

PRELIMINARY ACCIDENT REPORT

Accident and Incident Investigations Division

Accident
- Preliminary Report -
AIID Ref No: CA18/2/3/10595



Figure 1: The file picture of the aircraft. (Source: <https://www.jetphotos.com/registration/ZS-AEC>)

Description:

On Thursday afternoon, 14 August 2025, a pilot on board an Extra EA-300L aircraft with registration ZS-AEC took off from Virginia Airport (FAVG) in KwaZulu-Natal province to the Suncoast Casino in the same province to partake in an airshow, with the intention to return to FAVG. At approximately 1151Z, the aircraft entered the display box and the pilot commenced with the aerobatic display. At 1154Z whilst the aircraft was in a left aileron roll (rolling to the left), it levelled off and impacted the water. The Aeronautical Rescue Coordination Centre (ARCC) declared a distress phase (DETRESFA) at 1157Z. The on-site emergency personnel, which comprised the National Sea Rescue Institute (NSRI), including the South African Police Service (SAPS); the eThekweni Metro Police Search and Rescue (EMPSR) and the South African Defence Navy (SADN) responded to the crash site. Parts of the wreckage were recovered, including the empennage, elevators, both wings' skin composite covers, both wings' ailerons and the engine. The cockpit section of the aircraft and the pilot were not located during the initial rescue operation. The remains of the pilot only washed up on Bay Beach on the evening of 12 September 2025.

Occurrence Details

Reference Number	: CA18/2/3/10595
Occurrence Category	: Category 1 (Accident)
Type of Operation	: Part 135
Name of Operator	: Arnie Air (PTY) LTD
Aircraft Registration	: South African
Aircraft Make and Model	: Extra Flugzeugbau GmbH/EA 300L
Nationality	: South African
Registration Marks	: ZS-AEC
Place	: Battery Beach near Suncoast Casino, Durban
Date and Time	: 14 August 2025 at 1154Z
Injuries	: Fatal
Damage	: 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 the occurrence involving an Extra EA 300L aircraft at Battery Beach near Suncoast Casino, KwaZulu-Natal province, on 14 August 2025 at 1154Z. The occurrence was classified as an accident according to the CAR 2011 Part 12 and the International Civil Aviation Organisation (ICAO) STD Annex 13 definitions.

The AIID has appointed an investigator-in-charge and a co-investigator to conduct a full investigation. The investigators were at the crash site at the time of the accident. Notifications were sent to the State of Registry, Operator, and Design and Manufacturer in accordance with the CAR 2011 Part 12 and the ICAO Annex 13 Chapter 4. The State of Design and Manufacturer (Germany) did not appoint an accredited representative and/or advisor. The AIID will lead the investigation and issue the final report of this accident in accordance with the CAR 2011 Part 12 and the 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 report.

The AIID reports are made available to the public at:

<https://www.caa.co.za/industry-information/accidents-and-incidents/>

Notes:

1. *Whenever the following words are mentioned in this report, they shall mean the following:*

Accident — this investigated accident

Aircraft — the Extra EA 300L involved in this accident

Investigation — the investigation into the circumstances of this accident

Pilot — the pilot 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.

Table of Contents

Occurrence Details.....	2
Purpose of the Investigation.....	2
Investigation Process.....	2
Disclaimer.....	3
Contents Page.....	4
Abbreviations.....	5
1. FACTUAL INFORMATION.....	6
1.1. History of Flight.....	6
1.2. Injuries to Persons.....	9
1.3. Damage to Aircraft.....	10
1.4. Other Damage.....	10
1.5. Personnel Information.....	10
1.6. Aircraft Information.....	12
1.7. Meteorological Information.....	13
1.8. Aids to Navigation.....	13
1.9. Communication.....	14
1.10. Aerodrome Information.....	14
1.11. Flight Recorders.....	14
1.12. Wreckage and Impact Information.....	14
1.13. Medical and Pathological Information.....	17
1.14. Fire.....	17
1.15. Survival Aspects.....	17
1.16. Tests and Research.....	17
1.17. Organisational and Management Information.....	17
1.18. Additional Information.....	19
1.19. Useful or Effective Investigation Techniques.....	19
2. FINDINGS.....	20
3. ON-GOING INVESTIGATION.....	22
4. SAFETY RECOMMENDATIONS.....	22
5. APPENDICES.....	22

