Republic of the Philippines
DEPARTMENT OF TRANSPORTATION
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
MIA Road, Pasay City 1300

AIRCRAFT ACCIDENT INVESTIGATION AND INQUIRY BOARD

FINAL REPORT

RP-C5911
DHC-8-402 (Q400)

OPERATOR: PAL EXPRESS CORPORATION

TYPE OF OPERATION: SCHEDULED COMMERCIAL

DATE OF OCCURRENCE: APRIL 16, 2023

PLACE OF OCCURRENCE: RUNWAY 06, BASCO AIRPORT, BASCO BATANES, PHILIPPINES

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(DHC-8-402 (Q400), RP-C5911 Final Report)

FOREWORD

This report was produced by the Aircraft Accident Investigation and Inquiry Board (AAIIB), Civil Aviation Authority of the Philippines, MIA Road, Pasay City, Philippines.

The report is based upon the investigation carried out by the AAIIB in accordance with Annex 13 to the Convention on International Civil Aviation, Republic Act 9497 Section 42 and Philippine Civil Aviation Regulation Part 13.

Readers are advised that the AAIIB investigates for the sole purpose of enhancing aviation safety. Consequently, AAIIB reports are confined to matters of safety significance and may be misleading if used for any other purpose. It should be noted that the information in AAIIB reports and recommendations is provided to promote aviation safety and in no case is it intended to imply blame or liability.

Furthermore, No part of AAIIB report or reports relating to any accident or investigation shall be admitted as evidence or used in any suit or action for damages arising out of any matter mentioned in such report or reports.

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FINAL REPORT

TITLE: A serious incident involving a DHC-8-402 type of aircraft with Registry Number RP-C5911 owned and operated by PAL Express Corporation that had a runway excursion at Runway 06, Basco Airport, Basco, Batanes, Philippines on April 16, 2023/0800H.

Notification of Occurrence to National Authority

The notification of serious incident to AAIIB CAAP was relayed by the Operator of the aircraft to the OIC, AAIIB through to the Operation Center-CAAP at 1100H (LOCAL) on April 16, 2023.

Identification of the Investigation Authority

The Aircraft Accident Investigation and Inquiry Board (AAIIB), the mandated accident investigation organization within the Civil Aviation Authority of the Philippines (CAAP) as the state of Occurrence/Registry/ Operator conducted the investigation.

Organization of the Investigation

In accordance with provisions of Philippine Civil Aviation Regulation (PCAR) Part 13, an Investigator-In-Charge was appointed.

Authority Releasing the Report

The Final investigation report was released by Aircraft Accident Investigation and Inquiry Board (AAIIB) and published on the CAAP website on **29 January 2024.**

Synopsis:

On April 16, 2023, at about 0800H, a DHC-8-402 type of aircraft with Registry Number RP-C5911 operated by PAL Express Corporation had a runway excursion during landing at Runway 06, Basco Airport, Basco Batanes, Philippines. The four (4) crew and 78+1 infant passengers were not injured. The aircraft also did not sustain any damage as a result of the incident. The Aircraft Accident Investigation and Inquiry Board determined that the cause factor of this accident was attributed to the flight crew failure to follow the standard procedures for 180-degree taxi procedure turns on runway.

LIST OF ACRONYMS AND ABBREVIATIONS

AAIIB	:	Aircraft Accident Investigation and Inquiry Board
BITE	:	Built-in Test Equipment
CAAP	:	Civil Aviation Authority of the Philippines
CVR	:	Cockpit Voice Recorder
DFDR	:	Digital Flight Data Recorder
GS	:	Ground Speed
IFR	:	Instrument Flight Rules
OFSAM	:	Office of the Flight Surgeon and Aviation Medicine
PF	:	Pilot Flying
PIC	:	Pilot in Command
RWY	:	Runway
SOP	:	Standard Operating Procedures
TTSB	:	Taiwan Transportation Safety Board
UTC	:	Coordinated Universal Time
VFR	:	Visual Flight Rules
VMC	:	Visual Meteorological Condition

1. FACTUAL INFORMATION

Aircraft Registration No.	:	RP-C5911
Aircraft Type/Model	:	DHC8-402 (Q400)
Operator	:	PAL Express Corporation
Address of Operator	:	R-1 Hangar, Andrews Avenue, Pasay City, Philippines
Place of Occurrence	:	Runway 06, Basco Airport, Basco Batanes, Philippines
Date/Time of Occurrence	:	April 16, 2023/ 08000H
Type of Operation	:	Scheduled Commercial
Phase of Flight	:	Landing
Type of Occurrence	:	Runway side excursion

1.1 History of Flight

On April 16, 2023, at about 0800H, a DHC-8-402 type of aircraft with Registry Number RP-C5911 had a runway excursion during landing at Runway 06, Basco Airport, Basco Batanes, Philippines. The aircraft did not sustain any damage as a result of the incident. The four (4) crew and 78+1 infant passengers did not sustain any injuries. The aircraft is registered and operated by PAL Express Corporation, authorized to perform Commercial/ Air Transport Operations. The Pilot in Command (PIC), who is the pilot flying during the landing roll while approaching the end of the runway, made a 180-degree turn from right to left. During the turn, the aircraft departed the concrete pavement of the runway. After the aircraft momentarily stopped, the PIC then performed reverse thrusts to bring the aircraft back to the cemented portion of the runway. The aircraft was then taxied toward the ramp to disembark the passengers normally. After inspecting that the aircraft did not sustain any damage, the aircraft was flown back to Manila with passengers on board.

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Figure 1- RP-C5911 aircraft

1.2 Injuries to Person (s)

Injuries	Crew	Passengers	Others	TOTALS
Fatal	0	0	0	**0**
Serious	0	0	0	**0**
Minor	0	0	0	**0**
TOTAL	**0**	**0**	**0**	**0**

1.3 Damage to Aircraft

The aircraft did not sustain any damage.

