

**AIRCRAFT ACCIDENT AND INCIDENT  
INVESTIGATION AND PREVENTION BUREAU  
(AIB GHANA)**



---

**FINAL REPORT ON ACCIDENT INVOLVING SKY  
ARROW 650T MICROLIGHT AIRCRAFT  
REGISTRATION 9G-ADV, WHICH OCCURRED AT  
COMMUNITY 1, TEMA**

**16<sup>TH</sup> MARCH, 2026.**

---

**FINAL AIRCRAFT ACCIDENT REPORT  
AIB/2026/03/16/ACCID**

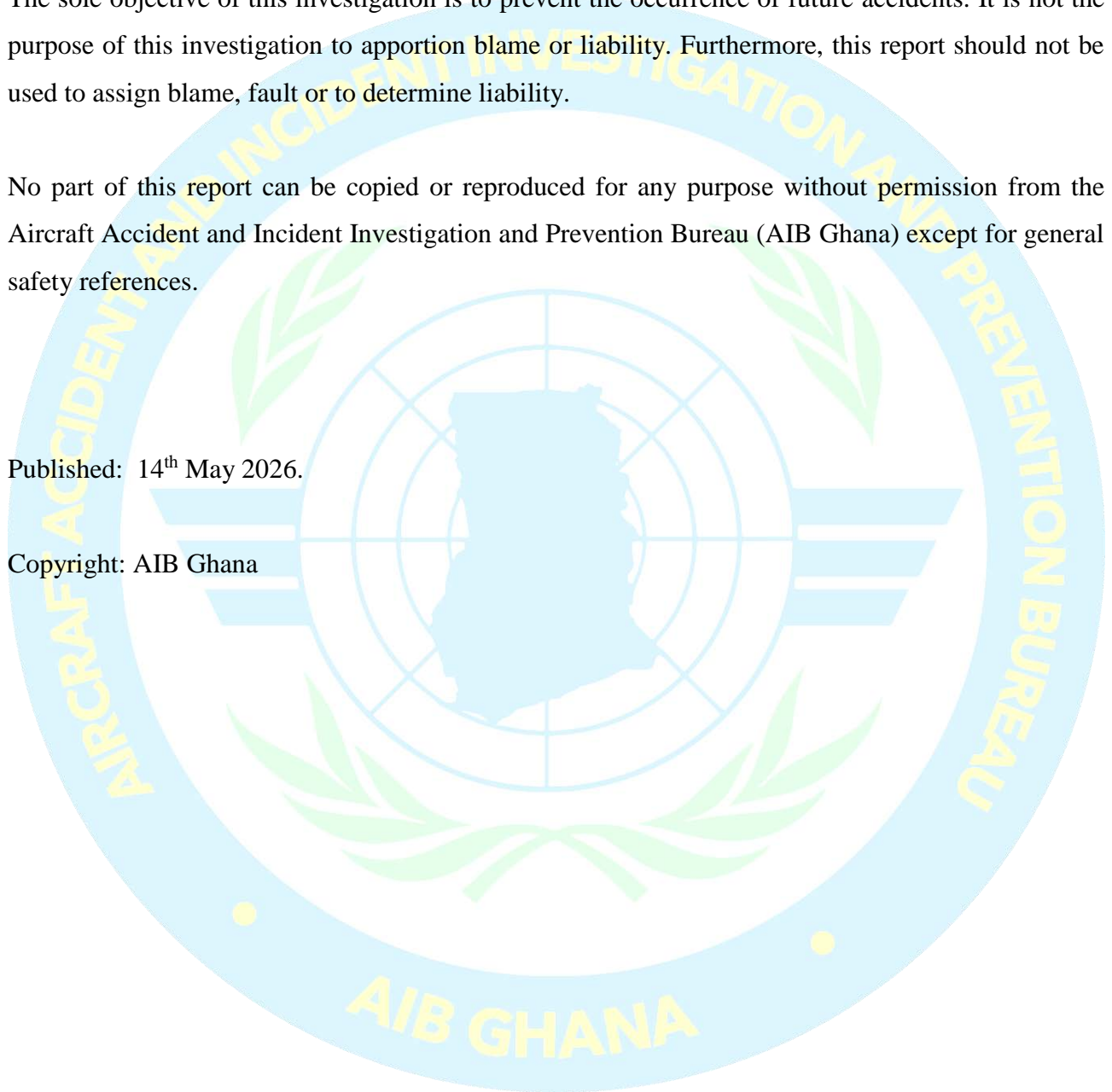
This investigation was conducted by the Aircraft Accident and Incident Investigation and Prevention Bureau (AIB Ghana) in accordance with ICAO Annex 13 Standards and Recommended Practices, the Aircraft Accident and Incident Investigation and Prevention Bureau Act, 2020 (Act 1028) and the Aircraft Accident and Incident Investigation and Prevention Regulations 2024 (L.I 2483).

The sole objective of this investigation is to prevent the occurrence of future accidents. It is not the purpose of this investigation to apportion blame or liability. Furthermore, this report should not be used to assign blame, fault or to determine liability.

No part of this report can be copied or reproduced for any purpose without permission from the Aircraft Accident and Incident Investigation and Prevention Bureau (AIB Ghana) except for general safety references.

Published: 14<sup>th</sup> May 2026.

Copyright: AIB Ghana



## CONTENTS

<b>GLOSSARY.....</b>	<b>V</b>
<b>INTRODUCTION.....</b>	<b>1</b>
<b>SYNOPSIS.....</b>	<b>2</b>
<b>1.0 FACTUAL INFORMATION.....</b>	<b>4</b>
1.01 AIRCRAFT HISTORY .....	4
1.1 HISTORY OF FLIGHT .....	4
1.2 INJURIES.....	6
1.3 DAMAGE TO AIRCRAFT .....	6
1.4 OTHER DAMAGES .....	7
1.5 PERSONNEL INFORMATION OF THE PILOT.....	7
1.5.1 Previous Flight History.....	7
1.6 AIRCRAFT INFORMATION .....	8
1.6.1 Aircraft.....	8
1.6.2 Engine .....	8
1.7 METEOROLOGICAL INFORMATION .....	8
1.8 AIDS TO NAVIGATION .....	8
1.9 COMMUNICATION .....	9
1.10 AERODROME INFORMATION.....	9
1.11 FLIGHT RECORDERS .....	9
1.12 WRECKAGE AND IMPACT INFORMATION .....	9
1.13 MEDICAL AND PATHOLOGICAL INFORMATION.....	9
1.14 FIRE .....	9
1.15 SURVIVAL ASPECTS .....	10
1.16 TEST AND RESEARCH.....	10
1.16.1 Aircraft Fuel Sample Test.....	10
1.17 ORGANIZATIONAL AND MANAGEMENT INFORMATION .....	10
1.18 ADDITIONAL INFORMATION .....	10
1.18.1 Aircraft Configuration .....	10
1.18.2 Engine cooling system description and diagram.....	12
1.18.3 In-flight Emergencies (Engine Failure).....	12

1.18.4 Engine overheating indications (warnings) description and diagram ..... 13

1.18.5 ATC Search and Rescue Alert Messages ..... 15

1.18.6 AIB Ghana Act 2020 (Act 1028) Section 22 – Notification of Aircraft Accidents... .15

1.19 USEFUL OR EFFECTIVE INVESTIGATION TECHNIQUES ..... 16

**2.0 ANALYSIS ..... 17**

2.1 HUMAN FACTORS..... 17

2.2 MACHINE ..... 19

2.3 ENVIRONMENT ..... 20

2.4 ORGANIZATIONAL AND SYSTEMIC FACTORS..... 20

**3.0 CONCLUSION..... 22**

3.1 FINDINGS ..... 22

3.2 CAUSES ..... 22

3.3 CONTRIBUTORY FACTORS ..... 23

**4.0 SAFETY RECOMMENDATIONS ..... 24**

**APPENDIX 1: COMMENCEMENT LETTER..... 25**

**APPENDIX 2: REQUEST FOR RELEVANT DOCUMENTS..... 26**

**APPENDIX 3: APPOINTMENT OF ACCREP AND ADVISOR BY STATE OF MANUFACTURE ..... 28**

**APPENDIX 4: NOTIFICATION OF ACCIDENT..... 29**

**APPENDIX 5: APPOINTMENT OF FOCAL PERSONS BY GCAA ..... 30**

**APPENDIX 6: 9G-ADV FLIGHTS FROM 14<sup>TH</sup> JANUARY 2026 TO 15<sup>TH</sup> MARCH 2026 ... 31**

**APPENDIX 7: FUEL TEST REPORT ..... 32**

**APPENDIX 8: EXTRACT FROM GCAA ACCIDENT REPORT ON 9G-ADV ..... 36**

..... 37

**APPENDIX 9: EXTRACTS FROM ACCRA ATC TRANSCRIPTS FOR DGAA TO DGAH FLIGHT ON 16<sup>TH</sup> MARCH 2026..... 38**

**APPENDIX 10: RADAR PLAYBACK FROM ATC AND FLIGHT PROFILE ..... 39**

..... 40

**APPENDIX 11: EXTRACT FROM TRANSCRIPT OF INTERVIEW WITH EXPERT  
MAINTENANCE WITNESS STATEMENT.....41**

**APPENDIX 12: REQUEST FOR TEST FLIGHT PERMIT AND FERRY FLIGHT PERMIT  
.....42**

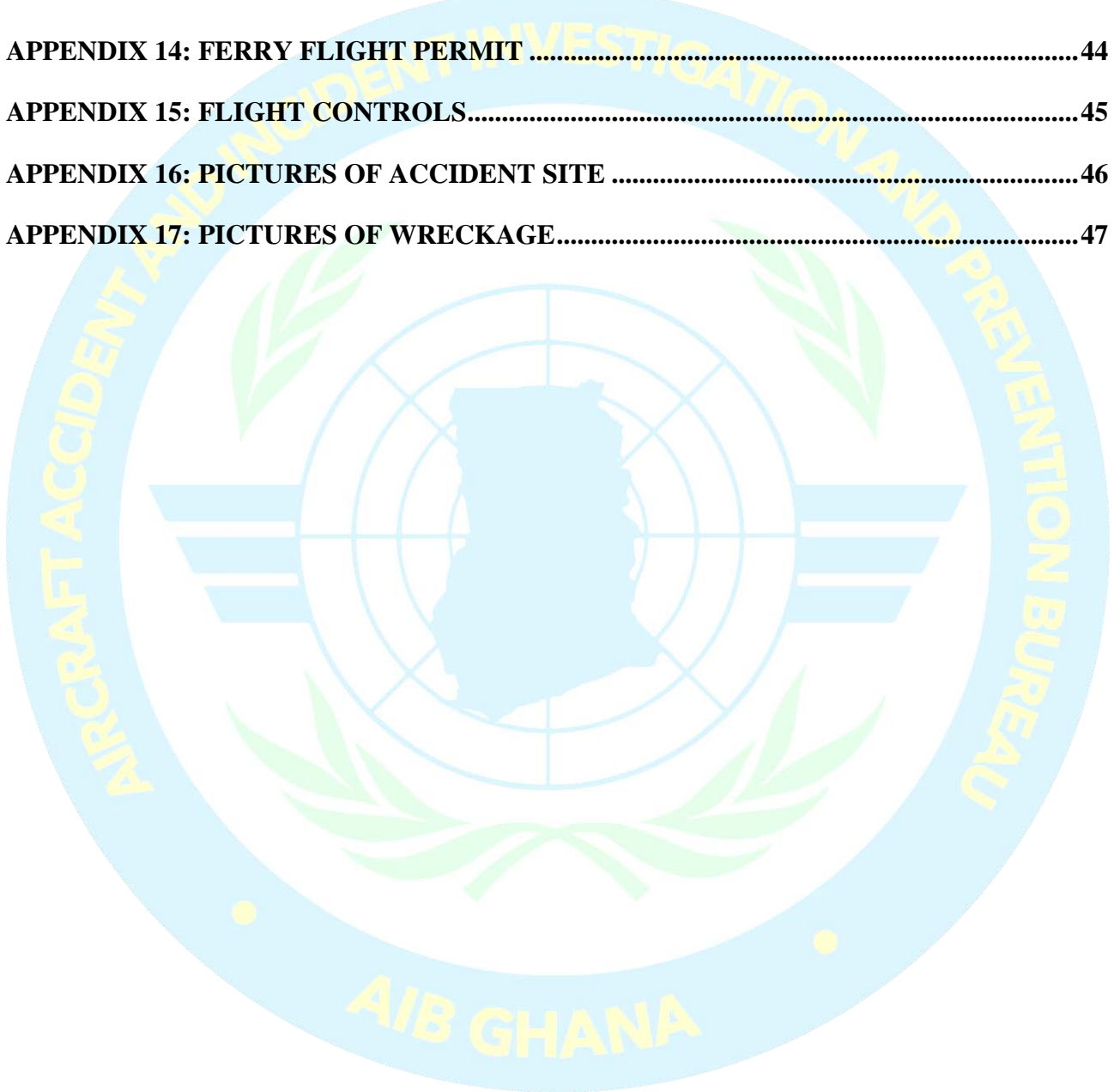
**APPENDIX 13: TEST FLIGHT PERMIT.....43**