Abbreviation	Description
°	Degrees
°C	Degrees Celsius
AeCSA	Aero Club of South Africa
AIID	Accident and Incident Investigations Division
AMSL	Above Mean Sea Level
ARCC	Aeronautical Rescue Coordination Centre
ATC	Air Traffic Control
ATPL	Airline Transport Pilot Licence
CAMU	Central Airspace Management Unit
CAR	Civil Aviation Regulations
C of R	Certificate of Registration
CRS	Certificate of Release to Service
DAR	Dar es Salaam
DETRESFA	Distress Phase
EMPSR	eThekweni Metro Police and Search and Rescue
FALE	King Shaka International Airport
FAOR	O.R. Tambo International Airport
FAVG	Virginia Airport
FDD	Flight Display Director
FSO	Flight Safety Officer
ft	Feet
GPS	Global Positioning System
hPa	Hectopascal
HTDA	Julius Nyerere International Airport
ICAO	International Civil Aviation Organisation
kt	Knots
m	Metres
MHz	Megahertz
METAR	Meteorological Aerodrome Report
NSRI	National Sea Rescue Institute
POH	Pilot Operating Handbook
SACAA	South African Civil Aviation Authority
SAE	Special Air Events
SANDF	South African National Defence Force
SADN	South African Defence Navy
SAPS	South African Police Service
SAWS	South African Weather Service
TBA	To be Advised
QNH	Altitude Above Mean Sea Level
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 Thursday afternoon, 14 August 2025 at approximately 1145Z, a pilot on-board an Extra EA 300L aircraft took off from Virginia Airport (FAVG) in Durban, KwaZulu-Natal province, to partake in an airshow at Suncoast Casino in the same city, with the intention to return to the take-off airport. The flight was conducted under visual meteorological conditions (VMC) by day and under the provisions of Part 135 of the Civil Aviation Regulations (CAR) 2011 as amended.
- 1.1.2. This event was organised by Smoke on Go Foundation on behalf of the South African Civil Aviation Authority (SACAA). According to the flight display director (FDD) and flight safety officer (FSO), an airshow display area was viewed on 13 August 2025; the ZS-AEC pilot was also present during the viewing. The airshow commenced from 1000Z on 14 August 2025; it culminated after the accident. The operational parameters included a 2 nautical miles (nm) radius entered at North Beach near the Casino, with a vertical limit of 3000 feet (ft) above mean sea level (AMSL). All aircraft took off from FAVG. Each aircraft was issued an airshow squawk code (unique aircraft identifying code) by King Shaka International Airport (FALE) air traffic control (ATC). The aircraft operating in the display box were assigned frequency 120.9-Megahertz (MHz). Upon completion of the aerobatic display and after leaving the display box, all aircraft had to switch to FAVG ATC frequency 120.6-MHz. The aircraft that were routing to the display box were required to fly along the beach line, and those routing back to FAVG were required to fly overland, as indicated in Figure 2.
- 1.1.3. According to the FDD, a normal airshow aerobatic display sequence was submitted by the ZS-AEC pilot on 13 August 2025 during the initial display debriefing; the display sequence was similar to the one used by the pilot on Sunday, 10 August 2025, at the Virginia Airshow. However, on the morning of 14 August 2025, the pilot sent a WhatsApp message to the FDD indicating that there was a change in his display sequence; he stated that he would enter the display box in the following order: *inverted from the crowd left, followed by a push into ½ Cuban, a low-level fly-pass, and a steep climb out to position for a descending run* (see Figure 4). The pilot was scheduled to initiate his display as the seventh in line; however, his display commenced as the eighth in line due to an additional display at the beginning of the airshow.
- 1.1.4. According to FALE ATC radar recording, at approximately 1145Z, FAVG ATC advised Durban approach that ZS-AEC “Nashua” was ready for departure. The FALE approach ATC gave a go-ahead for ZS-AEC to depart with an airspace operational limit approval of 3000 ft AMSL. A further instruction was communicated to keep ZS-AEC on the FAVG frequency; however, FAVG ATC advised that the aircraft would be handed over to the display box frequency 120.9-MHz.

