

CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
Aircraft Accident Investigation and Inquiry Board
Aircraft Accident Report

BASIC INFORMATION

Aircraft Registration	:	RP-C3266
Aircraft Type/Model	:	A320-214
Owner/Operator	:	Cebu Pacific Air, Inc.
Address of Owner	:	c% 8006 Airline Operations Center, Domestic Road, Pasay City
Date/Time of Accident	:	June 2, 2013 at 1907H (LOCAL)/1107Z (UTC)
Type of Operation	:	Commercial Air Transport
Phase of Operation	:	Landing
Type of Occurrence	:	Runway lateral excursion
Place of Accident	:	Francisco Bangoy International Airport, Davao City

EXECUTIVE SUMMARY

On or about 1700H/0900Z June 02, 2013, Cebu Flight 971, A320 RP-C3266 departed Manila, Ninoy Aquino International Airport (RPLL) bound for Davao, Francisco Bangoy International Airport (RPMD). On board were 6 aircrew (2 pilots, 4 cabin crew) and 165 passengers (including 4 infants).

Pre-flight weather over destination airport (RPMD), 140deg/2kts, 10kms visibility, CB at southwest and southeast. Distant precipitation.

Entering Davao Aerodrome Area Control, FLT 971, with F/O as the Pilot Flying (PF) established contact with Davao Approach Control (APP) at 122.4 MHZ, FL240 90DME. APP advised FLT 971 that it was number 2 for approach after Company aircraft (ATR 72-500, RP-C7257). While FLT 971 was passing FL 100, the APP gave advice of moderate rain-shower overhead. At 1049Z FLT 971 was cleared for VOR/DME runway 23 approach with weather advisory of moderate to heavy rain-shower overhead and that the leading traffic was already at short final. At 4,000ft over the fix, FLT 971 commenced VOR/DME approach and descended to 2,000ft until the procedure turn. During the procedure turn at about 1057Z, there was power failure in the City including the Aerodrome. However, in the Aerodrome, the automatic changeover system especially for the runway lights was effective in about two seconds, hence, without adverse effect on FLT 971 that was still making procedure turn at 2000ft. By 1101Z, FLT 971 was on final approach 5miles and with runway in sight switched to RPMD Tower frequency 118.1MHZ. At this point the PIC was already the PF.

Final Approach - Weather condition at 1100Z: visibility 3kms 270/10 Cumulonimbus at all quadrants and overhead airport with slight thunderstorm. At about 1102Z, FLT 971 declared established on final approach at 4 miles and runway

in sight with acknowledged wind of 270/12. During the duration of the final approach, all aircraft systems, landing configuration and landing parameters were normal (no monitored or indicated system deficiencies). Passing MDA at 470ft, and at low final approach, precipitation started and wipers were initially switched to Low. Just before the touch-down, there was heavy downpour and the wipers were at High.

Touchdown and roll track. The aircraft touched down on runway 23 at a point about 30m before the marked touchdown point (TP) about 190m from the threshold. Reckoned from centreline of the runway the TP was on the right-half portion very near the right edge lights. Aircraft attitude on touchdown was right-crabbing about 3 degrees. The aircraft continued the same direction to the right edge of runway until the RH MLG fell-off the cemented runway at location about 129m from TP, followed by the NLG at about 145m from TP, and the LH MLG about 511m from TP. With all landing gears on the soft ground the aircraft rolled for about 330m more with an indication of trying to return to runway and it momentarily crossed over the concrete entrance taxiway of the parking ramp before it made a full-stop on a grassy area ahead and near the runway with one-half of left wing (wing-tip) still over the cemented runway. The aircraft finally settled at a distance about 845m from TP.

Shut-down and post shut-down activities. The pilot performed engine shut down immediately upon full stop with reversers, spoilers, flaps still configured. Battery power was inadvertently put to OFF position. After about 15 minutes from full-stop, the forward left-hand slide raft was deployed to be used for the deplaning of passengers upon instruction of the PIC. The deplaning of passengers started about 20 minutes from full stop of the aircraft and it lasted for another 20 minutes until the last passenger has exited. There was no reported physical injury to passengers and aircrew of FLT 971.