**APPENDIX 14: FERRY FLIGHT PERMIT .....44**

**APPENDIX 15: FLIGHT CONTROLS.....45**

**APPENDIX 16: PICTURES OF ACCIDENT SITE .....46**

**APPENDIX 17: PICTURES OF WRECKAGE.....47**



## GLOSSARY

AIB Ghana	-	Aircraft Accident and Incident Investigation and Prevention Bureau, Ghana
ACCREP	-	Accredited Representative
AFM	-	Airplane Flight Manual
AFTN	-	Aeronautical Fixed Telecommunication Network
AMHS	-	Aeronautical Message Handling System
ATC	-	Air Traffic Control
ADs	-	Airworthiness Directives
AVGAS 100LL	-	Low Lead Aviation Gasoline
CCTV	-	Closed-Circuit Television
CHT	-	Cylinder Head Temperature
COSPAS-SARSAT	-	Cosmicheskaya Sistema Poiska Avariynykh Sudov – Search and Rescue Satellite-Aided Tracking
DGAA	-	Accra International Airport
DGAH	-	Ho Airport
GCAA	-	Ghana Civil Aviation Authority
GCADs	-	Ghana Civil Aviation Directives
GHAPPHA	-	Ghana Ports and Harbours Authority
GNFS	-	Ghana National Fire Service
ICAO	-	International Civil Aviation Organization
MOGAS	-	Motor Gasoline
NADMO	-	National Disaster Management Organization
NCA	-	National Communications Authority
N/A	-	Not Applicable
PED	-	Portable Electronic Device
POH	-	Pilot's Operating Handbook
PIC	-	Pilot-in-Command
PIT	-	Preliminary Investigation Team
RON95	-	Research Octane Number 95
SAR	-	Search and Rescue
SARPs	-	Standards and Recommended Practices
SBs	-	Service Bulletins

- STC - Supplementary Type Certificate
- TMA - Tema Metropolitan Assembly
- UTC - Universal Coordinated Time
- VFR - Visual Flight Rules
- VMC - Visual Meteorological Conditions



**FINAL ACCIDENT REPORT REF: AIB/2026/03/16/ACCID**

**Registered Owner and Operator:** Private

**Aircraft Type:** Fixed Wing Microlight

**Nationality:** Ghanaian

**Registration:** 9G-ADV

**Location of Accident:** TMA Day Care School, Community 1, Tema

**Date & Time:** Monday, 16<sup>th</sup> March 2026 at 1457UTC

**INTRODUCTION**

At 1457 UTC on the 16<sup>th</sup> of March 2026, a microlight aircraft (registration 9G-ADV) had an accident at the TMA Day Care School near the Oninku School Park, Community 1, Tema during an attempted emergency landing. Apart from the two (2) occupants in the aircraft who sustained fatal injuries, there were no other injuries.

AIB Ghana received notification of the accident through the media and promptly sent a Preliminary Investigation Team (PIT) to the crash site to secure the wreckage and protect perishable evidence.

Upon completion of the PIT's work at the crash site, the Bureau promptly moved the wreckage to a secure location.

The Commissioner, AIB Ghana, immediately instituted an investigation team made up of five (5) investigators and three (3) observers in accordance with the provisions of ICAO Annex 13 Standards and Recommended Practices (SARPs), with the objective of determining the causes and contributing factors of the accident for the purpose of preventing future occurrences and not to apportion blame or liability.

Ghana Civil Aviation Authority appointed two (2) focal persons to work with the investigation team and the State of Manufacture of the aircraft (Italy) appointed an Accredited Representative and an Advisor to participate in the investigation.

The investigation commenced on the 17<sup>th</sup> of March 2026 and has issued four (4) Safety Recommendations in this Final Report.

**SYNOPSIS**

Aircraft 9G-ADV departed Accra International Airport at 0645 UTC on Monday, 16<sup>th</sup> March 2026, on a flight to Ho Airport, with a planned return flight to Accra later the same day.

There were two persons on board the aircraft: the Pilot and his younger brother. The outbound flight was uneventful, and the aircraft arrived at Ho Airport at 0757 UTC. Following arrival, the Pilot and his younger brother proceeded to Ho township and subsequently returned to the Ho Airport at 1216 UTC with twenty (20) litres of RON 95 fuel in preparation for the return flight to Accra.

9G-ADV was refuelled with the twenty (20) litres of fuel, after which the Pilot conducted a 13-minute local flight accompanied by a friend who had met them at Ho Airport. Upon landing, white smoke was observed emanating from the aircraft engine while taxiing to the parking position. No corrective action was taken in response to the observed white smoke.

Approximately fifteen (15) minutes after parking, the aircraft taxied for departure on the return flight to Accra with the Pilot and his younger brother on board. Shortly after take-off, the Pilot contacted Air Traffic Control (ATC) and requested clearance to return to Ho Airport due to technical difficulties. Following the landing, the Pilot reported experiencing engine overheating and conducted a visual inspection of the aircraft engine, with particular attention to the engine coolant system. The Pilot indicated that the coolant expansion chamber level was satisfactory, and no additional defects were identified during the inspection. No maintenance action was requested or performed.

Approximately thirty (30) minutes after landing, the Pilot requested departure clearance and subsequently departed Ho Airport again at 1337 UTC for the return flight to Accra.

Accra Radar tracked the aircraft from approximately 60 nautical miles to 10 nautical miles from Accra, where the accident later occurred. During this period, the aircraft was observed operating at varying altitudes between 3,400 feet and 100 feet.

While flying over Tema, aircraft 9G-ADV was observed attempting an emergency landing. During a subsequent landing attempt, the aircraft's engine most likely failed. The aircraft was then seen in a left bank attitude shortly before loss of control and impact with the ground within the premises of

TMA Day Care School in Community 1, Tema, at 1457 UTC. Throughout the flight, 9G-ADV did not make any distress or an emergency call.

The impact was immediately followed by a post-crash fire, which engulfed the aircraft. The fire was contained promptly, limiting further damage to the surrounding area; however, the aircraft was destroyed. Following the extinguishing of the fire, both occupants were recovered from the wreckage with fatal injuries. No additional casualties were reported.



## 1.0 FACTUAL INFORMATION

### 1.01 Aircraft History

The aircraft was sold by Iniziativa Industriali Italiane (the company whose industrial property Magnaghi Aeronautica acquired in 2011) in Italy, with serial number 103, on 5<sup>th</sup> May, 1996. It was registered in Ghana in the same year and was initially operated by the Sankofa Aeroclub based at Afienva in the Greater Accra Region.

In 2001, custody of the aircraft was transferred to the Ghana Armed Forces. Following requests by the registered owner, the aircraft was returned to its private owner in 2022. Since its return, the aircraft with registration 9G-ADV, has undergone multiple maintenance activities, flight tests, and regulatory authorizations, all conducted with the approval of the Ghana Civil Aviation Authority (GCAA).

On 21<sup>st</sup> December 2022, the aircraft engine was replaced, after which a Permit-to-Fly was issued. The most recent major maintenance inspection was completed on 31<sup>st</sup> December 2025. Subsequently, the GCAA conducted an inspection on 14<sup>th</sup> January 2026 as part of the process to issue a Permit-to-Fly. A Flight Test Permit number ADV230 was issued in January 2026 to allow the aircraft to undergo operational verification flights. This permit expired on 26<sup>th</sup> January 2026.

A subsequent Flight Test Permit number ADV235 was issued on 9<sup>th</sup> March 2026, with an expiration date of 21<sup>st</sup> March 2026. Additionally, a Ferry Flight Permit number ADV236 was issued on 9<sup>th</sup> March 2026, also expiring on 21<sup>st</sup> March 2026, to authorize the relocation of the aircraft from Accra to Ho. These flight permits were issued in response to a request from the Operator of the aircraft to relocate the aircraft to Ho to mitigate the high costs of parking and handling the aircraft in Accra (Appendix 12).

### 1.1 History of Flight

Aircraft 9G-ADV departed Accra International Airport (DGAA) for Ho Airport (DGAH) at 0645 UTC. The aircraft arrived at DGAH at 0757 UTC without incident. The Pilot and his younger brother proceeded to Ho township and later returned to the aerodrome with twenty (20) litres of fuel (RON 95) in preparation for the return flight to DGAA.

The aircraft was refueled with the twenty (20) litres and the Pilot conducted a local flight with a friend who met them at Ho Airport. The friend occupied the pilot seat whilst the Pilot occupied the rear seat behind him. After landing, white smoke was seen emanating from the aircraft engine as it taxied to its parking position.

White smoke from the engine could be the result of:

- *Engine oil seeping into cylinders*
- *Coolant leak into the combustion chamber*
- *Gearbox or oil pump leaks*

No known maintenance action was taken to address the white smoke.

Fifteen (15) minutes after parking, the aircraft taxied for take-off to DGAA with the Pilot still in the rear seat and his younger brother in the pilot seat in front. Shortly after take-off, the Pilot contacted Air Traffic Control (ATC) and requested clearance to land back at DGAH for technical reasons. After landing, while taxiing to the ramp, the engine stopped and the aircraft was pushed to the parking area.

The Pilot reported after landing that he had experienced engine overheating in-flight and proceeded to conduct a visual inspection of the aircraft engine, with particular attention to the engine coolant. The Pilot indicated that the coolant expansion chamber level was satisfactory and no further defect was identified during this inspection. The Pilot indicated his intention to the friend to proceed with the flight after the limited inspection performed on the engine which subsequently led to the Pilot splashing water with the intention of cooling the engine. Thirty (30) minutes after landing, the Pilot requested for takeoff. The aircraft took off from DGAH for the return flight to DGAA at 1337 UTC.

Accra Radar captured the aircraft from 60 to 10 nautical miles from Accra (where the accident occurred) flying at different altitudes between 3400ft and 100ft. Whilst flying over Tema township, witnesses observed the aircraft flying at a low altitude. The Pilot was seen in an attempt to signal to school children playing on their school field to vacate the field to enable the aircraft to make an emergency landing. Unfortunately, the school children misunderstood the intentions of the aircraft and happily waved back at the aircraft and continued playing on the field. The attempted landing was therefore aborted. During a subsequent forced landing (a specific type of emergency landing where flight is no longer possible) attempt, the aircraft

was observed in a left bank attitude shortly before it lost control and impacted the ground within the premises of TMA Day Care School in Community 1, Tema near the Oninku School Park.

The final flight path of the aircraft passed by several trees before clipping part of the roof of the Day Care Centre and finally impacting a single tree at a dumpsite located between two of the Day Care buildings which had a plastic water tank on site. The site was a confined space with a walled perimeter fence. The impact was immediately followed by a post-crash fire, which engulfed the aircraft. Emergency response personnel arrived at the scene and successfully extinguished the fire. The fire was contained in a timely manner, which limited further damage to the surrounding area, although the aircraft was destroyed. The occupants were recovered from the wreckage with fatal injuries.

There is no record of the aircraft advising ATC of an intention to make an emergency landing or of declaring a distress or an emergency.

## 1.2 Injuries

Injuries	Crew	Passengers	Total in the aircraft	Others
Fatal	1	1	2	NIL
Serious	NIL	NIL	NIL	NIL
Minor	NIL	NIL	NIL	NIL
None	NIL	NIL	NIL	NIL
<b>TOTAL</b>	1	1	2	NIL

## 1.3 Damage to Aircraft

The aircraft was destroyed as a result of the impact and subsequent post-crash fire. The aircraft sustained severe structural damage upon ground impact, followed by an intense fire that consumed significant portions of the airframe, the engine and the propellers. The extent of deformation, fragmentation, and fire damage to the fuselage, and associated systems was such that the aircraft was rendered beyond economical repair.

In accordance with the provisions of the International Civil Aviation Organization (ICAO) Annex 13, the level of damage meets the criteria for classification as “destroyed,” as

the main structural elements and systems were extensively compromised and the aircraft could not be restored to an airworthy condition.

#### 1.4 Other Damages

The aircraft impacted within the premises of TMA Day Care School, Community 1, Tema, resulting in damage to portions of the school grounds and surrounding property.

The post-impact fire caused localized burning of surface materials within the immediate crash site. There was also damage to part of the roofing of the school building.

Emergency response actions successfully contained the fire, thereby preventing further spread and limiting damage.

#### 1.5 Personnel Information of the Pilot

Certificate:	Commercial Pilot License (Expiration Date: 31 <sup>st</sup> January 2029)
Airplane Rating(s):	Single-Engine Land
Other Aircraft Rating(s):	Aeroplane: Single-Engine Land; Instrument - Aeroplane
Instrument Rating(s):	Single-Engine Instrument
Instructor Rating(s):	Yes (Expiration Date: 31 <sup>st</sup> March 2028)
Medical Certification:	Class 1
Occupational Pilot:	N/A
Total Flight Hours/ PIC:	1375.03hrs/ 1241.53hrs (as at 31 <sup>st</sup> December 2025)
Age:	35
Seat Occupied:	Rear
Last GCAA Medical Exam:	3 <sup>rd</sup> February 2026
Last Flight Review or Equivalent	20 <sup>th</sup> October 2025

##### 1.5.1 Previous Flight History

The Pilot conducted fourteen (14) flights between the 14<sup>th</sup> of January, 2026 and the 15<sup>th</sup> of March 2026 (Appendix 6).

