

## PRELIMINARY ACCIDENT REPORT

### Accident and Incident Investigations Division

Accident  
- Preliminary Report -  
AIID Ref No: CA18/2/3/10407



**Figure 1:** The ZS-STD aircraft. (Source: jetphotos.com)



**Figure 2:** The ZS-XPC aircraft.

**Description:**

On Friday morning, 29 December 2023 at 0908Z, a Cessna T182T registered ZS-STD with two occupants on-board and an Air Tractor AT-502A registered ZS-XPC with the pilot on-board were involved in a midair collision at Arena Farm in Carletonville District, Gauteng province. Both aircraft were destroyed during the accident sequence, and all occupants on-board were fatally injured. The ZS-STD aircraft was flying under the provisions of Part 91, and the ZS-XPC aircraft was flying under the provisions of Part 137 of the Civil Aviation Regulations 2011 as amended. The respective flights were conducted during daylight. Visual meteorological conditions (VMC) prevailed at the time of the flights.

## Occurrence Details

|                               |  |
|-------------------------------|--|
| <b>Reference number</b>       | : CA18/2/3/10407   |
| <b>Occurrence Category</b>    | : Accident (Category 1)                                  |
| <b>Type of Operation</b>      | : Private (Part 91) and Agricultural Spraying (Part 137) |
| <b>Aircraft Manufacturer</b>  | : Cessna Aircraft Company and Air Tractor Incorporated   |
| <b>Aircraft Model</b>         | : T182T and AT-502A                                      |
| <b>Aircraft Registrations</b> | : ZS-STD and ZS-XPC                                      |
| <b>Nationality</b>            | : South African  |
| <b>Place</b>                  | : Arena Farm Carletonville district, Gauteng Province    |
| <b>Date and Time</b>          | : 29 December 2023 at 0908Z                              |
| <b>Injuries</b>               | : 1 + 1 and 1 + 0  |
| <b>Damage</b>                 | : Both aircraft were destroyed                           |

## Purpose of the Investigation:

*In terms of Regulation 12.03.1 of the Civil Aviation Regulations (CAR) 2011 this report was compiled in the interest of the promotion of aviation safety and the reduction of the risk of aviation accidents or incidents and not to apportion blame or liability. All times given in this report are Co-ordinated Universal Time (UTC) and will be denoted by (Z). South African Standard Time is UTC plus 2 hours.*

## Investigation Process:

The Accident and Incident Investigations Division (AIID) of the South African Civil Aviation Authority (SACAA) was notified of a fatal accident involving a Cessna T182T and an Air Tractor AT-502A which occurred at Arena Farm in Carletonville, Gauteng province, on 29 December 2023 at 0908Z. The occurrence was classified as an accident according to the CAR 2011 Part 12 as amended and the International Civil Aviation Organisation (ICAO) STD Annex 13. The AIID has appointed an investigator-in-charge and a co-investigator to conduct the investigation. The investigators dispatched to the accident site for this occurrence on the same day. The AIID will conduct the investigation and issue the final report on this accident in accordance with the CAR 2011 Part 12 as amended and ICAO Annex 13.

The information contained in this preliminary report is derived from the information gathered during the on-going investigation into the occurrence. Later, an interim or final report may contain altered information in case new evidence is found during the on-going investigation that requires changes to the information depicted in this preliminary report.

*The AIID reports are made available to the public at:*

<http://www.caa.co.za/Pages/Accidents%20and%20Incidents/Aircraft-accident-reports.aspx>

## Notes:

- Whenever the following words are mentioned in this report, they shall mean the following:*  
*Accident — this investigated accident*  
*Aircraft — the Cessna T182T and Air Tractor AT-502A involved in this accident*  
*Investigation — the investigation into the circumstances of this accident*  
*Pilots — the pilots involved in this accident*  
*Report — this accident report*

2. *Photos and figures used in this report were taken from different sources and may have been adjusted from the original for the sole purpose of improving clarity of the report. Modifications to images used in this report were limited to cropping, magnification, file compression; or enhancement of colour, brightness, contrast; or addition of text boxes, arrows, or lines.*

**Disclaimer:**

*This report is produced without prejudice to the rights of the SACAA, which are reserved.*

