



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-C7653**  
**TEXTRON AVIATION INC., CESSNA, C-172M**

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***OPERATOR: LEADING EDGE INTERNATIONAL AVIATION ACADEMY  
INC.***

***TYPE OF OPERATION: FLIGHT TRAINING, (PCAR PART 3)***

***DATE OF OCCURRENCE: MARCH 02, 2019***

***PLACE OF OCCURRENCE: LINGAYEN COMMUNITY AIRPORT (RPUG),  
LINGAYEN, PANGASINAN, PHILIPPINES***

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## 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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[www.caap.gov.ph](http://www.caap.gov.ph)

## **FINAL REPORT**

**TITLE:** Incident involving a Textron Aviation Inc., Cessna, C-172M type of aircraft with registry number RP-C7653 owned and operated by Leading Edge International Aviation Academy Inc. that had a Runway Excursion at Lingayen Community Airport, Lingayen, Pangasinan, Philippines on March 02, 2019 at about 1515H (local) 0715 UTC.

### **Notification of Occurrence to National Authority**

The notification of incident to AAIIB CAAP was relayed by the Operator of the aircraft at 1700H (local) on March 02, 2019.

### **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 is conducting the investigation.

### **Organization of the Investigation**

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

### **Authority Releasing the Report**

The Final investigation report was released by Aircraft Accident Investigation and Inquiry Board (AAIIB) and published at the CAAP website on **25 November 2021**.

### **Synopsis:**

On March 02, 2019 at about 1515H (local) 0715 UTC, a Textron Aviation Inc., Cessna, C-172M type of aircraft with registry number RP-C7653 operated by Leading Edge International Aviation Academy Inc. had a runway excursion at Lingayen Community Airport, Lingayen, Pangasinan, Philippines. The two (2) occupants onboard did not sustain any injuries, however the aircraft sustained minor damage as a result of the incident. Visual Meteorological Condition (VMC) prevailed at the time of the incident. The cause of the occurrence was attributed to the aircraft landed more than one half of the usable runway resulting to a runway excursion.

## **LIST OF ACRONYMS AND ABBREVIATIONS**

AAIIB	:	Aircraft Accident Investigation and Inquiry Board
AMO	:	Approved Maintenance Organization
CAAP	:	Civil Aviation Authority of the Philippines
COA	:	Certificate of Airworthiness
COR	:	Certificate of Registration
CPL	:	Commercial Pilot License
IMC	:	Instrument Meteorological Condition
METAR	:	Meteorological Terminal Aviation Routine
OFSAM	:	Office of the Flight Surgeon and Aviation Medicine
PIC	:	Pilot-In-Command
SP	:	Student Pilot
VFR	:	Visual Flight Rules
VMC	:	Visual Meteorological Condition



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**1. FACTUAL INFORMATION**

Aircraft Registration No. : RP-C7653

Aircraft Type/Model : Textron Aviation Inc., Cessna, C-172M

Operator : Leading Edge International Aviation Academy Inc.

Address of Operator : San Fernando Airport, Poro Point Freeport Zone, La Union, Philippines

Place of Occurrence : Lingayen Community Airport, Lingayen, Pangasinan, Philippines

Date/Time of Occurrence : March 02, 2019 / 1515H/0715 UTC

Type of Operation : Flight Training, (PCAR Part 3)

Phase of Operation : Landing

Type of Occurrence : Runway Excursion

**1.1 History of Flight**

On or about 1515H, March 2, 2019, a Cessna 172M with Registry Number RP-C7653 sustained substantial damage on its nose landing gear and propeller after colliding with the perimeter fence at Lingayen Community Airport, Lingayen, Pangasinan (RPUG). The aircraft is being operated by Leading Edge International Aviation Academy Inc. under PCAR Part 3. The Flight Instructor (FI) and Student Pilot (SP) on board were not injured. Visual meteorological conditions prevailed, and a Visual Flight Rules (VFR) flight plan had been filed.

The aircraft with the SP in the control touched down 600 meters after the threshold of Runway 08. The FI took over to stop the aircraft but to no avail as it continued its path and came in contact with the airport concrete perimeter fence. Witnesses on the ground stated that the aircraft landed after passing the security outpost which was located mid-field and tried to stop, leaving tires marks on the runway but later hit the fence.



Figure 1: RP-C7653 on its final resting point.