## 1.6 Aircraft Information

### 1.6.1 Aircraft

Type:	Sky Arrow 650T
Serial No.:	103
Manufacturer:	Iniziativa Industriali Italiane
	Now: Magnaghi Aeronautica, Italy
Year of Manufacture:	1996
Registration Markings:	9G-ADV
Total flight hours:	Not Available
Special Flight Permit (Test Flight # ADV235):	Valid from 9 <sup>th</sup> March 2026 – 21 <sup>st</sup> March 2026
Special Flight Permit (Ferry Flight # ADV236):	Valid from 9 <sup>th</sup> March 2026 – 21 <sup>st</sup> March 2026

### 1.6.2 Engine

Type:	Rotax 912 ULS 2- 01
Manufacturer:	Rotax
Engine Serial Number:	9143846
Installation date:	21 <sup>st</sup> December 2022
Engine Hours/ Cycles Since	Not Available
Installation:	
Fuel:	MOGAS (RON 95) or AVGAS 100LL
Propeller:	3 blades Duc Helices FLASH 2

## 1.7 Meteorological Information

Daylight Visual Meteorological Conditions (VMC) with light winds.

## 1.8 Aids to Navigation

VFR Flight

**1.9 Communication**

Radio communication with ATC was initially intermittent to 9G-ADV. Though ATC could clearly hear the aircraft, the aircraft indicated on several occasions that he could not hear ATC transmissions.

**1.10 Aerodrome Information**

Not Applicable

**1.11 Flight Recorders**

Not Applicable

**1.12 Wreckage and Impact Information**

Crew injuries:	1 - Fatal
Passenger Injuries:	1 - Fatal
Ground Injuries:	0
Total Injuries:	2 - Fatal
Aircraft Damage:	Destroyed
Aircraft Fire:	Yes
Aircraft Explosion:	Yes
Location:	TMA Day Care School, Community 1, Tema

**1.13 Medical and Pathological Information**

N/A

**1.14 Fire**

Reports from eyewitnesses show that the accident aircraft upon impact burst into flames. The fire caused severe damage to the aircraft. The Ghana National Fire Service response time to the accident site was within three (3) minutes of the accident. The fire engulfed the nearby materials. Local Responders upon arrival at the site, attempted to douse the fire using water.

### 1.15 Survival Aspects

The fire delayed the evacuation of the occupants of the aircraft till it was under control. Both occupants did not survive the accident. The pupils of the TMA Day Care School were quickly evacuated from the school building following the fire outbreak as a result of the crash.

### 1.16 Test and Research

#### 1.16.1 Aircraft Fuel Sample Test

Fuel Sample Test completed. The fuel quality was satisfactory. Results in Appendix 7.

### 1.17 Organizational and Management Information

Not Applicable

### 1.18 Additional Information

#### 1.18.1 Aircraft Configuration

The aircraft was equipped with dual control sticks, dual rudder pedals and dual throttle control as indicated in Fig 1. The flight and engine instruments were located on the forward instrument panel in the cockpit. Though the rear seat was elevated, its occupant was denied the full access to switches and instrumentation required for the operation of the aircraft especially in emergencies.

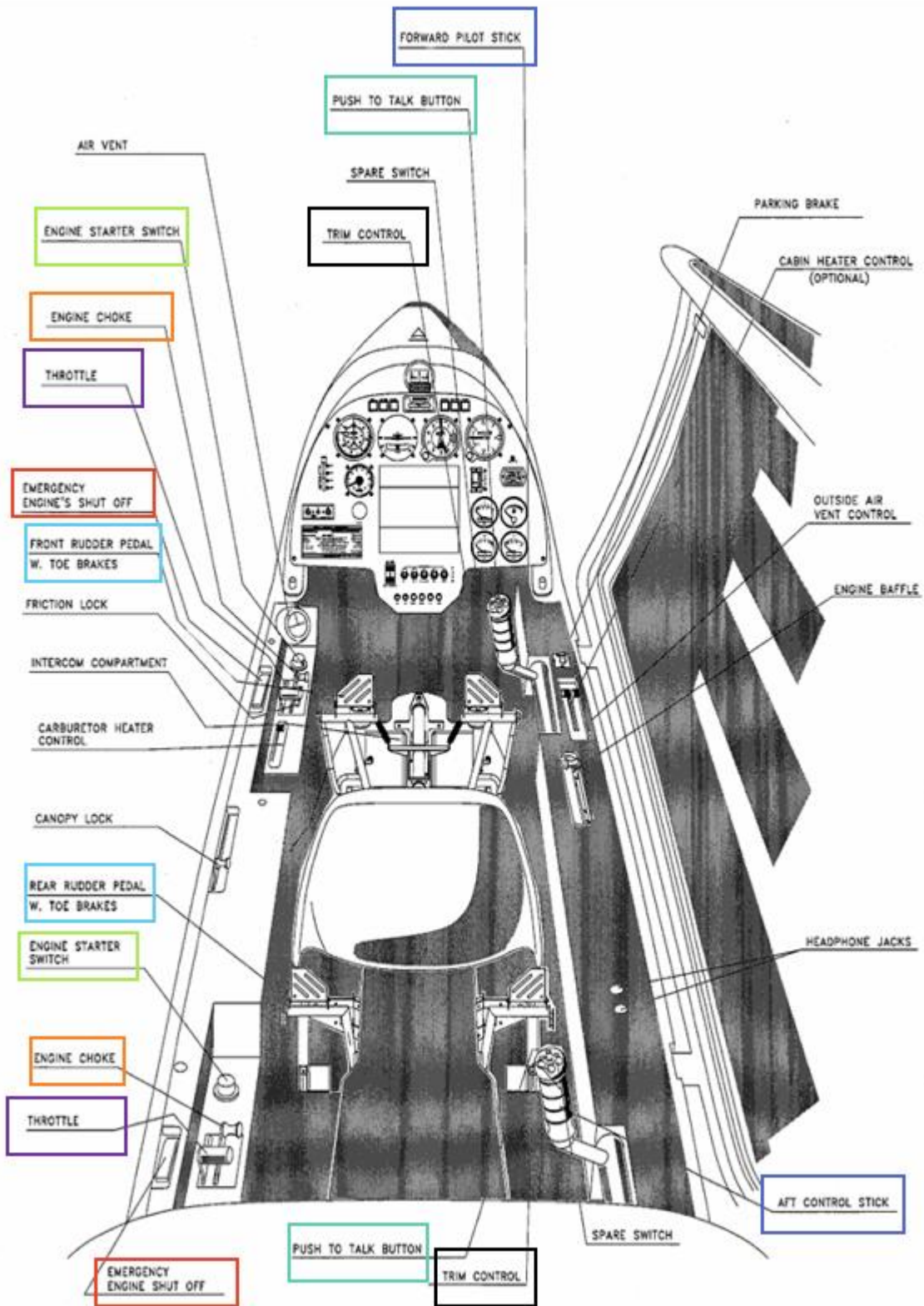


FIG 1: AIRCRAFT DUAL CONTROLS SCHEMATIC

### 1.18.2 Engine cooling system description and diagram

The front air intake on the engine cowling guarantees the necessary air to cool the oil and coolant radiators and to cool the cylinders and the feed through-filters of the two carburetors. On the lower side of the engine nacelle, there are two dynamic air ports to cool the exhaust compartment. Hot air escapes through two vents on the lower back side of the nacelle and it is made easier by the suction created by the turning propeller. Cooling of the cylinder heads is accomplished by the circulation of the coolant caused by an engine operated pump. The coolant quantity can be checked by means of level notches on the reservoir. The cooling radiator is mounted in the lower side of the front air intake inside the engine cowling. A schematic of the system is showed in Fig 2.

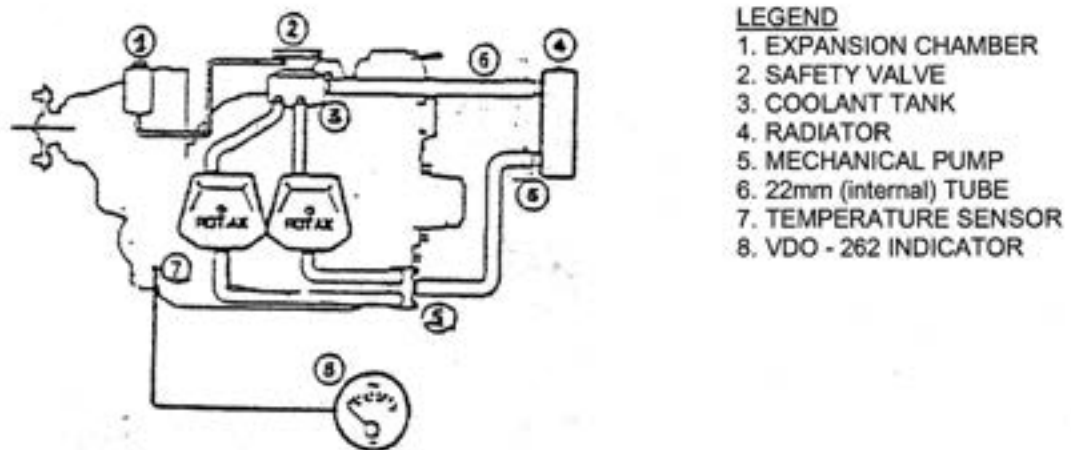


FIG 2: ENGINE COOLING SYSTEM SCHEMATIC

### 1.18.3 In-flight Emergencies (Engine Failure)

Section 6 (6.4) of the Pilot Operating Handbook and Airplane Flight Manual (POH/AFM) of the Sky Arrow 600 Sport provides information regarding aircraft emergencies, warnings or alerts associated with particular emergencies and procedures to follow once the emergency has been identified.

Paragraph 6.4 in Section 6 of the POH/AFM lists the following symptoms for an in-flight emergency with respect to the engine during lighting up of one of the warning lights in flight.

**A. Lighting up of one of the warning lights****Oil pressure and/or temperature**

- |   |                                  |
|---|----------------------------------|
| 1. Analog indicator                                     | CHECK                            |
| 2. If pressure/temperature is normal (green range)      | warning light is malfunctioning  |
| 3. If pressure / temp. is out of green range            | REDUCE POWER to minimum required |
| 4. Land   | ASAP                             |
| 5. Be prepared for engine failure and emergency landing |                                  |

**Cylinder heads temperature**

- |   |   |
|---|---|
| 1. Analog indicator                                     | CHECK   |
| 2. If temperature is normal (green range)               | Warning light is malfunctioning   |
| 3. If temp. is out of green range (yellow or red range) | CHECK that the engine baffle is open (MAX cooling), REDUCE POWER to minimum required and dive, if possible, to increase speed |
| 4. If temp. does not return to green range              | Land ASAP and be prepared for engine failure and emergency landing  |

**Generator**

- |   |  |
|---|--|
| 1. BREAKER                              | SWITCH OFF and ON  |
| 2. If the problem persists              | SWITCH OFF the generator switch  |
| 3. All unnecessary electrical equipment | TURN OFF to save electrical energy   |
| 4. Land ASAP                            | Keep in mind that the battery insures power to all necessary electrical equipment (ignition, flaps, fuel pump, trim and engine instruments) for about 30'. |

**1.18.4 Engine overheating indications (warnings) description and diagram**

The standard model is equipped with red warning lights that signal when the oil pressure, oil temperature and cylinder heads temperature (CHT) have reached dangerous levels or when the generator is not supplying enough energy. Location of the warning lights on the instrument

panel is illustrated in Fig 3. The alarms operate at the following limits: oil temperature oil pressure cylinder heads temperature (CHT) generator output > 266 °F + 9 °F (>130 °C + < 22 psi (1.5 bar) > 266 °F + 9 °F (> 130 °C + 5 °C) 5 °C) < 12V