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| <b>Abbreviation</b> | <b>Description</b>   |
|---------------------|--|
| °                   | Degrees  |
| °C                  | Degrees Celsius  |
| AMO                 | Aircraft Maintenance Organisation                                  |
| CAR                 | Civil Aviation Regulations   |
| CAVOK               | Ceiling and Visibility OK (for VFR flight)                         |
| C of A              | Certificate of Airworthiness                                       |
| C of R              | Certificate of Registration  |
| CPL                 | Commercial Pilot Licence   |
| CRS                 | Certificate of Release to Service                                  |
| CVR                 | Cockpit Voice Recorder   |
| ELT                 | Emergency Locator Transmitter                                      |
| FAPS                | Potchefstroom Aerodrome  |
| FDR                 | Flight Data Recorder   |
| ft                  | feet   |
| GPS                 | Global Positioning System  |
| hPa                 | Hectopascal  |
| hp                  | Horsepower   |
| IIC                 | Investigator-in-charge   |
| kg                  | kilogram(s)  |
| Kt                  | Knots  |
| m                   | metres   |
| METAR               | Meteorological Aerodrome Report                                    |
| MTOW                | Maximum Take-off Weight  |
| PIC                 | Pilot-in-command   |
| PPL                 | Private Pilot Licence  |
| QNH                 | Barometric Pressure Adjusted to Sea Level                          |
| SACAA               | South African Civil Aviation Authority                             |
| SAWS                | South African Weather Service                                      |
| TBA                 | To be advised  |
| TBO                 | Time Between Overhauls   |
| UTC                 | Universal Co-ordinated Time  |
| VFR                 | Visual Flight Rules  |
| VMC                 | Visual Meteorological Conditions                                   |
| Z                   | Zulu (Term for Universal Co-ordinated Time - Zero Hours Greenwich) |