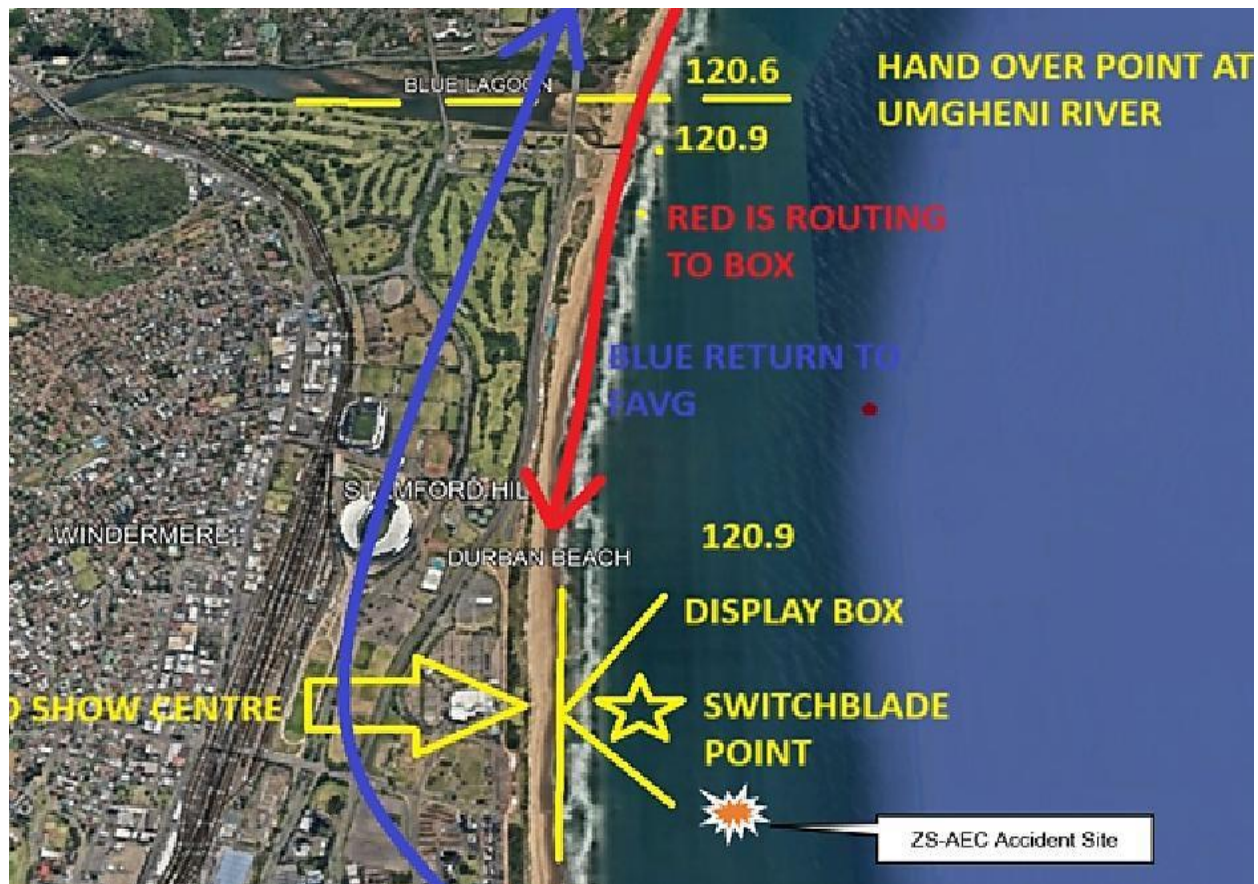


Figure 2: The allocated airspace layout for the airshow display. (Source: ATNS-FALE)

1.1.5. At around 1151Z, the aircraft entered the aerobatic box and commenced the display sequence in an inverted low-level manoeuvre. The pilot then pulled up and made a left turn over the ocean, followed by a low-level pass to the left. Shortly afterwards, the aircraft climbed again and made a right turn further east over the ocean and, thereafter, turned south at an altitude of approximately 1700 ft AMSL. The pilot initiated another right turn towards the west, aligning the aircraft with the viewing area whilst flying northbound. At this point, the aircraft performed five consecutive left aileron rolls whilst descending from 1700 ft AMSL (instead of 2200ft AMSL) at a 45-degree angle. The video footage showed the aircraft in a left aileron roll (rolling to the left) before it levelled off and impacted the water (see Figure 3).

