



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-C511
KODIAK 100

***OPERATOR: WORLD AVIATION INTERNATIONAL SERVICES
CORPORATION (WAISCO)***

TYPE OF OPERATION: NON-SCHEDULED COMMERCIAL

DATE OF OCCURRENCE: DECEMBER 5, 2020

***PLACE OF OCCURRENCE: DIVILACAN AIRSTRIP, DIVILACAN, ISABELA,
PHILIPPINES***

TABLE OF CONTENTS

(Kodiak 100, RP-C511 Final Report)

Description	-----	Page
Title Page	-----	
Table of Contents	-----	i
Foreword	-----	ii
Synopsis	-----	iii
List of Acronyms and Abbreviation	-----	iv
1 Factual Information	-----	1
1.1 History of Flight	-----	1
1.2 Injuries to Person	-----	2
1.3 Damage to Aircraft	-----	2
1.4 Other Damage	-----	2
1.5 Personnel Information	-----	3
1.5.1 Pilot	-----	3
1.6 Aircraft Information	-----	3
1.6.1 Aircraft Data	-----	3
1.6.2 Engine Data	-----	3
1.6.3 Propeller Data	-----	3
1.7 Meteorological Information	-----	4
1.8 Aids to Navigation	-----	4
1.9 Communications	-----	4
1.10 Aerodrome Information	-----	4
1.11 Flight Recorders	-----	4
1.12 Wreckage and Impact Information	-----	5
1.13 Medical & Pathological Information	-----	5
1.14 Fire	-----	5
1.15 Search and Survival Aspect	-----	5
1.16 Test and Research	-----	6
1.17 Organization and Management Information	-----	6
2 Analysis	-----	6
2.1 General	-----	6
2.2 Divilacan Airstrip	-----	6
2.3 Domestic Flight Permit	-----	8
3 Conclusions	-----	8
3.1 Findings	-----	8
3.2 Probable Cause	-----	8
4 Safety Recommendations	-----	9
Signatories	-----	9

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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MIA Road, Pasay City 1300
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FINAL REPORT

TITLE: Incident involving a Kodiak 100 type of aircraft with Registry Number RP-C511 operated by WAIACO that had a bounced landing at Divilacan Airstrip, Divilacan, Isabela, Philippines, on December 5, 2020/1200H

Notification of Occurrence to National Authority

The notification of incident to AAIIB CAAP was relayed by the Operator of the aircraft at 1430H (LOCAL) on December 5, 2020.

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 at the CAAP website on **8 November 2021**.

Synopsis:

On December 5, 2020, at about 1200H, a Quest Aircraft Kodiak 100 with registration no. RP-C511 sustained damage on its nose landing gear following a bounced landing at Divilacan Airstrip, Divilacan, Cagayan. After the bounce landing the Pilot initiated a go-around and proceeded to Cauayan Airport. The aircraft landed safely using RWY 20 and came to complete stop between distance-to-go markers 2 and 3. The pilot and the nine (9) passengers did not sustain any injury. The passengers disembarked in the middle of the runway. Visual Meteorological Conditions (VMC) prevailed at the time of the incident. The cause of the occurrence was attributed to the failure of the pilot to maintain control of the aircraft following a bounced landing.

LIST OF ACRONYMS AND ABBREVIATIONS

AAIIB	:	Aircraft Accident Investigation and Inquiry Board
AANSOO	:	Aerodrome and Air Navigation Safety Oversight Office
AOC	:	Air Operator Certificate
CAAP	:	Civil Aviation Authority of the Philippines
CPL	:	Commercial Pilot License
OFSAM	:	Office of the Flight Surgeon and Aviation Medicine
PTO	:	Permit to Operate
RPUY	:	Cauayan Community Airport
TSN	:	Time since New
WAISCO	:	World Aviation International Services Corporation
VFR	:	Visual Flight Rules
VMC	:	Visual Meteorological Condition



Republic of the Philippines
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES

1. FACTUAL INFORMATION

Aircraft Registration No. : RP-C511

Aircraft Type/Model : Quest Aircraft Design, LLC / Kodiak 100

Operator : World Aviation International Services Corporation (WAISCO)

Address of Operator : 2316 KIA Building Aurora Blvd. Tramo Pasay City

Place of Occurrence : Divilacan Airstrip, Divilacan, Isabela, Philippines

Date/Time of Occurrence : December 5, 2020/ 1200H

Type of Operation : Non-scheduled Commercial

Phase of Flight : Landing

Type of Occurrence : Bounced landing

1.1 History of Flight

On December 5, 2020, at about 1200H, a Quest Aircraft Kodiak 100 with registration no. RP-C511 sustained damage on its nose landing gear following a bounced landing at Divilacan Airstrip, Divilacan, Cagayan. After the bounce landing the Pilot initiated a go-around and proceeded to Cauayan Airport. The aircraft landed safely using RWY 20 and came to complete stop between distance-to-go markers 2 and 3. The aircraft is being operated by World Aviation International Services Corporation (WAISCO) holder of Air Operator Certificate (AOC) authorized to perform commercial air operations. The pilot and the nine (9) passengers did not sustain any injury. The passengers disembarked in the middle of the runway. Visual Meteorological Conditions (VMC) prevailed at the time of the incident.



