Republic of the Philippines
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES

AIRCRAFT ACCIDENT INVESTIGATION AND INQUIRY BOARD

FINAL REPORT

RP-C1018
GIPPSAERO, GA8 AIRVAN

OPERATOR: WCC AVIATION ACADEMY INC.

TYPE OF OPERATION: COMMERCIAL AIR TRANSPORT

DATE OF OCCURRENCE: AUGUST 31, 2025

PLACE OF OCCURRENCE: BARANGAY DISTRICT 1, REINA MERCEDES, ISABELA, PHILIPPINES

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(GIPPSAERO/GA8 AIRVAN, RP-C1018 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 the 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: A serious incident involving a Gippsaero/GA8 Airvan type of aircraft with Registry Number RP-C1018 owned and operated by WCC Aviation Company, Inc. that executed a forced landing due to an engine non-mechanical failure at a harvested cornfield area in Barangay District 1, Reina Mercedes, Isabela, Philippines 10Km away from Cauayan Community Airport, Philippines on August 31, 2025/1115H local time.

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 the Operation Center-CAAP at 1300H (LOCAL) on August 31, 2025.

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 and Deputy 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 **05 December 2025.**

Synopsis:

On August 31, 2025 at about 1115H, a Gippsaero GA8 Airvan type of aircraft with Registry Number RP-C1018 operated by WCC Aviation Company, Inc., executed a forced landing at a harvested cornfield area in District 1, Reina Mercedes, Isabela, Philippines. The pilot and six (6) passengers did not sustain any injuries while the aircraft sustained minor damage as result of the serious incident. Visual Meteorological Condition (VMC) prevailed at the time of the occurrence. The serious incident was attributed to the material failure of the engine Air Induction Intake and the LH Exhaust Muffler Shroud System that made the aircraft engine to malfunction.

LIST OF ACRONYMS AND ABBREVIATIONS

AAIIB	:	Aircraft Accident Investigation and Inquiry Board
AGL	:	Above Ground Level
AMO	:	Approved Maintenance Organization
AMOC	:	Approved Maintenance Organization Certificate
AMOSOP	:	Approved Maintenance Organization Specific Operating Provisions
AOC	:	Air Operator Certificate
ARFF	:	Aircraft Rescue and Fire Fighting
ATPL	:	Airline Transport Pilot License
AVGAS	:	Aviation Gasoline
AVSEGROUP	:	Aviation Security Group
CAAP	:	Civil Aviation Authority of the Philippines
CSIS	:	CAAP Security and Intelligence Service
CVR	:	Cockpit Voice Recorder
FCU	:	Fuel Control Unit
FDR	:	Flight Data Recorder
FSIS	:	Flight Standards Inspectorate Service
LCD	:	Licensing and Certification Department
LH	:	Left-hand
MET	:	Meteorological
OC	:	On-condition
OFSAM	:	Office of the Flight Surgeon and Aviation Medicine
PAGASA	:	Philippine Atmospheric Geophysical and Astronomical Services Administration
PCAR	:	Philippine Civil Aviation Regulation
RPM	:	Revolutions per minute
TOG	:	Tactical Operations Group
UTC	:	Universal Time Coordinated
VFR	:	Visual Flight Rules
VHF	:	Very High Frequency
VMC	:	Visual Meteorological Condition

1. FACTUAL INFORMATION

Aircraft Registration No.	:	RP-C1018
Aircraft Manufacturer/Model	:	Gippsaero/GA8 Airvan
Operator	:	WCC Aviation Company, Inc.
Address of Operator	:	Barangay Canarvacanan, Binalonan, Pangasinan, Philippines
Place of Occurrence	:	Barangay District 1, Reina Mercedes, Isabela, Philippines
Date/Time of Occurrence	:	August 31, 2025 /1115H/0315UTC
Type of Operation	:	Commercial Air Transport
Phase of Flight	:	En-route
Type of Occurrence	:	Reciprocating engine non-mechanical failure.

1.1 History of Flight

On August 31, 2025 at approximately 1115H local time, a GippsAero, GA8 Airvan type of aircraft with registry number RP-C1018 and operated by WCC Aviation Company, Inc., experienced an engine malfunction while en-route to Maconacon Airstrip (MCN), Maconacon, Isabela. The aircraft subsequently conducted a forced landing in a harvested cornfield located at District 1, Reina Mercedes, Isabela, approximately 10 kilometers from Cauayan Community Airport (RPUY). The aircraft had departed RPUY Runway 30 at 1053H on a local flight with six (6) passengers and one (1) pilot onboard. According to the pilot, this was the second flight of the day following a completed Cauayan–Palanan–Cauayan sector.

During the RPUY–MCN leg, at approximately 2,300 feet AGL and 15 NM from RPUY, the pilot reported hearing a loud bang followed by continuous sputtering from the engine, accompanied by a gradual decay in manifold pressure. The pilot immediately informed RPUY Tower of the situation and elected to return to the departure aerodrome. However, the aircraft was unable to maintain altitude. The pilot

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subsequently declared an emergency and advised ATC of the intention to execute a forced landing in an open field.

At approximately 700 feet AGL, the engine ceased operation completely. The pilot performed a glide approach and landed the aircraft in a cornfield at coordinates 16°58.42"N, 121°49.72"E, heading east. The aircraft touched down, rolled approximately 100 meters, and came to a stop. The pilot then requested ground assistance from RPUY Tower, and emergency services were dispatched to the occurrence site.

