

BR757 Occurrence Investigation Executive Summary

On February 26, 2011, EVA Airways Corporation (EVA Air) flight BR757 scheduled passenger flight, an Airbus A330-203, registration number B-16303. The aircraft was a passenger flight scheduled takeoff from Hangzhou Xiaoshan Airport at 2120 local time to Taoyuan International Airport. The aircraft took off at 2122; there were 2 flight crew members, 8 cabin crewmembers, and 135 passengers on board. Before take-off the flight crew acknowledged that the visibility at the destination at 1900 was 1,500 meter with fog, the forecast visibility from 2000 to 2300 was 2,220 meter with fog and had tendency to get lower due to fog. The flight crew did discuss the visibility issue and remind each other to continually monitor the weather condition.

The aircraft landed at Taoyuan International Airport Runway 06 at 2249, the left main gear veered off the runway temporarily during landing roll. The aircraft stopped on the runway to conduct the aircraft preliminary check approved by the control tower, then stopped on the taxiway to conduct the following aircraft condition check. There aircraft had no damage and all passengers on board were safe in this occurrence.

The ASC launched investigation according to Aviation Occurrence Investigation Act after the occurrence. Parties to the investigation were the Civil Aeronautics Administration, Ministry of Transportation and Communications (CAA), Taoyuan International Airport Corporation and EVA Airways.

The draft Investigation Report was accomplished on August 7, 2011 and sent to the parties for review after the preliminary review by the Council Meeting on October 25, 2011. The final investigation report was

published on March 30, 2012 after approval by the ASC 152th Council Meeting.

The investigation report included 11 findings and 9 recommendations state as below:

Findings Related to Probable Causes

1. The flight crew might lose visual reference temporarily during approach and flare due to low-level clouds and local fog. The flight crew did not notice the left wing was low before touchdown, which induced the aircraft drift to the left and touched down at the left of the runway centerline. The flight crew tried to correct the aircraft back to centerline but could not prevent the aircraft from veering off the runway during the landing roll.
2. The situation awareness of the flight crew was insufficient, they did not well prepared for the weather condition change at the landing phase.
3. The flight crew had known the threat of the weather condition, but they did not make the decision to go around while they found the visual reference was not sufficient at the decision height during final approach.

Findings Related to Risk

1. The low-level clouds and local fog were the operational risk for the flight crew to conduct the approach and landing.

Other Findings

1. The certificates of flight crew were in accordance with Civil Aviation Regulations.

2. There was no evidence showing that the flight crew was affected by any alcohol or medication during that flight.
3. There was no evidence showing that the aircraft maintenance and airworthiness were related to this occurrence.
4. If the runway centerline light was considered to install on runway 06/24, it should be effective in strengthening the visual reference for flight crew to line up the runway before landing.
5. The Taoyuan international airport approach lighting system does not comply with the specification of ICAO annex 14.
6. The Taoyuan Airport runway approach lighting systems, runway edge lights, runway threshold lights and runway end lights only provide with a loop circuit failure monitoring and warning real-time automatic monitoring system, but not comply with the specification requirements while the consecutive single lamp are not applicable, the system could function automatically and immediately notify the control tower and maintenance units.
7. The aircraft should perform takeoff and landing against the wind in general. The major consideration of runway in use is selecting the most suitable runway direction for the aircraft takeoff and landing. The contents of: 「Runway assignment considered of the tailwind restriction」 between AIP and ATMP have discrepancies; In addition, they do not comply with the principle of the paragraph 7.2(Selection of runway in use) of ICAO Doc 4444.

Safety Recommendations

To EVA Airways

1. Reinforce the training to flight crew's acknowledgement, situation awareness, operation and handling to sudden change in visibility and request flight crew to conduct rejected landing when the visual reference are not distinctly visible and identifiable during final approach.

To Civil Aeronautics Administration, Ministry of Transportation and Communications

1. Supervise EVA Airways to reinforce the trainings to flight crew's acknowledgement, situation awareness, operation and handling to sudden change in visibility and request flight crew to conduct rejected landing when the visual reference are not distinctly visible and identifiable during final approach.
2. Supervise Taoyuan Airport Corporation to install runway centerline light on Runway 06/24 to enhance visual reference for flight crew to maintain the aircraft on the extended runway centerline during approach.
3. Supervise Taoyuan Airport Corporation to install the runway approach lighting systems specified in ICAO Annex 14 to meet the international standards.
4. Supervise Taoyuan Airport Corporation to set up real time monitoring, failure warning and reporting function of the airport lighting facilities at Taoyuan Airport.
5. Recommend re-examine the adequateness and necessity of 9 knots tailwind runway takeoff and landing limitation at Taiwan's airports.

To Taoyuan Airport Corporation

1. Review the feasibility to install runway centerline light on Runway 06/24 to enhance visual reference for flight crew to maintain the aircraft on the extended runway centerline during approach.
2. Install runway approach lighting systems specified in ICAO Annex 14 to meet the international standards.
3. Reinforce the real time monitoring, failure warning and reporting function of the airport lighting facilities at Taoyuan International Airport.