REPUBLIC OF NAMIBIA

MINISTRY OF WORKS AND TRANSPORT

Directorate of Aircraft Accident and Incident Investigations

Accident Reference: ACCID/05032024-01-01

Aircraft Accident Investigation Interim Report

Reims Cessna F406 Caravan II aircraft: V5-ASB

RELEASE DATE: **03 MAY 2025**

Introduction

In view of the sustained interest within the aviation industry, and amongst the travelling public, it is considered appropriate to publish an update on the continuing investigation into this accident. This report is in addition to the Preliminary Accident Report, that was released on the 23rd of May 2024.

The information contained in this Interim Report is published to inform the aviation Industry and the public of the general circumstances of the accident that occurred on the 03rd of May 2024 in Pioneerspark residential area, Windhoek, Namibia. At about 15:08 UTC, the aircraft crashed in residential area shortly after take-off from Eros Airport, Windhoek. The 3 occupants on board were fatally injured, the aircraft was destroyed by impact forces and a fuel-fed post-impact fire.

In accordance with policies of the Directorate of Aircraft Accident and Incident investigations (DAAII) which is in-line with ICAO Annex 13 to the Convention on International Civil Aviation, the sole objective of the investigation is to determine the probable cause of the accident and to make safety recommendations intended to prevent reoccurrence.

It is not the purpose of this activity to apportion blame or liability.

Note: Readers are cautioned that there is the possibility that new information may become available that alters this Interim Report prior to the availability of the Final Accident Report.

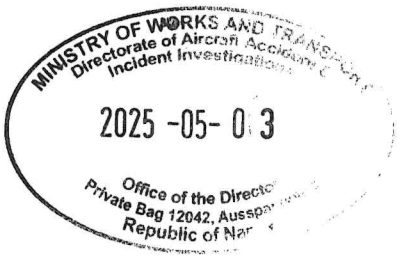

Figure 1: The Reims Cessna 406 aircraft V5-ASB accident aircraft (source: Operator)

V5-ASB Reims Cessna F406 Caravan II 406-0031 (S/N)

FACTUAL INFORMATION

History of the flight

On Friday Afternoon, 03 May 2024, a Cessna F406 aircraft with registration V5-ASB departed from Windhoek Eros (FYWE) on a post maintenance test flight at time 15H06 UTC (17H06 Local Time). The intention was to test the aircraft after the right engine was replaced and once done, they would land back at Eros Airport. On board the aircraft were 2 pilots and an engineer. The crew informed the Air Traffic Controller (ATC) that they would like to do test flight over the Goreangab dam area at 8000 feet AMSL. The ATC approved the request and cleared the Aircraft for take-off.

The Pilot in Command (PIC) then commenced with the take-off. After rolling for some distance, she commenced with the lift-off. The ATC watched the departure closely and noticed that before the aircraft crossed over the end of the Runway, it was banking sharply to the left; thereafter it rolled further to the left. He soon realized that the aircraft was out of control and crashing, so he pressed the crash alarm to alert the Airport Rescue and Fire Fighting Services (ARFFS). The ARFFS informed the ATC that they could see smoke to the west of the airfield and responded immediately to the crash site. As per the ARFFS protocol (off airport crash) they also informed the City of Windhoek Fire Services.

According to CCTV camera footage, shortly after take-off a cloud of smoke could be observed around the left engine, consistent with a malfunction in the left engine. As soon as the smoke around the left engine was observed, the aircraft banked sharply to the left and crashed.