All occupants disembarked the aircraft normally and were later transported to Isabela United Doctors Medical Center, Cauayan, Isabela, for medical evaluation. No reported injuries to the occupants of the aircraft. Responding personnel from the PNP AVSEGROUP–Cauayan, Tactical Operations Group 2 (TOG2), Airport CSIS/ARFF, and local emergency responders secured the aircraft and assisted in ensuring occupant safety. Visual Meteorological Conditions (VMC) prevailed throughout the flight. The aircraft sustained minor damage.

Figure 1 - RP-C1018 on its final position at the incident site.

1.2 Injuries to Person (s)

Injuries	Crew	Passengers	Others
Fatal	0	0	0
Serious	0	0	0
Minor	0	0	0
Missing	0	0	0
None	1	6	0
Total	**1**	**6**	**0**

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1.3 Damage to Aircraft

The aircraft sustained minor damage.

1.4 Other Damages

None.

1.5 Personnel Information

1.5.1 Pilot (P)

Gender	:	Male
Date of Birth	:	17 April 1969
Nationality	:	Filipino
License	:	103258 ATPL/FI
Date Issued	:	12 August 2025
Type rating	:	Airplane: Single & Multi Engine Land-C152, C172, Let410, P2002JF, P2006T, GA8 Airvan, C208B.
Medical Certificate Validity	:	Class I, 18 November 2025
Time on GA8 Airvan	:	1,339+06 Hours
Grand Total time	:	12,703+42 Hours

1.6 Aircraft Information

The GippsAero/GA8 Airvan is a single-engine utility aircraft manufactured by GippsAero of Victoria, Australia. It can seat up to eight (8) persons and a pilot. It was first flown in 3 March 1995 and Type Certified under Federal Aviation Administration (FAA) Part 23 requirements. A single Lycoming IO-540 piston engine power the GA8. It can take-off within 525 feet (160m), and can operate from a 1,000 feet (300m) airstrip under average condition.

1.6.1 Aircraft Data

Registration Mark	:	RP-C1018
Manufacturer	:	GippsAero
Country Of Manufacturer	:	Victoria, Australia
Type/Model	:	Gippsaero/GA8, Airvan
Operator	:	WCC Aviation Company, Inc.
Serial No.	:	GA813-197

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Date of Manufacture	:	2014
Certificate of Airworthiness Valid up to	:	05 August 2026
Certificate of Registration Valid up to	:	13 February 2026
Number of Crew	:	1
Number of Passenger Seat	:	8
Time Since New (TSN)	:	2,352+24 Hours

1.6.2 Engine Data

Manufacturer	:	Lycoming
Type	:	Piston
Model	:	IO-540-KIA5
Serial No.	:	L-35745-48E
Time Since New	:	3,677+49 Hours
Time Since overhauled	:	1,500+29 Hours

1.6.3 Propeller Data

Manufacturer	:	Hartzell
Type/Model	:	Variable Pitch 3 Blade/ HC-C3YR-IFR
Propeller last fitted	:	20 January 2023
Serial No.	:	PA751B
Time Since New	:	2,352+24 Hours

1.7 Meteorological Information

Visual Meteorological Conditions prevailed at the time of the occurrence.

1.8 Aids to Navigation

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

1.9 Communications

The aircraft was equipped with operational Very High Frequency (VHF) transceiver used for communicating with aerodrome control tower personnel and other aircraft in the area. The communication frequency is 122.7 RPUY control tower.

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1.10 Aerodrome Information

The Cauayan Community Airport (RPUY) is an airport serving the general area of Cauayan City in the Province of Isabela. It is operated by the Civil Aviation Authority of the Philippines and is listed in the CAAP approved aerodrome facility data as well the Philippine Aeronautical Information Publication (AIP as of December 2024).

1.10.1 General Information

Aerodrome Name	:	Cauayan Principal Airport (RPUY)
Coordinates	:	165547 N, 1214512 E
Aerodrome Operator	:	Civil Aviation Authority of the Philippines Cauayan Airport, Cauayan, Isabela 3306, Philippines
Runway	:	12/30 2098m x 36m PCN 47 R/A/W/T CON
Types of traffic permitted	:	VFR
Security	:	24H
ATS Communication Facility	:	Cauayan Radio 122.70 Mhz
Elevation/Reference temperature	:	60.98M (200FT) AMSL.
Airport Operation	:	0000-0900Z
Nav Aids: DVOR/DME	:	116.5 Mhz
Apron Surface and Strength	:	Concrete PCN 47 R/A/W/T
RWY & TWY Markings	:	RWY designation, centerline, SWY, distance-to-go marker
Declared Distances	:	RWY 12 TORA/TODA – 2098m/2098m ASDA/LDA – 2098m/2098m RWY 30 TORA/TODA – 2098m/2518m ASDA/LDA – 2154m/1739m Threshold displaced by 359m
Airspace Classification	:	G
AD Category for Firefighting	:	CAT VI
Rescue Equipment		One (1) Fire Truck, Oshkosh (6,000 liters)
Aerodrome Obstacles	:	RWY 30 TWR Antenna 52m, approximately 435m perpendicular distance from extended RWY centerline and 935m from displaced threshold of RWY 30.
Met Office	:	None

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1.11 Flight Recorders

The aircraft was not equipped with a cockpit voice recorder (CVR) or a flight data recorder (FDR). Existing Civil Aviation Authority of the Philippines (CAAP) regulations do not require the installation of flight recorders on this category of aircraft.

1.12 Wreckage and Impact Information

The aircraft, RP-C1018, operated by WCC Aviation Company, Inc., experienced an engine malfunction while en-route to Maconacon Airstrip (MCN), Maconacon, Isabela, and subsequently executed a forced landing in a harvested cornfield located at District 1, Reina Mercedes, Isabela, approximately 10 kilometers southeast of Cauayan Airport (RPUY).