1.4 Personnel Information

1.4.1 Pilot

Gender	:	Male
Date of Birth	:	June 04, 1990
Nationality	:	Philippines
License	:	1000665-ATPL
Valid up to	:	November 30,2027
Medical Certificate Valid until	:	Valid until September 28, 2023
Date of last medical	:	March 07, 2023
Total Flying Time	:	5,200 +00 Hours
Total Flying Time On type	:	2,700 +00 Hours

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1.4.2 First Officer (FO)

Gender	:	Male
Date of Birth	:	March 10, 1972
Nationality	:	Philippines
License	:	100512-CPL
Valid up to	:	October 31,2024
Medical Certificate Valid until	:	Valid until September 18, 2023
Date of last medical	:	March 08, 2023
Total Flying Time	:	4,000 +00 Hours
Total Flying Time On type	:	2,000 +00 Hours

1.5 Aircraft Information

1.5.1 Aircraft Data

Registration Mark	:	RP-C5911
Manufacturer	:	Bombardier
Type/Model	:	DHC-8-402
Serial Number	:	4587
Date of Manufactured	:	2018
Aircraft Total Time	:	5,156 + 03 Hours
Certificate of Airworthiness valid up to	:	October 24, 2023
Certificate of Registration valid up to	:	October 24, 2024
Gross Weight	:	29,574 Kilograms (Kgs.)

1.5.2 Engine Data

Manufacturer	:	Pratt & Whitney
Type/Model	:	PW150A
Engine Serial Number	:	PCE-FA1324/PCE-FA1325
Time Since New	:	5,156+03 hours

1.5.3 Propeller Data

Manufacturer	:	DOWTY
Type/Model	:	R408/6-123-F/17,R408/6-123 F/17
Propeller Serial Number	:	DAP1307, DAP1306
Time Since New	:	5,156+03 hours

1.6 Meteorological Information

As per Basco Control Tower at the time of the incident, Visual Meteorological Conditions (VMC) prevailed at the time of the incident. The wind condition was calm; visibility was 9 km.

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1.7 Aids to Navigation

The flight is being conducted through Instrument Flight Rules (IFR) which a pilot can still operate safely using aircraft radio instruments for navigation.

1.8 Communications

Aircraft is equipped with operational Very High Frequency (VHF) transceiver used for communicating with aerodrome personnel and pilots in the area.

1.9 Aerodrome Information

1.9.1 General Information

Aerodrome Name	:	Basco Principal Airport
Coordinates	:	202705.2303N 1215848.8230E.
Aerodrome Operator & Address	:	AFS Civil Aviation Authority of the Philippines, Basco Airport, Basco 3900 Batanes
Runway Direction	:	06 /24
Runway Length	:	1,244M
Runway Width	:	30 meters
Runway Elevation	:	94 meters
Surface	:	Concrete and Asphalt
Types of traffic permitted	:	VFR
Visual Ground Aids	:	Standard day markers and wind direction indicator
Runway (RWY) markings	:	RWY designation markings, threshold markings, Touchdown zone markings, RWY side stripes, Aiming points.

1.10 Flight Recorders

1.10.1 Cockpit Voice Recorder (CVR)

The aircraft was equipped with a Universal Avionics System Corporation Cockpit Voice Recorder (CVR) with serial number CVR-120A-1449 capable of recording up to 120 minutes of high-quality recording on all four channels.

The exterior of the CVR showed no evidence of structural damage. On June 25–29, 2023, the CVR was brought to the Taiwan Transportation Safety Board (TTSB) Laboratory in Taiwan for read-out and evaluation.

The recording consisted of four channels of “good quality” audio information. The four channels contained the cockpit area microphone, the captain’s audio panel, the first officer’s audio panel, and the interphone and public address system.

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During the Built-in Test Equipment (BITE) Test, the integrity of the CVR is normally operating. However, the specific recording needed for the safety investigation was not preserved. It was overwritten after the aircraft was flown back to Manila after the incident, and the recorded flight consumed more than two (2) hours.

1.10.2 Digital Flight Data Recorder (DFDR)

The aircraft was likewise equipped with a Universal Avionics System Corporation Digital Flight Data Recorder (DFDR), serial number FDR-25-913. The DFDR used solid-state flash memory technology as the recording medium and contained 26 hours and 36 minutes of flight time.

On June 25–29, 2023, the Digital Flight Data Recorder (DFDR) was also brought to the Taiwan Transportation Safety Board (TTSB) Laboratory in Taiwan for read-out and evaluation. The exterior of the FDR showed no physical damage during the process. The FDR does not show any technical problems with the aircraft, i.e., all engine-related parameters are functioning normally, there are no Master Caution or Master Warning alerts during the take-off, climb, cruise, and descent phases of flight, and the flight control surface movements are in line with the inputs provided in the cockpit. A number of parameters recorded of key interest were available. Such parameters include brake pressure, aircraft heading, radio height, pressure altitude, and ground speed.

