



**Aviation Safety Council
Taipei, Taiwan**

**TRANSASIA AIRLINES FLIGHT GE028
AIRCRAFT TYPE ATR-72
REGISTRATION NO.B-22805 RAMMED
INTO APRON FLOOD LIGHT STAND
DURING TAXI PHASE IN TAIPEI
SONGSHAN AIRPORT**

Executive Summary

Executive Summary

On July 19 2005, TransAsia flight GE028, aircraft type ATR-72, bearing nationality mark and registration no.B-22805, departed from Hualien Airport at 1840 Taipei time. At 1909, the aircraft arrived at the destination, Taipei Songshan Airport, and landed on Runway 10. After vacating runway via Taxiway EH, the Tower informed the aircraft follow ground marshal's instructions to parking. When the aircraft taxied on Taxiway E and passed the space between Apron 1 and Apron 2, the pilots lost visual contact to the ground marshal. After contacting TransAsia Flight Control Center, the pilots were informed to parking in front of the China Airlines hangar. However, the aircraft had passed the turning point of the parking position, the tower then instructed the aircraft to enter designated parking position along Taxiway E, Taxiway CC, Taxiway N1, and Taxiway EH.

When the aircraft taxied along Taxiway CC, an early right turn was made to enter the service road of Apron 3 in the eastside. The right wingtip rammed into the flood light stand south of the lane and stopped.

The aircraft carried 2 pilots, 2 cabin crew and 24 passengers on board. One cabin crewmember was minor injured, and the rest were safe. Part of the leading edge, frame and upper and lower skin of the leading edge of the right wing was damaged. The apron flood light stand was intact.

Findings related to the probable causes

1. The pilots did not follow taxi technique requirements from the

Training Manual, and maintained on the yellow taxiway centerline; when the taxiway centerline was vague, the pilots did not stop taxiing and ask for assistance according to the Flight Operations Manual.

2. The pilots misidentified the taxiway edge lights on the west boundary of Apron 3 as Taxiway N1 edge lights, and misjudged the service road as Taxiway N1 and turned right.
3. The pilots contacted Tower before making a right turn to the service road but did not explicitly state the requests, mistakenly considered that the Tower had identified its taxi position and routes .
4. After turning to the service road, the pilots discovered the edge lights, the markings and light intensities were different from the taxiway, however, the aircraft was not stopped immediately which revealed the lack for the situation awareness when taxi.
5. After turning to the service road, the pilots continued discussing about the consequent taxi routes and did not realize the right side of the aircraft was close to the apron flood light stand and continued taxiing, eventually rammed into the light stand.

Findings Related to the Risks

1. The transmitting function for air-ground communication of TransAsia Flight Control Center frequency was poor, causing the TranAsia JC personnel not receiving the information that the aircraft was about to land, and did not inform the parking position before the aircraft landed.
2. The specifications of the reflective material used in the

markings in Songshan Airport were not conformed to the recommendations of International Civil Aviation Organization “Aerodrome Design Manual”.

3. The implementations of north bound’s direction and location signs on the eastside of Taxiway CC in Songshan Airport were conformed to the regulations of “Civil Aerodrome Design and Operation Standards”. However, due to the considerations of human factors which the later implemented service roads might induce misunderstanding, review the implementing its locations and related regulations could further reduce the misunderstandings from happening.
4. At the intersection of northbound Taxiway CC, and Taxiway N1 in Songshan Airport, the location and direction instruction signs were not implemented close to the near end of the intersection, and the destination sign at the far end.
5. One cabin crewmember of the aircraft collides with the wall and injured an arm during the accident. Seatbelt was not fastened while observing the situation outside the aircraft when signs of danger were not signify.

Other Findings

1. No evidence showed that the accident was related to the physical, mental, medical, alcoholic factors of the crew or mechanical problems.
2. In the AIP Taipei FIR, facilities of the dash-line symbols in the airport chart of Taipei /Shongshan Airport and the aircraft parking/docking chart represented different meanings, and the

meaning were not explained .

3. Locations, colors and sizes of the taxiway centerline, taxiway side stripes, transverse stripes markings on east shoulder of Taxiway CC, and the lane marking of service road in Apron 3 in Songshan Airport were all complied with relevant regulations in “Civil Aerodrome Design and Operation Standards”.
4. The specifications of the two information signs between Taxiway E and Taxiway N1 eastside of Taxiway CC in Songshan Airport were all complied with relevant regulations in “Civil Aerodrome Design and Operation Standards”.
5. The contents selection of the information signs on both sides of Taxiway CC in Songshan Airport was not complete.
6. Direction signs were not implemented to provide route information for Taxiway E and W before the intersection of southbound Taxiway CC and Taxiway E in Songshan Airport; Direction signs were not implemented to provide route information for Taxiway W and Taxiway CC before the intersection of westbound Taxiway E and Taxiway CC; And both places did not paint alternate information markings on the taxiway pavements, which were not conformed to the regulations in “Civil Aerodrome Design and Operation Standards”.
7. The vertical spacing of the linear part of taxiway edge lights east side of Taxiway CC in Songshan Airport was not implemented evenly.
8. Road-holding position markings were implemented before the

intersection of the westbound service road of No.3 apron and Taxiway CC in Songshang Airport. However, the road-holding position sign was not implemented and it was not complied with the regulation of section 5.4.7.1 of “Civil Aerodrome Design and Operation Standards”.

Safety Recommendations

To TransAsia Airways Corporation

1. Require pilots to perform according to the maneuvering skills , procedures and regulations in the relevant Flight Operations Manuals when taxiing .(ASC-ASR-07-08-001)
2. Enhance the pilots with trainings, requirements of taxi situation awareness, and the considerations of outside circumstances. (ASC-ASR-07-08-002)
3. Require the pilots to be specific during communication when seeking for assistance from Air Traffic Controllers. (ASC-ASR-07-08-003)
4. Enhance cabin crew with the trainings of seatbelt usage timing and self-safety protection. (ASC-ASR-07-08-004)
5. Enhance the reliability of Flight Operation Division air-ground communication equipments. (ASC-ASR-07-08-005)

To Civil Aeronautics Administration, CAA

1. Review relevant airport symbols and explanations in AIP Taipei FIR. (ASC-ASR-07-08-006)
2. Review the reflective material specifications and inspection procedures of Taipei / Songshan Airport markings, and to

maintain the retro-reflective of the markings.
(ASC-ASR-07-08-007)

3. Review implementation locations, sequences, symbols, type and replace markings of the instruction signs in Taipei / Songshang Airport; to assist pilots to clearly identify the aircraft taxi routes. (ASC-ASR-07-08-008)
4. Review the implementation conditions of road-holding positions, markings, instruction signs and lighting in Taipei / Songshan Airport according to “Civil Aerodrome Design and Operation Standards”. (ASC-ASR-07-08-009)
5. Review the implementation conditions of taxiway edge lights in Taipei/Songshan Airport according to the “Civil Aerodrome Design and Operation Standards”. (ASC-ASR-07-08-010)

To DOMESTIC AIRLINES

1. Research and establish the inspection procedures for the correctness of aviation aeronautical charts.
(ASC-ASR-07-08-011)

Intentionally Left Blank