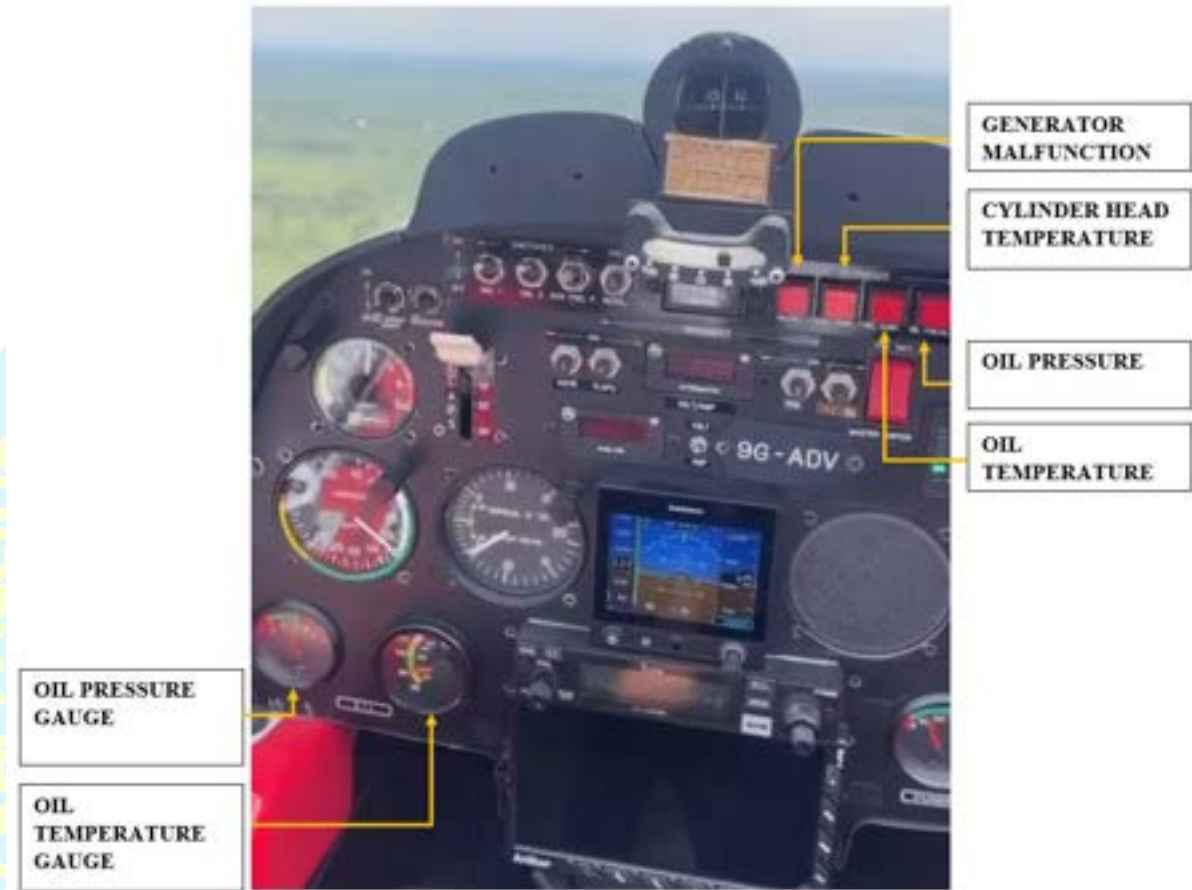


FIG 3: INSTRUMENT PANEL LAYOUT - CONFIGURATION

AIB GHANA



FIG 4: NORMAL CONDITIONS OBSERVED IN-FLIGHT WITH FRIEND AT DGAAH ON 16TH MARCH 2026



FIG 5: ABNORMAL CONDITIONS OBSERVED IN-FLIGHT AT 1432 UTC ON DGAAH - DGAA FLIGHT ON 16TH MARCH 2026

#### 1.18.5 ATC Search and Rescue Alert Messages

An extract from the Ghana Civil Aviation Authority accident report on 9G-ADV dated March 2026, page 6 (Appendix 8) states that “The Aerodrome controller upon receiving the information on the crash, informed the Search and Rescue (SAR) manager who in turn activated the SAR processes by informing the NADMO, GHAPOHA Fire, Ghana Police and GHFS Tema.”

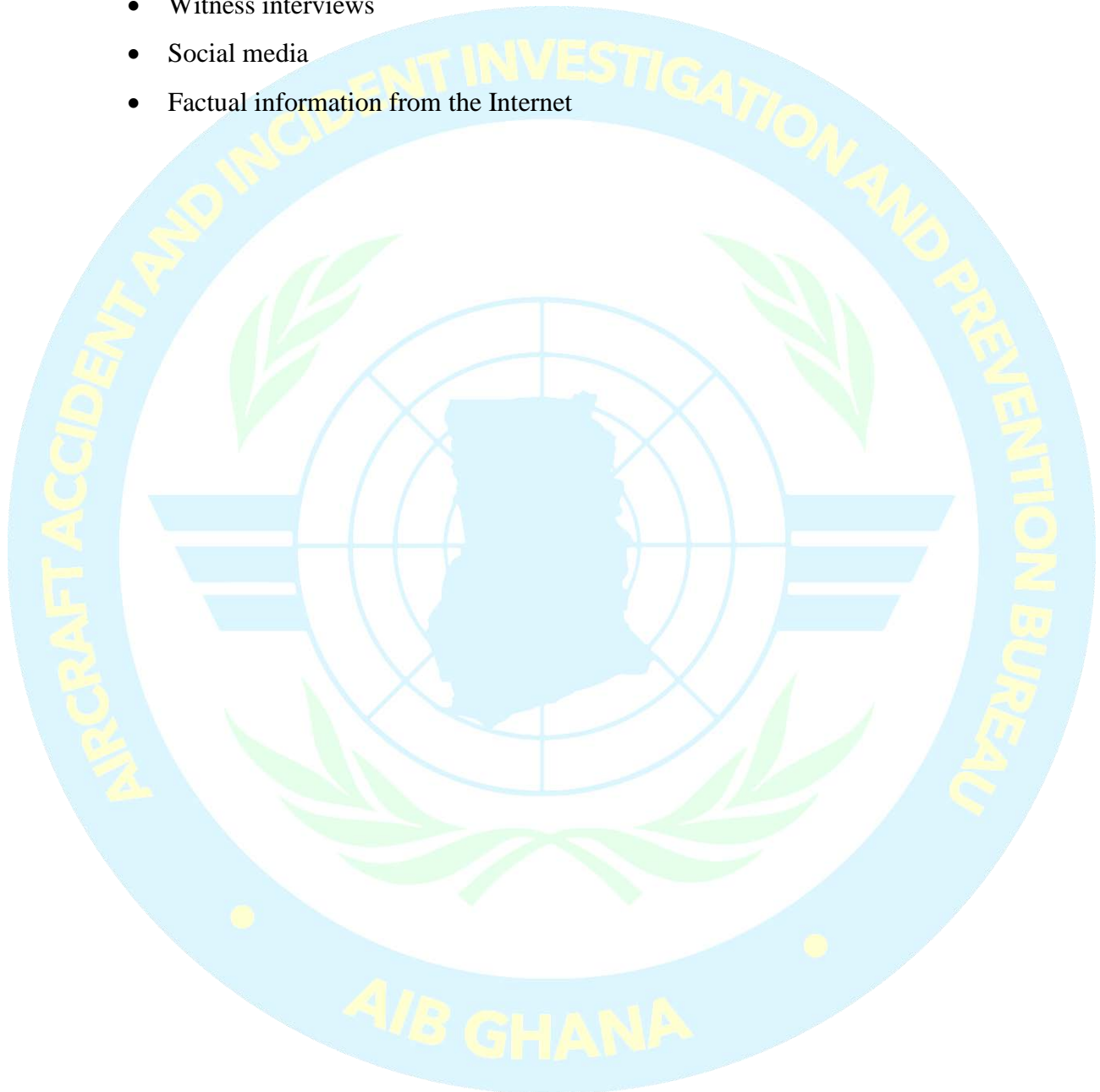
#### 1.18.6 AIB Ghana Act 2020 (Act 1028) Section 22 – Notification of Aircraft Accidents...

Act 1028 Section 22 subsection 1 states in part “the following persons shall immediately notify the Bureau of an aircraft accident or incident by the most rapid means of communication available:

- c) the air traffic controller

### 1.19 Useful or Effective Investigation Techniques

- CCTV footage
- Information obtained from accredited media house interviews with eye witnesses
- Use of drones for data collection at the Accident Site to preserve perishable data
- Witness interviews
- Social media
- Factual information from the Internet



## 2.0 ANALYSIS

### 2.1 Human Factors

The aircraft had a test flight permit which authorized the aircraft to operate from DGAA to DGAA and a ferry flight permit which authorized the aircraft to fly only from DGAA to DGAH (Appendices 13 and 14). His decision to fly from DGAA to DGAH and back as reflected in his start-up clearance request from DGAA was not in conformity with the flight permit he had received from GCAA (Appendix 9). There was no flight permit authorizing the aircraft to fly from DGAH back to DGAA. The three (3) flights by 9G-ADV from DGAH on Monday 16<sup>th</sup> March 2026 were all unauthorized flights as they did not have the requisite flight permits.

The aircraft performed a short flight (13 minutes) at DGAH with a friend in the Pilot's seat. Upon landing, a witness account of white smoke emanating from the aircraft engine was not addressed. The subsequent flight which resulted in the aircraft's return to DGAH due to engine overheating was also not properly attended to. Following the limited inspection performed on the engine, the Pilot splashed water onto the engine and then proceeded with the flight with his brother in the pilot's seat.

The investigation determined that since the test flight permit number ADV 235 (Valid from 9<sup>th</sup> March – 21<sup>st</sup> March 2026) and ferry flight permit number ADV 236 (Valid from 9<sup>th</sup> March – 21<sup>st</sup> March 2026) issued by GCAA authorized 9G-ADV to only perform a test flight from DGAA to DGAA and a ferry flight to DGAH, the short flight at DGAH and the flight from DGAH destined to DGAA were not authorized flights.

The decision to have non-pilots seated at the pilot station and the qualified Pilot seated in the rear seat which denied the Pilot full access to switches and instrumentation required for the operation of the aircraft especially in emergencies was noted with concern by the investigation.

The disregard of the possible consequences of the white smoke emanating from the engine after the first short flight at DGAH, the cursory inspection of the engine coolant following the engine overheat in flight, the non-reference to professional maintenance action or opinion and the decision not to wait for the engine to cool down prior to the subsequent flight were

indicative to the investigation of a likely lack of understanding of the severity of the engine fault or a reflection of the non-compliance of the Pilot to standard operating procedures.

The investigation noted that during pre-flight operations, transit checks, pre-departure checks and during the flight from DGAH to DGAA, the Pilot engaged in the non-operational use of his personal cellphone at different periods. The Pilot's personal texting activities were a possible source of distraction and interruptions. These distractions coupled with his lack of full access to the instruments and switches due to his seating position would have been a challenge to his ability to perform efficiently.

Through the exchange of communication during the flight, a picture of the cockpit instrument panel which was sent to a friend was obtained by the investigation which shows the aircraft engine overheating twenty-five (25) minutes prior to the accident. It is most likely that the engine had been overheating for a period of time.

Interruptions play a role in lapses of attention that occur especially when safety critical activities need to be performed during aircraft abnormal or emergency situations. It is therefore possible that the Pilot's non-operational use of his PED and seating position contributed to the lack of awareness of the developing seriousness of the engine problem.

There is no record of the aircraft advising ATC that it was in distress, that it intended to make an emergency landing or of the aircraft declaring an emergency at any time of the flight. The aircraft's final flight profile captured by Accra Radar (Appendix 10) shows the aircraft passing through 800 feet at a rate of descent of 500ft/min twenty-five (25) minutes prior to the accident. The Pilot was engaged in communication with a friend and did not indicate at that time that the aircraft was in distress. His subsequent climb to 200 feet from 100 feet which he maintained for approximately eight (8) minutes before climbing to 500 feet may have influenced the Pilot not to declare an emergency.

There were open parks close to where the aircraft crashed. The most likely reason why the Pilot ended up in the confined crash site was because he did not have an operating engine to enable him maneuver the aircraft to a more suitable landing site.

Professional Pilot training instructs pilots to declare an emergency or at the least to declare a distress message to ATC in the event of a possible engine failure and/or when there is a need to execute a forced or emergency landing. This alerts the emergency services to be ready for any eventuality to save the lives of occupants in the aircraft, any casualties on ground and promptly bring any resultant fire, etc. under control. The decision by the Pilot not to make a distress call or declare an emergency as soon as he realized he was in a distress/emergency stage of flight denied the aircraft and the general public the benefit of the prompt attention of the full complement of emergency services.

The investigation has also determined that the final rapid descent from 500 feet till the accident was most likely due to an engine failure caused by engine overheating and did not give the Pilot the opportunity at that stage of flight to declare an emergency.

## 2.2 Machine

The Pilot after landing from the first thirteen (13) minutes flight at DGAH with the friend was informed of white smoke emanating from the engine by an observer and confirmed by CCTV footage. Following the second takeoff from DGAH with DGAA as the destination, the Pilot returned with a reported engine overheating and whilst taxiing to the ramp, the engine stopped and the aircraft was pushed to the parking area.

The Pilot's awareness of the white smoke emanating from the engine after the previous flight coupled with his knowledge of the history of the engine overheating should have given him ample warning of the possibility of an engine failure and provided him the opportunity to delay or cancel the flight in order to consult a qualified technical personnel or maintenance facility. The actions of the Pilot in inspecting the coolant level and splashing water on the engine were not the recommended troubleshooting procedures.

As indicated in Appendix 11, the engine installed on the 9G-ADV had a history of overheating problems. In the light of the above, the investigation considers the overlooking of the engine overheating by the Pilot to be a matter of major concern.