1.1.6. The Aeronautical Rescue Coordination Centre (ARCC) declared a distress phase (DETRESFA) at 1157Z. The on-site emergency personnel comprising the National Sea Rescue Institute (NSRI), including the South African Police Service (SAPS); the eThekweni Metro Police Search and Rescue (EMPSR) and the South African Defence Navy (SADN) responded to the crash site. They first recovered the aircraft document file, some personal items, and the pilot's helmet. Later the same day, parts of the aircraft wreckage were recovered, including the empennage, elevators, both wings' skin composite covers and both wings' ailerons; the engine was recovered on Wednesday, 20 August 2025 following the use of an underwater scanning device. The cockpit section and the pilot were not located during the initial rescue operation.

- 1.1.7. The remains of the pilot only washed up on Bay Beach on the evening of 12 September 2025; the cockpit has still not been found.
- 1.1.8. The accident occurred offshore during daylight at Global Positioning System (GPS) co-ordinates determined to be 29°50'18.91"S, 031°2'29.40"E. The wreckage was sinking to a depth of approximately 9-11 metres (m).

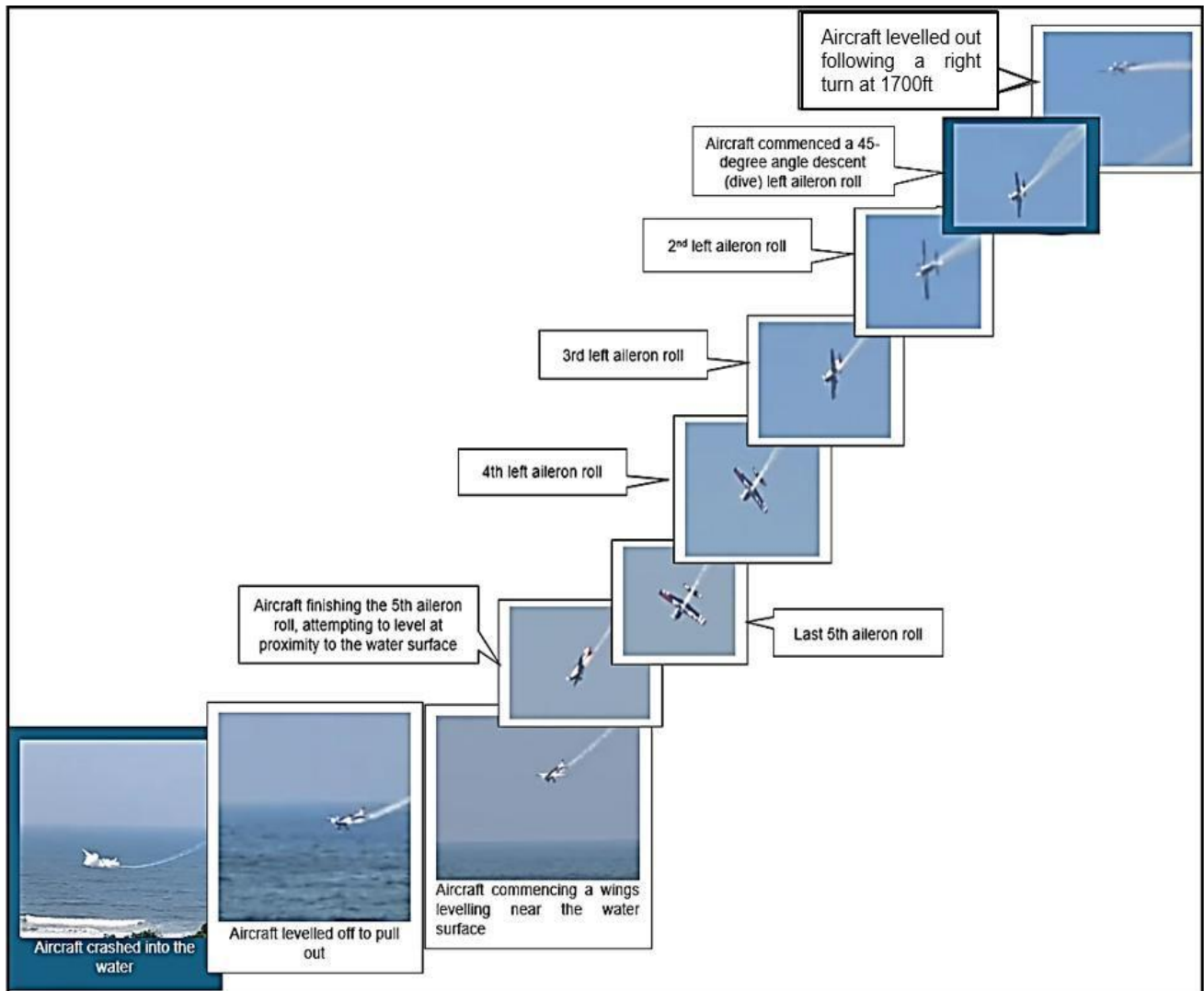


Figure 3: The accident sequence captured on the video footage.

Ng AP - 2025
**NASHUA EXTRA SEQUENCE
 (2025)**

- Climb to 100ft after airborne, ½ roll
- Inverted flight along runway
- ½ roll to upright, accelerate for ½ Cuban
- 1 ½ roll to upright
- Low level high speed fly past, pitch up for steep climb out to 2200ft agl
- Diving LH aileron rolls at 45 degree to display line *
- Pull to vertical, RH aileron rolls
- Push forward into lazy tumble
- Establish vertical down with ½ L then ½ R (if parallel) or ¾ roll opposite
- Pull vertical, 1x roll, negative tail slide, 1 ½ rolls down line