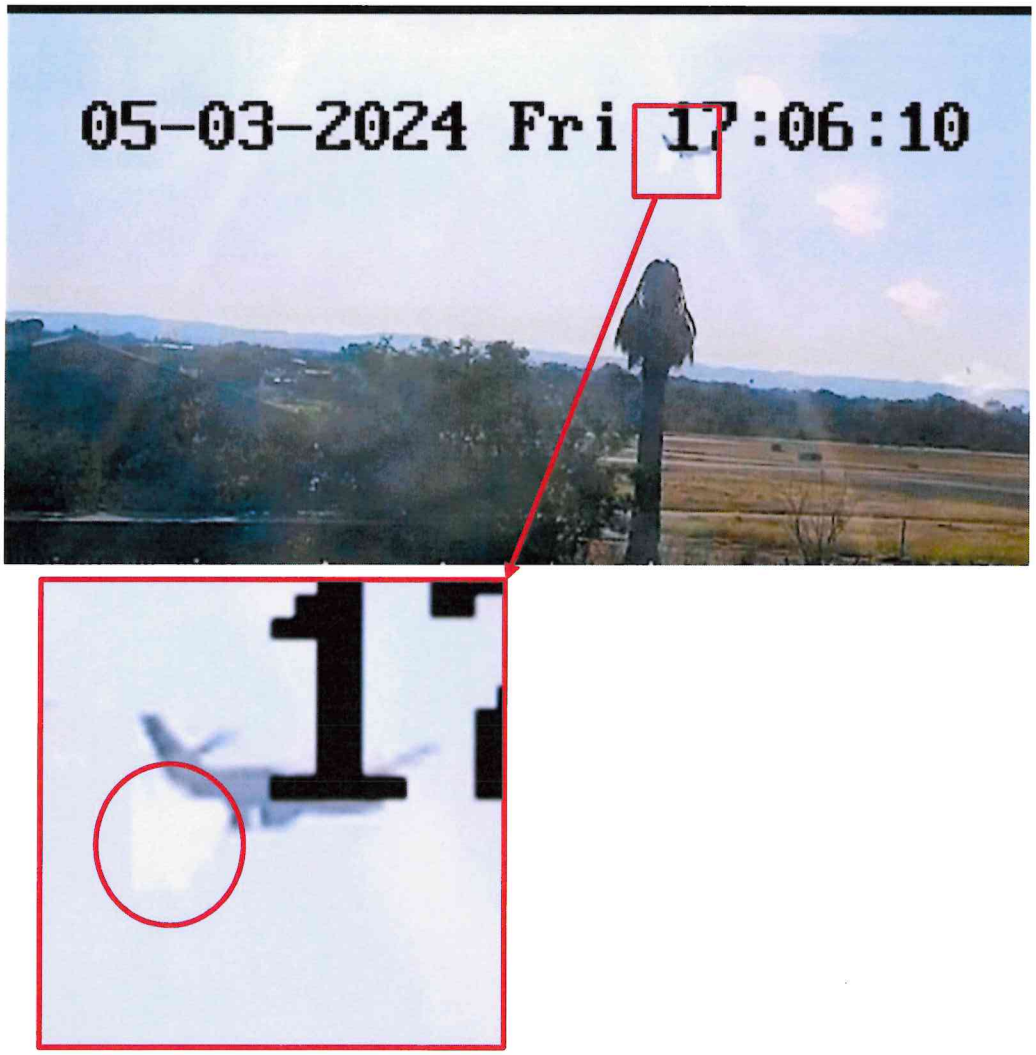

Figure 2: Image shows a cloud of smoke observed around the left engine. (CCTV Footage courtesy of the Operator)

Eyewitnesses close to the crash location stated that they could hear that one of the engines was making stuttering or back firing sounds before it impacted the ground.