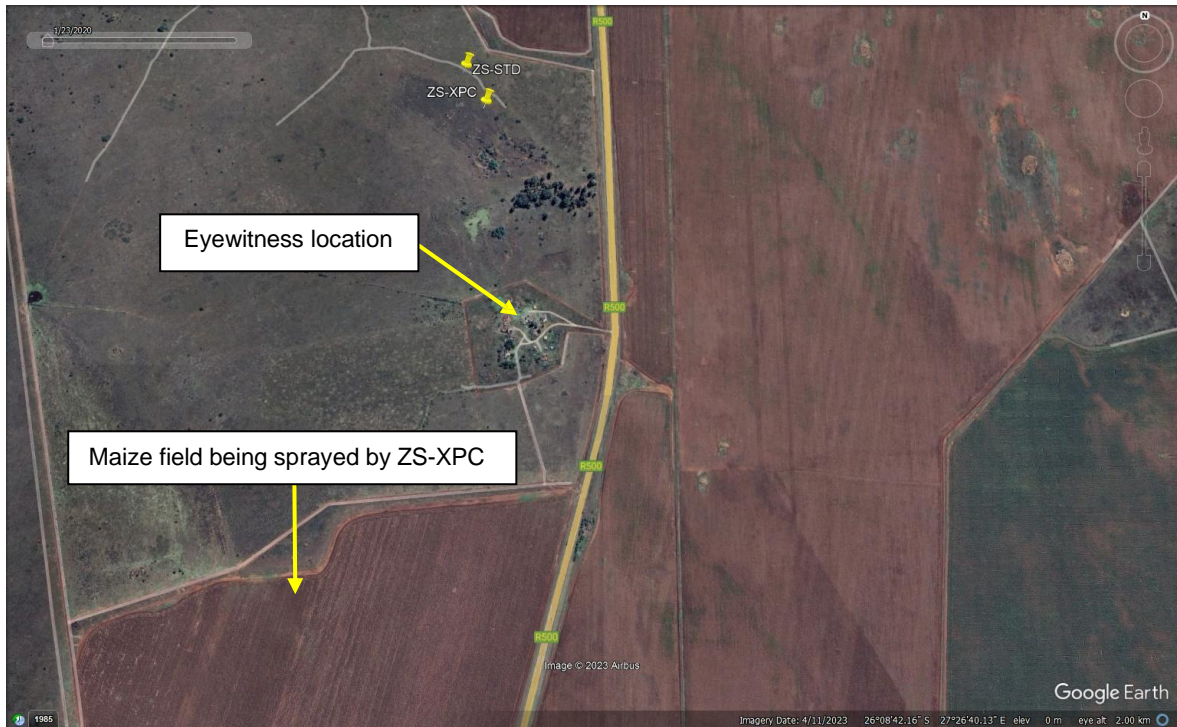
## 1. FACTUAL INFORMATION

### 1.1 History of flight

- 1.1.1 On Friday, 29 December 2023 at 0908Z, an Air Tractor AT-502A registered ZS-XPC with one occupant on-board and a Cessna T182T aircraft registered ZS-STD with two occupants on-board were involved in a midair collision at Arena Farm in the Carletonville district, Gauteng province. Visual meteorological conditions (VMC) by day prevailed at the time of the flights. The flights were conducted under the provisions of Part 137 (ZS-XPC) and Part 91 (ZS-STD) of the Civil Aviation Regulations (CAR) 2011 as amended.
- 1.1.2 The ZS-XPC was engaged in crop-spraying a maize field and ZS-STD was engaged in a private flight. According to available information, the pilot on board ZS-STD was assessing the condition of the maize crops. After the assessment, he advised the crop-dusting teams, which includes two crop-dusting aircraft (ZS-XPC and ZS-CHB) of the fields that need to be sprayed and what type of aerial applicators to use.
- 1.1.3 The assessment is generally carried out daily during the maize planting season, weather permitting. The farm owner uses the helicopter hangared on the farm regularly for this purpose. According to available information, the helicopter had a technical problem, which required maintenance. Therefore, the farm owner opted to use the Cessna T182T (ZS-STD) on this occasion. ZS-STD took off from Potchefstroom Aerodrome (FAPS) where the aircraft was hangared with the intention to land back at the same aerodrome.
- 1.1.4 The pilot of ZS-XPC was operating from a gravel runway on a farm located 6 nautical miles (nm) or 11 kilometres (km) to the west of the maize field which was being sprayed at the time of the accident. The people staying in the area were familiar with the crop-spraying aircraft flying in the area, especially during the maize planting season and in the summer months. An eyewitness reported that ZS-XPC was spraying the maize field to the south of their dwelling (residence) (see Figure 3), and ZS-STD was surveying the farm at a higher height than that of ZS-XPC which was spraying the maize field at the time. A while later, the witness observed the two aircraft flying next to each other; shortly thereafter, ZS-STD turned and collided with ZS-XPC. Both pilots lost control of their aircraft and they crashed on a neighbouring farm. The occupants on-board both aircraft were fatally injured, and both aircraft were destroyed.



1.1.5 The accident occurred during day light at Arena Farm at Global Positioning System (GPS) co-ordinates determined to be 26°08'21.53" South 027°26'27.62" East, at an elevation of 5 106 feet (ft).



**Figure 3:** Position of the two main wreckages (yellow pins). (Source: Google Earth; investigators)

## 1.2 Injuries to persons

### 1.2.1 ZS-STD

| Injuries     | Pilot    | Crew | Pass. | Total On-board | Other |
|--------------|----------|------|-------|----------------|-------|
| Fatal        | 2        | -    | -     | 2              | -     |
| Serious      | -        | -    | -     | -              | -     |
| Minor        | -        | -    | -     | -              | -     |
| None         | -        | -    | -     | -              | -     |
| <b>Total</b> | <b>2</b> | -    | -     | <b>2</b>       | -     |

Note: Other means people on the ground.

### 1.2.2 ZS-XPC

| Injuries     | Pilot    | Crew | Pass. | Total On-board | Other |
|--------------|----------|------|-------|----------------|-------|
| Fatal        | 1        | -    | -     | 1              | -     |
| Serious      | -        | -    | -     | -              | -     |
| Minor        | -        | -    | -     | -              | -     |
| None         | -        | -    | -     | -              | -     |
| <b>Total</b> | <b>1</b> | -    | -     | <b>1</b>       | -     |



Note: Other means people on the ground.