Based on the engine related malfunctions at DGAH, the engine overheating history, the picture of the aircraft engine instruments indicating overheating of the Cylinder Head in flight twenty-five (25) minutes prior to the accident and the sudden loss of height prior to the crash, the investigation has determined that the engine most likely failed during the subject flight.

### 2.3 Environment

The area available for the aircraft to have made an emergency landing due to its engine malfunction was the relatively populated flat terrain area in the Tema Community 1 metropolis. The Pilot rightly identified the Oninku School Park as the most suitable location to attempt the emergency landing and proceeded towards the park.

The Oninku School Park, where the aircraft initially attempted to land had school children playing which appeared to have prevented the aircraft from proceeding to land there. The Pilot was seen in an attempt to signal to school children playing on their school field to vacate the field to enable the aircraft to make an emergency landing. Unfortunately, the school children misunderstood the intentions of the aircraft and happily waved back at the aircraft and continued playing on the field. The attempted landing was therefore aborted.

During a subsequent attempt at landing, the aircraft was observed in a left bank attitude shortly before it lost control and impacted the ground within the premises of TMA Day Care School in Community 1, Tema near the Oninku School Park. The final flight path indicates that the aircraft passed by several trees before clipping part of the roof of the Day Care Centre and finally impacting a single tree at a dumpsite located between two of the Day Care buildings which had a plastic water tank on site. The site was a confined space with a walled perimeter fence.

### 2.4 Organizational and Systemic Factors

It is likely that ad-hoc maintenance and repair providers were used on the 9G-ADV aircraft. Observation of the operational, maintenance and repair conditions prescribed by the manufacturer is a crucial factor concerning the reliability of the aircraft and its engine.

The investigation noticed that the test flight permit and the ferry flight permit issued by GCAA indicated a validity period and conditions to be satisfied in order to conduct such a flight. By flying with his brother or friend in the aircraft, it was a violation of condition number four (4) on both permits (Appendices 13 and 14).

The investigation has determined that whilst the Regulator issues the flight permits, it would be appropriate that any operational restrictions/ limitations deemed necessary for safe traffic management are communicated to ATC, including the nature of their flight and their special authorized conditions. The investigation has established that it is not a requirement for the Regulator to notify ATC of the flight permits.

The investigation has also not found any record of monitoring of the operations of the 9G-ADV to ensure compliance to the conditions of the respective permits. The Regulator would have benefited from the assistance of the airport management both at Ho and Accra if they had been notified of the flight permits with their conditions.

The Aerodrome Controller upon receiving the information on the crash, informed the Search and Rescue Manager who in turn activated the SAR process by informing NADMO, GHAPOHA Fire, Ghana Police Service and the GNFS. AIB Ghana was however not notified.

Contrary to the 2020 AIB Ghana ACT 1028 Section 22 (1c), the Air Traffic Controller and the ATC Search and Rescue Manager did not notify AIB Ghana. This non-compliance delayed AIB Ghana's arrival at the accident site and contributed to the loss of perishable evidence from the crash site.

### 3.0 CONCLUSION

#### 3.1 Findings

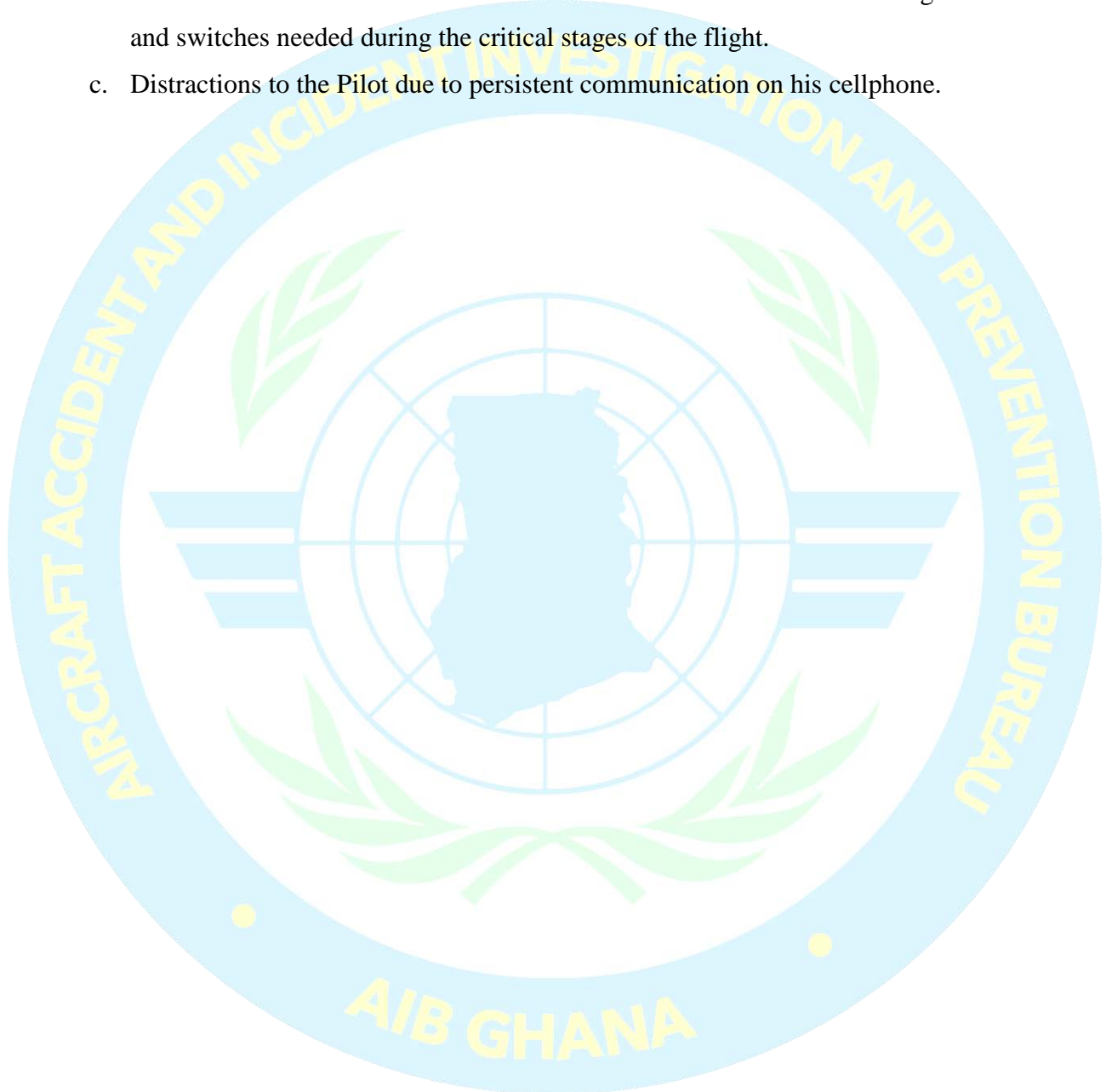
- a. The Pilot was licensed and qualified for the flight in accordance with existing regulations.
- b. On all the three (3) flights conducted from Ho Airport on the 16<sup>th</sup> March 2026, the Pilot occupied the rear seat whilst the friend and the brother occupied the front pilot's seat. This was not in compliance with the conditions of the Flight Permits and restricted the access of the Pilot in the rear seat to some critical instruments, warning lights and switches.
- c. All the three (3) flights conducted from Ho Airport on the 16<sup>th</sup> March 2026 were unauthorized as they did not have a valid permit to operate them.
- d. ATC was not aware of the details of the Flight Permits issued to 9G-ADV.
- e. Accra Airport and Ho Airport management were not aware of the details of the Flight Permits issued to 9G-ADV.
- f. 9G-ADV did not have any nominated Maintenance facility or personnel responsible for providing maintenance service for the Aircraft.
- g. Following the white smoke and the engine overheat, the required maintenance actions were not performed.
- h. There are no records available of any maintenance action on the aircraft between 14<sup>th</sup> January 2026 and the last flight of 16<sup>th</sup> March 2026 during which fifteen (15) flights were executed.
- i. The aircraft most likely had an engine failure due to the engine overheating.
- j. The 9G-ADV did not make a distress call or declare an emergency prior to the accident.
- k. Contrary to AIB Ghana's 2020 Act 1028 Section 22 (1c), ATC did not notify AIB Ghana of the accident.

#### 3.2 Causes

- a. The aircraft most likely had an Engine failure due to overheating.
- b. The altitude at which the aircraft engine failed was too low to enable the Pilot to find a suitable safe landing area.

### 3.3 Contributory Factors

- a. The failure to address the engine malfunctions identified at Ho which required maintenance assistance to diagnose the root causes. The result of the undiagnosed malfunctions most likely worsened the malfunctions en-route.
- b. The Pilot seated in the rear seat with limited access to the aircraft and engine instruments and switches needed during the critical stages of the flight.
- c. Distractions to the Pilot due to persistent communication on his cellphone.



#### 4.0 SAFETY RECOMMENDATIONS

The following Safety Recommendations (AIB/SR/2026/05-1 - 4) are made

1. GCAA should review its oversight of General Aviation aircraft operations and ensure approved maintenance providers' details are documented by the Authority as part of its records register to enhance safety in General Aviation operations.
2. GCAA should consider the establishment of a procedure to advise ATC and GACL on Flight Permits issued to Ghanaian registered General Aviation aircraft (including privately owned) to provide information on the conditions of Flight permits issued to enable ATC and Airport Managers to monitor and assist in ensuring compliance with the conditions of the Flight permits to promote Aviation safety.
3. ATC should ensure that all its staff are aware of the requirement in the Aircraft Accident and Incident Investigation and Prevention Bureau Act 2020 (Act 1028) Section 22 (1c) which states in part for "Air Traffic Controllers to immediately notify the Bureau of an Aircraft accident by the most rapid means of communication available" to enable AIB Ghana respond promptly to aircraft accidents for the preservation of perishable evidence and the prevention of recurrence.
4. Aircraft operators, including General Aviation operators, must continuously adhere to or comply with all conditions of any permit or authorizations granted them by the Regulator to promote aviation safety.

APPENDIX 1: COMMENCEMENT LETTER

In case of reply, the number and date of this letter should be quoted.



AIRCRAFT ACCIDENT AND INCIDENT INVESTIGATION AND PREVENTION BUREAU

TEL: +233 50 239 6070 +233 57 200 0888

TOLL FREE No. +233 80 000 6007

My Ref. No. AIB/2026/03/16/ACCID

Your Ref. No. ....

Date: 17<sup>TH</sup> MARCH 2026

CAPT. PAUL FORJOE
INVESTIGATOR-IN-CHARGE
AIB GHANA
ACCRA.

Dear Sir,

COMMENCEMENT OF INVESTIGATION INTO ACCIDENT INVOLVING 31 SKY ARROW 650 MICROLIGHT AIRCRAFT REGISTRATION 9G-ADV, WHICH OCCURRED ON 16TH MARCH 2026 AT COMMUNITY 1, TEMA

In accordance with Section 17 (b) of the Aircraft Accident and Incident Investigation and Prevention Bureau Act, 2020 (Act 1028), the Aircraft Accident and Incident Investigation and Prevention Bureau (AIB Ghana) has commenced an investigation into the microlight aircraft accident involving registration 9G-ADV, which occurred on 16 March 2026 at Tema Community One, near Oninku Park, Community 1, Tema.

2. The Bureau is conducting this investigation in accordance with the provisions of Annex 13 to the Convention on International Civil Aviation, Aircraft Accident and Incident Investigation and Prevention Bureau Act 2020 (Act 1028) and Regulations 2024 (L.I. 2483) with the objective of determining the causes and contributing factors of the accident for the purpose of preventing future occurrences and not to apportion blame or liability.

3. In order to ensure effective management of the investigation process, Capt Paul Forjoe has been appointed as the Investigator-In-Charge (IIC). To fulfill Section 5 (c), (f), and (h) of AIB Ghana's Act 1028, the investigation will focus on identifying safety deficiencies and recommending appropriate preventive measures to enhance aviation safety.

4. AIB Ghana will provide the investigation its support and cooperation for a successful conduct of investigation.

5. Please accept the assurances of my highest consideration.

Yours sincerely

[Handwritten signature of John M. K. Wumborti]

JOHN M. K. WUMBORTI
AG. COMMISSIONER



APPENDIX 2: REQUEST FOR RELEVANT DOCUMENTS

*Incase of reply, the number and date of this letter should be quoted.*



AIRCRAFT ACCIDENT AND INCIDENT INVESTIGATION AND PREVENTION BUREAU

TEL: +233 50 239 6070  
+233 57 200 0888

TOLL FREE No. +233 80 800 6007

My Ref. No. AIB/GCAA/03C

Your Ref. No. ....