Based on the DFDR readout and analysis, at 22.54:28 UTC, the aircraft with 107 kts IAS landed initially on its main landing gears. At 22.54:31 UTC, at 101 kts IAS, power levers were set to idle, then reverse thrust was applied prior to the nose wheel making contact with the ground. At 22.54.35 UTC, the thrust reverser was still engaged, and at 77 kts ground speed (GS), there was an increase in right brake pressure of 910 psi compared to 766 psi left brake pressure. At 22.54:36 UTC, at 69 kts GS, there was an increase in left brake pressure of 2,702 psi compared to 1,428 psi for right brake pressure. At 22.54:41 UTC, at 32 kts GS, brake pressure started to increase in the right brake pedal to 2,9776 psi compared to the left brake pedal of 2,947 psi. The heading of the aircraft was 75.3 degrees. The power lever started to increase from idle to 26.9 and 24.2, respectively. At 22.54:44 UTC, at 11 kts GS, the power lever was reduced to 20.6 and 19.9, respectively. The brake pressure was at 2,949 psi and 2,975 psi for the left and right pedals, respectively. At 22.55:16 UTC, at 1 kt GS, the power lever was set above idle at 35 and 34, and the left brake pressure was 58 psi and the right brake pressure was 47 psi. At 22.55:26 UTC, at 3 kts GS, the power lever was still set at 34.8 and 34.5, and the left and right brake pressures were 234 psi and 90 psi, respectively. At 22.55:29 UTC, at 9 kts GS, flaps are being reduced from 15 degrees with the power lever still above idle. At 22.55:54 UTC, at 11 kts GS, flaps were at 0 setting. At 22.59:13 UTC, GS was zero, the power lever was reduced to idle, and brake pressure was reduced on both pedals and aircraft stops.

1.11 Wreckage and Impact Information

The aircraft did not sustain any damage. During site investigation, visible aircraft tire marks were seen on the runway and beyond the runway concrete pavement with a heading of 88 degrees and grid coordinates of 20°. 454277 N; 121°.98485” E. No collateral damages were

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noted at the scene of the incident. After the aircraft was flown back to its station, the following maintenance corrective actions were performed:

a. Bleeding of the braking system
b. High-speed taxi and minimum/maximum braking
c. Level 2 inspection

Said inspections were conducted to determine any malfunction or failure that might cause the accident. The inspection confirmed that the braking system of the aircraft was operating normally.

1.12 Medical and Pathological Information

Both pilots were subjected to drug tests after the occurrence and were found to have no significant medical findings. They also underwent the post-flight accident medical examination conducted by the Office of the Flight Surgeon and Aviation Medicine (OFSAM) on April 19, 2023. There was no medical impediment for the pilots that could have had a bearing on this accident.

1.13 Fire

There was no post-crash fire observed during on-site investigation.

1.14 Survival Aspects

The incident was survivable.

1.15 Organizational and Management Information

Philippines Corporation, operating as PAL Express and formerly branded as Air Philippines and Airphil Express, is a wholly-owned subsidiary airline of Philippine airlines It is PAL's regional brand, with services from its hubs in Manila, Clark, Cebu and Davao.

The airline has been re-branded a number of times, first as Air Philippines, then Airphil Express, and is now known as PAL Express after the acquisition by new investors from Philippine Airlines. The airline is operating some routes and slot assignments of its sister company Philippine Airlines until its management decided to re-brand the carrier as a budget airline known as Airphil Express. However, in March 2013, the airline name was reverted to PAL Express. As a codeshare partner of Philippine Airlines, PAL Express operates as a full-service carrier within a low-cost model.

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2.0 ANALYSIS

2.1 General

On April 16, 2023, a DHC-8-402 type of aircraft with Registry Number RP-C5911 had a runway excursion during landing at RWY 06 of Basco Airport, Basco, Batanes, Philippines. The PIC, who was the pilot flying, revealed that while approaching the end of the runway, he decided to make a 180-degree turn from right to left. During the turn, it departed the concrete pavement of the runway. After the aircraft momentarily stopped, the PIC applied reverse thrust and managed to bring the aircraft back to the cemented portion of the runway. It was taxied toward the ramp, and the passengers then disembarked normally from the aircraft. After inspecting that the aircraft did not sustain any damage, the aircraft was flown back to Manila with passengers on board.

2.2 DFDR Readout and Analysis

Based on the case above, at 22.54:28 UTC, the aircraft with 107 kts IAS landed initially on its main landing gears. At 22.54:31 UTC, at 101 kts IAS, the PIC, as the pilot flying (PF), set power levers to idle, then applied reverse thrust before the nose wheel made contact with the ground. This is the control phase of the landing, wherein the aircraft is at its highest ground speed. It requires all wheels on the runway, where braking depends on ground reaction. The momentary delay in the lowering of the nosewheel may reduce the effective landing distance available.

At 22.54:41 UTC, with 32 kts ground speed, brake pressure started to increase in the right brake pedal to 2,9776 psi compared to the left brake pedal of 2,947 psi. The heading of the aircraft changes to 75.3 degrees. The power lever started to increase from idle to 26.9 and 24.2, respectively. With the application of brake pressure at 32 kts ground speed, it appears that the aircraft was still on high-speed landing roll towards the end of the runway. There was a change in directional heading to the right with the application of a more right pedal brake and the increase of the power lever. This also confirms what the PIC revealed during the investigation, that he maneuvered the aircraft to the right before executing a 180-degree turn to the left. The application of the right pedal prior to making a 180-degree turn to the left is a crew decision error and does not conform with the operator's Standard Operating Procedures (SOP). Stipulated in the Operator's Standard Operating Procedures (SOP) DASH8-Q400/Normal Procedures/Taxi and Runway Operations, the 180-degree taxi procedure on the runway with 30 meters was to turn left while maintaining 30 degrees of divergence from the centerline. During the turns, the maximum taxi ground speed is 10 knots. The PIC performed a non-standard procedure turn. (Figures 2 and 3).

Threat and error management is an active process that involves avoiding threats or opportunities for error, detecting new threats or errors and mitigating their effects, and finally managing the consequences of any threats and errors. Threats may be expected or anticipated. Expected threats can be pre-briefed and managed by the cockpit crew during flights. However, as unexpected, threats can occur suddenly and without any warning.