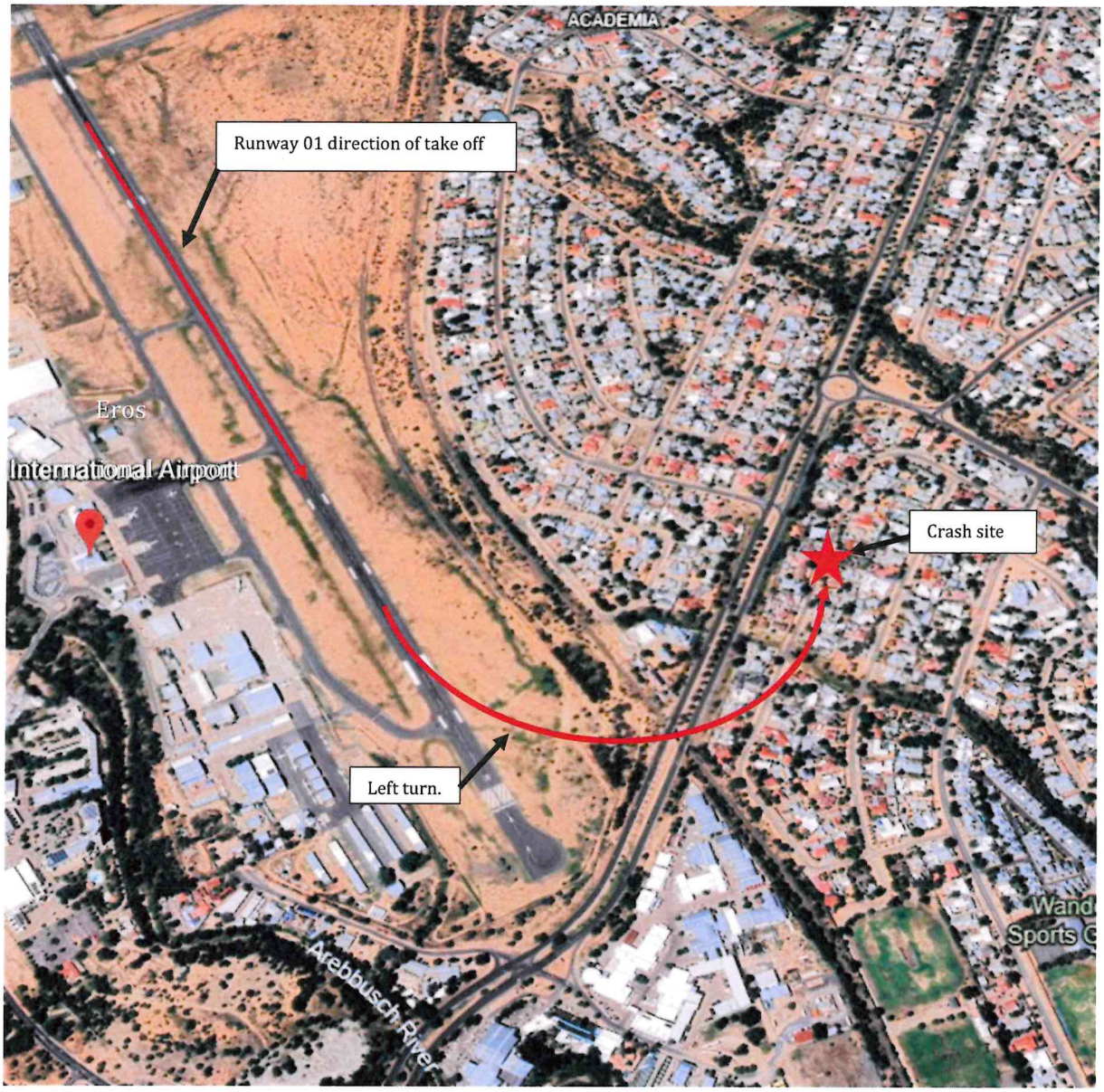

Figure 3: Picture showing where the Aircraft crashed (Image: Google Earth).

Eyewitnesses and members of the Neighborhood Watch, rushed to the crash site, but were met by a fuel-fed fire. The AFRRS also rushed to the scene and was on site within 7 minutes and quickly put out the raging fire. They were later joined by City of Windhoek fire brigade who assisted, but sadly, all 3 occupants on board were fatally injured.

The Directorate of Aircraft Accident and Incident Investigations was immediately informed by ATC and a full Investigation was launched.

DAMAGE TO AIRCRAFT

The aircraft was destroyed by impact forces and a fuel-fed post-impact fire.