The aircraft had departed RPUY Runway 30 at 1053H on a local flight with one (1) pilot and six (6) passengers on board. All occupants evacuated the aircraft safely and were transported to a nearby medical facility for evaluation. No injuries were reported.

The aircraft touched down on the field under control, coming to rest after a short ground roll. It sustained minor damage to the intake and exhaust manifolds. There was no post-impact fire. The surrounding terrain was level and unobstructed, and the aircraft remained upright and intact following the forced landing.

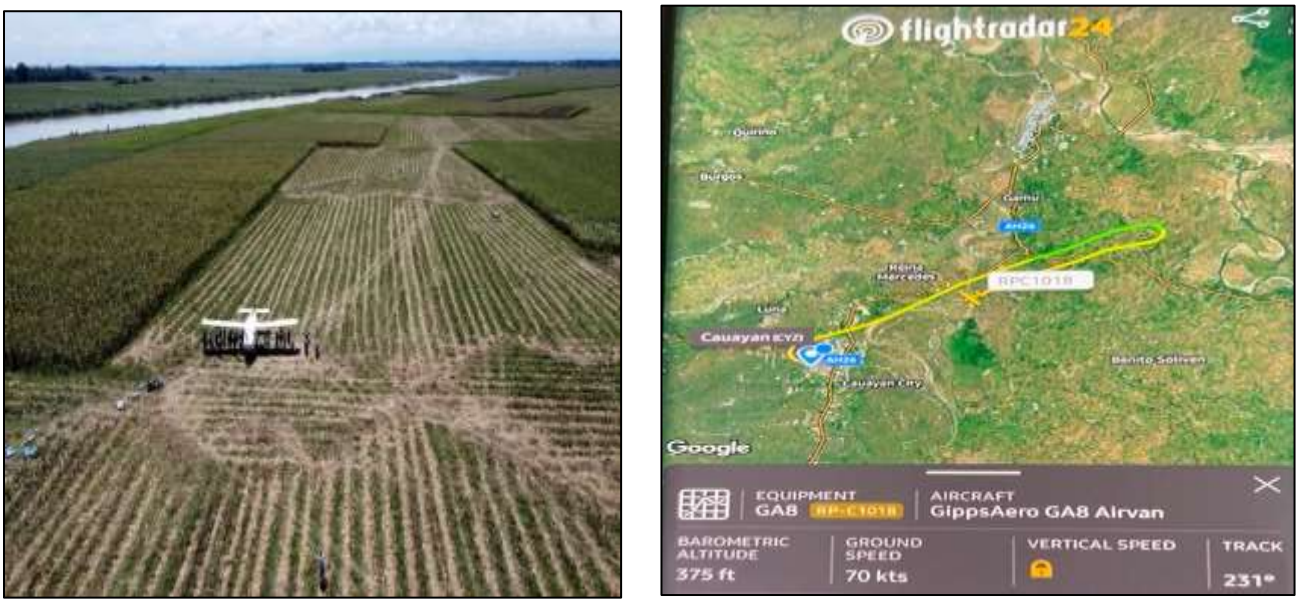

Figure 2 - RP-C1018 impact field and flight path as per Flightradar24.

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1.13 Medical and Pathological Information

On the day of the occurrence, the pilot underwent medical evaluation and drug testing at the Isabela United Doctors Medical Center, Cauayan, Isabela. The drug test results were negative.

On 03 September 2025, the pilot reported to the Office of the Flight Surgeon and Aviation Medicine (OFSAM) for a post-occurrence medical assessment. The OFSAM evaluation determined that no further medical examination was required, and the pilot was found to be medically fit.

1.14 Fire

No post impact fire was noted during on-site investigation.

1.15 Search and Survival Aspects

The occurrence was survivable. The pilot was able to communicate with Cauayan Tower (RPUY) immediately after the engine malfunction and provided information regarding the aircraft's status and intended landing site. As a result, emergency response teams were promptly dispatched to the area. Responding units secured the site, assisted in ensuring occupant safety, and facilitated transport of all passengers to a nearby medical facility for evaluation.

A formal search operation was not required, as the aircraft landed in an accessible harvested cornfield. The location was visible from the surrounding area, and local farmers who witnessed the event were able to guide responders to the site

1.16 Test and Research

During the course of the investigation, a series of functional and component tests were conducted on the aircraft and engine systems to determine possible factors contributing to the in-flight engine malfunction.

The examinations included fuel sampling and analysis, magneto function checks, engine compression tests, and spark plug inspection. The results of these tests were used to assess the operational integrity and serviceability of the engine and its components. A detailed discussion and evaluation of the test findings are presented in the Analysis section of this report.

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1.17 Organizational and Management Information

1.17.1 Operator

WCC Aviation Company, Inc., has an Air Operator Certificate (AOC) #2009015 valid until November 13, 2025 authorized to perform commercial air operations, as defined in the company's Operations Specifications in accordance with the Operations Manual and Part 9 of the Philippine Civil Aviation Regulations, series of 2008. WCC Aviation Company, Inc., Base of Operations is at Barangay Canarvacanan, Binalonan, Pangasinan with a satellite operations located at CAAP Cauayan community airport. The aircraft RP-C1018, is listed on their AOC Operations specification.

1.17.2 Maintenance

The WCC Repair Station is a subsidiary of WCC Aviation Company, Inc., and is a holder of an Approved Maintenance Organization Certificate (AMOC) # AMO-76-09, empowered to operate as an Approved Maintenance Organization in compliance with the requirements of the Civil Aviation Regulation (PCAR) Part 6 with official address at Barangay Canarvacanan, Binalonan, Pangasinan, with limited capability to perform limited airframe and powerplant as listed in the CAAP Approved WCC Aviation Company, Inc. The approved maintenance organization specific operating provisions (AMOSOP) Scope of Work and Capability as revised valid up to January 31, 2028. The maintenance function of RP-C1018 is being undertaken WCC Repair Station Repair Station.