## 1.2 Injuries to Person (s)

Injuries	Crew	Passengers	Others	TOTAL
Missing/Fatal	0	0	0	0
Serious	0	0	0	0
Minor	0	0	0	0
None	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

## 1.3 Damage to Aircraft

1.3.1 The aircraft substantial damage on its nose landing gear assembly.

1.3.2 Upper and lower engine cowling.

1.3.3 Lower engine mounting.

1.3.4 Nose Landing Gear Steering rod.

1.3.5 Taxi light.

1.3.6 Propeller that was caught on the barb wires.

## 1.4 Other Damages

There were reported damage on the airport perimeter fence.

## 1.5 Personnel Information

### 1.5.1 Flight Instructor (FI)

Gender	:	Male
Date of Birth	:	24 February 1993
Nationality	:	Philippines
License	:	14019 FI
Valid up to	:	31 May 2020
Medical Certificate Valid until	:	Valid until February 1, 2018
Total Flying Time	:	230 + 00 Hours as per pilot logbook
Total Flying Time On type	:	230 + 00 Hours as per pilot logbook

### 1.5.2 Student Pilot (SP)

Gender	:	Female
Date of Birth	:	25 October 1996
Nationality	:	Philippines
License	:	143997 SPL
Valid up to	:	26 October 2020
Medical Certificate Valid until	:	Class II , Valid until N/A
Total Flying Time	:	30+ 00 Hours as per pilot logbook
Total Flying Time On type	:	30+ 00 Hours as per pilot logbook

## 1.6 Aircraft Information

### 1.6.1 Aircraft Data

Registration Mark	:	RP-C7653
Manufacturer	:	Textron Aviation Inc.
Type/Model	:	Cessna 172M
Serial Number	:	17264068
Date of Manufactured	:	1975
Aircraft Total Time	:	1,440+50 Hours
Certificate of Airworthiness valid up to	:	May 10, 2019
Certificate of Registration valid up to	:	April 24, 2020

### 1.6.2 Engine Data

Manufacturer	:	Textron Lycoming
Type/Model	:	Piston/0-320-E2D
Engine Serial Number	:	L-3629-27A
Time Since New	:	2,729+50 as per Last C of A

### 1.6.3 Propeller Data

Manufacturer	:	McCauley
Type/Model	:	Fixed Pitch 2 Blade/ICI60 DTM7553
Propeller Serial Number	:	725257
Time Since New	:	2,729+50 as per aircraft logbook

### 1.7 Meteorological Information

Visual Meteorological Conditions (VMC) prevailed at the time of the accident

### 1.8 Aids to Navigation

The flight was carried out under Visual Flight Rules (VFR). Using VFR, the pilot must be able to operate the aircraft with visual references to the ground and visually avoiding obstructions and other aircraft.

### 1.9 Communications

The aircraft is equipped with a standard radio transceiver, communications were carried out between the pilot and other aircraft within the area.

### 1.10 Aerodrome Information

The Lingayen Community Airport is listed in CAAP approved aerodrome facility data.

#### 1.10.1 General Information

Aerodrome name	:	Lingayen Community Airport (RPUG)
Coordinates	:	160204.3028 N 1201448.1698 E
Aerodrome Operator/Address	:	Civil Aviation Authority of the Philippines Lingayen Airport, Lingayen 2401 Pangasinan Phone: (075)542-8585
Runway Azimuth	:	08/26
Runway Dimension	:	800 x 30
Runway Strength	:	PCN 10 F/B/Y/U ASPH
Type of traffic permitted	:	VFR
Elevation	:	2M
Airport Operation	:	2300-0800Z
Nav Aids	:	None
Surface	:	Asphalt/Macadam Strength: Nil

RWY & TWY Markings and LGT : Runway Designation Center line,  
SWY Distance to go marker  
Security : H24

### 1.11 Flight Recorders

The aircraft is equipped with any flight recorders and existing CAAP regulation does not require it.

### 1.12 Wreckage and Impact Information

The aircraft touched down mid runway and overshoots the runway. It came to a halt about 350 meters away from the threshold end of runway 08 and settled upright with fuselage heading 165 degrees at coordinates 16.0211.13N, 120.1449E. The runway has visible tire track marks running to about 150 meters going to the left from the centerline before the threshold end of runway 08.



Figure 2. The aircraft collided with the airport perimeter fence.



Figure 3. The aircraft nose landing gear assembly was damage upon impact with the fence.

### 1.13 Medical and Pathological Information

The medical certificate issued by CAAP-OFSAM of both pilots was current and confirmed that they met the CAAP and ICAO Annex 1 Medical Standards for exercising the privileges of the licenses held.

