

Cabin crew injured during flight as a result of turbulence

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Report summary

On 24 September 2016 a Transavia aircraft was flying from Schiphol to Palma de Mallorca in Spain. For the pilots this was the third flight of the day. Weather information for all three flights had been obtained the night before; for the third flight it was no longer the latest available information. During the flight an advanced weather radar device was used, but as not all pilots had been given training in its use, this radar was not employed to full effect. This led to a situation in which the pilots became aware of a rapidly-developing thunderstorm only forty seconds before encountering it. They switched on the 'fasten seatbelts' sign, and three cabin attendants, who were seated at the rear of the aircraft, stood up to check the passengers' seat belts and secure equipment. At that moment the aircraft encountered heavy turbulence for a few seconds. The three cabin attendants fell, sustaining serious injuries: bone fractures and a perforated lung. The fourth cabin attendant, who had been sitting at the front of the aircraft, remained unhurt.

When the pilots realized that three cabin attendants had been badly wounded, before landing they made several requests to Spanish air traffic control for three ambulances and a doctor. After the aircraft had landed it was another 10 minutes before the first ambulance arrived and 25 minutes before the second ambulance arrived. The third ambulance and the doctor did not arrive at all. According to the airport authorities this was because the doctor and the ambulance stationed at the airport had been occupied with another medical emergency, so the two ambulances provided had had to come from the city.

Compliance with the recommendations

The Dutch Safety Board report made three recommendations: two to Transavia and one to the Spanish civil air transport authorities. Transavia reacted to these recommendations on 31 July 2018, and the Spanish civil air transport authorities reacted on 17 September 2018. This memorandum describes how the parties addressed reacted to the recommendations, and gives the Board's conclusions on compliance with the recommendations.

Recommendation 1: Transavia is recommended to review its turbulence procedure, especially with regard to self-preservation of cabin staff.

Reaction received

Transavia has modified its turbulence procedures. Alongside a number of modifications resulting from an internal investigation into this event, Transavia has also improved its procedures by adding a section on 'How to respond in the event of unexpected turbulence, so that cabin crew can quickly make themselves safe'.

Conclusion on compliance

This reaction to the recommendation, and the modified turbulence procedures that the Safety Board has received from Transavia, make it clear that the recommendation has been adopted.

Recommendation 2: Transavia is recommended to ensure that flight crews have the most recent weather information for each flight available.

Reaction received

Transavia reports that its dispatch process was brought up to date with the introduction of a new briefing system in late 2016. This allows the cockpit crew to automatically obtain the latest weather information at any time, including in the cockpit during flight preparations.

Conclusion on compliance

It transpires that Transavia introduced a new system for distributing weather information even before the Safety Board's report was published. This was not known to the research team, and was not apparent from Transavia's reaction to the Board's draft report. The desired change has been effected, though not in reaction to the recommendation. Given that the observed safety deficit has been removed, the Safety Board regards this as compliance with its recommendation.

Recommendation 3: The Spanish CAA is recommended to ensure medical care and facilities to be available at short notice, commensurate with the aircraft operations, at the airports under its control.

Reaction received

The Spanish CAA has informed the Safety Board that it sees no reason to improve the availability of medical care and medical facilities at Spanish airports.

The Spanish CAA notes that it is relevant to distinguish between aeronautical emergencies and medical emergencies. In an aeronautical emergency the safety of the aircraft, the airport, or the surroundings is at issue because one or more aircraft crew members require medical attention. If this safety is not at issue, then it is a medical emergency. The Spanish CAA argues that requirements concerning the availability of medical care and medical facilities in the event of an aeronautical emergency have already been laid down in international legislation (EU Regulation 139/2014 and ICAO Annex 14), and those for medical emergencies in Spanish legislation. In their view, this was a medical emergency.

The Spanish CAA states that the medical care provided to the cabin crew met the requirements laid down in Spanish legislation, and that Spanish airports meet the requirements laid down in EASA and ICAO legislation. The Spanish CAA therefore regards the Safety Board's recommendations as already complied with.

Conclusion on compliance

Although the Spanish CAA regards the Safety Board's recommendations as already complied with, in the view of the Safety Board this is not the case. In its report on this event, the Board makes it clear that they expect the medical care available at airports not only to meet the minimum legal requirements, but that airports should also possess an Airport Emergency Plan that is commensurate with the size of the airport and its activities. The Safety Board has ascertained that while the Airport Emergency Plan of Palma de Mallorca Airport does describe which medical facilities must be available in the event of an aviation accident, it does not define:

- a. the medical care that must be available for wounded persons on board a landing aircraft; and
- b. the presence or availability of ambulances.

The Safety Board concludes that the availability of medical care at the Palma de Mallorca Airport is inadequate to that which they would expect of an airport of its size. Palma de Mallorca is, after Madrid and Barcelona, the largest airport in Spain. In 2017, 27.9 million passengers made use of it. The Safety Board therefore regards it as remarkable that the first ambulance appeared only about 10 minutes after the aircraft had landed, and the second a quarter of an hour later; that is to say, 36 and 51 minutes after the captain had made the request. The doctor and the third ambulance that had been requested did not appear at all. Given that this is an undesirable situation at an airport where medium-sized passenger aircraft land and take off with great regularity, the Safety Board had recommended that the situation be improved. The Spanish CAA has not complied with this recommendation.