2. ANALYSIS

2.1 General

Following the completion of the first flight of the day, aircraft RP-C1018 underwent a pre-flight inspection conducted by the maintenance personnel prior to its next scheduled flight. The inspection did not reveal any discrepancies or defects, as confirmed by both the maintenance crew and the pilot during pre-departure checks at Cauayan Airport (RPUY).

While en route to Maconacon Airstrip (MCN), the pilot reported hearing a loud bang followed by continuous engine sputtering and observed a gradual decrease in manifold pressure. The pilot immediately advised RPUY Tower of the situation and initiated a turnback toward the departure aerodrome. Subsequently, the aircraft was unable to maintain altitude, and the engine ceased operation completely. The pilot declared an emergency and informed Cauayan ATC of the intention to perform a forced landing in an open field.

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Utilizing available altitude and glide performance, the pilot executed a controlled glide approach and successfully landed the aircraft in a harvested cornfield, approximately 10 kilometers southeast of Cauayan Airport. The aircraft came to a complete stop without loss of control, and all occupants evacuated safely. The sequence of events indicates that the pilot's actions were consistent with standard emergency procedures for an engine power loss under Visual Flight Rules (VFR) conditions, resulting in a successful forced landing and survivable outcome.

2.2 Human Factors

2.2.1 The Pilot

The pilot held a valid pilot license and a current medical certificate issued by the Flight Standards Inspectorate Service (FSIS) of the Civil Aviation Authority of the Philippines (CAAP). His license and qualifications were appropriate for the type of aircraft involved in the occurrence. During the occurrence, the pilot experienced a complete engine power loss while en route under Visual Flight Rules (VFR). Upon recognizing the engine malfunction, the pilot promptly informed Air Traffic Control (ATC), assessed available landing options, and executed a controlled forced landing in a suitable open area.

The pilot's decision-making, situational awareness, and aircraft handling during the emergency were consistent with sound airmanship and emergency management principles. His ability to maintain aircraft control, select an appropriate landing site, and execute a safe landing minimized the potential for injury and structural damage. Overall, the pilot's actions and performance contributed significantly to the favorable outcome of the occurrence, demonstrating effective application of training and experience in handling in-flight engine failure scenarios.

2.3 Operational Factor

2.3.1 On-site Investigation

The on-site examination of aircraft RP-C1018 revealed that the airframe assembly sustained no structural damage as a result of the forced landing. The aircraft remained upright and intact at the occurrence site. Inspection of the engine compartment identified damage localized on the lower left section of the engine assembly (see Figure 3). Examination of the engine accessories showed that the Air Induction Intake System insulation, composed of composite material, was degraded and partially damaged (Figure 4a). Additionally, the left-hand (LH) exhaust muffler shroud system exhibited a detached muffler tube from its muffler shroud assembly (Figure 4b).

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It was assessed that the rupture of the LH exhaust muffler tube resulted in the release of hot exhaust gases into the engine bay, which subsequently damaged the adjacent air induction intake insulation. The degradation of these components likely altered the air-to-fuel ratio and compromised normal combustion, leading to progressive engine roughness and eventual engine stoppage in flight. A ruptured exhaust muffler typically produces abnormal acoustic signatures such as hissing or tapping sounds, accompanied by noticeable loss of engine performance, reduced fuel efficiency, and presence of exhaust fumes in the cabin. The escaping high-temperature gases can also cause thermal damage to nearby insulation, wiring, or other engine accessories, increasing the risk of component failure or fire.

Similarly, a damaged air induction manifold insulation can result in air leakage, affecting the air-to-fuel mixture and causing rough idling, misfiring, loss of power, and poor engine performance. If uncorrected, such a condition may result in engine overheating or, in severe cases, flameout. Evidence suggests that the damage to the exhaust and intake systems developed progressively over time and may have been overlooked during periodic or specific maintenance inspections, as these components are maintained on an “on-condition” basis. During the occurrence flight, the degraded Air Induction Intake System may have been contaminated by exhaust gases escaping from the ruptured muffler tube, causing irregular combustion and engine misfiring that culminated in a complete power loss.

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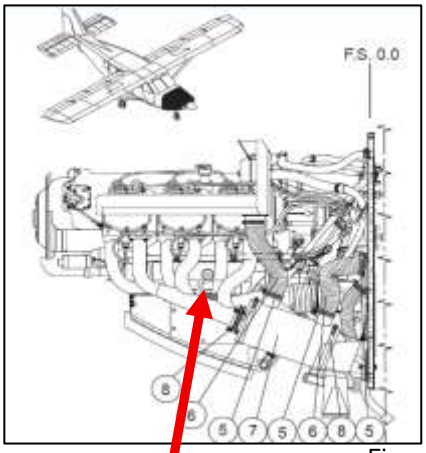

Figure 3 - The aircraft engine.

Figure 4 - The Exhaust Shroud Muffler System and Air Induction System assembly.

Figure 4a - The Air Induction System

Figure 4b - Exhaust Shroud Muffler

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2.3.2 Series of Aircraft and Engine Test

A series of functional and diagnostic tests were conducted on the aircraft and its engine components to determine whether any mechanical or fuel system anomalies contributed to the in-flight engine malfunction.

