## AIRCRAFT ACCIDENT REPORT NO 3/94

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## REPORT ON THE INCIDENT TO BOEING 737-2Y5A, 9H-ABA AT LONDON GATWICK AIRPORT ON 20 OCTOBER 1993

## **SUMMARY**

The incident occurred when a Boeing 737 aircraft landed on Taxiway 2 at London Gatwick Airport after making a Surveillance Radar Approach (SRA) at night to land on Runway 26R. Taxiway 2 was unoccupied at the time. The aircraft was subsequently taxied to the parking area where the passengers and crew disembarked via the normal channels.

The report concludes that the incident occurred as a result of the following factors:

- i) Runway 26R was clearly visible throughout the approach but the pilots looked for and selected a pattern of lights to the right of it because they assumed erroneously that 26R was in fact 26L and they knew that the designated runway had to be to the right of this.
- ii) The flight crew had not briefed themselves on the lighting they were expecting to see on Runway 26R once the change of runway had been confirmed.
- iii) The crews' misinterpretation of the visual cues was facilitated by:
  - a) The similarity between the night time view of Runways 26L and 26R with associated taxiways to the right which are marked with green centreline lighting.
  - b) The use of Runway 26R sometimes as a runway with edge lighting and sometimes as a taxiway with centreline lighting.
  - c) The green centreline lights of Taxiway 2 were set at a brilliance of 30% until the aircraft was about 2 miles from touchdown when they were reset to 10%. Whilst the lights were at the brighter intensity the chance of mistaking Taxiway 2 for the runway was considerably increased and the mistake was possible at an earlier stage in the approach.

A similar incident occurred in April 1988 following which the AAIB had recommended that taxiway green centreline lighting should be made inconspicuous, and ideally invisible by selective switching, to pilots on approach to land. This recommendation was not implemented completely because the CAA did not consider that modifications to the green centreline lighting of Taxiway 2 and Runway 08L/26R

to make them uni-directional and switchable for the direction in use were necessary in addition to modifications already made in accordance with ICAO Annex 14. It was also considered undesirable to adopt a system which was non standard internationally and with complex switching arrangements.

The following safety recommendations were made on 19 November 1993:

- 93-66 The lighting of runways and taxiways at London Gatwick Airport should be re-examined with particular reference to the elimination of any possible confusion for pilots identifying Runway 26R/08L and Taxiway 2A Recommended modifications include:
  - a) Rendering the green centreline lighting of Taxiway 2 invisible to pilots on approach to Runway 26R/08L.
  - b) The removal of the white strobe lights sited either side of Runway 26L/08R, which were originally installed to assist in the identification of this runway when 26R/08L was commissioned, leaving the strobe lights at the thresholds of 26R/08L in order to facilitate its positive identification.
- 93-67 The CAA should revise the content of the Gatwick ATIS broadcast in the light of the guidelines contained in ICAO Document 9426 (ATS Planning Document). Any advice concerning runway lighting and other identifying features when Runway 26R/08L is in use should be at the beginning of the broadcast rather than the end.

The report contains a further recommendation namely:

- 94-6 A further review of the lighting at London Gatwick Airport should consider in particular:
  - a) The modification of the green centreline lighting of Taxiway 2 to make it uni-directional and switchable for the direction in use.
  - b) The development of systematic procedures to manage the choice lighting selections.
  - c) Shielding, where possible, of all extraneous lighting so as to cause minimum confusion to approaching aircraft.