WRECKAGE AND IMPACT INFORMATION

The aircraft was observed in a steep nose-down attitude with the left wing oriented approximately 90 degrees downward (left bank) prior to impacting the ground within a residential area.

Figure 4 and 5: Pictures showing the aircraft banking sharply to the left, shortly before it crashed (CCTV Footage)

The left wing impacted the ground first followed by the left engine and then the nose section of the aircraft, hitting trees in the first yard. The impact caused the aircraft to flip sideways breaking through two precast fences and a small wall. It came to rest in the corner of the second yard with the right horizontal stabilizer and elevator ended up on top of the precast fence. The impact resulted in fuel discharge from the left wing onto the adjacent street. One of the left engine's propeller blades was separated during the impact sequence and was found approximately 200 meters from the main wreckage, having come to rest in a separate residential yard. Post-impact, the aircraft breached a precast perimeter fence, after which a fire ensued.

Figure 6: Picture showing where the left horizontal stabilizer and elevator came to rest.

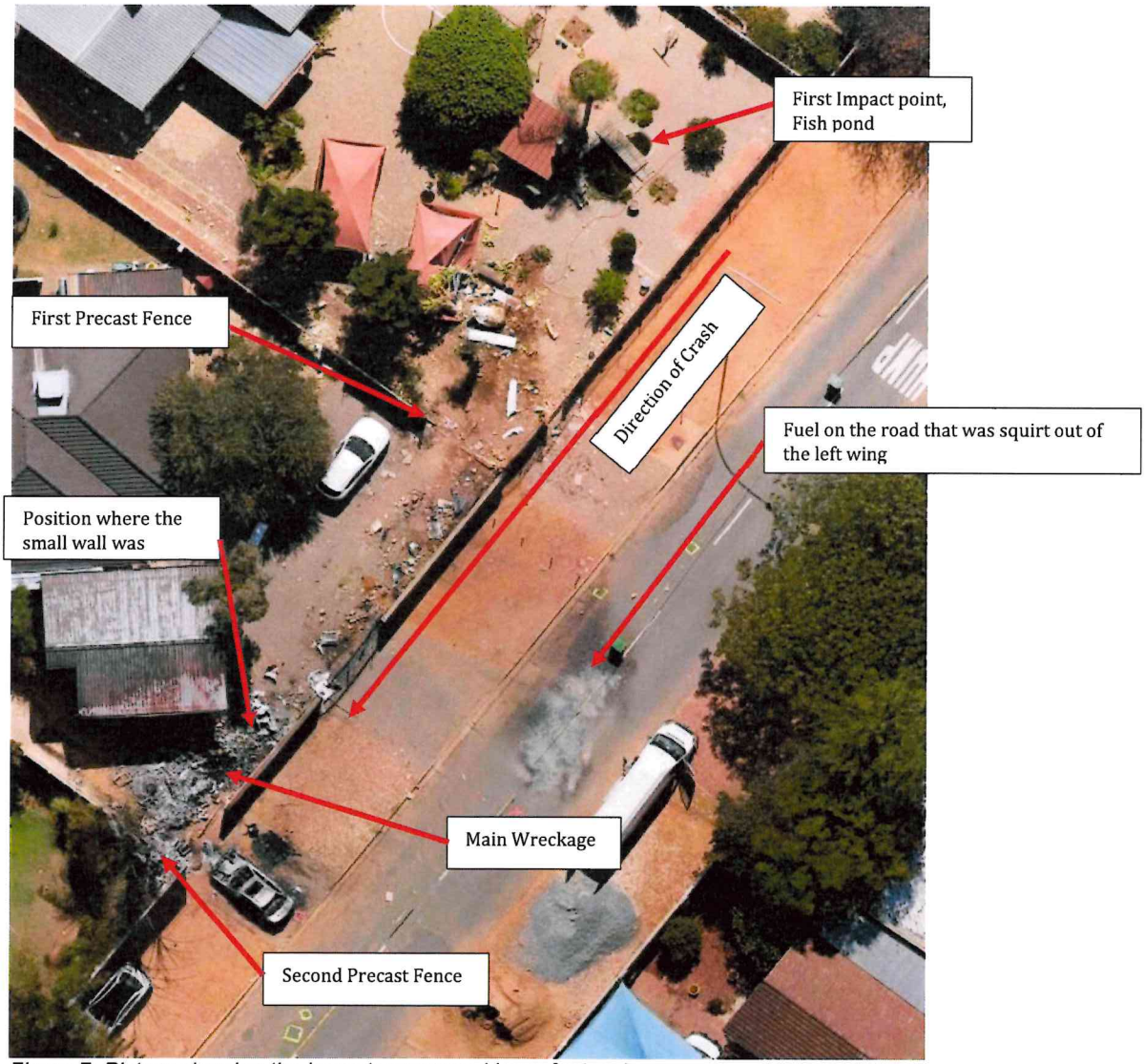

Figure 7: Picture showing the impact sequence (drone footage).

SURVIVABILITY

The accident was not survivable. The severity of the impact forces, combined with the post-impact fire, exceeded human body tolerance levels.

Examination of the wreckage and occupant space revealed significant intrusion and fragmentation of the cockpit and cabin areas.

PERSONNEL INFORMATION

Pilot-in-command

The pilot was a 33-year-old South African citizen and was a holder of a valid Namibian Commercial Pilot License issued according to the Namibian Civil Aviation Regulation (2001) part 61.01.10. Her instrument rating was valid from 10 October 2023 until 16 October 2024. The pilot had a total of 4450.4 hours flying experience of which she logged 2448.1 hours on the Cessna F406 type.

She also had valid class 1 and 2 aviation medical certificates issued in accordance with Part 67, on 05/03/2024. The Class 1 medical certificate had an expiring date 31/03/2025 and the Class 2 expiring date was 31/03/2029.

Co-Pilot