2.3.2.1 Fuel Sampling

Fuel samples were collected from both main fuel tanks and the fuel line leading to the Fuel Control Unit (FCU) to evaluate the possibility of fuel contamination as a causal factor. Testing was performed using a CASRI Water Detector, a specialized device widely accepted in the aviation industry for detecting the presence of free water in aviation gasoline (AVGAS). The CASRI test employs water detection capsules, where non-contaminated fuel produces a yellowish-green color, while water-contaminated fuel results in a dark green color change (see Figure 5a).

Fuel samples were placed in transparent containers (Figure 5b) and tested sequentially, including a control sample deliberately contaminated with water for comparison. The test results indicated no presence of free water or particulate contamination in the fuel samples obtained from both the fuel tanks and the FCU supply line. The fuel quality was therefore assessed to be within acceptable limits, eliminating fuel contamination as a contributing factor to the engine malfunction (Figure 5).

Figure 5a - CASRI water detection capsules.

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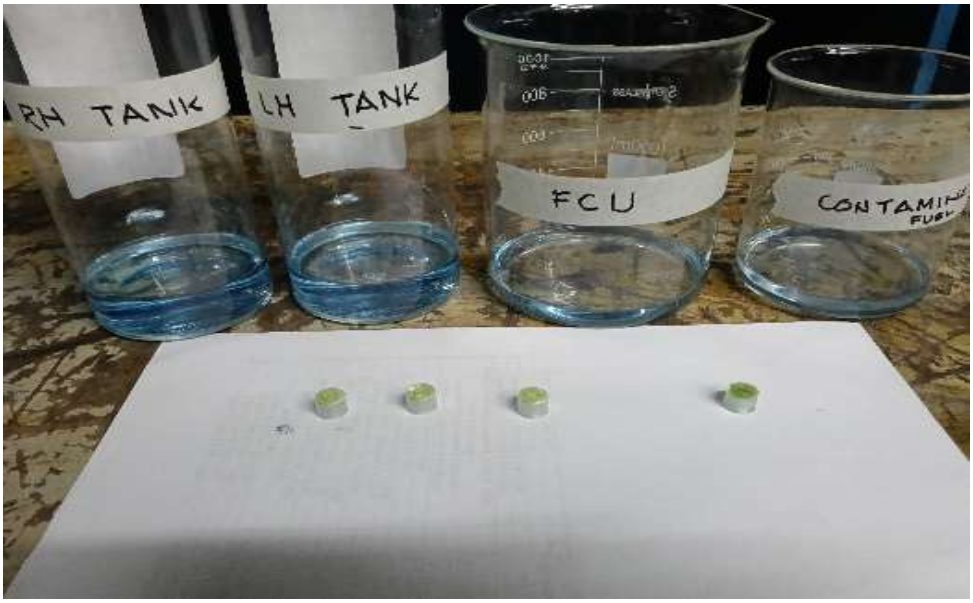

Figure 5b - Fuel in clear container.

Figure 5 - No fuel contamination.

2.3.2.2 Magneto Check

The magneto system, which forms part of the aircraft's ignition system, is responsible for generating the electrical current that ignites the air–fuel mixture in the engine cylinders. Any malfunction in this system may result in engine roughness, power loss, or complete engine failure. An interview with the pilot indicated that during the flight, he observed a drop in engine revolutions per minute (RPM) coinciding with engine sputtering prior to the complete loss of power. This observation prompted further examination of the magneto assemblies.

Both left and right magnetos were removed and bench-tested using an impulse coupling/electrical drill setup to verify power generation capability. The

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magnetos produced consistent electrical output during the test, indicating normal operational performance (see Figure 6). Based on the test results, the ignition system, including both magnetos, was assessed to be serviceable. The engine malfunction was therefore not attributed to a failure of the ignition system.

Figure 6 - Magneto Check.

2.3.2.3 Compression Check/Testing

Compression testing is an effective diagnostic method for assessing the mechanical condition of an aircraft engine, particularly in determining cylinder wear, valve seating integrity, and piston ring condition. Although the procedure is relatively simple, it provides valuable insight into potential internal mechanical damage or loss of power due to inadequate compression.

During the on-site investigation, a manual rotation of the propeller was conducted to verify the presence of compression in each cylinder and to assess the engine's internal mechanical continuity. The engine demonstrated normal compression resistance in all cylinders, indicating no evidence of internal seizure, valve malfunction, or piston damage. This finding supports that, prior to the in-flight engine stoppage, the engine's mechanical integrity and compression performance were within normal operational limits. Based on these results, it was concluded that the engine failure was not caused by a loss of compression or any internal mechanical defect related to the piston–cylinder assembly.

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Figure 7 - Compression check.

2.3.2.4 Spark plug inspection

Following the on-site investigation, the engine was removed from the aircraft and transported by air to the operator's Approved Maintenance Organization (AMO) facility located at WCC Aviation Company, Binalonan, Pangasinan, on 02 September 2025.An ignition system inspection, specifically focusing on the spark plug assemblies, was conducted at the AMO facility.

A total of twelve (12) spark plugs were removed from the engine for examination. The inspection results revealed that four (4) spark plugs were clean and serviceable, while eight (8) spark plugs exhibited heavy carbon deposits on the electrodes and insulator areas. The presence of carbon fouling indicates incomplete combustion, which can lead to reduced ignition efficiency, engine misfiring, and loss of power output during flight. These conditions may have contributed to the progressive degradation of engine performance prior to the in-flight power loss. The fouling was assessed as likely progressive in nature, possibly resulting from rich fuel mixture operation, inadequate combustion temperature, or prolonged low-power settings during previous flights, and may not have been fully detected during routine maintenance checks.

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Figure 8 - The engine prepared for ignition/sparkplug inspection.