PROBABLE CAUSE

The Aircraft Accident Investigation and Inquiry Board determined that the probable causes of this accident are the following:

- **Pilots' lack of event proficiency in low-visibility non-precision approach and landing at night. Human Factor. Pilot Error. Psychological** (Psychomotor skill, recent experience).

The PIC as pilot flying Pilot Flying (PF) failed to maintain a stabilized landing approach (under precipitation) until below the MDA so that moments before the touchdown (precipitation becoming heavy), the aircraft was still at left of runway centerline with the FO calling (to align) RIGHT which was done by PF but having lost grasp of the centerline, the correction exceeded the centerline with FO calling (to correct toward the unlighted center) LEFT but the aircraft already touched down aligned to the right edge lights that was misconstrued by the PF as the center lights (based on the repeated expressions of the PF during the landing roll until the aircraft has fully stopped).

- **The emergency procedure for go-around was necessary but not utilized. Human Factor. Pilot Error. Psychological** (Learning, Emotion/ Mental-Narrowed Attention)

The pilot probably was experiencing Narrowed Attention due to apprehension by being acutely conscious of the difficulty ahead (bad weather). Added to this was his proficiency status (one flight to Davao in last 3 months) and at confusion to notice things in the periphery of his attention i.e., to execute a go-around and make another approach well-prepared on the techniques with lower precipitation level.

- **Contributory Factors**
- **Adverse weather condition. Environmental factor. Natural Environment**

The weather condition severely affected the judgment and decision-making of the PIC even prior to the approach to land. Heavy rainfall obscured the horizontal visibility of the pilots preventing a clear view of the runway.

- **Absence of runway center lights. Environmental factor. Man-made Environment (Aerodrome)**

The PIC misconstrued the edge lights as the runway center lights. Low-visibility approaches require that these lights be present to help guide the pilots toward the runway center.

- **Inadequate CRM procedures. Human factor. Psychological. (Training)**

Standard and non-standard call-outs and responses are the hallmarks of an effective cockpit/CRM environment. There were lapses, omissions and contradictory words employed during the landing approach.

- **Inadequate pilot re-currency training methods. Human Factor. Psychological. (Training)**

Missed approach procedures during low-visibility non-precision approaches were seldom practiced during the re-currency training of the pilots. The over-use of baseline airports with runway center lights deprived the pilots the opportunity to hone their instrument flying skills in basic airports where they usually operate that has no center lights.

- **Lack of policy on the advisory role of air traffic controllers (ATC). Human Factor. Psychological. (Training)**

During adverse weather conditions the ATC has no participation in the safety decisions which would require runway closure during critical aerodrome conditions especially in environmental conditions below runway visual minima.

SAFETY RECOMMENDATION

As a result of this investigation, the Aircraft Accident Investigation and Inquiry Board made the following safety recommendations:

- CAAP shall re-assess the airline operators' initial and re-current pilot training program on A320/A319, putting strong emphasis on skills/techniques on low visibility non-precision (VOR/DME) approach and landing and the need to instill crew awareness on the importance of MISSED APPROACHES below the MDA or DH and the required competency for such procedures.
- CAAP shall install runway center lights on IFR rated airports to upgrade our airports' instrument landing capability for non-precision approach when Instrument approach equipment are momentarily not operational.
- CAAP and Philippine Air Carriers especially Cebu Air, Inc. shall review/update CRM procedures to ensure a clear and distinct communication protocol between the cockpit crew when they are confronted by instant deterioration of environmental conditions especially below MDA and the loss of visual contact of the runway. Cabin crew CRM procedures should address the communication gap during cockpit crew's delayed reaction to an emergency situation.
- CAAP shall conduct review of existing policy on runway closure during inclement weather and the role of ATC in the overall safety processes within the Aerodrome during inclement weather even above runway visual minima.
- CAAP shall provide support for weather radar capability enhancement on IFR rated airports.
- CAAP shall review/update pertinent PCAR policy on the 90-day pilot IFR and non-precision proficiency approaches to airports included in their operations.