

SYNOPSIS

Courtesy translation

SERIOUS INCIDENT

Date

29 June 2010 at around 17 h 30¹

Aircraft

- 1) Airbus A319 registered HB-JZQ
- (2) Airbus A319 registered F-GRHA

Location

13 NM south-west of Bâle-Mulhouse Aerodrome

Operators

- (1) Easy Jet Switzerland
- (2) Air France

Type of flight

Scheduled public passenger transport

(Flight) Crew

- (1) Instructor (PF), right seat; trainee; captain (PNF), left seat
- (2) Captain (PNF); co-pilot (PF)

Consequences and damage

Minor injuries

The AF7343 flight crew took off from runway 15 at Bâle-Mulhouse to Paris Orly. Soon afterwards, it was cleared to climb to FL110 by the approach controller. About one minute later, the controller cleared the Flight DS1058 crew from Palma on approach to runway 15 to descend to the same level. A traffic advisory was triggered on board the two aircraft followed by a series of resolution advisories (TCAS RAs), including an advisory reversal. During these manoeuvres, the vertical load factor recorded on board Flight DS1058 oscillated between -0.19g and 2.04g. A member of the cabin crew was slightly injured.

This loss of separation constituted a serious incident. The investigation has shown that this was caused by a slip made by a trainee-controller who allocated the same flight level to two aircraft, one of which was climbing while the other one was descending, without this error being detected by the controller-instructor.

Elements which may have contributed to this slip and the non-detection thereof:

¹ Unless otherwise indicated, the times appearing in this report are expressed in Coordinated Universal Time (UTC).

- an inadequate safety study had led to the setting up of central units with insufficient capacity, which had therefore caused an unresolved breakdown in the radar system at the time of the serious incident;
- an unusual context of procedural methods of control for the two controllers, in the context of weather avoidance requests;
- the inappropriate combination of standard procedural control and use of a radar that had been declared unserviceable;
- the role of the controller-instructor as the 'interlocutor' (contact) between the trainee-controller and the coordinator-controller was not conducive to supervision of the trainee-controller.

It is possible that the vertical speed of the AF7343 played a role in the sequence of the TA followed by the RA.

The further loss of separation, through reversal of the resolution advisories, occurred as a consequence of the conjunction of:

- the inclination to reduce the climb rate of the AF7343 following an instruction from the trainee-controller requesting the crew to maintain FL100, which was given before the activation of the TCAS RA «maintain vertical speed, crossing maintain» instructing the crew, on the contrary, to maintain a constant climb rate;
- a brief nose-up input by the pilot flying (PF) Flight DS1058 while disconnecting the autopilot (AP) due to the activation of the «monitor vertical speed» TCAS RA instructing the crew not to climb.

One cabin attendant on Flight DS1058 was slightly injured as a result of the PF's sudden manoeuvres, while he was subjected to an increasing amount of stress in responding to the successive TCAS RAs.

The radar visualization system's failures were caused by the mismatch between the equipment as originally configured and the amount of traffic it was expected to handle. Inappropriate coordination between departments and time constraints did not enable this anomaly to be detected during studies carried out before the incident.

The BEA has issued four recommendations on:

- automation of ACAS Resolutions;
- Preventive Resolution Advisories;
- the use of radar displays during Procedural Control;
- smoothing the vertical flight path when approaching a flight level.