2.4 Organizational Factor

2.4.1 Maintenance Routine Inspection

The investigation revealed that pre-flight inspections were being carried out by maintenance personnel prior to the first flight of the day using the prescribed Pre-flight Inspection Checklist (Figure 9). The checklist primarily covers external visual inspection of the airframe, control surfaces, and general aircraft condition in a 360° walk-around. However, it does not require the removal of engine cowlings, thereby limiting visibility and accessibility to internal engine components.

As result, potential fuel or oil leaks, deterioration of insulation materials, or incipient mechanical discrepancies within the engine compartment could not be detected during the routine pre-flight inspection. The operational assessment of the engine's condition was therefore based solely on the monitoring of instrument indications (e.g., oil pressure, oil temperature, and manifold pressure) during engine start and ground run, which may not necessarily reveal underlying mechanical degradation.

The investigation determined that the engine malfunction encountered during the flight was attributable to the deterioration of the Air Intake System insulation and the rupture of the left-hand (LH) Exhaust Muffler Shroud System tube. These components are classified as "on-condition" items, meaning that their replacement or repair is contingent upon observable defects or performance degradation identified during inspection.

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Review of the aircraft maintenance records indicated that both the 50-hour and annual inspections were performed in accordance with the maintenance program. However, there was no specific task requirement to verify the integrity of the Air Intake System insulation or the Exhaust Muffler Shroud assembly unless physical damage or performance issues were observed.

This limitation in the inspection scope likely contributed to the undetected progressive deterioration of these components over time, culminating in engine malfunction and subsequent in-flight power loss. The findings suggest a need to review and enhance inspection procedures for on-condition components, particularly within the engine exhaust and induction systems, to ensure early detection of material fatigue or degradation.

SKYPASADA
See the North. Lipad na!

WCC aviation company

ATTACHMENT 2
Pre-flight Inspection Checklist
(1/3)

REVISION 0

SkyPasada

GA8 AIRVAN
PREFLIGHT INSPECTION CHECKLIST

WCC Form No. RS-PFC-GA8 Series 2019 REV. 0

AIRCRAFT REGISTRY NO.: _____ DATE: _____

AIRCRAFT SERIAL NO.: _____

Figure 9 - GA8 checklist.

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2.4.2 Safety Oversight

After the on-site investigation and concluded that the cause of the serious incident was due to the failure of reciprocating non-mechanical engine components. An immediate inspection of the aircraft possessed by the Operator deployed in the different parts of the country was undertaken. The result was the three (3) aircraft was already experiencing a semblance of the incident aircraft experienced. There are already indicators such burnt inside the cowling, corrosion in tube muffler connection.

Review of the maintenance program concerning GA8 aircraft engine components showed that the items involved was "On-Condition" (OC) components. The process of "On-Condition"/Condition Monitored Components maintenance is applied to items (e.g. an aircraft engine and a wooden aircraft propeller) on which a determination of their continued airworthiness can be made by visual inspection, measurements, tests or other means without disassembly inspection or overhaul. A type of aircraft maintenance in which parts are replaced only when their condition in such that they appear to be no longer airworthy.

The difference between Time-Change-Item components is when it reaches the required time; it may be overhauled or completely change regardless whether it is still airworthy. In contrast, On-Condition maintenance allows routine inspections, but parts and systems that operate within limits are left untouched. Periodic checks ensure that systems are functioning within safe operating limits. The specific system goes through the maintenance process at the indication of a defect.

The inspections conducted dealt with the monitoring of the OC items. These components are replaceable when it is not airworthy through visual inspection. Consulting the maintenance program, a safety oversight in coordination with components manufacturer should be initiated to establish a life cycle for engine components listed as OC. It may be an added maintenance expense on the part of the operator but still economical in terms of safety precautions.

2.5 Environmental Factor on the Flight

Based on the weather information from the Cauayan Community Airport Air Traffic Ground Station, it shows that the wind is calm, visibility of 9 kilometers and scattered clouds above 2,000 feet AMSL with temperatures and dew point of 30 degrees and 27 degrees Celsius respectively plus light haze on all quadrants. Upon observation of this data, the pilot carries on with the flight.

Data from Philippine Atmospheric Geophysical and Astronomical Services Administration (PAGASA) using the Doppler radar image shows the weather pattern

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over the country on the day of the occurrence indicating fair weather formation along the area of Cauayan community airport (Figure 10).

Based on the weather forecast during the day, the weather was not a factor to the serious incident.