Errors are the result of past activities; they are consequences, not causes. Crew error is defined as an action or inaction by the crew that leads to deviations from organizational or flight crew intentions or expectations. Errors in the operational context tend to reduce the margin of safety and increase the probability of accidents or incidents. Errors may be in non-compliance with

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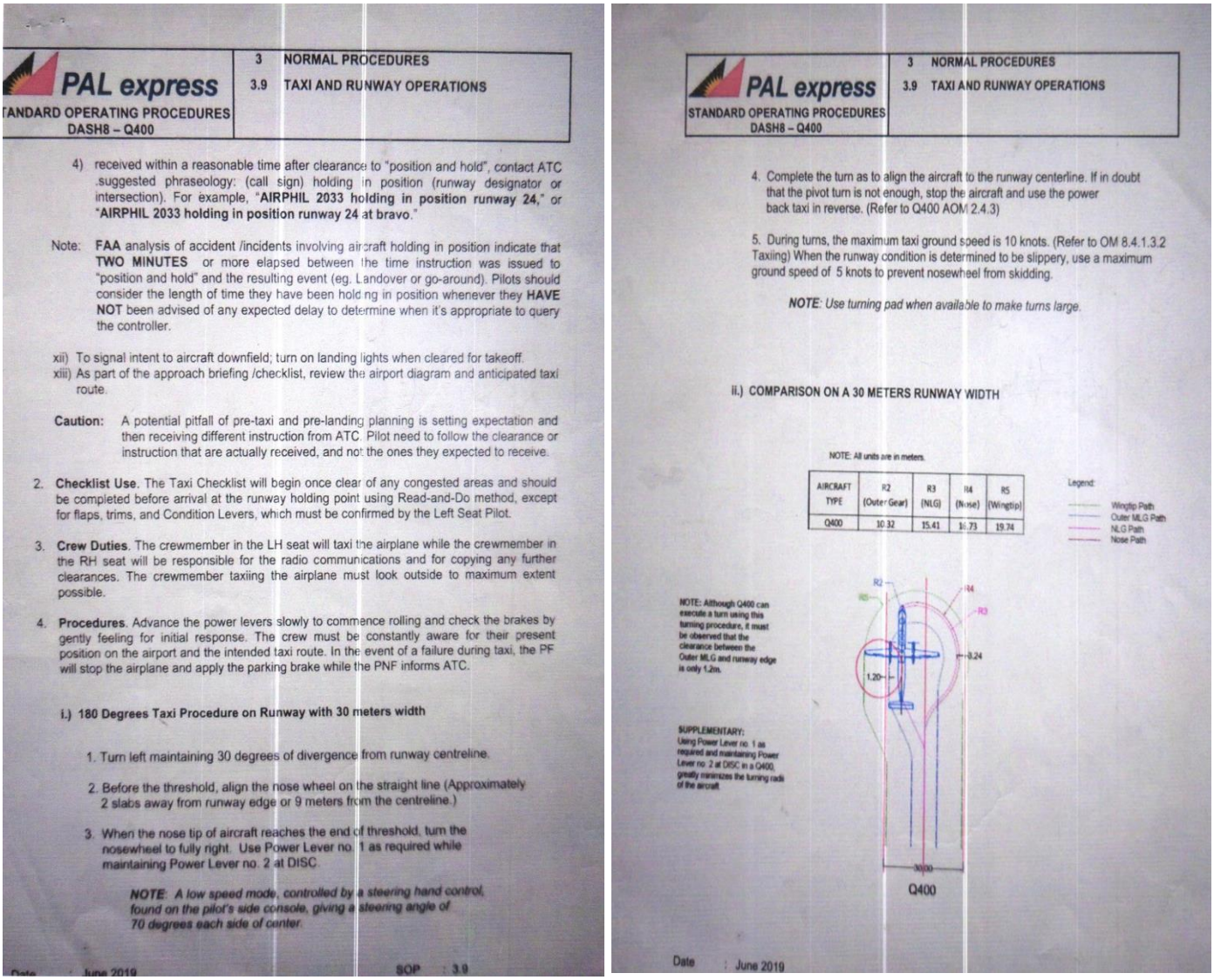
regulations, Standard Operating Procedures (SOPs) and policies, or an unexpected deviation from crew or company expectations.



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STANDARD OPERATING PROCEDURES
DASH8 – Q400

3 NORMAL PROCEDURES
3.9 TAXI AND RUNWAY OPERATIONS

4) received within a reasonable time after clearance to "position and hold", contact ATC .suggested phraseology: (call sign) holding in position (runway designator or intersection). For example, "**AIRPHIL 2033 holding in position runway 24**," or "**AIRPHIL 2033 holding in position runway 24 at bravo**."

Note: **FAA** analysis of accident /incidents involving aircraft holding in position indicate that **TWO MINUTES** or more elapsed between the time instruction was issued to "position and hold" and the resulting event (eg. Landover or go-around). Pilots should consider the length of time they have been holding in position whenever they **HAVE NOT** been advised of any expected delay to determine when it's appropriate to query the controller.

xii) To signal intent to aircraft downfield; turn on landing lights when cleared for takeoff.
xiii) As part of the approach briefing /checklist, review the airport diagram and anticipated taxi route.

Caution: A potential pitfall of pre-taxi and pre-landing planning is setting expectation and then receiving different instruction from ATC. Pilot need to follow the clearance or instruction that are actually received, and not the ones they expected to receive.

2. **Checklist Use**. The Taxi Checklist will begin once clear of any congested areas and should be completed before arrival at the runway holding point using Read-and-Do method, except for flaps, trims, and Condition Levers, which must be confirmed by the Left Seat Pilot.

3. **Crew Duties**. The crewmember in the LH seat will taxi the airplane while the crewmember in the RH seat will be responsible for the radio communications and for copying any further clearances. The crewmember taxiing the airplane must look outside to maximum extent possible.