DATE: 17TH MARCH 2026

THE DIRECTOR GENERAL  
GHANA CIVIL AVIATION AUTHORITY  
ACCRA INTERNATIONAL AIRPORT  
ACCRA

Dear Sir,

**COMMENCEMENT OF INVESTIGATION INTO ACCIDENT INVOLVING 3I SKY  
ARROW 650 MICROLIGHT AIRCRAFT REGISTRATION 9G-ADV, WHICH  
OCCURRED ON 16TH MARCH 2026 AT COMMUNITY 1, TEMA**

**REQUEST FOR RELEVANT DOCUMENTS**

We bring warm compliments from the Aircraft Accident and Incident Investigation and Prevention Bureau (AIB Ghana).

2. Following the commencement of investigations into the accident and as part of AIB Ghana investigation procedures, the Bureau requests to be furnished with all relevant documents of the accident aircraft. These documents will assist the Investigation to analyse and determine the cause(s) and contributing factors of the accident.

3. We request the Ghana Civil Aviation Authority to furnish AIB Ghana with relevant documents which include but are not limited to the following documents related to the accident aircraft:

- a) Flight Crew Personnel Licensing File.
- b) Copy of appropriate Flight Manual (FM) / Pilot Operating Handbook (POH)
- c) Copy of In-flight inspections covering the last six (6) months
- d) Documentations in support of the application for the Operating Permit.
- e) Appropriate aircraft files with GCAA.
- f) Approved Maintenance Organization files
- g) Aircraft Logbook – Airframe
- h) Engine Logbook
- i) Propeller Logbook
- j) All Scheduled Maintenance Sheets
- k) Maintenance Manuals
- l) ATC Transmissions

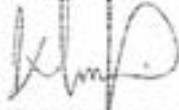


- m) ATC Radar Data
- n) ATC Telephone Records
- o) Any other information that will be requested in the course of this investigation

4. Your prompt action will be greatly appreciated.

Please accept the assurances of our highest consideration

Yours sincerely,



JOHN M.K. WUMBORTI  
AG. COMMISSIONER

**APPENDIX 3: APPOINTMENT OF ACCREP AND ADVISOR BY STATE OF  
MANUFACTURE****Aircraft Accident and Investigation Bureau**

---

**From:** Paolo Dondi [REDACTED]  
**Sent:** Thursday, March 26, 2026 5:20 PM  
**To:** Aircraft Accident and Investigation Bureau  
**Cc:** [REDACTED]  
**Subject:** Fasc. 62/26 – Accident 16/03/2026 - 9G-ADV, 3I Sky Arrow 450 – Tema (Ghana) - Accredited Representative and Technical Advisor

Dear Sir/Madam,

following your initial notification dated 17th marc 2026 and related to the subject accident, in accordance with the provisions of ICAO Annex13, I have been assigned as the Italian Accredited Representative (AccRep) and Ing. Roberto Merico (Magnaghi engineer) as the Technical Advisor (T.A.) to the above investigation.

Following are reported our contacts:

Paolo DONDI

Office tel.: [REDACTED]

Mobile: [REDACTED]

e-mail: [REDACTED]

Roberto MERICO

e-mail: [REDACTED]

From a first analysis of the data, it appears that the aircraft with registration 9G-ADV is a 3I Sky Arrow 450

Best regards

**ANSV** AGENZIA NAZIONALE  
PER LA SICUREZZA DEL VOLO

Cpt Paolo Dondi  
Air Safety Investigator

Tel.: [REDACTED]

Cell.: [REDACTED]

Email [REDACTED]

## APPENDIX 4: NOTIFICATION OF ACCIDENT



Our ref: GCAA/DDGT/VOL 26/007

Your ref:

GPS LOCATION ADDRESS  
GL-135-7377

18<sup>TH</sup> MARCH 2026

THE COMMISSIONER  
ACCIDENT AND INCIDENT  
INVESTIGATION PREVENTIVE BUREAU (AIB)  
ACCRA.



Dear Sir,

**NOTIFICATION OF ACCIDENT INVOLVING SKAR**

**(REGISTRATION: 9G-DAV) – 16 MARCH 2026**

I write to formally notify the Accident and Incident Investigation Preventive Bureau (AIB) of an accident that occurred on 16 March 2026, involving a SKAR aircraft with registration 9G-DAV.

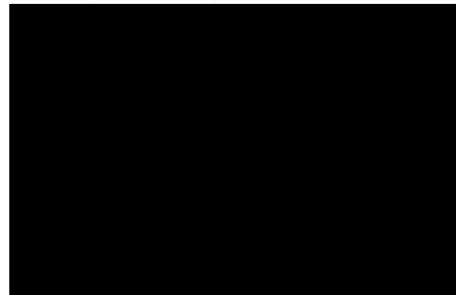
In accordance with established reporting requirements, we wish to bring this occurrence to your attention for the necessary action. Attached to this letter is the investigation report.

The Ghana Civil Aviation Authority remains committed to supporting the Bureau in any subsequent investigation processes. Kindly do not hesitate to contact us should additional information or clarification be required.

Please accept the assurances of my highest consideration.

Yours faithfully,

THEOPHILUS ADONIS AGO  
AG. DEPUTY DIRECTOR-GENERAL (TECHNICAL)  
For: DIRECTOR – GENERAL



## APPENDIX 5: APPOINTMENT OF FOCAL PERSONS BY GCAA



Our Ref: CAA/SRD/AIB/92/28

25th March, 2026

Dig. Address: GL-135-7178

The Commissioner  
Aircraft Accident and Incident Investigation and Prevention Bureau  
P. O. Box KA 15412  
Accra International Airport  
Accra



Dear Sir,

**RE: COMMENCEMENT OF INVESTIGATION INTO ACCIDENT INVOLVING 3I SKY ARROW 650 MICROLIGHT AIRCRAFT REGISTRATION 9G-ADV, WHICH OCCURRED ON 16TH MARCH 2026 AT COMMUNITY 1, TEMA**

We refer to your correspondence dated 17th March 2026, reference AIB/GCAA/03C, regarding the commencement of an investigation into the aircraft accident involving a microlight aircraft, registration 9G-ADV, which occurred on 16th March 2026 at Tema Community 1, near Oninku Park.

The underlisted officers are hereby designated as focal persons to liaise with AIB Ghana and to provide the technical assistance and information required for the investigation:

1) **Focal Point**

Name: Samuel Benson  
Position: Ag. Deputy Director, Safety Regulation Department  
Specialty: Airworthiness  
Contact: [REDACTED]  
E-mail: s [REDACTED]

2) **Alternate Focal Point**

Name: Derek Lartey  
Position: Ag. Manager, Safety Standards & Quality Assurance  
Specialty: Air Traffic Controller  
Contact: [REDACTED]  
E-mail: d [REDACTED]

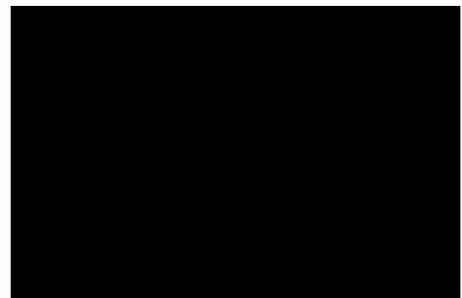
The Authority remains committed to supporting AIB Ghana in ensuring a thorough, independent, and objective investigation, with the aim of enhancing aviation safety in Ghana.

Please accept the assurances of our highest consideration.

Yours faithfully,

STEPHEN WILFRED ARTHUR (REV.)  
DIRECTOR-GENERAL

CC: AG. DEPUTY DIRECTOR-GENERAL (TECHNICAL)  
DIRECTOR, SAFETY REGULATION  
DIRECTOR, AIR TRAFFIC SERVICES



APPENDIX 6: 9G-ADV FLIGHTS FROM 14<sup>TH</sup> JANUARY 2026 TO 15<sup>TH</sup> MARCH 2026

	A	B	C	D	E	F	G	H	I	J
1	CALLSIGN	FLT RULE	DEP	DEST	FLIGHT DATE	DEP TIME	ARR TIME	POB	REMARKS	RWY
2	9GADV	VFR	DGAA	ZZZZ	2026-01-14	11:00:00	11:08:00		DEST/	21
3	9GADV	VFR	DGAA	ZZZZ	2026-01-14	11:56:00	12:02:00	2	DEST/	21
4	9GADV	VFR	DGAA	ZZZZ	2026-01-16	13:40:00	14:36:00		DEST/	21
5	9GADV	VFR	DGAA	DGAH	2026-01-17	09:41:00	10:20:00	2	N/A	21
6	9GADV	VFR	DGAA	ZZZZ	2026-01-18	16:40:00	17:01:00		DEST/	21
7	9GADV	VFR	DGAA	ZZZZ	2026-01-20	09:45:00	10:20:00		DEST/ HO	21
8	9GADV	VFR	ZZZZ	DGAA	2026-01-20	14:02:00	15:00:00	-	DEP/ HO	21
9	9GADV	VFR	DGAA	DGAH	2026-01-21	09:45:00	10:20:00	2	N/A	21
10	9GADV	VFR	DGAH	DGAA	2026-01-21	14:32:00	15:11:00	-	N/A	21
11	9GADV	VFR	DGAA	DGAA	2026-01-24	15:32:00	15:42:00	2	N/A	21
12	9GADV	VFR	DGAA	DGAA	2026-01-24	15:52:00	16:02:00	2	N/A	21
13	9GADV	VFR	DGAA	DGAA	2026-01-25	16:38:00	16:46:00	2	FLIGHT_OPERATIONS	21
14	9GADV	VFR	DGAA	DGAA	2026-03-15	16:50:00	17:06:00	2	TEST_FLIGHT	21
15	9GADV	VFR	DGAA	DGAA	2026-03-15	17:43:00	18:00:00	2	TEST_FLIGHT	21



## APPENDIX 7: FUEL TEST REPORT



**GHANA  
STANDARDS  
AUTHORITY**

**PROF. GEORGE AGYEI  
GSA/MSD/PEL2/65  
2026 - 04 - 16**

Member  
International Organisation for Standardisation (ISO)  
African Regional Organisation for Standardisation (ARSO)

**THE COMMISSIONER,  
AIRCRAFT ACCIDENT  
INVESTIGATION BUREAU,  
ADJACENT AU VILLAGE,  
P.O.BOX 16412 KIA.**

Dear Sir,

**ANALYTICAL TEST REPORT**

Please find attached test report on the sample of AIB Ghana with Lab. # 65-PEL2-26 submitted for analysis.

Yours faithfully,

**PAUL OSEI-FOSU (PhD.)  
Ag. DIRECTOR, PHYSICAL SCIENCE DIRECTORATE  
for: Ag. DIRECTOR GENERAL.**

GSA Head Office, Okponglo, Accra  
T: (+233-302) 506 991-5 5000 65/6  
Fax: (+233-302) 5000 92 5000 231

P. O. Box MB 245, Accra, Ghana . GA-288-5605  
E: dgsec@gsa.gov.gh; gsanep@gsa.gov.gh  
www.gsa.gov.gh . Doc No.: GSA-DGS-FM-G08-A





**GHANA STANDARDS AUTHORITY  
FORM**

**TITLE:** Analytical Test Report  
**Your Ref.:**

**Doc. No. :** GSA-FM-T09-F

**Our Ref:** GSA/MSD/PEL2/65

**TO:** THE COMMISSIONER,  
AIRCRAFT ACCIDENT  
INVESTIGATION BUREAU,  
ADJACENT AU VILLAGE,  
P.O.BOX 16412 KIA.

Codes	
Generalised Product Codes:	.....PP.....
Specific Product Code:	.....PE.....
Code of Reporting Officer:	.....LA.....
Code of Approving Officer:	.....DO.....
Period of Report:	.....04/2026.....
Lab. No. 65 Lab. PEL Source Code 2 Yr. 2026	

**LABORATORY CONDUCTING TEST**  
Petroleum Laboratory  
Shiashie (Legon – Madina Road)  
Ghana Standards Authority  
P.O. Box MB 245, Accra.