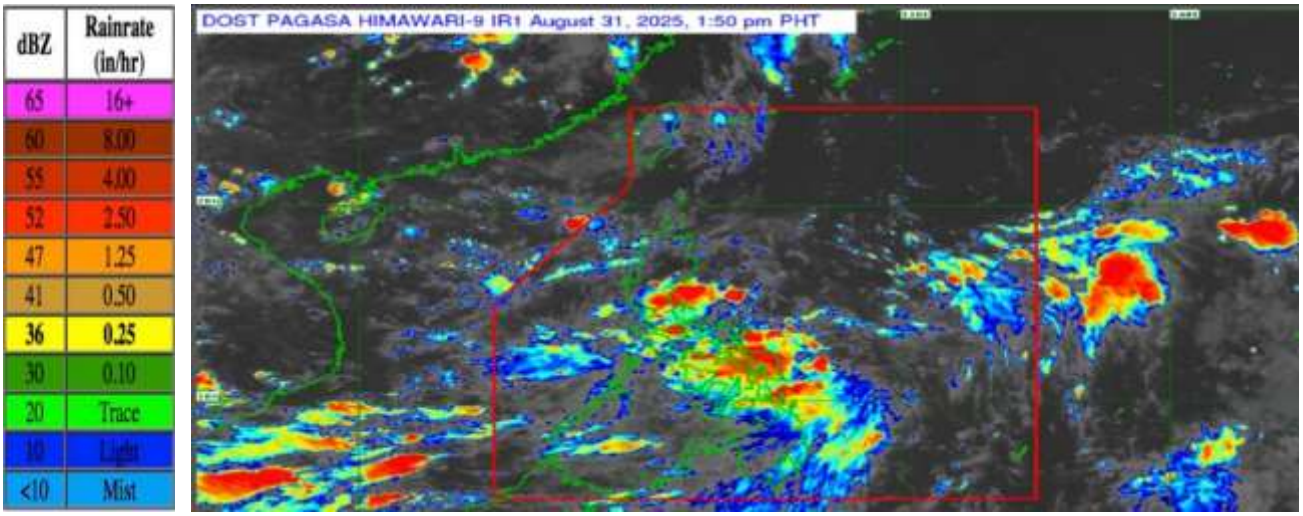

Figure 10 - PAGASA RADAR weather image of the area of occurrence.

3. CONCLUSIONS

3.1 Findings

a. The pilot was duly trained, qualified, and current on the GippsAero GA8 Airvan aircraft type.
b. The pilot held a valid pilot license issued by the Licensing and Certification Department (LCD) and a valid medical certificate issued by the Office of the Flight Surgeon and Aviation Medicine (OFSAM), CAAP.
c. The pilot successfully executed a forced landing in a harvested cornfield, resulting in minor aircraft damage and no injury to the occupants.
d. Visual Meteorological Conditions (VMC) prevailed at the time of the occurrence.
e. The aircraft was released for flight serviceable and without any recorded discrepancy on the day of the occurrence.
f. The aircraft possessed a valid Certificate of Airworthiness and Certificate of Registration issued by the Civil Aviation Authority of the Philippines (CAAP).
g. Post- occurrence inspection revealed damage to the Air Induction System insulation and rupture of the left-hand (LH) Exhaust Muffler Shroud tube.
h. Functional testing of both engine magnetos demonstrated normal operation and electrical output.
i. Fuel sampling from both aircraft fuel tanks and the Fuel Control Unit (FCU) indicated no evidence of fuel contamination.

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3.2 Probable Cause

3.2.1 Primary Cause Factor

a. Engine power loss due to thermal and mechanical deterioration of the Air Induction System insulation and ruptured LH Exhaust Muffler Shroud, resulting in contamination of the intake airflow and eventual loss of engine power in flight (material failure).

3.2.2 Contributory Factor

a. Limited scope of pre-flight and periodic inspections, which did not require removal of engine cowlings for internal examination.

4 SAFETY RECOMMENDATION

4.1 The safety deficiencies detailed in this report have been fully addressed, because of the safety measures implemented by the Operator. Consequently, no further safety recommendations are being proposed.

5 SAFETY ACTIONS

5.1 During the course of the ongoing investigation, the Aircraft Accident Investigation and Inquiry Board (AAIIB) has identified safety issues that warrant immediate attention to prevent recurrence and enhance operational safety. In response, the AAIIB issues the following safety recommendations for prompt implementation by Operator through the regulatory oversight of the Flight Standards Inspectorate Service (FSIS):

5.1.1 The operator should conduct immediate visual inspections on all GA8 Airvan aircraft in its fleet to ensure that the engine Air Induction Intake and the LH Exhaust Muffler Shroud System do not exhibit damage similar to that identified in the ongoing investigation.

Operator's Action taken**:** Conducted inspection of other fleet of aircraft deployed in different parts of the country to assess noted findings after the on-site investigation.

5.1.2 The operator should amend its pre-flight inspection checklist to require a visual inspection of the Air Induction Intake and the LH Exhaust Muffler Shroud System prior to the first flight of the day.

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Operator's actions taken: Amended and included in the revised Pre-flight inspection checklist the mandatory visual engine inspection of engine compartment during first flight of the day for clear monitoring of engine accessories. (App A1).

5.1.3 The operator should develop and implement a reliability-based maintenance program for on-condition engine accessories, including the Air Induction Intake and LH Exhaust Muffler Shroud System.

Operator's Actions taken: Initiated the development and implementation of reliability-based maintenance program focusing on addressing on-condition engine accessories for replacements and maintenance actions. (App A2).

------**END**------

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ATTACHMENT 2

Revised Pre-flight Inspection Checklist
(2/3)

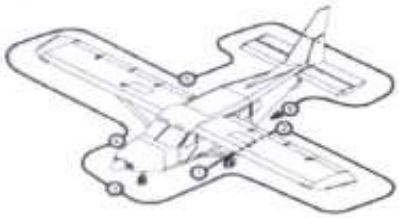
REVISION 1

SkyPasada

GA8 AIRVAN PREFLIGHT INSPECTION CHECKLIST	WCC Form No. RS-PFC-GA8 Series 2025 REV. 1

AIRCRAFT REGISTRY NO.: _____ **DATE:** _____

AIRCRAFT SERIAL NO.: _____



(1) IN COCKPIT		
Magnetos	OFF	
Master Switch Bus 1 and Bus 2	ON	
Volts Bus 1 and Bus 2	CHECK	
Fuel	ON	
Alternator Warning Light	CONFIRM ON	
Caution Warning Panel	CHECK ALL LIGHTS	
Nav/Landing Lights	ON/OFF	
Stall Warning	CHECK	
Master Switch Bus 1 and Bus 2	OFF	
Mixture	IDLE CUT OFF	
Trim	CYCLE	
Alternate Static (If fitted)	NORMAL SOURCE	
Harnesses and Seats	CHECK CONDITION	
Windshield	CLEANLINESS	
Cockpit Area	GENERAL CONDITION	
Loose Objects	SECURE	
Cockpit Doors/Latches	CONDITION & OPERATION	
(2) LEFT WING / LEFT CENTRE FUSELAGE		
Wing Fuel Tank Drain	DRAIN	
Flap	DOWN, CONDITION, HINGES & SECURITY	
Aileron	CONDITION, HORNS, HINGES & SECURITY	
Wingtip	CONDITION & NAV/LANDING LIGHTS	
Pitot Head	UNOBSTRUCTED & UNOBSTRUCTED	
Leading edge	DAMAGE & CONDITION	
Wing Strut and Fairings	CONDITION & SECURITY	
Fuel Contents	NOTED AS REQUIRED	

