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-C4321
PIPER AIRCRAFT INC., PA-23-250

OPERATOR: FLITELINE AIRWAYS

TYPE OF OPERATION: NON-SCHEDULED COMMERCIAL TRANSPORT

DATE OF OCCURRENCE: APRIL 18, 2022

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

TABLE OF CONTENTS

(Piper Aircraft Inc., PA-23-250, RP-C4321 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.

FINAL REPORT

TITLE: Incident involving a PA-23-250 type of aircraft with Registry Number RP-C4321 sustained damage on both propellers following a propeller strike at runway 06, Basco Airport, Basco, Batanes Philippines, on April 18, 2022/1505H

Notification of Occurrence to National Authority

The Notification of accident to AAIIB- CAAP was relayed by the Operator of the aircraft at 0909H (LOCAL), on April 18, 2022.

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 **16 June 2022.**

Synopsis:

On April 18, 2022 at about 0909H, a PA-23-250 type of aircraft with Registry Number RP-C4321 sustained damage on both propellers following a propeller strike at runway 06, Basco Airport, Basco, Batanes Philippines. The aircraft was being operated by Fliteline Airways under non-scheduled commercial transport. The pilot and five (5) passengers were not injured. Visual meteorological conditions (VMC) prevailed on the time of occurrence. The cause of the occurrence was attributed to the pilot who was late in extending the landing gears that resulted to propeller ground strike

LIST OF ACRONYMS AND ABBREVIATIONS

AAIIB	:	Aircraft Accident Investigation and Inquiry Board
AFS	:	Airways Facilities Services
AMO	:	Approved Maintenance Organization
ATPL		Airlines Transport Pilot License
CAAP	:	Civil Aviation Authority of the Philippines
COA	:	Certificate of Airworthiness
COR	:	Certificate of Registration
OFSAM	:	Office of the Flight Surgeon and Aviation Medicine
PCAR	:	Philippine Civil Aviation Regulation
PIC	:	Pilot-In-Command
RWY	:	Runway
UTC	:	Universal Time Coordinated
VFR	:	Visual Flight Rules
VHF	:	Very High Frequency
VMC	:	Visual Meteorological Condition

1. FACTUAL INFORMATION

Aircraft Registration No.	:	RP- C4321
Aircraft Type/Model	:	Piper Aircraft Inc., PA-23-250
Operator	:	Fliteline Airways
Address of Operator	:	1513 Metrica St, Sampaloc Manila
Place of Occurrence	:	Basco Airport, Basco, Batanes Philippines
Date/Time of Occurrence	:	April 18, 2022/ 0909H/0109 UTC
Type of Operation	:	Non-Scheduled Commercial
Phase of Flight	:	Landing
Type of Occurrence	:	Wheels-up landing - unintentional

1.1 History of Flight

On or about 0909H, April 18, 2022, a Piper Aircraft Inc., PA-23-250 type of aircraft with Registry Number RP-C4321 sustained damage on both propellers following a runway propeller strike at runway 06, Basco Airport, Basco, Batanes Philippines. The aircraft is being operated by Fliteline Airways under non-scheduled commercial transport. The pilot and five (5) passengers were not injured. Visual meteorological conditions (VMC) prevailed on the time of occurrence, and a local flight plan had been filed.

The pilot was on his fourth leg back to Basco, Batanes after departing from Itbayat, Batanes. The Pilot realized that the landing gears were not extended after the control tower informed him. He was able to perform the landing gear extension and land the aircraft. However, both right and left propellers sustained damages just before the landing gears were fully extended. There were sixteen (16) and ten (10) runway propeller strikes from both right and left propellers respectively that were seen 922 meters away from the threshold of RWY 06. One of the witnesses took a video while the aircraft was in short finals showing the landing gears were not extended prior to landing (Figure 1).

MIA Road corner Ninoy Aquino Avenue, Pasay City, Metro Manila, Philippines, 1300
Tel: (+632) 7944-2030, 7944-2031 / www.caap.gov.ph

Figure 1. RP-C4321 without landing gears extended.

1.2 Injuries to Person (s)

Injuries	Crew	Passengers	Others	TOTAL
Fatal	0	0	0	0
Serious	0	0	0	0
Minor	0	0	0	0
None	0	0	0	0

1.3 Damage to Aircraft

The aircraft sustained damage on both propellers.

