 1200ft QNH with the A319 1.7nm ahead climbing through 2800ft QNH.]

At 1718:50 the DHC8 was transferred to LTC SW (Deps). The radar recording indicates that the A319 had just started the R turn and was passing altitude 3600ft with the DHC8 1.6nm behind passing altitude 2500ft.

At 1719:05 the DHC8 contacted LTC SW (Deps), "*London (DHC8 c/s) Southampton two mike passing altitude three thousand three hundred climbing four thousand*". The A319 was in the R turn

passing altitude 3700ft with a climb rate of 960fpm with the DHC8 1.5nm behind passing altitude 2900ft with a climb rate of 1696fpm. Low level STCA activated at 1719:10.

The LTC SW (Deps) controller transmitted, *“(DHC8 c/s) avoiding action turn left heading two four zero degrees there’s traffic in your one o’clock range of one mile”*. This was correctly read back by the crew of the DHC8 at 1719:20. The controller then asked, *“(DHC8 c/s) were you visual with the one ahead”* and the crew replied, *“negative (DHC8 c/s)”*.

[UKAB Note (2): The CPA (800ft /1.5nm) occurs during the 2 radar sweeps at 1719:00 and 1719:06, before separation increases to 1000ft/1.6nm at 1719:12 with the A319 turning R through a NW’ly heading, climbing through 4200ft, with the DHC8 climbing through 3200ft. The DHC8’s avoiding action L turn is evident on the radar recording at 1719:30.]

The written report from the Gatwick AIR controller stated that the DHC8 was transferred when the A319 was in the R turn and the DHC8 was 1000ft below the A319.

Prior to transferring the A319 and the DHC8, the Gatwick AIR controller was providing reduced separation in the vicinity of the aerodrome. The Gatwick Manual of Air Traffic Services Part 2, Air section, Chapter 3, states that:

‘departing aircraft are not to be transferred to TC until suitable separation exists.’

There is no specific guidance as to what constitutes ‘suitable’ separation. The use of the term ‘suitable separation’ is less prescriptive than the instructions contained in some other MATS Part 2 of airfields that transfer traffic to LTC. ADCs at Gatwick are expected to use their own judgement and experience to determine an appropriate point for transfer of communication and control to the radar controller. In this case the DHC8 was transferred to LTC when the separation provided was not acceptable to the LTC SW (Deps) controller.

At the point of transfer to LTC SW (Deps) the Gatwick AIR controller was content that adequate separation had been provided between the 2 departures, which the controller believed was confirmed by the information displayed on the ATM – the A319 was in the R turn and the DHC8 was 1000ft below. However, the AIR controller may not have given due consideration to the climb rate of the DHC8 relative to that of the A319 and transferred the DHC8 when vertical separation was eroding. When the DHC8 flight contacted the LTC SW (Deps) controller the 2 ac were 1.5nm and 800ft apart and the LTC SW (Deps) controller took avoiding action.

In sum, an Airprox was reported when the LTC SW (Deps) controller became concerned about the relative distance and positions between an A319 and a DHC8 on departure from Gatwick such that avoiding action was issued to the DHC8. The Gatwick AIR controller had been using reduced separation in the vicinity of the aerodrome but transferred the DHC8 before separation against a preceding A319 was acceptable to the LTC SW (Deps) controller.

Recommendation

It is recommended that both Gatwick and LTC review the wording of the Gatwick MATS Part 2, Air Section, Chapter 3 - ‘departing aircraft are not to be transferred to TC until suitable separation exists’ - to ensure that either both units have an understanding and acceptance of the term ‘suitable’ or alternative wording is used to clarify the conditions under which traffic will be transferred to TC.

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.

Controller Members agreed that the spacing was tight when AIR cleared the DHC8 for take-off behind the A319 but the situation was manageable utilising 'reduced separation in the vicinity of an aerodrome' (RSITVOAA). A CAT pilot Member commented that controllers exercising this visual separation should not assume ac performance as crews do have options to adjust their flight profile to suit the conditions at the time. When he saw the A319 commence its R turn, and he transferred the DHC8 to LTC SW Deps, AIR was content that 1000ft vertical separation existed. However, the DHC8 was climbing at a higher rate than the preceding A319. This had led to the DHC8 flight calling on the SW Deps frequency with only 800ft vertical separation, which triggered STCA low-severity alert, and caused the radar controller sufficient concern that she felt that an avoiding action L turn was required. Had the AIR controller retained the DHC8 on his frequency for a short while longer, applying RSITVOAA until radar separation (1000ft/3nm) was ensured after transfer, the LTC controller would not have been placed in that invidious position. Members noted the comment and recommendation made by ATSI with respect to the MATS Part 2 guidance dealing with transfer of ac to LTC with 'suitable' separation existing. This guidance was very much down to individual controller judgement and experience; on this occasion AIR had not ensured separation before transferring the DHC8 to LTC and this had caused the Airprox.

Neither the A319 nor DHC8 crews were concerned with the situation. The early transfer of the DHC8 led to a momentary (~10sec) loss of radar separation (800ft/1.5nm) - the SW Deps controller perceiving 400ft/1nm - before separation was restored. The avoiding action L turn issued to the DHC8 flight does not become evident until after the CPA. Once the A319 had commenced its R turn, the DHC8's straight-ahead track profile required of the SAM SID meant that the ac were not on converging/conflicting tracks, which allowed the Board to conclude that any risk of collision had been quickly and effectively removed.

The NATS Advisor informed Members that the ATSI recommendation had been received recently and this would be addressed following a Safety Survey to be undertaken later in 2013.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The Gatwick AIR controller did not ensure separation before transferring the DHC8 to LTC SW Deps.

Degree of Risk: C.