

B55565 Occurrence Executive Summary

On December 21, 2014, at 1422 Taipei local time, a DO-228 airplane, registration number B-55565, operated by Daily Air Corporation, mission number DAC TRN1 performing a captain training flight. The airplane took off from Taitung Airport for local flight training nearby the Green Island areas. The training captain occupied the left seat as the pilot flying and the instructor pilot occupied the right seat as the pilot monitoring. After the completion of the area training, the flight returned to the airport traffic pattern at 1457 for the takeoff and landing exercises.

On the last landing exercise, which was a simulated single engine failure full stop landing, the flight crew did not extend the landing gear and was continuing turn to the final. The landing gear warning tone occurred at the altitude of 183 feet with the airspeed of 91 knots. The aircraft belly landed on the runway at a speed of about 78 knots around 6 seconds after the warning tone, and slide forward until stopped on the runway. The airplane sustained substantial damage of the bottom fuselage, the landing gear doors and the tires. No personal injured.

The Aviation Safety Council (ASC) is an independent agency responsible for civil aviation, public aircraft and ultra-light vehicle occurrences investigation. According to the Republic of China Aviation Occurrence Investigation Act and referencing to the related content of Annex 13 to the Convention of International Civil Aviation Organization (ICAO), the ASC launched an occurrence investigation by law. The organization or agency been invited to join the investigation team included: Civil Aeronautics Administration of Ministry of Transportation (CAA), German Federal Bureau of Aircraft Accident Investigation and Daily Air Corporation.

The Investigation Draft Report was completed in April 2015 and the final draft was sent to parties for comments after the approval at the 34th Council Meeting on 30th June, 2015 in accordance with the procedures. The final draft was revised and approved at the 36th Council Meeting on 25th August, 2015. The investigation Report was published on 30 October 2015.

Based on the factual information gathered during the investigation and the results of analysis, 12 findings and 9 safety recommendations are concluded after this investigation.

Finding(s) related to probable causes

1. The instructor pilot and the training captain of this training mission did not follow the standard operation procedures to conduct the before landing check list, resulted in the airplane belly landed without extended the landing gear.
2. The instructor pilot provided massive instructions to the training captain during the flight training process; it impacted the situation awareness in the cockpit. In addition, he did not take over the control after the landing gear warning tone initiated; his airmanship and the proficiency was considered insufficient.

Finding(s) related to risk

1. The instructor pilot did not comprehend the training contents of this training flight and did not follow the training manual to conduct the briefing.
2. The instructor pilot did not follow the session #1 of the captain training program to conduct the simulated single engine failure controllability exercises in flight area, but conducted the simulated single engine approach and landing exercises which

were not in the session #1 of the training program; it impact the flight safety.

3. The Daily Air did not conduct the appropriate training program to the instructor pilot; it may generate the insufficient training and competence of the instructor pilot.
4. Some flight crew in DO-228 fleet did not pay attention to follow the procedures and the safety concept in the manuals during daily operations; it may affect the normal routine operation and flight safety.
5. The manpower shortage of flight operation training department and the employees are depressed by the uncertainty of their job in Daily Air may impact the routine operation and training.
6. The function of flight operation supervision in Daily Air was not fully executed, and the CAA was not reviewing and regulating the related programs and manuals properly as a regulatory of Daily Air.
7. Parts of the manuals of Daily Air were inconsistent with the practical operational conditions; some definition of flight crew training manual was not clearly defined and the right seat captain training program was not defined in training manual, it may affect the training processes.

Other finding(s)

1. Qualifications of the flight crew complied with current civil aviation regulations. No evidence indicates the flight crew was under influence of alcohol during the flight.
2. The occurrence flight was nothing related to the airplane airworthiness or weight and balance.
3. The annex 12, Aviation operation Regulation (AOR) regulate

that the Cockpit Voice Recorder (CVR) shall be capable to record 4 channels of the voice, however, the CVR only had two channels functional well; it was copilot and cockpit area microphone.

Safety Recommendations

To Daily Air

1. Develop and conduct the appropriate pilot recruit and training program in accordance with the related company procedures, and enhance the selection, training and assessment of instructor pilot.
2. Demand the flight crew to conduct the preflight briefing by the company procedures.
3. Improve and implement the flight crew to follow the standard operation procedures.
4. Review the manpower requirements and applications in flight operation department.
5. Revise and define the related manuals not in compliance with the practical operational status or not defined.

To CAA

1. Improve the review task of related programs and manuals of Daily Air, and enhance the supervision to the training of the flight crew, the selection, training and assessment of the instructor pilots.
2. Supervise Daily Air to fulfill the preflight briefing by the company procedures.
3. Supervise Daily Air to improve and implement the flight crew to follow the standard operation procedure, and review the manpower requirements and applications in flight operation department.
4. Review and supervise the other similar operators and the operator who plan to supersede the business of Daily Air, whether if they have the issues related to the crew training, manpower utilization and standard operation procedures compliance.