1.4 Personnel Information

1.4.1 Pilot

Gender	:	Male
Date of Birth	:	May 19, 1980
Nationality	:	Filipino
License	:	101869-Airlines Transport Pilot License (ATPL)
Valid up to	:	September 30, 2023
Type rating	:	Airplane: Multi Engine Land- PA23-250.
Medical Certificate Valid until	:	Valid until September 30, 2023
Total Flying Time	:	7,800 +00 Hours
Total Flying Time On type	:	4,700 + 00 Hours

MIA Road corner Ninoy Aquino Avenue, Pasay City, Metro Manila, Philippines, 1300
Tel: (+632) 7944-2030,7944-2031 / www.caap.gov.ph

1.5 Aircraft Information

1.5.1 Aircraft Data

Registration Mark	:	RP- C4321
Manufacturer	:	Piper Aircraft Inc.
Country of Manufacturer	:	USA
Type/Model	:	PA-23-250
Operator	:	Fliteline Airways
Serial Number	:	27-4624
Date of Manufactured	:	1971
Certificate of Airworthiness valid up to	:	December 12, 2021 Extended Validity thru MC# 10-2020 Dated 13 March 2020
Certificate of Registration valid up to	:	November 2, 2018 Extended Validity thru MC# 10-2020 Dated 13 March 2020
Category	:	Normal
Number of Flight Crew	:	1
Number of Passenger	:	5
Airframe total time	:	6,762+10 Hours since last C of A

1.5.2 Engine Data

Manufacturer	:	Lycoming
Type/Model	:	IO-540-C4B5
Engine Serial Number	:	L-B4B2-4B, L-B46B
Time Between Overhaul	:	2,000 hours
Time Since Overhaul	:	235+10 hours, 1016+56 hours
Time Since New	:	6,814+52 hours, 7,596+52 hours

1.5.3 Propeller Data

Manufacturer	:	Hartzell
Type/Model	:	HC-E2Y-2RBSF
Propeller Serial Number	:	BP5142, BP5098
Time Between Overhaul	:	2,000 hours
Time Since Overhaul	:	227+35 hours, 143+32 hours
Time Since New	:	6757+57 hours, 6725+10 hours

1.6 Meteorological Information

The wind condition was 070 at 8knots, gusting 16 knots.

1.7 Aids to Navigation

The flight is being conducted through Visual Flight Rules (VFR). VFR are set of regulations under which a pilot operates an aircraft in weather conditions generally clear enough to allow the pilot to see visual ground references and where the aircraft is going.

MIA Road corner Ninoy Aquino Avenue, Pasay City, Metro Manila, Philippines, 1300
Tel: (+632) 7944-2030,7944-2031 / www.caap.gov.ph

1.8 Communications

The 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

The aircraft is not equipped with any flight recorders and existing Philippine Civil Aviation Regulation does not require it.

1.11 Wreckage and Impact Information

Both propellers sustained damages just before the landing gears were fully extended. There were sixteen (16) and ten (10) runway propeller strikes from both right and left propellers respectively that were seen 922 meters away from the threshold of RWY 06.

1.12 Medical and Pathological Information

The pilot was subjected to drug test after the occurrence and found with no significant medical findings. He also had undergone the post flight accident medical examination conducted by the Office of the Flight Surgeon and Aviation Medicine (OFSAM). There was no medical impediment on the pilot that could have had a bearing on the incident.

1.13 Fire

MIA Road corner Ninoy Aquino Avenue, Pasay City, Metro Manila, Philippines, 1300
Tel: (+632) 7944-2030,7944-2031 / www.caap.gov.ph

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

1.14 Search and Survival Aspects

The incident was considered survivable. The Pilot was able to perform the landing gear extension and land the aircraft. It was taxied to the parking ramp, and all the occupants deplaned normally.

1.15 Organizational and Management Information

1.15.1 Operator

Fliteline Airways is located at 1513 Metrica St. Sampaloc, Manila, Philippines. It offers air taxi, fish cargo, and chartered flights arranged and paid for by an individual or group for a specific trip. The company has its Principal Operations Base at Plaridel Community Airport, Lumang Bayan, Plaridel, Bulacan.

1.15.2 Maintenance

The maintenance function of RP-C4321 is being undertaken by Fliteline Aviation Repair Station with a current Approved Maintenance Organization (AMO) Certificate number 66-07 located at Plaridel Community Airport, Lumang Bayan, Plaridel, Bulacan.