4. **Procedures**. Advance the power levers slowly to commence rolling and check the brakes by gently feeling for initial response. The crew must be constantly aware for their present position on the airport and the intended taxi route. In the event of a failure during taxi, the PF will stop the airplane and apply the parking brake while the PNF informs ATC.

i.) 180 Degrees Taxi Procedure on Runway with 30 meters width

1. Turn left maintaining 30 degrees of divergence from runway centreline.
2. Before the threshold, align the nose wheel on the straight line (Approximately 2 slabs away from runway edge or 9 meters from the centreline.)
3. When the nose tip of aircraft reaches the end of threshold, turn the nosewheel to fully right. Use Power Lever no. 1 as required while maintaining Power Lever no. 2 at DISC.

***NOTE**: A low speed mode, controlled by a steering hand control, found on the pilot's side console, giving a steering angle of 70 degrees each side of center.*

Date : June 2019 SOP : 3.9

PAL express
STANDARD OPERATING PROCEDURES
DASH8 – Q400

3 NORMAL PROCEDURES
3.9 TAXI AND RUNWAY OPERATIONS

4. Complete the turn as to align the aircraft to the runway centerline. If in doubt that the pivot turn is not enough, stop the aircraft and use the power back taxi in reverse. (Refer to Q400 AOM 2.4.3)

5. During turns, the maximum taxi ground speed is 10 knots. (Refer to OM 8.4.1.3.2 Taxiing) When the runway condition is determined to be slippery, use a maximum ground speed of 5 knots to prevent nosewheel from skidding.

***NOTE**: Use turning pad when available to make turns large.*

ii.) COMPARISON ON A 30 METERS RUNWAY WIDTH

NOTE: All units are in meters.

AIRCRAFT TYPE	R2 (Outer Gear)	R3 (NLG)	R4 (Nose)	R5 (Wingtip)
Q400	10.32	15.41	16.73	19.74

Legend:
Wingtip Path
Outer MLG Path
NLG Path
Nose Path

NOTE: Although Q400 can execute a turn using this turning procedure, it must be observed that the clearance between the Outer MLG and runway edge is only 1.2m.

SUPPLEMENTARY:
Using Power Lever no. 1 as required and maintaining Power Lever no. 2 at DISC in a Q400, greatly minimizes the turning radi of the aircraft.

Q400

Date : June 2019

Figure 2 and 3 – SOP DASH8-Q400 Normal Procedures/ Taxi and Runway Operations

3.0 CONCLUSION

3.1 Findings

a. Both pilots have a valid license and medical certificate issued by the CAAP.

b. The PIC made a non-standard 180 degree turn from the right to left.

c. Visual meteorological condition prevailed at the time of the incident.

d. The aircraft was properly released for flight without any discrepancies noted on its logbook.

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e. The aircraft has current Certificates of Airworthiness and Registration.

f. The aircraft did not sustain any damage.

3.2 Cause Factor

3.2.1 Primary Cause Factor

a. The flight crew failed to follow the standard procedures for 180 degrees turn that resulted to runway excursion

3.2.2 Contributory Cause Factors

a. Lack of situation awareness

4.0 SAFETY RECOMMENDATION

As a result of the Operator's safety actions, the safety deficiencies presented in this report have been fully addressed therefore no further safety recommendations are being proposed.

5.0 SAFETY ACTIONS

5.1 Safety Actions taken by the Operator

As a result of the serious incident, the Operator initiated the following safety corrective actions:

a. The PIC involved in the incident had undergone the line proficiency check and route qualification checks while the FO had undergone the line proficiency check.

b. Memo for Company pilots, reminding to strictly follow and exercise caution in executing the SOP on 180 degree turns for runways with 30-meter width. (Appendix 1)

c. Publication of SMS Bulletin: Notification of Accident and Serious Incident. Appendix 2)

d. Accident & Serious Incident Reporting Meeting/ Table Top Exercise- Aircraft Runway Excursion Incident. (Appendix 3)

-----END-----

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Flight Operations Department

PILOTS INFORMATION FILE

Date	:	20 April 2023
Reference No.	:	FOD-DHC8-2023-017
Validity	:	Temporary

TO	:	**ALL PILOTS**
FROM	:	**CHIEF PILOT – TURBOPROP**
SUBJECT	:	**REITERATION ON RUNWAY EXCURSION**

To prevent excursion in narrow-width runways, please be reminded to strictly follow and exercise caution in executing the standard operating procedure on 180-degree turns for runways with 30-meter width (SOP Chapter 3.9 item no.4).

FOR YOUR STRICT COMPLIANCE

CC:VP-FOD,CHIEF PILOT-DHC8,FOD ADMIN,IOCC, TRAINING,FILE

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4) received within a reasonable time after clearance to "position and hold", contact ATC .suggested phraseology: (call sign) holding in position (runway designator or intersection). For example, **"AIRPHIL 2033 holding in position runway 24,"** or **"AIRPHIL 2033 holding in position runway 24 at bravo."**

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NOTE: *Use turning pad when available to make turns large.*

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Q400	10.32	15.41	16.73	19.14

Legend:
- Wingtip Path
- Outer MLG Path
- NLG Path
- Nose Path

NOTE: Although Q400 can execute a turn using this turning procedure, it must be observed that the clearance between the Outer MLG and runway edge is only 1.2m.