The pilot was a 24-year-old South African citizen and was a holder of a valid Namibian Commercial Pilot License issued in according to the Namibian Civil Aviation Regulation (2001) part 61.01.10. His instrument rating was valid from 02 February 2024 until 02 February 2025. The pilot had a total of 345.4 hours flying experience of which he logged 72 hours on the Cessna F406 type.

He also had valid class 1 and 2 aviation medical certificates issued in accordance with Part 67, on 22/11/2023. The Class 1 medical certificate had an expiring date 30/11/2024 and the Class 2 expiring date was 30/11/2028.

FLIGHT RECORDERS

The aircraft was not equipped with a Cockpit Voice Recorder (CVR) or a Flight Data Recorder (FDR), nor was it required to be under applicable regulations. As a result, no flight recorders were recovered from the accident site.

Investigators relied on witness statements, surveillance footage from nearby residences, and physical evidence from the wreckage to reconstruct the final phase of flight.

ON-GOING ACTIVITIES.

The two turboprop engines of the accident Cessna F406 aircraft were sent to the engine manufacturer in Canada. The investigator-in-charge traveled to Canada in October 2024 and participated in the engines teardown. The teardown/investigation was completed on the 11th of October 2024, however 3 parts were identified which required further testing and investigation. One was an engine part and the other two were airframe parts that were attached to the left engine.
Two of the parts were tested, with one test still outstanding.

ANALYSIS AND FINDINGS

The analysis and findings will be discussed in detail in the final report.

CONCLUSION

The Interim Accident Report has been made available as an update on the progress of this investigation. Once the investigation is complete, the **Final Draft Report** will be send to the relevant stakeholders for comments. The stakeholders include the State of the aircraft manufacture and all parties who participated in the investigation. Once all comments are received and considered, the **Final Report** will be released to the public.

Compiled by:

Ben C. A. Engelbrecht
Investigator-in-charge

Date: 03 May 2025

Released by:

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Philippine Lundama
ACTING DIRECTOR: AIRCRAFT ACCIDENT AND INCIDENT INVESTIGATIONS

Date: 03 May 2025