

Boeing 767-336, G-BNWP, 7 December 1995

AAIB Bulletin No: 4/96 Ref: EW/G95/12/07 Category: 1.1

Aircraft Type and Registration: Boeing 767-336, G-BNWP

No & Type of Engines: 2 Rolls-Royce RB211-524H-36 turbofan engines

Year of Manufacture: 1992

Date & Time (UTC): 7 December 1995 at about 0735 hrs

Location: Beirut International Airport

Type of Flight: Public Transport

Persons on Board: Crew - 11 Passengers - 158

Injuries: Crew - None Passengers - None

Nature of Damage: None

Commander's Licence: Airline Transport Pilot's Licence

Commander's Age: 52 years

Commander's Flying Experience: 10,680 hours

Last 90 days - 140 hours

Last 28 days - 23 hours

Information Source: Documentary evidence from the operator and Beirut ATC, and followup enquiries by the AAIB

Synopsis

The aircraft was departing on a flight from Beirut to London Heathrow, for which the normal westbound departure clearance is to join airway B 15, track 326° from Beirut, climbing as cleared to the reporting point BALMA (44 nm).

The incident occurred when the aircraft took off from Beirut Airport and departed on the only published Standard Instrument Departure (SID) for Runway 21, the 'BEIRUT1', which tracks 022° for 26 nm to 'CHEKKA' and then 090° for 44 nm to 'LEBOR'. (See attached SID chart). This SID is used for only eastbound departures.

History of the flight

The crew had arrived in Amman, Jordan two days previously and had spent two days rest period there. The first officer was to be the handling pilot (HP) for both of the return sectors to London Heathrow Airport and the first, from Amman to Beirut, was uneventful. There is a Route Clearance Unit brief for Beirut and the commander had been to Beirut before but the first officer had not.

For the departure from Beirut, in line with normal procedure, the commander, as non-handling pilot (NHP), set up the Flight Management System (FMS). The FMS requires a SID (or an ATC cleared 'Direct To') to be entered and so, as there was no published alternative to the (eastbound) 'BEIRUT1' SID and no other clearance had been issued by ATC or suggested in the departure publications on the aircraft, the commander programmed the SID into it. It was discussed between the crew that this would be amended immediately that they were cleared to make a direct track to BALMA; after take-off if necessary.

The Aerad 'Special Procedures', under the heading 'Departures', require that flights which cannot comply with the published departure must inform ATC on 'start-up'. Whilst the Lebanese Air Pilot's authoritative description of the departure instructions requires that the appropriate airway should be intercepted by a direct track unless otherwise instructed by ATC, the Aerad chart in use by the crew did not state this. This omission has since been rectified.

The aircraft left the stand at 0700 hrs and during the taxiing, at 0705 hrs, ATC issued the departure clearance "CLEAR TO LONDON AIRPORT VIA B15 FLIGHT PLANNED ROUTE CLIMB AND MAINTAIN INITIALLY FLIGHT LEVEL 240 REQUEST LEVEL CHANGE ON ROUTE AND SQUAWK A 4252". This was read back correctly and discussed by the crew but, as it did not include either the word 'BALMA' or the word 'Direct', they did not realise that it constituted a 'Direct to BALMA' departure clearance and, therefore, did not re-programme the FMS. This clearance did not mention the BEIRUT1 SID.

The flight took off from Runway 21 at 0708 hrs and, following the required return to Beirut beacon, followed the SID towards 'CHEKKA'. At 0710 hrs, the commander asked ATC to confirm that the flight was cleared to climb to Flight Level (FL) 240. This was confirmed and he was told to report reaching that level and passing BALMA. The commander did not ask either for confirmation of the SID route or for re-clearance direct to BALMA.

Beirut Radar was unserviceable and, at 0718 hrs, ATC asked for the aircraft's ETA for BALMA, which the commander gave as 0734 hrs. The direct track from Beirut to BALMA is 41 nm, and the controller, therefore, requested confirmation of this ETA, which was given. The distance from Beirut via CHEKKA and LEBOR to BALMA, which would have been displayed on the FMS, would have been about 165 nm and it would have been displaying an ETA of 0724 hrs. The controller then asked for further verification of the estimate and for their range from Beirut. The commander stated that they were overhead CHEKKA and, giving the range from Beirut as 37 nm, was asked for the radial from Beirut. The commander replied that the radial was 212°, which was 180° in error, and was instructed to proceed to BALMA. There followed a series of requests by ATC for radials and distances from other local radio beacons, as the controller tried to establish the position of the aircraft. About one minute later, ATC instructed the aircraft to "IMMEDIATELY TURN LEFT WESTERLY HEADING LEFT LEFT" and asked "WHAT'S YOUR LEVEL?". The commander acknowledged this instruction and the first officer turned the aircraft left onto a heading of 270°. Following further confirmation of radials and distances from Beirut, the controller informed the commander that they were flying over a prohibited area and on a different airway (R 655) from that in their clearance. The prohibited area in question was no longer operative. The

commander replied that they had exactly followed the controller's instruction to turn left onto 270°. The flight to London was continued without further incident and the commander did not consider that the event was significant enough to file a report to the operating company on the matter.

Additional information

The Lebanese authorities subsequently asked the AAIB to investigate the incident. After the operating company had been informed of the event and conducted its own investigation, it arranged for the Aerad departure charts to be amended and took measures designed to ensure that there will not be a recurrence of this event within the company.

The AAIB have transmitted a report upon this incident to the Lebanese Civil Aviation Authorities.