**NAME OF SAMPLE:** AIB GHANA  
**DATE RECEIVED:** 2026/04/13  
**SOURCE/PURPOSE:** Aircraft Accident Investigation Bureau / Quality Evaluation

**SAMPLE SIZE:** 2L x 1  
**DATE OF PERFORMANCE:** 2026/04/13 – 2026/04/15

TEST CODE	TEST CONDUCTED	UNIT	RESULTS	TEST METHODS	SPECIFICATION GS 140:2024
VIE	Visual Examination	-	Green colored liquid free from visible water, sediments and suspended matter.	Visual	Shall be clear and free from visible water, sediments and suspended matter.
DEN	Density @ 15°C	kg/m <sup>3</sup>	734.4	ASTM-D-1298	720.0 – 780.0
DIS	Distillation: Initial Boiling Point	°C	37.0	ASTM-D-86	To be reported
	Temperature @: 10% evaporated	°C	50.9	"	70.0 (max)
	50% Evaporated	°C	68.6	"	120.0 (max)
	90% Evaporated	°C	135.7	"	185.0 (max)
	Final Boiling Point	°C	169.4	"	215.0 (max)
	Residue	%vol	1	"	2.0 (max)
	Loss	%vol	0.3	"	To be reported
	Recovery	%vol	98.7	"	To be reported
RON	Research Octane Number	-	94.4	Fuel Analyzer	95.0 (min)

Lab. No. 65-PEL2-26



## GHANA STANDARDS AUTHORITY FORM

TITLE: Analytical Test Report

Doc. No.: GSA-FM-T09-F

### CONTINUATION SHEET

TEST CODE	TEST CONDUCTED	UNIT	RESULTS	TEST METHODS	SPECIFICATION GS 140:2024
BEN	Benzene	%vol	0.2	Fuel Analyzer	1.0 (max)
OLE	Olefins	%vol	14.6	Fuel Analyzer	18.0 (max)
TOA	Total Aromatics	%vol	22.4	Fuel Analyzer	35.0 (max)
RVP	Reid Vapour Pressure	kPa	63	ASTM-D-323	35 - 65
CSC	Copper Strip Corrosion Test @ 40°C, 3h	-	1a	ASTM-D-130	1b (max)
TOS	Total Sulphur	mg/kg	9.0	ASTM-D-4294	10.0 (max)
MAN	Manganese	mg/l	1.1	ASTM-D-3831	2.0 (max)

Lab. No. 65-PEL2-26



GHANA STANDARDS AUTHORITY FORM

TITLE: Analytical Test Report

Doc. No. : GSA-FM-T09-F

REMARKS: Nil.

PRODUCT SAMPLED BY: Customer (Aircraft Accident Investigation Bureau)

SIGNATURE: [Signature]

SIGNATURE: [Signature]

REPORTED BY: ING. LESLEY Y.A. AWERE-KYERE (PE-GhIE) (SO)

APPROVED BY: DANIEL O. BOATENG (MR.) (KOD)

DATE: 2026-04-16

DATE: 2026-04-16

Note: The result(s) relate only to the item tested

Conditions:

- 1 Not valid without Ghana Standards Authority's Seal.
2 This report does not signify that product tested has been certified.
3 Not to be used for litigation and advertisement without written consent of the Director General of Ghana Standards Authority.
4 This report shall not be reproduced in part without the written approval of the Director General of Ghana Standards Authority.

Lab. No. 65-PEL2-26

APPENDIX 8: EXTRACT FROM GCAA ACCIDENT REPORT ON 9G-ADV



ACCIDENT REPORT ON 9GADV

REF NO	-
DATE	MARCH 2026
CLASSIFICATION	ACCIDENT
SUB CATEGORY	-
RISK	-
HFACS CODES	-

**g. Interview with Duty Controller**

The interview with the Air Traffic Control Officer (ATCO) at the Approach corroborated the narrative provided in the occurrence report as filed.

**i. Search and Rescue Alert Messages**

Upon verifying AMHS/AFTN messages for the period of the occurrence, no ALERT messages (COSPAS-SARSAT) were detected within the system, which suggests that the ELT was not activated.

However, the Aerodrome Controller upon receiving the information on the crash, inform the Search and Rescue (SAR) Manager who in turn activated the SAR processes by informing the NADMO, GHAPOHA Fire, Ghana Police and GHFS Tema. It was later confirmed that two (2) bodies were recovered and deposited at the morgue.

**7. CONCLUSION**

This report can ascertain that there was a communication challenge with the 9GADV. This challenge is however is not attributable to the accident as the radar target did not communicate any distress information in the absence of the voice communication. Attached are the audio transcripts, scanned flight strip, meteorological reports, loggings, radar pictures.

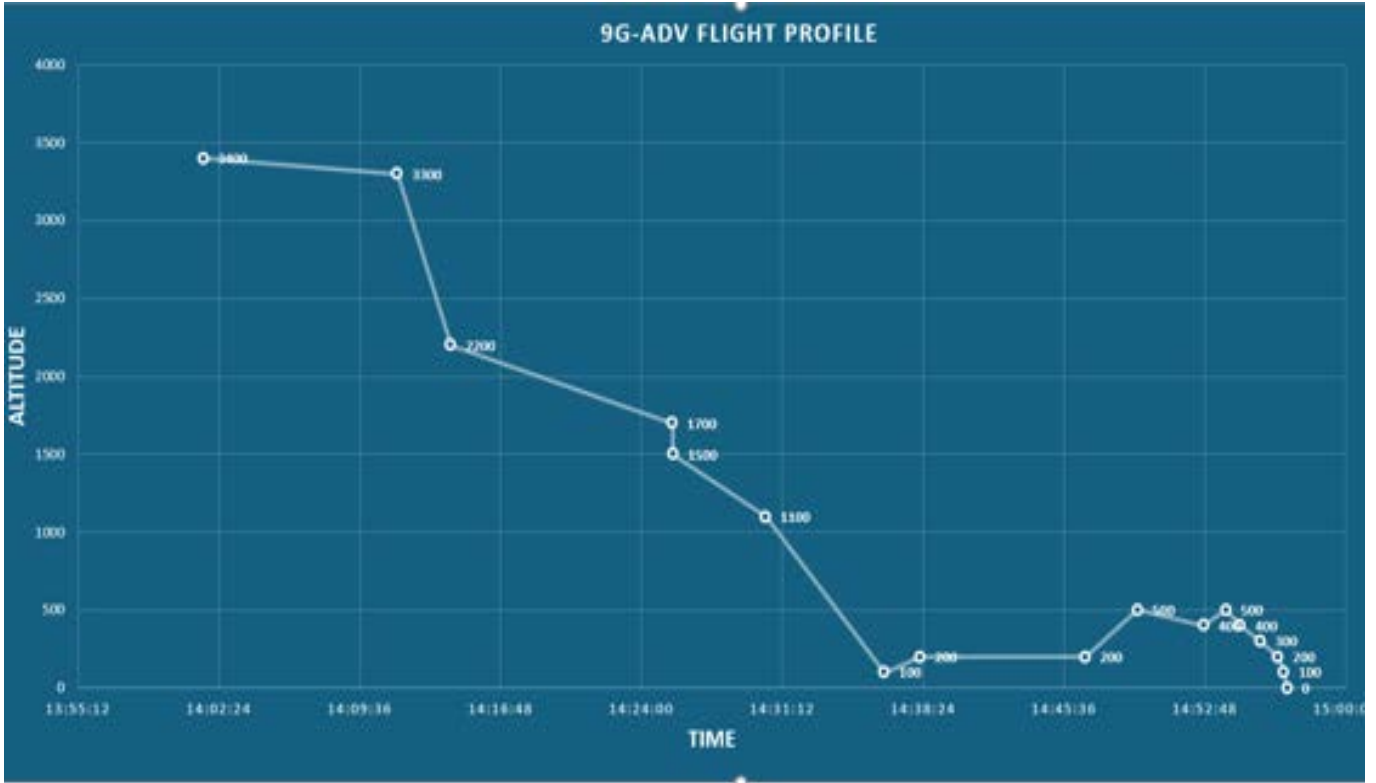
**APPENDIX 9: EXTRACTS FROM ACCRA ATC TRANSCRIPTS FOR DGAA TO DGAH  
FLIGHT ON 16<sup>TH</sup> MARCH 2026**

**TRANSCRIPT OF COMMUNICATION INVOLVING 9GADV AND TOWER ON 118.6MHZ BETWEEN  
0620Z- 0700Z, 16<sup>TH</sup> MARCH 2026**

TIME	STATION	TEXT
06:23:34	AFW160	160 E-BAY, REQUEST START UP CLEARANCE, DESTINATION TAMALE, FL280, POB 42+5 CREW, 3 HOURS 10 MINUTES ENDURANCE, REGISTRATION 9GAFJ
06:23:46	TOWER	AFW160 RWY 21 IN USE, QNH1009 START UP APPROVED.
06:23:51	AFW160	START UP APPROVED ON QNH 1009, AFW160
06:24:05	9GADV	ACCRA TOWER, 9GADV
06:24:10	TOWER	9GADV, TOWER
06:24:13	9GADV	9GADV WE ARE CURRENTLY AT MILITARY HANGAR, REQUESTING STARTUP AND FLIGHT, A VFR FLIGHT TO HO AND BACK
06:24:41	TOWER	9GADV SAY AGAIN
06:24:45	9GADV	WE ARE REQUESTING A FLIGHT, A VFR FLIGHT TO HO, 9GADV, AND WE ARE CURRENTLY AT THE AMERICAN HANGAR
06:24:58	TOWER	9GADV STANDBY
06:25:39	TOWER	AFW100 AIRBORNE 10 CORRECTION 0625 APPROACH 1, CORRECTION CONTROL 130.9
06:25:46	AFW100	CONTROL 130.9 FOR AFW100
06:26:59	TOWER	9GADV REPORT TYPE OF AIRCRAFT AND ALTITUDE REQUESTING?
06:27:05		***** INAUDIBLE *****
06:27:17	DIG142	TOWER GOOD MORNING, DIG142
06:27:21	TOWER	DIG142 TOWER
06:27:24	DIG142	142 WITH INFORMATION GOLF, REGISTRATION 9GBPD, WE ARE AT D4, REQUEST START AND CLEARANCE TO DGSi, FL140 ON REQUEST, ON BOARD WE HAVE 56+4 CREW, ENDURANCE 0240 DIG142
06:27:39	TOWER	DIG142 RWY21 QNH1009, START UP APPROVED
06:27:43	DIG142	START UP APPROVED, RWY21, QNH1009 DIG142
06:27:48	TOWER	9GADV YOU ARE UNREADABLE
06:27:52	9GADV	**INAUDIBLE** IS A SKY ARROW 650T, MICROLITE, 2 SEATER, WE HAVE 2 SOULS ON BOARD AND 3 HOURS FUEL ENDURANCE AND ALTITUDE 3000
06:28:04	DIG122	BREAK BREAK, DIG122 REQUESTING TAXI
06:28:07	TOWER	DIG122, TAXI ALPHA HOLDING POINT RWY21
06:28:10	DIG122	ANOTHER AIRCRAFT WAS STEPPED ON
06:28:14	TOWER	ROGER
06:28:18	AFW160	ACCRA TOWER, AFW160 REQUEST TAXI
06:28:22	TOWER	AFW160, TAXI ALPHA HOLDING POINT RWY21
06:28:25	AFW160	ALPHA, HOLDING POINT RWY21, AFW160
06:28:36	9GADV	ACCRA TOWER, 9GADV
06:28:39	TOWER	9GADV, RWY21 IN USE, QNH 1010, START UP APPROVED

## APPENDIX 10: RADAR PLAYBACK FROM ATC AND FLIGHT PROFILE

S/N	TIME	ALTITUDE	RATE OF CHANGE IN HEIGHT
1.	14:01:36	3400ft	
2.	14:11:32	3,300ft	-100ft / 9 mins 56 secs
3.	14:14:16	2,200ft	-1100ft / 2 mins 44 secs
4.	14:25:35	1,700ft	-500ft / 11 mins 19 secs
5.	14:25:37	1,500ft	-200ft / 2 secs
6.	14:30:21	1,100ft	-400ft / 4 mins
7.	14:36:25	100ft	-1000ft / 6 mins 4 secs
8.	14:38:15	200ft	+100ft / 1 min 50 secs
9.	14:46:42	200ft	0ft / 8 mins 27 secs
10.	14:49:22	500ft	+300ft / 2 min 40 secs
11.	14:52:45	400ft	-100ft / 3 mins 23 secs
12.	14:53:53	500ft	+100ft / 1 min 8 secs
13.	14:54:37	400ft	-100ft / 44 secs
14.	14:55:39	300ft	-100ft / 1 min 2 secs
15.	14:56:33	200ft	-100ft / 54 secs
16.	14:56:51	100ft	-100ft / 18 secs
17.	14:57:01	Target Lost	undefined / 10 secs