### 1.14 Fire

No fire was reported by Lingayen Community Airport Crash Fire Rescue Unit (CFRU).

### 1.15 Search and Survival Aspects

The occurrence was survivable due to the structural integrity of the flight compartment was not hampered thereby providing safety for the occupants during the event. The occupants of the aircraft were secured by seat-belt and a harness which remained intact during the flight. No search operation was deployed since the occurrence was at the aerodrome facility.

### 1.16 Organizational and Management Information

#### 1.16.1 Operator

Leading Edge International Aviation Academy, Inc. (LEIAAI) has an Aircraft Training Organization Certificate (ATOC) #2008-14 valid until October 08, 2020 authorized to perform Flight and Ground training operations that provides private pilot course, commercial pilot course, flight instructor courses and refresher for single engine land services. LEIAAI flight operations is located at San Fernando Community Airport, Canaoay, San Fernando City, La Union. The aircraft RP-C7653, is listed on their ATOC Operations specification.

## 1.16.2 Maintenance

The maintenance function of RP-C7653 is being undertaken by Leading Edge International Aviation Academy, Inc. Approved Maintenance Organization (AMO) with a current Certificate number 90-10 with facility located at San Fernando Community Airport

## 2.0 ANALYSIS

### 2.1 General

During the course of the investigation, it revealed that the aircraft was on a cross country flight from San Fernando Community Airport (RPUS) to Lingayen Community Airport (RPUG). The SP was to make three (3) touch and go landings upon arrival. The two (2) touch and go was uneventful. Further, it revealed that the SP did not configure the flaps for the landing and was fast on the third approach. The FI took over the controls to manage the aircraft for landing. At low finals, the controls were again handed over to the SP to continue land the aircraft.

The aircraft touched down 600 meters after the threshold of Runway 08. The FI again took over the controls to stop the aircraft. The aircraft failed to stop and skidded to the left side of the center-line. It continued its path and came in contact with the airport concrete perimeter fence. Witnesses on the ground stated that the aircraft landed mid-field of the runway. There were tire marks as a result of heavy braking were seen on the runway. It is critical for pilots to know the committed-to-stop (CTS) point where the only option is to bring the aircraft to a complete stop.

This accident started to occur during the approach and landing phase of flight. The aircraft while on finals was fast on its approach for landing. There are many interventions that have been created by the regulatory body to assist in reducing the risk of accidents in the approach and landing phase of flight. These interventions address risk in all aspects of the approach and landing phases. One of these is a stabilized approach criteria, which is designed to assist the pilot in flying a safe approach and landing. The SP was in a way not stabilized for the approach. Although the FI's intervene to address the risks, however handling over the controls to the SP at low finals to land the aircraft is inappropriate.

Upon doing so, the student pilot inappropriate actions and inactions probably attributable to their becoming progressively overwhelmed by successive indication caused by their poor management of the aircraft's performance. The investigation depicts that the crew did not monitor their descent against the required vertical profile and the landing zone was way-off their aim point, they should have aborted the landing.

Although a number of factors created the scenario in which the accident could occur, the most plausible explanation for the descent was the FI focus on letting the SP continue the landing and the failure to recover from it and that the runway accelerated landing distance available was overlooked. Pilots should be aware of any published local ATC procedures/airspace restrictions that impact the approach.

### 3. CONCLUSIONS

#### 3.1. Findings

- a. The aircraft was certified, equipped, and maintained in accordance with CAAP-PCARs and approved procedures.
- b. The aircraft was properly released for flight without any discrepancies noted on its logbook.
- c. The pilots were qualified on the Textron Aviation Inc., Cessna C172M type of aircraft.
- d. Both pilots have a valid airmen licenses and medical certificates issued by the CAAP.
- e. The aircraft has current Certificates of Airworthiness and Registration.

#### 3.2 Probable Cause

##### 3.2.1 Primary Cause Factor

The aircraft landed more than one half of the usable runway.

##### 3.2.2 Contributory Factors

- a. Fast approach during landing.
- b. Lack of situational awareness.

### 4. SAFETY RECOMMENDATIONS

#### 4.1 For CAAP-FSIS to ensure that the Operator:

- a. Strictly follow the go-around procedures during unstable approach for landing.
- b. Should establish operational SOP to provide approved stabilization criteria necessary guidance for go around such as (but not limited to):
  - 1. Aircraft stabilization before 500 feet AGL.
  - 2. Landing configuration, required flap setting
  - 3. Approach speed.
  - 4. Lateral direction with reference to runway centerline.

**-END-**