### 1.3 Damage to Aircraft

1.3.1 Both aircraft were destroyed during the midair collision.

### 1.4 Other damage

1.4.1 No other damage was caused.

### 1.5 Personnel Information

1.5.1 On board the aircraft ZS-STD were two occupants (husband and wife) both of them held Private Pilot Licences (PPL).

1.5.2 Pilot of ZS-STD:

|                     |   |               |      |     |    |
|---------------------|---|---------------|------|-----|----|
| Nationality         | South African   | Gender        | Male | Age | 53 |
| Licence Type        | Private Pilot Licence (PPL)   |               |      |     |    |
| Licence Valid       | Yes   | Type Endorsed | Yes  |     |    |
| Ratings             | None  |               |      |     |    |
| Medical Expiry Date | 30 June 2024 (Class 2)  |               |      |     |    |
| Restrictions        | VDL - Valid only with correction for defective near vision<br>HAL – Valid only when hearing aids are worn |               |      |     |    |
| Previous Accident   | None  |               |      |     |    |

Flying experience:

|                            |       |
|----------------------------|-------|
| Total hours                | 386.7 |
| Total past 90 days         | 20.3  |
| Total on type past 90 days | 20.3  |
| Total on type              | 386.7 |

1.5.3 The aircraft was fitted with dual flight controls. According to available information, the wife of the pilot also had a Private Pilot Licence (PPL) on aircraft and helicopters. According to available information, the Cessna 182 was endorsed on her licence.

Second person (pilot) of ZS-STD:

|              |                             |        |        |     |    |
|--------------|-----------------------------|--------|--------|-----|----|
| Nationality  | South African               | Gender | Female | Age | 54 |
| Licence Type | Private Pilot Licence (PPL) |        |        |     |    |

|                     |   |               |     |
|---------------------|---|---------------|-----|
| Licence Valid       | No  | Type Endorsed | Yes |
| Ratings             | None  |               |     |
| Medical Expiry Date | 31 October 2023 (Class 2)                                     |               |     |
| Restrictions        | VDL - Valid only with correction for defective distant vision |               |     |
| Previous Accident   | None  |               |     |

The second person (pilot) was issued a Class 2 aviation medical certificate on 3 October 2022 with an expiry date of 31 October 2023.

Her aviation medical certificate was, therefore, not valid. This was in contravention to the provisions of Part 67.00.9 of the Civil Aviation Regulations 2011 as amended. Because the aviation medical certificate was invalid, this rendered the second pilot's licence invalid.

Flying experience aeroplane:

|                            |       |
|----------------------------|-------|
| Total hours                | 803.8 |
| Total past 90 days         | 33.2  |
| Total on type past 90 days | 6.6   |
| Total on type              | 432.2 |

Total flying experience:

|                               |        |
|-------------------------------|--------|
| Total flying hours aeroplane  | 803.8  |
| Total flying hours helicopter | 712.6  |
| Grand total                   | 1516.4 |

#### 1.5.4 Pilot of ZS-XPC

|                                   |  |               |      |     |    |
|-----------------------------------|--|---------------|------|-----|----|
| Nationality                       | South African  | Gender        | Male | Age | 63 |
| Licence Type                      | Commercial Pilot Licence (CPL)   |               |      |     |    |
| Licence Valid                     | Yes  | Type Endorsed | Yes  |     |    |
| Ratings                           | Instrument, Safety Pilot, Tug Pilot, Agricultural Rating   |               |      |     |    |
| Medical Expiry Date               | 31 March 2024 (Class 1)  |               |      |     |    |
| Restrictions                      | VML – Valid only with correction for defective distant, intermediate and near vision.  |               |      |     |    |
| SANS 10118:2011 Pilot Requirement | Pest Control Operator Certificate  |               |      |     |    |
| Previous Accidents                | On 27 February 1989 whilst flying a Cessna 188 registered ZS-KRR, there was loss of engine power during the late part of the take-off; the pilot dumped the chemical load, but the aircraft impacted a fence at the end of the runway which caused the speed to decay further. The aircraft stalled at low altitude, impacted terrain with one wing low, cartwheeled and came to rest in an inverted position. |               |      |     |    |

|  |  |
|--|--|
|  | <p>On 7 November 1995 whilst flying an Air Tractor AT-502B registered ZS-NIA, the pilot after take-off, encountered a strong tail wind on rotation and dumped the load at full power; the aircraft pitched up 90° and impacted the ground tail first.</p> <p>On 8 January 2022 whilst flying an Air Tractor AT-502A registered ZS-XPC, the left-wing tip of the aircraft struck a person on his left leg whilst videoing the aircraft during a crop-spraying detail.</p> |
|--|--|

#### Flying experience:

|                            |          |
|----------------------------|----------|
| Total hours                | 14 369.4 |
| Total past 90 days         | 134.3    |
| Total on type past 90 days | 134.3    |
| Total on type              | 3 941.1  |