Figure 1: RP-C511 final resting point

1.2 Injuries to Person (s)

Injuries	Crew	Passengers	Others
Missing/Fatal	0	0	0
Serious	0	0	0
Minor	0	0	0
None	1	9	0
TOTAL	1	9	0

1.3 Damage to Aircraft

The aircraft sustained damage on its nose landing gear.

1.4 Other Damage

No other damage was reported.

1.5 Personnel Information

1.5.1 Pilot

Gender	:	Male
Date of Birth	:	October 21, 1992
Nationality	:	Filipino
License	:	100437-Commercial Pilot License (CPL)
Valid up to	:	February 28, 2020
Medical Certificate Valid until	:	Valid until February 20, 2021
Date of last medical	:	January 4, 2020
Total Flying Time	:	1,701 + 37 Hours
Total Flying Time On type	:	1,200 + 00 Hours

1.6 Aircraft Information

1.6.1 Aircraft Data

Registration Mark	:	RP-C511
Manufacturer	:	Quest Aircraft Design, LLC.
Type/Model	:	Kodiak 100
Serial Number.	:	100-0183
Date of Manufactured	:	August 2016
Aircraft Total Time	:	633+ 00 Hours
Certificate of Airworthiness valid up to	:	September 27, 2021
Certificate of Registration valid up to	:	September 12, 2021
Gross Weight	:	3,290 Kilogram (Kg.)

1.6.2 Engine Data

Manufacturer	:	Pratt & Whitney
Type/Model	:	PT6-34
Engine Serial Number	:	PCE-RB0974
Time Between Overhaul	:	5,000 hours
Time Since Overhaul	:	633+00 hours
Time Since New	:	633+00 hours

1.6.3 Propeller Data

Manufacturer	:	Hartzell Propeller
Type/Model	:	HC-E4N-3P
Propeller Serial Number	:	HH5207
Time Between Overhaul	:	4,000 hours
Time Since Overhaul	:	633+00 hours
Time Since New	:	633+00 hours

1.7 Meteorological Information

According to the Pilot while approaching to Divilacan, visibility is about 8 kms, cloud ceiling is 1,500 feet, wind was coming from the right at 12 knots and with light rain.

Weather obtained from Cauayan FSS indicates wind was at 320 degrees/8 knots, visibility was 10 kms and clouds were broken at 1,800 feet.

1.8 Aids to Navigation

The flight to Divilacan Airstrip was conducted thru 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 where the aircraft is going.

1.9 Communications

The Pilot was in contact with appropriate ATCs during take-off and enroute including Cauayan FSS. However, the Divilacan airstrip has no facility for ground to air communications.

1.10 Aerodrome Information

1.10.1 Divilacan Airstrip (Destination Airport)

Divilacan airstrip has no existing aerodrome information as per AANSOO since it is not certified by CAAP and no permit to operate was issued.

1.10.2 Cauayan Airport (Alternate Airport)

Airport Name	:	Cauayan Community Airport
Airport Identification	:	RPUY
Airport Operator	:	Civil Aviation Authority of the Philippines
Runway Direction	:	12/30
Runway Dimensions (08)	:	2,098 X 36 meters
Runway Dimensions (26)	:	2,098 X 36 meters
Runway Elevation	:	60.98 meters
Runway Surface	:	PCN 47 R/A/W/T CONC
ARP coordinates and Site at AD	:	165547.2026N 121451109138E

1.11 Flight Recorder

The aircraft is not equipped with flight recorders and neither relevant regulation requires it.

1.12 Wreckage and Impact Information

The aircraft touched down in the first 100 meters of the Divilacan airstrip. The aircraft bounced in the initial touchdown, after the second bounce, the pilot initiated a go around and proceeded to Cauayan Airport as its alternate airport. The aircraft landed in RWY 12 uneventfully and came to a stop between distance to go markers 2 and 3. With a flat nose wheel and damaged nose landing gear the Pilot decided to shut down the engine and requested assistance from the Airport personnel to tow the aircraft to the ramp (Figure 2).



Figure 2: the aircraft being towed to the ramp

1.13 Medical and Pathological Information

Post-incident medical examination conducted to the Pilot by CAAP-OFSAM on December 14, 2020 revealed no significant findings.

1.14 Fire

No fire was reported during and after the event.

1.15 Survival Aspects

The incident was survivable, the aircraft only sustained damage on its nose landing gear.

1.6 Test and Research

Tests and research were not necessary to aid the investigation.

1.17 Organizational and Management Information

The World Aviation International Services Corporation (WAISCO) is a holder of Air Operator Certificate (AOC) number 2017072 valid until May 18, 2021. WAISCO is authorized to perform commercial air Operations. Based on their Operations Specifications, RP-C511 is included in the list of authorized aircraft for their operations.