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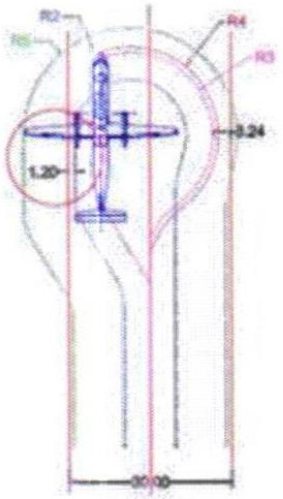

Q400

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iii.) WHEEL BASE AND WHEEL TRACK COMPARISON

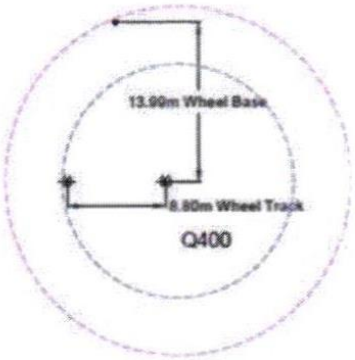
NOTE: All units are in meters

AIRCRAFT TYPE	R2 (Outer Gear)	R3(NLG)
Q400	10.32	15.41

All radii used in the illustration of aircraft turning execution is based on maximum steering angle with an approximately 2deg of tire slip.

Legend:

Outer MLG Path
NLG Path



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SAFETY MANAGEMENT SYSTEM BULLETIN
A PUBLICATION OF SAFETY DEPARTMENT
25 APRIL 2023
PAL Gate 1, Andrews Ave., Nichols, Pasay City, 1300 Philippines
E-mail: 2Psafety@pal.com.ph
PALexpress
Control No.: SBSMS-2023-04-02
Email: kbmiranda@pal.com.ph

PAL EXPRESS SAFETY MANAGEMENT MANUAL
CHAPTER 7.5 - NOTIFICATION OF ACCIDENT AND SERIOUS INCIDENT

1. RP-CAR Part 13, requires that where an accident or serious incident occurs in the Philippines or outside the Philippines (which involves a RP registered aircraft or an aircraft operated by a Philippine AOC holder), the relevant person (owner, operator or PIC of the aircraft at the time of the accident or serious incident) shall as soon as is reasonably practicable after he becomes aware of the accident or serious incident send notice to the Chairman by the quickest means of communication available and in case of an accident occurring in the Philippines, notify a police officer of the accident and the place where it occurred.

2. In compliance with CAR 8.5.1.23, the PIC shall notify the nearest appropriate authority, by the quickest available means, of any accident involving his or her aircraft that results in serious injury or death of any person, or substantial damage to the aircraft or property. The PIC shall also submit a report to the Authority of any accident which occurred while he or she was responsible for the flight.

3. The Director of Safety as soon as he becomes aware of the accident and serious incident regardless of place of occurrence, shall notify immediately the Chairman AAIIB of the accident and serious incident by the quickest possible means either through mobile phone or telephone or email through the CAAP website. The Director of Safety shall also prepare and submit a written notification to the Chairman-AAIIB with the following information:

   i) for accidents the identifying abbreviation "ACCID" and for serious incidents, "INCID";
   ii) manufacturer, model, nationality and registration marks and serial number of the aircraft;
   iii) name of owner, operator and hirer, if any, of the aircraft;
   iv) name of pilot-in-command of the aircraft, and the nationality of the crew and passengers;
   v) date and time (local time or UTC) of the accident or serious incident;
   vi) last point of departure and point of intended landing of the aircraft;
   vii) position of the aircraft with reference to some easily defined geographical point and latitude and longitude;
   viii) number of crew members and passengers on board the aircraft at the time of the accident or serious incident;
   ix) number of crew members, passengers and other persons who are killed and seriously injured;
   x) description of the accident or serious incident and the extent of damage to the aircraft so far as is known;
   xi) physical characteristics of the accident or serious incident area, and an indication of access difficulties or special requirements to reach the site;
   xii) identification of the person sending the notice and where the accident or serious incident occurred outside of the Philippines, the means by which the investigator-in-charge and the accident investigation authority of the State of Occurrence may be contacted; and
   xiii) The presence and description of dangerous goods on board the aircraft.

4. Dissemination of any information to the public regarding any company related incident or accident is to be carried out by PAL's Corporate Communications Department.

BUSINESS CONTINUITY PLANNING TABLETOP EXERCISE (BCP TTX)

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Updates

(A) A slide presentation to differentiate ERP from BCP
(B) Next BCP TTX will be the same scenario / station / and time of occurrence
(C) Objective will focus only on the aircraft removal from the runway for immediate resumption of operations
(D) Checklist will show both ERP and BCP tasks but will be differentiated from one another
(E) It will have chronological checkpoints i.e. 1215H we ask what are the activities of Safety, Quality, Security, Ground Operations, Flight Operations, HRD, etc. 1230H we ask what are the activities of Safety, Quality, Security, Ground Operations, Flight Operations, HRD, etc. 1245H what are the activities of Safety, Quality, Security, Ground Operations, Flight Operations, HRD, etc. and so on.