## 1.6 Aircraft Information

### 1.6.1 Airframe ZS-STD:

|  |                                 |               |
|--|---------------------------------|---------------|
| Manufacturer/Model                         | Cessna Aircraft Company / T182T |               |
| Serial Number                              | T182-08106                      |               |
| Year of Manufacture                        | 2001                            |               |
| Total Airframe Hours (at time of accident) | 1 634.6                         |               |
| Last Inspection (Hours & Date)             | 1 561.2                         | 9 June 2023   |
| Hours Since Last Inspection                | 73.4                            |               |
| CRS Issue Date                             | 9 June 2023                     |               |
| C of A (Issue Date & Expiry Date)          | 16 March 2011                   | 31 March 2024 |
| C of R (Issue Date) (Present Owner)        | 4 April 2018                    |               |
| Type of Fuel Used                          | Avgas                           |               |
| MTOW                                       | 1 406kg (3 100lbs)              |               |
| Category                                   | Standard Normal (Aeroplane)     |               |
| Previous Accident                          | None                            |               |

Note: Previous accidents refer to past accidents the aircraft was involved in, when relevant to this accident.

#### Engine:

|                      |                       |
|----------------------|-----------------------|
| Type                 | Lycoming TIO-540-AK1A |
| Serial number        | L11094-61A            |
| Hours since new      | 1 634.6               |
| Hours since overhaul | TBO not reached       |

Propeller:

|                      |                    |
|----------------------|--------------------|
| Type                 | McCauley B3D36C442 |
| Serial number        | 011448             |
| Hours since new      | 1 634.6            |
| Hours since overhaul | TBO not reached    |

1.6.2 Airframe ZS-XPC:

|  |  |                   |
|--|--|-------------------|
| Manufacturer/Model                         | Air Tractor Incorporated / AT-502A (XP)  |                   |
| Serial Number                              | 502A-3241  |                   |
| Year of Manufacture                        | 2020   |                   |
| Total Airframe Hours (at time of accident) | 1 863.6  |                   |
| Last Inspection (Hours & Date)             | 1 818.0  | 20 December 2023  |
| Hours Since Last Inspection                | 45.6   |                   |
| CRS Issue Date                             | 20 December 2023   |                   |
| C of A (Issue Date & Expiry Date)          | 29 September 2020  | 30 September 2024 |
| C of R (Issue Date) (Present Owner)        | 7 September 2020   |                   |
| Type of Fuel Used                          | Jet A1   |                   |
| MTOW                                       | 4 754kg (10 480lbs)  |                   |
| Category                                   | Restricted Normal (Aeroplane)  |                   |
| Previous Accident                          | On 8 January 2022, the left-wing tip of the aircraft struck a person on his left leg whilst videoing the aircraft during a crop-spraying detail. |                   |

Note: Previous accidents refer to past accidents the aircraft was involved in, when relevant to this accident.

Engine:

|                      |                            |
|----------------------|----------------------------|
| Type                 | Pratt & Whitney PT6A-140AG |
| Serial number        | PCE-VB0081                 |
| Hours since new      | 1 863.6                    |
| Hours since overhaul | TBO not reached            |

\*NOTE: This was a modular engine comprising a compressor section and a power section.

Propeller:

|                      |                     |
|----------------------|---------------------|
| Type                 | Hartzell HC-B4TN-3C |
| Serial number        | CDA5864             |
| Hours since new      | 1 863.6             |
| Hours since overhaul | TBO not reached     |

## **1.7 Meteorological Information**

1.7.1 To be incorporated in the final report.

1.7.2 An on-site investigation was conducted on the same day of the occurrence. The accident investigation team arrived on-site approximately 3 hours after the occurrence; they assessed the weather as good with a light northerly wind.

## **1.8 Aids to Navigation**

1.8.1 Both aircraft were equipped with standard navigational equipment as approved by the Regulator (SACAA). There were no recorded defects with the navigational equipment prior to the accident.

## **1.9 Communications**

1.9.1 Both aircraft were equipped with a standard communication system as approved by the Regulator. There were no recorded defects with the communication system prior to the accident.

1.9.2 The aircraft were communicating on the very high frequency (VHF) 124.80-Megahertz (MHz). They also had a “company frequency”, which was used by the pilots to communicate whilst airborne. According to the company pilot who was also flying (an AT-802 registered ZS-CHB) at the time of the accident, the pilot of ZS-STD and ZS-XPC were in radio communication with each other on this frequency.