2.0 ANALYSIS

2.1 General

On December 5, 2020, RP-C511 a Kodiak 100 type of aircraft was scheduled to depart at around 0800H for Divilacan Airstrip located in Divilacan, Isabela. However, the flight was delayed due to bad weather at the destination airstrip. At around 1000H the caretaker at Divilacan Airstrip advised the Pilot that the weather has improved. The flight from Manila to Divilacan was uneventful.

On final approach, the wind was observed from the aircraft Garmin 1000 navdata to be 8-10 kts right crosswind. Accordingly, the aircraft was fully configured for landing. Before touch down, the Pilot claimed the the aircraft was hit by strong gust of wind that resulted to a bounced landing on initial touchdown. Following a bounced landing, the aircraft landed again with its nose landing gear. The Pilot initiated a go-around and proceeded to Cauayan Airport Isabela as its alternate airport. Before landing, the aircraft flew over the Airport and the Pilot requested Cauayan FSS to check its nose landing gear for any damage. Cauayan FSS responded “looked OK for landing”. The aircraft landed utilizing runway 32 and came to stop in the middle of the runway between distance-to-go markers 2 and 3. The passengers disembarked at the runway and the aircraft was towed towards the ramp area. Visual inspection on the nose landing gear revealed deflated nose gear strut and tire (Figure 3).

2.2 Divilacan Airstrip

Divilacan Airstrip is located in the town of Divilacan, Isabela. According to Roundscad Corporation, the company that developed the airstrip, the runway has a total length of 1,500 meters and width of 46 meters with surface tapped up to base course and compacted.

Investigation disclosed that the airstrip has no ground to air communication facility including basic guide to wind direction and speed like windsock to aid Pilots during landing. Verification with AANSOO revealed that Divilacan Airstrip has not undergone certification process from CAAP nor permit to Operate (PTO) was issued.



Figure 3: Deflated nose gear strut and tire



Figure 4: Divilacan Airstrip taken from google earth with imagery date of 12/24/2020

2.3 Domestic Flight Permit

A domestic flight permit was requested by the Operator and subsequently approved by CAAP on a letter dated December 3, 2020. The approval is for the Kodiak 100 aircraft with registration number RP-C511. Further, the approval covers the route Manila-San Fernando-Cauayan-Divilacan-Manila in the period of December 4-5, 2020 for the purpose of a sweeper flight.

The approval should have included a paragraph stating that it is the Operator's responsibility to perform the necessary hazard identification and risk assessment in the destination aerodrome before conducting the flight.

3. CONCLUSIONS

3.1. Findings

- 3.1.1.** The aircraft has current Certificate of Registration valid until September 27, 2021.
- 3.1.2.** The aircraft has current Certificate of Airworthiness valid until September 12, 2021.
- 3.1.3.** The Pilot has valid and current Commercial Pilot License and Medical Certificate.
- 3.1.4.** The aircraft logbook recorded no discrepancy for the past seven (7) days.
- 3.1.5.** The aircraft has accumulated a total of time of 633 hours.
- 3.1.6.** The engine time since new (TSN) is 633 hours.
- 3.1.7.** The propeller time since new (TSN) 633hours.
- 3.1.8.** Divilacan Airstrip has no PTO issued by CAAP.
- 3.1.9.** Divilacan Airstrip has no wind direction indicator to aid pilots during landing.
- 3.1.10.** The aircraft proceeded to Cauayan Airport following a bounced landing in Divilacan Airstrip.
- 3.1.11.** The aircraft sustained damaged on its nose landing gear following a bounced landing.

3.2 Probable Cause

3.2.1 Primary Cause Factor

- a.** Failure of the Pilot to maintain control of the aircraft following a bounced landing.

3.2.2 Contributory Factors

- a.** Utilizing a non-CAAP certified airstrip as destination aerodrome.

- b. Non-availability of wind direction indicator to serve as reference to the pilot for actual wind speed and direction.

4. SAFETY RECOMMENDATIONS

4.1 Actions taken by the Operator

Before the issuance of the final investigation report, the Aircraft Accident Investigation and Inquiry Board (AAIIB) received documents of the following safety actions initiated by WAISCO as a result of this incident.

- a. Immediately suspended all its flights to all airport/airstrip not certified by CAAP through a Memorandum issued dated December 6, 2020.
- b. The Pilot involved was subjected to ground refresher training with emphasis on analyzing weather maps, data and information, approaching and landing procedures on cross wind or in sudden change of wind direction and speed including go-around procedures on January 4, 2021.
- c. The involved Pilot was subjected to flight refresher training on February 6, 2021 by the Head of Training.
- d. The Pilot involved underwent line check last February 26, 2021 before he was released for line flying.

The safety deficiencies presented in this report have been fully addressed and no further safety actions are recommended.

-END-