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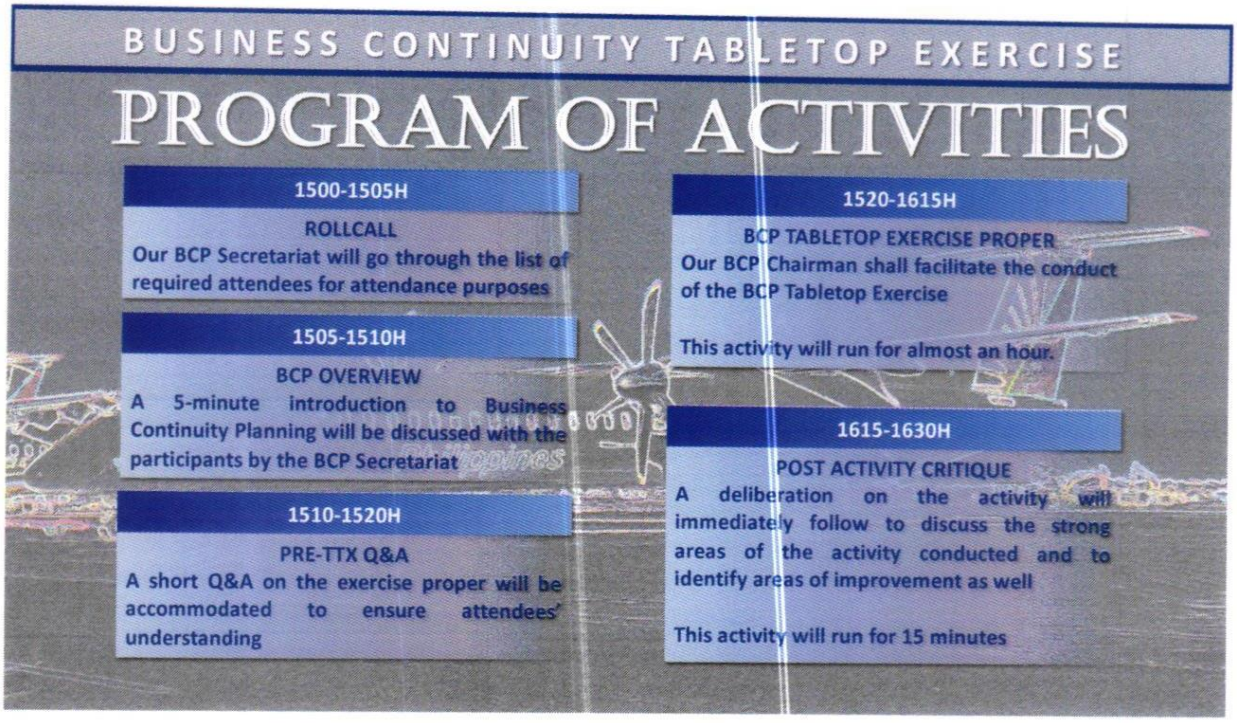

BCP Tabletop Exercise Details

Requirements for TTX:

- BCP Chair & Secretariat
- BCP Checklist – on-hand by each representative
- Focused and undivided attention
- Active participation from each concerned units

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Business Continuity Planning (BCP) Objective

Business Continuity Planning (BCP) is a process involved in creating in an organization a system of prevention and recovery from operational disruptions such as system downtime & aircraft incidents.

The plan ensures to **mitigate** the effects of such **disruptions** to the **operations** specifically in the ***business side*** of our Company which is passenger and cargo transport.

This includes disaster recovery, business recovery, **crisis management**, **emergency response**, and contingency planning.

BCP involves leadership & commitment; planning; support & resources; and measurement.

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BCP vs ERP

BCP VS ERP	
Ability to recover after an incident has occurred (major or minor incident).	Ability to respond to an incident may it be minor or a major one.
Ensuring that PAL Ex will continue its critical business functions (cargo and commercial flights) on the affected station in a reasonably short period of time after an incident.	Ensuring that the affected pilots, cabin crew, & passengers will receive a reasonable attention and care after the incident (Family Assistance if it's a major one).
Company initiated program (ISO22301:2019)	Regulatory compliance to ICAO, PCAR, & ISM

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Business Continuity Planning Tabletop Exercise Objective

The **objective** of this Tabletop Exercise is to ensure that an organization's *critical business functions* will either *continue to operate* despite serious incidents or disasters that might otherwise have interrupted them or will be *recovered* to an *operational state* within a *reasonably short period*.

At the end of the BCP TTX, all concerned units should have:

1. familiarized their roles in the implementation of BCP and use of the BCP Checklist.
2. identified each required tasks in the BCP process and corelate it to other units especially to those with interdependencies.
3. identified areas for improvement where BCP is concerned
   a. Processes
   b. Resources (e.g. manpower, facility, equipment, systems, etc.)
4. resumed flights by 06:40:00 hours after the incident.

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BCP Tabletop Exercise Details

Situation: Aircraft Incident (Runway Excursion)

Details:

- **A/C Registry**: RP-C5911
- **A/C Type**: DH-C-8-400
- **Time of Occurrence**: 1200H
- **STN of Occurrence**: ILO; aircraft stopped at the grassy area LHS of runway 02
- **Runway Condition**:
  Wet due to drizzle, grassy area where aircraft has stopped is relatively firm and wheels are not submerged in the ground
- **Aerodrome Situation**: DEP/ARR suspended due to obstruction in active runway
- **Passenger Details**:
  58 PAX onboard; no injuries to passengers and crew; disembarkation clearance given
- **AMED Situation**: No AMED facility in STN due that it is not a hub

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BCP Tabletop Exercise Details

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BCP Tabletop Exercise Details

Situation: Aircraft Incident (Runway Excursion)

Details:

- **A/C Registry**: RP-C5911 (DH-C-8-400)
- **Time of Occurrence**: 1200H
- **STN of Occurrence**: ILO; aircraft stopped at the grassy area LHS of runway 02
- **Runway Condition**:
  Wet due to drizzle, grassy area where aircraft has stopped is relatively firm and wheels are not submerged in the ground
- **Aerodrome Situation**: DEP/ARR suspended due to obstruction in active runway
- **Passenger Details**:
  58 PAX onboard; no injuries to passengers and crew; disembarkation clearance given
- **AMED Situation**: No AMED facility in STN due that it is not a hub

Objective of the Exercise:

- Remove a/c from active runway
- Immediately return aerodrome to operational status.

BCP Tabletop Exercise Details

Learnings

(The following items were identified in the last tabletop exercise that may enhance the BCP endeavors):

- GOSSA will assist in establishing a contact person in each DOH Accredited Hospitals for each outstation.
- To identify who will take charge between the HDQ or the Station Head in the aspect of 'Business Continuity' in that station during the recovery stage.
- Quality Department will assist in coordinating transport of CAAP/AAIIB personnel to the site as necessary.
- AMED has included the CVR/ FVR as part of their inventory spares.
- Medical to provide documentation of post-incident medical requirements for flight crewmembers
- Flight and Cabin Crew post-incident handling shall consider duty and rest period requirements.
- Human Resources Department shall take lead in ensuring meals and accommodations of the Flight and Cabin Crew are available including the requirements of the Go-Team.
- Medical shall oversee all medical requirements (Drug and alcohol testing) are conducted.
- Immediate dissemination of initial information shall be performed by IOCC/Dispatch as documented in the Crisis Management Manual
- BCP Secretariat shall differentiate further BCP from ERP requirements.