Fuel Cap	SECURE	
Undercarriage	SECURITY & OBVIOUS DEFECTS	
Tires	INFLATION & CONDITION	
Brake Assembly	CONDITION, PADS, CALIPER & HOSE	
(3) ENGINE / PROPELLER / NOSE GEAR		
Engine Cowling LH/RH Side Panel	CONDITION AND SECURITY	
Engine Air Outlets/Inlets	CHECK FOR OBSTRUCTION	
Exhaust System	CONDITION & SECURITY	
Oil	QUANTITY /DIPSTICK SECURE	
Accessible Engine Components	CONDITION & SECURITY	
Propeller	OIL LEAKS, NICKS & DAMAGE	
Spinner	CONDITION & SECURITY	
Lower Cowling LH/RH Side Panel	CONDITION & SECURITY	
Nose Wheel/Tire	CONDITION & INFLATION	
Nose Strut	CONDITION & OIL LEAKS	
(4) RIGHT WING/ RIGHT CENTRE FUSELAGE		
Wing Fuel Tank Drain	DRAIN	
Sump Tank Fuel Drain	DRAIN	
2x Fuel Strainer Drains	DRAIN	
Undercarriage	SECURITY AND OBVIOUS DEFECTS	
Tyres	INFLATION & CONDITION	
Brake Assembly	CONDITION, PADS, CALIPER & HOSE	
Fuel Contents	NOTED OR AS REQUIRED	
Fuel Cap	SECURE	
Wing Strut and Fairings	CONDITION & SECURITY	
Leading Edge	DAMAGE & CONDITION	
Wingtip	CONDITION & NAV/LANDING LIGHTS	
Flap	CONDITION, HINGES & SECURITY	
Aileron	CONDITION, HORNS, HINGES & SECURITY	
Fuel Vent	CHECKED & CLEAR	
Fuel vent Elevator Drain	CHECKED & CLEAR	
(5) REAR FUSELAGE / EMPENNAGE		
Rear FuseLage Skins	Condition	
Inspection Panels	Secure	
Fairings	Condition & Security	
Stabilizer	Condition & Security	
Elevators	Condition & Security	
Rudder	Condition & Security	

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SAFETY ACTIONS RELATIVE TO RP-C1018 INCIDENT

I.BACKGROUND

a. On August 31, 2025 at approximately 1054H, SKYPASADA aircraft RP-C1018, a GippsAero GA8 Airvan, departed Cauayan Airport (CYZ) bound for Maconacon Airport (MCN) the aircraft airborne at 0254Z and was approximately five miles out of Cauayan and forced landed in a cornfield located at Brgy. District 1, Reina Mercedes, Isabela.

After the incident, Col. Alberto C. Dulay, PAF (RET) conducted a follow up investigation on September 3, 2025. Upon completion, the AAIIB release the custody of the RP-C1018 to our end as their investigation has already completed.

During the course of the investigation, specific safety concerns were identified requiring immediate action to prevent recurrence and enhance operational safety.

II.SAFETY ACTIONS IMPLEMENTED

a. **Safety Recommendation No. 25C10-1018-SR1**
GA8 Airvan Fleet Visual Inspections *(See Attachment 1)*
- Conducted immediate **visual inspections** on all GA8 Airvan aircraft in the fleet.
- Special emphasis placed on the **Air Induction Intake** and **LH Exhaust Muffler Shroud System** to verify their integrity.

b. **Safety Recommendation No.25C10-1018-SR2**
Revision of Pre-Flight Inspection Checklist *(See Attachment 2)*
- Amended the **pre-flight inspection checklist** to require a **mandatory visual check** of exposed areas
- This ensures **daily monitoring** of these components prior to the first flight of the day.

c. **Safety Recommendation No.25C10-1018-SR3**
Reliability-Based Maintenance Program *(See Attachment 3)*
- Initiated the development and implementation of the **Reliability-Based Maintenance Program** focusing on on-condition engine accessories across the GA8 Airvan fleet, in response to the *Safety Recommendation* **CAAP FSIS.**
- The program is built upon **MSG-3 and Reliability-Centered Maintenance (RCM)** principles and incorporates **Failure Mode and Effects Analysis (FMEA), Mean Time Between Failures (MTBF)** calculations, **Statistical Process Control (SPC),** and **trend monitoring** to support predictive maintenance.
- Developed a structured implementation plan involving data-driven inspections, functional checks, and defined removal criteria for critical accessories such as the **Air Induction Intake** and **LH Exhaust Muffler Shroud System.**

III.CONCLUSION

WCC Aviation Company, Inc. – SkyPasada reaffirms its unwavering commitment to the highest standards of aviation safety. The corrective and preventive measures outlined in this report, **based on the safety recommendations of CAAP FSIS,** were implemented promptly to address the identified safety concerns, minimize the risk of recurrence, and enhance maintenance reliability. Moving forward, SkyPasada will continue to strengthen its safety culture, refine its inspection and maintenance systems, and ensure full compliance with regulatory requirements in support of safe and reliable operations.

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