FE3060 Occurrence Investigation Executive Summary

On April 20, 2019, Far Eastern Air Transport scheduled passenger flight FE3060, an ATR72-600 aircraft, registration B-28082, tookoff at 2052 local time from Penghu Airport to Taichung International Airport, with the captain, the first officer, 2 cabin crews and 72 passengers, totally 76 persons on board.

The crew completed the approach briefing and descent preparations at about 2103 hours, and started to descend. It executed the runway 36 ILS approach at Taichung Airport. After the plane passed through Changhua, the flight crew found thunderstorms with lighting in front of the route and the destination airport. After discussion, they judged that this situation would not change shortly, while could contact the ground, the flight crew believe that the visibility should be acceptable. At 2118 hours, the aircraft landed on runway 36 at Taichung Airport and deviated from the runway during the landing roll. The aircraft and runway facilities not damaged and the persons on board were safe.

According to the Aviation Occurrence Investigation Act and Annex 13 to the Convention on International Civil Aviation, the Taiwan Transportation Safety Board (TTSB) an independent transportation occurrence investigation agency, was responsible for conducting the investigation. Agencies invited to participate in this investigation included Civil Aeronautics Administration, Ministry of Transportation and Communications and Far Eastern Air Transport.

The draft Final Report of the occurrence investigation was completed in May 2020. In accordance with the procedures, it was reviewed at TTSB's 12th Board Meeting on June 5th, 2020 and sent to relevant organizations and authorities for comments. After comments was collected and integrated, the draft Final Report was reviewed and approved by TTSB's 13th Board Meeting on July 03rd, 2020. The Final Report was published on Aug. 14th, 2020.

There are totally of 9 findings from the Final Report, and 5 safety recommendations issued to the related organizations.

Findings Related to Probable Causes

1. The flight crew did not fully correct the aircraft's left deviation before landing. They did not see the centerline and touched down on the left side of the runway. The appropriate wet runway landing techniques was not applied, and the flight crew did not properly correct the aircraft's left deviation tendency after landing.

Findings Related to Risk

- 1. The current CRM training and assessment of the Far East Air Transport were not effectively meet the objective of the training, which affected the flight crew's ability to assess relevant risks, threats, situation awareness, communicate and the decisions making during the flight.
- 2. The runway of Taichung Airport has no center line lights and poor runway drainage function, which affecting the landing operation of the aircraft under poor weather condition.

Other Findings

- 1. The runway of Taichung Airport may contaminated due to rain, but the existing factual data does not have sufficient evidence to show that the runway condition affected the aircraft landing operation.
- 2. There is no evidence show that this accident related to the flight crew's fatigue.
- 3. The relevant Far East manuals lack detailed operation instructions related to wet/slippery runways, and the flight crew operation manuals and flight manuals lack related reference content required for aircraft training manuals.
- 4. The right engine RPM and turbine temperature did drop temporarily during aircraft veered off the runway, which may cause by water inject into the engine intake.
- 5. There is no evidence to show that the flight crew had affected by any drugs and alcohol during the flight.
- 6. There is no evidence to show that the occurrence was relate to aircraft maintenance, aircraft system and weight and balance of aircraft.

Safety Recommendations

To Far Eastern Air Transport

- 1. Enhance the landing operation training of flight crew on wet/contaminated runway. (TTSB-ASR-20-08-001)
- 2. Review the CRM training and assessment to ensure it may effectively enhance the risks and threats management of the flight crew. (TTSB-ASR-20-08-002)
- 3. Review the completeness of the relevant manuals related to the wet/contaminated runway. (TTSB-ASR-20-08-003)

To CAA

- 1. Supervise the Airlines to enhance their landing operation training of flight crew on wet/contaminated runway. (TTSB-ASR-20-08-004)
- 2. Supervise the Airlines to ensure their CRM training and assessment of the flight crew. (TTSB-ASR-20-08-005)