## **1.10 Aerodrome Information**

1.10.1 The accident did not occur at or near an aerodrome.

## **1.11 Flight Recorders**

1.11.1 Neither of the aircraft was equipped with a flight data recorder (FDR) or a cockpit voice recorder (CVR), nor was it required in accordance with the regulations.

1.11.2 The ZS-XPC was equipped with an Ag-Nav Platinum, model number P771 and serial number 771200025. This unit was recovered at the accident site and will be subjected to an examination with the aim to obtain the flight track flown by the pilot. AIID have been in contact with the original equipment manufacturer (OEM) in Canada and the unit will be sent there for examination.

1.11.3 The ZS-STD was equipped with a panel-mounted GPS unit. The OEM was contacted to advise if the unit had a non-volatile memory (NVM) that could be downloaded. AIID was informed that the unit did not have any NVM.

## **1.12 Wreckage and Impact Information**

1.12.1 The accident site radius of 110 metres (m) was covered by debris. The main wreckage of ZS-STD, which came to rest in an inverted attitude, faced north-easterly. The entire left wing had separated from the fuselage and was lying approximately 40m from the main wreckage. The pilot (left front) seat was lying next to the right wing, and the other seat was still in the cockpit/cabin area. The aircraft was severely damaged.

1.12.2 The main wreckage of ZS-XPC also came to rest in an inverted attitude facing south approximately 100m from the main wreckage of ZS-STD. The empennage of the aircraft was found separated from the main fuselage. The vertical stabiliser and rudder were found separated from the aft fuselage. One of the four propeller blades was severed from the hub assembly, with the three remaining blades sustaining extensive deformation. The deep groove mark on the ground indicated that the propeller was turning under power on impact. The cockpit/cabin area of the aircraft was also severed from the fuselage and the pilot seat, including the floor structure it was attached to, which had ripped off of the fuselage and was lying next to the right wing of the main wreckage of ZS-STD. The propeller gear drive, which is part of the engine, had separated from the rest of the engine and was still secured to the propeller hub assembly; the rest of the engine was undamaged and still secured to the fuselage. The spraying equipment, although deformed, had remained attached to the fuselage. The aircraft was equipped with an emergency locator transmitter (ELT); the unit remained intact and was flung off of the fuselage during the impact sequence.



**Figure 4:** An aerial view of the accident site.  
(Source: A person on-board an aircraft)



**Figure 5:** The main wreckage of ZS-STD.





**Figure 6:** The left wing of ZS-STD.



**Figure 7:** The main wreckage of ZS-XPC.





**Figure 8:** Deformed propeller blades, with one broken off.



**Figure 9:** The vertical stabiliser and rudder assembly near the left wing of ZS-STD.





**Figure 10:** The aft fuselage and empennage with the two horizontal stabilisers still attached.



**Figure 11:** The pilot seat and floor structure of ZS-XPC.

### 1.13 Medical and Pathological Information

1.13.1 To be discussed in the final report.

## **1.14 Fire**

1.14.1 There was no pre- or post-impact fire.

## **1.15 Survival Aspects**

1.15.1 The accident was considered not survivable due to the damage in the cockpit and cabin area of both aircraft. The occupants on-board the two aircraft were flung out during the accident.

## **1.16 Tests and Research**

1.16.1 To be discussed in the final report.

## **1.17 Organizational and Management Information**

1.17.1 The ZS-STD aircraft was engaged in a private flight which was conducted under the provisions of Part 91 of the CAR 2011 as amended.

1.17.2 The AMO that conducted the last mandatory periodic inspection (MPI) had an approval certificate that was issued by the Regulator on 27 February 2023 with an expiry date of 29 February 2024.

1.17.2 The ZS-XPC aircraft was engaged in a crop-spraying flight which was conducted under the provisions of Part 137 of the CAR 2011 as amended.

## **1.18 Additional Information**

1.18.1 The ZS-XPC aircraft was equipped with a 406 MHz ELT. The unit, which remained intact and in an armed position, was flung off of the fuselage during the accident sequence. The South African Mission Control Centre (ASMCC) based in Cape Town did not receive any coded distress signal (HEX ID: 4B288 AE6CC FFBFF) for this aircraft.