APPENDIX 11: EXTRACT FROM TRANSCRIPT OF INTERVIEW WITH EXPERT  
MAINTENANCE WITNESS STATEMENT

**Interviewer 1:** According to the data, he had done 15 flights.

**Interviewer 2:** So all this while maintenance was not his problem.

**Expert Witness:** He knew the aircraft had this temperature, coolant, the cylinder head temperature issue.

**Interviewer 1:** Oh, he knew about it.

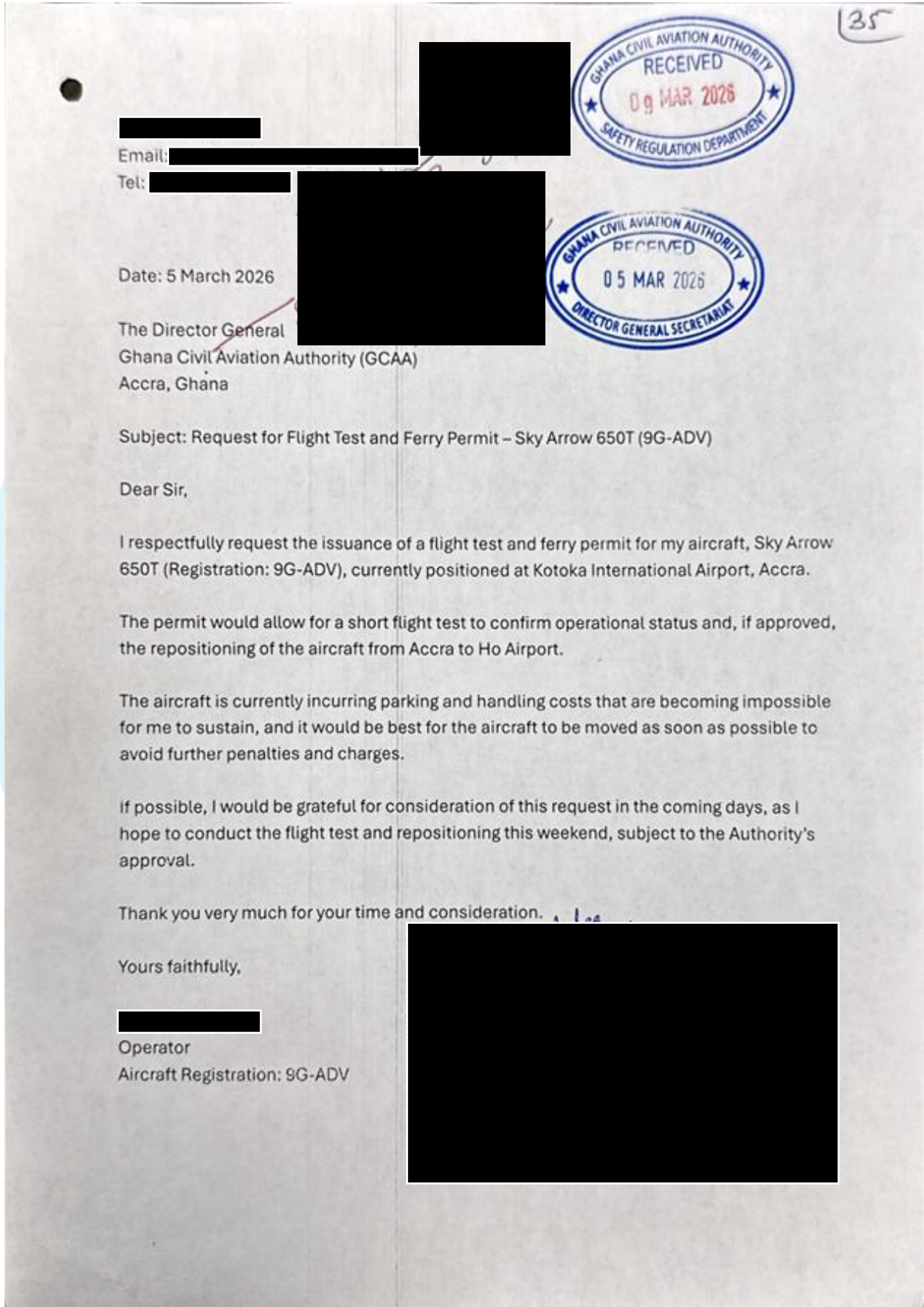
**Expert Witness:** He knew about it.

**Interviewer 2:** Did he ever discuss that with you? Just cast your mind back.

**Expert Witness:** We did ground runs several times. If you don't position the aircraft into the wind, the airflow over the engine is not effective. So the coolant boils easily because it's sitting on the exhaust. And it boils out. So if he starts the engine, and then he doesn't take off immediately, but runs the engine for some time, the coolant will all boil out.



APPENDIX 12: REQUEST FOR TEST FLIGHT PERMIT AND FERRY FLIGHT PERMIT



APPENDIX 13: TEST FLIGHT PERMIT

PERMIT NUMBER **ADV235**

**THE REPUBLIC OF GHANA**  
**GHANA CIVIL AVIATION AUTHORITY**  
**SPECIAL FLIGHT PERMIT**

REGISTRATION MARK **9G-ADV** AIRCRAFT SERIAL NUMBER **103**

AIRCRAFT TYPE/MODEL **SKY ARROW 650** TYPE OF PERMIT **FLIGHT TEST PERMIT**

We certify that the above designated aircraft has been authorised to effect flight from **KOTOKA INTERNATIONAL AIRPORT, GHANA** to **KOTOKA INTERNATIONAL AIRPORT, GHANA**

These operating limitations are a part of the above designated aircraft permit number **ADV235** and must be available to any person operating this aircraft.


- Operational information pertinent to control of aircraft and systems shall be aboard the aircraft and available to the flight crew.
- This Flight shall be conducted in accordance with appropriate current approved aircraft Flight Manual as applicable, approved manual material, appropriate markings and placards or any combination thereof.
- Flight crew shall hold current and appropriate ratings for this aircraft.
- The carriage of cargo or persons other than the crew necessary for the purpose of the flight is prohibited.
- Weather conditions at takeoff and destination airports are not less than those required for VFR flight.
- Flights over congested areas, except for takeoff and landing, are prohibited.
- This Permit does not authorise operations over foreign countries, therefore, it is the responsibility of the aircraft owner or operator to secure permission to fly over or land in foreign countries which are on the route of flight.
- This aircraft may not be operated if there is in effect an outstanding applicable Airworthiness Directive (A.D.) except in accordance with the requirements of the A.D. This is not applicable to an appliance if the aircraft can be safely operated without the item. This appliance must be rendered inoperative for flight and so placarded.
- The routing is at the discretion of the aircraft Commander.
- This permit expires on **21ST MARCH, 2026**

Date of Issue **9TH MARCH, 2026** Authorised Signature/Stamp, GCAA

**Any erasure or addition to this document renders it null and void**

APPENDIX 14: FERRY FLIGHT PERMIT

PERMIT NUMBER  
**ADV236**



**THE REPUBLIC OF GHANA**  
**GHANA CIVIL AVIATION AUTHORITY**  
**SPECIAL FLIGHT PERMIT**

REGISTRATION MARK: **9G-ADV** AIRCRAFT SERIAL NUMBER: **103**  
 AIRCRAFT TYPE/MODEL: **SKY ARROW 650** TYPE OF PERMIT: **FERRY PERMIT**


We certify that the above designated aircraft has been authorised to effect flight  
 from: **KOTOKA INTERNATIONAL AIRPORT, GHANA** to: **HO AIRPORT, GHANA**

These operating limitations are a part of the above designated aircraft permit number **ADV236**  
 and must be available to any person operating this aircraft.

- Operational information pertinent to control of aircraft and systems shall be aboard the aircraft and available to the flight crew.
- This flight shall be conducted in accordance with appropriate current approved aircraft Flight Manual as applicable, approved manual material, appropriate markings and placards or any combination thereof.
- Flight crew shall hold current and appropriate ratings for this aircraft.
- The carriage of cargo or persons other than the crew necessary for the purpose of the flight is prohibited.
- Weather conditions at takeoff and destination airports are not less than those required for VFR flight.
- Flights over congested areas, except for takeoff and landing, are prohibited.
- This Permit does not authorise operations over foreign countries, therefore, it is the responsibility of the aircraft owner or operator to secure permission to fly over or land in foreign countries which are on the route of flight.
- This aircraft may not be operated if there is in effect an outstanding applicable Airworthiness Directive (AD) except in accordance with the requirements of the AD. This is not applicable to an appliance if the aircraft can be safely operated without the item. This appliance must be rendered inoperative for flight and so placarded.
- The routing is at the discretion of the aircraft Commander.
- This permit expires on: **21ST MARCH, 2026**

**9TH MARCH, 2026**  
 Date of issue

Authorised Signature/ Stamp, GCAA



**Any erasure or addition to this document renders it null and void**

APPENDIX 15: FLIGHT CONTROLS

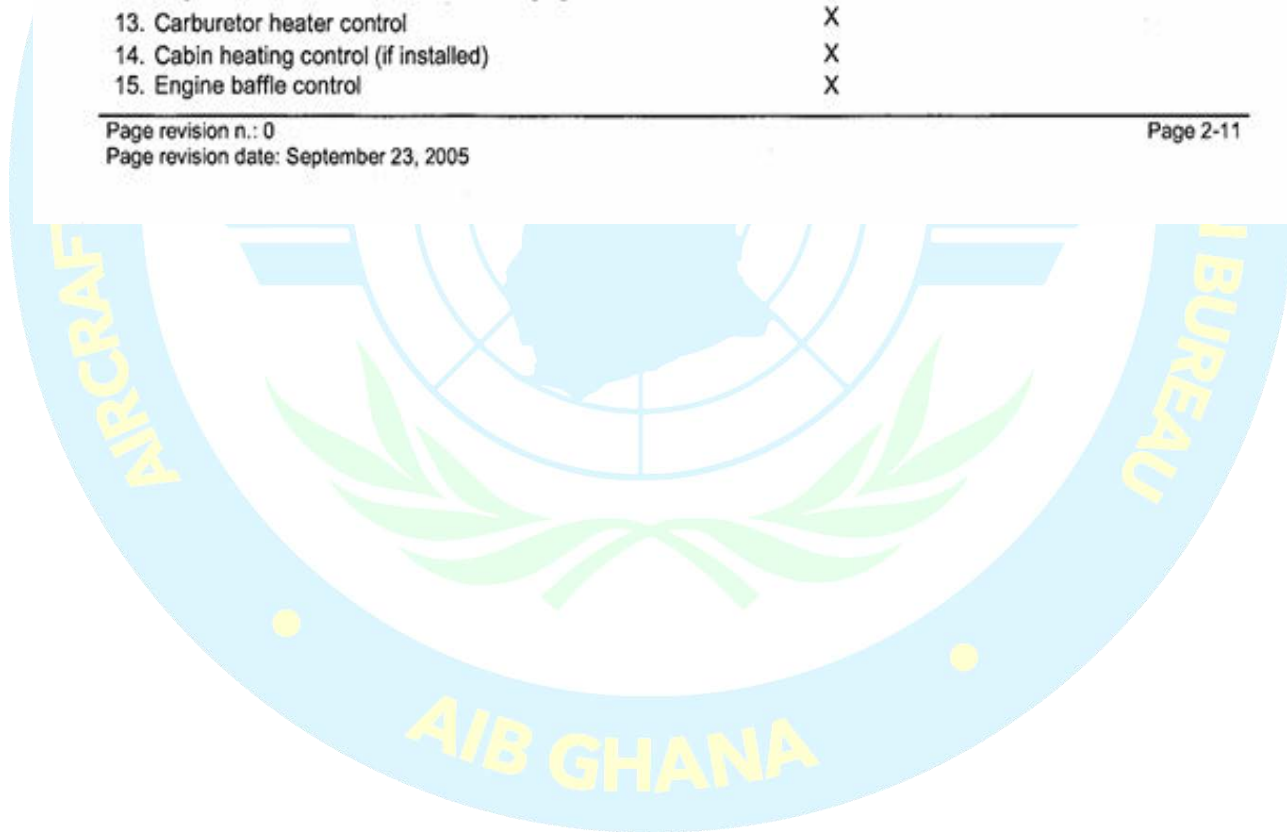
**F. Powerplant control**

The powerplant can be controlled in flight by both pilots (front and rear). The starting procedure is possible from the front seat only, as some controls (Master switch, dual ignition electronic system, and auxiliary electrical fuel pump on/off switch) are not available to the occupant of the rear seat. Powerplant controls and their availability to the pilots are listed in the following table:

CONTROLS	AVAILABILITY	
	1° Pilot	2° Pilot
1. Throttle	X	X
2. Choke	X	X
3. Throttle and choke friction	X	
4. Starter key	X	X
5. Fuel shut-off	X	X
6. Ignition shut off 1 & 2	X	X
7. Brakes	X	X
8. Battery master switch	X	
9. Generator master switch	X	
10. Ignitions 1 & 2	X	
11. Auxiliary fuel pump	X	
12. Engine parameter indicators & warning lights	X	
13. Carburetor heater control	X	
14. Cabin heating control (if installed)	X	
15. Engine baffle control	X	

Page revision n.: 0  
 Page revision date: September 23, 2005

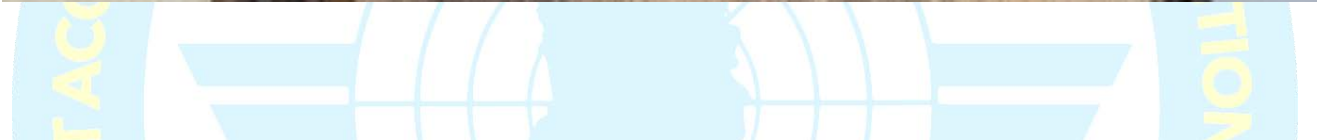
Page 2-11




APPENDIX 16: PICTURES OF ACCIDENT SITE



APPENDIX 17: PICTURES OF WRECKAGE





Unless otherwise indicated, recommendations in this report are addressed to the appropriate regulatory authorities having responsibility for the matters with which the recommendation is concerned. It is for those authorities to decide what action is taken. In Ghana the responsible authority is the Ghana Civil Aviation Authority or the Aircraft Accident and Incident Investigation and Prevention Bureau, GL-025-7631, [info@aibghana.gov.gh](mailto:info@aibghana.gov.gh)