2.0 ANALYSIS

2.1 General

On or about 0909H, April 18, 2022, a Piper Aircraft Inc., PA-23-250 type of aircraft with Registry Number RP-C4321 with one (1) pilot and five (5) passengers on-board sustained damage on both propellers following a runway propeller strike at RWY 06, Basco Airport, Basco, Batanes.

In the course of investigation, the pilot said that he was on his fourth leg back to Basco, Batanes after departing from Itbayat, Batanes. Approximately, three (3) to five (5) miles away from Basco Airport, he informed the duty air traffic controller of his intention of joining straight left base and land at RWY 06. Prior his arrival to the airport, he further said that he commented regarding the wind getting stronger after being advised of the prevailing wind condition by the duty air traffic controller. Moreover, after joining finals for landing, he focused his attention controlling the aircraft due to the gustiness of the wind. He then realized that the landing gears were not extended after the control tower informed him. He was able to perform the landing gear extension and land the aircraft.

Based on the case above, the pilot had experienced work overload. Effective workload management ensures that essential operations are accomplished by planning, prioritizing, and sequencing tasks. Recognizing future workload requirements such as before landing checklists should be performed well in advance so there is time to focus on other essential operations to help reduce workload as the flight nears the airport.

MIA Road corner Ninoy Aquino Avenue, Pasay City, Metro Manila, Philippines, 1300
Tel: (+632) 7944-2030,7944-2031 / www.caap.gov.ph

Situational awareness is the accurate perception of the operational and environmental factors that affect the aircraft, and pilot during a specific period of time. Maintaining situational awareness requires an understanding of the relative significance of these factors and their future impact on the flight. Complacency presents another obstacle in maintaining situational awareness. When activities become routine, the pilot may have a tendency to relax and not put as much effort into performance that reduces the effectiveness in the cockpit.

During the course of investigation, the pilot said that he had a habit of extending the landing gear down after joining straight base for landing at Batanes Airport. He also admitted that he did not use the pre-landing checklist. As part of the checklist before extending the landing gear, both throttles are retard until the horn sounds to ensure that the gear warning horn is operating. To ascertain that the gear is down and locked on the final approach, checking the three (3) green light down indicators on the control pedestal shall be performed.

Further, the pilot had experienced distraction that diverts his attention from monitoring the aircraft after being advised by the duty controller of the wind condition. This apparently resulted for the pilot to inadvertently forget to perform the landing gear extension. Much more that the pilot was highly focused on his attention to control the aircraft during landing because of the prevailing wind condition. Once out of the "standard" realm of habitual operations, this is where using the checklists play a crucial role. The checklist helps to verify that the tasks was completed. Although aircraft normal operations can be memorized, but once something does not go as expected, it is difficult to get back on track. Using and verifying each item on the checklist prevents pilots from slipping and making costly, dangerous mistakes.

3. CONCLUSIONS

3.1 Findings

a. The aircraft has valid Certificates of Airworthiness and Registration.
b. The aircraft was properly released for flight without any discrepancies noted on its logbook.
c. The Pilot was qualified on the Piper Aircraft Inc., PA-23-250 type of aircraft.
d. The Pilots has a valid license and medical certificates issued by Office of Flight Surgeon and Aviation Medicine (OFSAM), CAAP.
e. The Pilot realized that the landing gears were not extended after being informed by the air traffic controller.
f. The Pilot was able to perform the landing gear extension and land the aircraft.
g. Visual meteorological condition prevailed at the time of the incident.

3.2 Probable Cause

3.2.1 Primary Cause Factor

The Pilot was late in extending the landing gears that resulted to propeller ground strike.

3.2.2 Contributory Factors

MIA Road corner Ninoy Aquino Avenue, Pasay City, Metro Manila, Philippines, 1300
Tel: (+632) 7944-2030,7944-2031 / www.caap.gov.ph

a. Pre-landing checklist was not performed.
b. The Pilot lacks situational awareness.

4. SAFETY RECOMMENDATIONS

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

a. Strictly impose the mandatory use of checklist to its pilots.
b. Reinforce training of pilots in the area of Crew Resource Management, and Situational Awareness.

-END-

MIA Road corner Ninoy Aquino Avenue, Pasay City, Metro Manila, Philippines, 1300
Tel: (+632) 7944-2030,7944-2031 / www.caap.gov.ph