**Figure 12:** ELT unit as it was found at the accident site.

1.18.2 The ZS-STD was not fitted with an ELT.

## 1.19 Useful or Effective Investigation Techniques

1.19.1 To be discussed in the final report if any.

## 2. FINDINGS

### 2.1 General

From the evidence available, the following preliminary findings were made with respect to this accident. These shall not be read as apportioning blame or liability to any particular organisation or individual.

To serve the objective of this Investigation, the following sections are included in the conclusions heading:

- **Findings-** are statements of all significant conditions, events, or circumstances in this accident. The findings are significant steps in this accident sequence, but they are not always causal or indicate deficiencies.

### 2.2 Findings

#### The pilots

2.2.1 The ZS-STD pilot had a Private Pilot Licence (PPL). The licence was initially issued on 11 June 2019 by the Regulator. The licence was re-issued on 29 June 2022 with an expiry date of 30 June 2024. The licence had the aircraft type endorsed on it.

- 2.2.2 The ZS-STD pilot was issued a Class 2 aviation medical certificate on 12 June 2023 with an expiry date of 30 June 2024.
- 2.2.3 The second person (pilot) on-board the ZS-STD had a PPL on aeroplanes and helicopters, and was type rated on the Cessna T182T. The second person (pilot) was initially issued the licence on 19 March 2018 by the Regulator. The licence was re-issued on 8 March 2022 with an expiry date of 28 February 2024.
- 2.2.4 The second person (pilot) was issued a Class 2 aviation medical certificate on 3 October 2022 with an expiry date of 31 October 2023.
- 2.2.5 The ZS-XPC pilot had a Commercial Pilot Licence (CPL). The licence was initially issued on 21 December 1984 by the Regulator. The licence had the aircraft type endorsed on it.
- 2.2.6 The ZS-XPC pilot was issued a Class 1 aviation medical certificate on 4 September 2023 with an expiry date of 31 March 2024.

The aircraft (ZS-STD)

- 2.2.7 The last maintenance inspection that was conducted on the aircraft prior to the accident flight was certified on 9 June 2023 at 1 561.2 airframe hours by an approved aircraft maintenance organisation (AMO). The aircraft had flown 73.4 hours since the inspection.
- 2.2.8 The aircraft was re-issued a Certificate of Airworthiness (C of A) on 14 September 2023 with an expiry date of 30 September 2024.
- 2.2.9 The aircraft was issued a Certificate of Registration (C of R) under the present owner on 15 April 2002.
- 2.2.10 The aircraft was issued a Certificate of Release to Service (CRS) on 6 June 2023, which was valid until 5 June 2024 or at 1 661.2 airframe hours, whichever comes first.
- 2.2.11 The aircraft was fitted with dual flight controls.
- 2.2.12 The aircraft was not fitted with an ELT.
- 2.2.13 ZS-STD was seen flying next to ZS-XPC and it made a turn which resulted in a midair collision with ZS-XPC.

### The aircraft (ZS-XPC)

- 2.2.14 The last maintenance inspection that was conducted on the aircraft prior to the accident flight was certified on 20 December 2023 at 1 818.6 airframe hours by an approved AMO. The aircraft had flown 45.6 hours since the inspection.
- 2.2.15 The aircraft was re-issued a Certificate of Airworthiness (C of A) on 14 September 2023 with an expiry date of 30 September 2024.
- 2.2.16 The aircraft was issued a Certificate of Registration (C of R) under the present owner on 7 September 2020.
- 2.2.17 The aircraft was issued a Certificate of Release to Service (CRS) on 20 December 2023, which was valid until 19 December 2024 or at 1 918.6 airframe hours, whichever comes first.
- 2.2.18 The aircraft was fitted with an ELT; no distress signal (HEX ID) was received by the relevant authorities in South Africa following the accident.

### Environment

- 2.2.19 Weather conditions indicated good visibility with scattered clouds at the time. The prevailing wind was light and variable from the north-east.

## **3. ON-GOING INVESTIGATION**

- 3.1 The AIID investigation is on-going and the investigators will be investigating other aspects of this accident which may or may not have safety implications.

## **4. Safety Recommendations**

- 4.1 None.

## **5. Appendices**

- 5.1 None.



**This report is issued by:  
Accident and Incident Investigation Division  
South African Civil Aviation Authority  
Republic of South Africa**