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3.1.1BURCRAFT INCIDENT WITH A.A.I.I.B. PARTICIPATION

Note: BCP Council Chair and IMS Standards Division head shall ensure timely completion of needed tasks

Time (in minute) or specified	AMED	SAFETY	QUALITY	CLSD	GSD	FOG	HRD	MEDICAL	SECURITY
0:00:00	Initial assessment for A/C recovery process in coordination with ASO	Inform AAIIB / DG, of A/C incident	Assist Safety Department by coordinating for transport of AAIIB personnel to site of incident		Facilitate passenger disembarkation	ASO to facilitate A/C assessment in coordination with AMED (GOC to facilitate A/C assessment in coordination with ASO and AMED)			Deploy security personnel after the incident to secure the aircraft
0:05:00	FDM shall verify availability of reference for aircraft recovery MCC shall inform maintenance provider & other relevant units.				Initiate assessment of passengers needing medical attention and coordinate with Airport Medical facility	Coordinate with medical and provide transport for Flight and Cabin Crew to be brought to medical facility and provide PSA to assist with the crew	Flight and Cabin Crew shall disembark and proceed to medical facility	Monitor transport of Flight and Cabin Crew	Security Assistance to Flight & Cabin Crew upon receipt of transport details
0:10:00	not available, contact OEM AMMPM shall check FOA/COR availability MCC shall facilitate GIO Team Transportation and coordinate with GDC for flight, AMS vehicle available if travel by land. If closed runway, will request for helicopter (PNB)	Get clearance re: A/C movement to maintenance area			GOC: facilitate and assist Charter flight	Prepare Aircraft recovery equipment tools e.g Tow tug, tow bar etc.			
0:15:00					Confirmation of GOT team itinerary If by land, facilitation of access pass in the airport and any necessary assistance If by AF LLO STN, intercepting of tools and equipment to expedite immediate task of GO team				
0:20:00									
0:25:00									
0:30:00	Initiate MMT prep meeting / escalation composed of AMED sub-departments MMT Shop Support will prepare and send to COMAT tools / equipments for aircraft recovery. If by sea or land, will inform CLSD immediately for transport.	Get AAIIB / DG Clearance and travel plans to move aircraft from incident position to maintenance			Backup Comercial flight schedule (finalized) pax handling (re-accommodation, HOTAC, land transfers, etc.)				
0:35:00									

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0:40:00													
0:45:00													
0:50:00													
0:55:00													
1:00:00	Troubleshooting Tools, Equipment, References, OEM Guidance (Perform troubleshooting, return aircraft service					AAIIB Approval by AAIIB for return of Aircraft to APC Custody (Send to FOD, Ground Ops, AMED, Safety, Security)	Cockpit Voice Recorder, Flight data Recorder, (prepare for withdrawal) If not available, find a loner unit.						
1:05:00													
1:10:00													
1:15:00													
1:20:00													
1:25:00													
1:30:00													
1:35:00							Warehouse shall issue parts as requested						
1:40:00													
1:45:00													
1:50:00						AAIIB Approval by AAIIB for return of Aircraft to APC Custody (Send to FOD, Ground Ops, AMED, Safety, Security)			Provide assistance to each unit specifically in a/C removal and needed GSE's				Security Advisory to Security Personnel upon receipt of AAIIB approval
1:55:00													
2:00:00	Cockpit Voice recorder, Flight data Recorder (prepare from AOG aircraft)	AMS GoTeam will be ready for deployment	Technical assessment of AMED personnel for Troubleshooting tools, equipments, references, and OEM guidance.				COMAT transfer to Cargo area	Coordinate with GOC regarding transport information of AAIIBB personnel to the STN for whatever assistance to extend. (For pre-planning purposes) UPDATE TO GOC: 1. Pax handling summary report to MGT. 2. Initial investigation progress		Monitoring of the Flight & Cabin Crew by FOD & CCOD		Initial medical Assessment Initial psychological assessment and release immediately to flight if deemed fit / Follow up crew needing pschological consultation	
3:00:00	Arrival of the GoTeam to the Station (ILO) from MNL												
3:05:00	Towing of A/C out from the incident position to clear the runway												
3:10:00													
3:15:00													
3:20:00													
3:25:00													
3:30:00													
3:35:00													
3:40:00													

3:45:00													
3:50:00								NOTAM received regarding opening of aerodrome					
3:55:00								facilitate boarding of MNLILO flight					
4:00:00													
4:05:00													
4:10:00													
4:15:00													
4:20:00													
4:25:00													
4:30:00													
4:35:00								Departure of MNLILO flight					
6:00:00								Arrival of MNLILO Flight					
6:05:00								Passengers disembarkation / Servicing of the A/C					
6:10:00													
6:15:00													
6:20:00													
6:25:00								facilitate boarding for ILOMNL Flight					
6:30:00													
6:35:00													
6:40:00								Departure for ILOMNL flight					
6:45:00													
6:50:00													
6:55:00													
7:00:00													
24:00:00										Submit Flight Crew for medical check(CAAP medical facility) CCOD Schedule Duty Change (Cabin Crew change in duty with coordination w/ Scheduling)	Depending on manpower needs, ensure ready pool of manpower complement (in coordination with concerned departments) e.g management crew, reserve, volunteers, etc.		
INVESTIGATION: DONE										Once cleared, Flight & Cabin Crew to return to active roster			

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