- Gain max energy, pull up and away from crowd into inverted 3 ¾ snap roll, pull through to reposition for run in parallel to display line; min height, max speed
- Turn away from crowd, 60 deg climb to 1500ft agl; ½ roll; into forward tumble
- Re-position parallel to display line for high speed double roll
- Pull up and away from display line into high barrel roll; end 45 deg off display line
- Pull to vertical, L ½ roll, stall turn, ½ RH roll
- Pull horizontal ¼ Left roll, ½ right roll, pull up high right for Derry turn to left with slow roll positioning parallel to display line; min height, max speed
- Pull up for loop with double snap at apex
- Pull vertical, pull for shark tooth
- 45 deg down, 1x roll to inverted; push out at min 200' agl
- Push up to 45 degrees, 4 rolls
- Position to run in 90 degrees to crowd centre
- Pull to vertical; pull back to 45 degrees, ½ roll into 2 turn upright spin
- Run in for low level slow rolls
- Pull up and away, max climb
- Position 90 deg to crowd line, descend low level to gain max energy
- Pull to vertical; 4x4 vertical roll; push into negative P loop; ½ roll; full roll
- Position round for knife edge pass
- End sequence
- Land

As not taking off to commence my sequence there is a change to what I sent you yesterday

- enter inverted from crowd left
- push into 1/2 Cuban
- low level fly past
- steep climb out to position for descending run in

Figure 4: The aerobatic sequence submitted by the pilot. (Source: FDD)

1.2. Injuries to Persons

Injuries	Pilot	Crew	Pass.	Total On-board	Other
Fatal	1	-	-	1	-
Serious	-	-	-	-	-
Minor	-	-	-	-	-
None	-	-	-	-	-
Total	1	-	-	1	-

Note: Other means people on the ground.

1.2.1. The remains of the pilot were found on 12 September 2025.

1.3. Damage to Aircraft

1.3.1. The aircraft was destroyed during impact with the water.



Figure 5: Reconstruction of the aircraft with elements that were recovered on the day of the accident.

1.4. Other Damage

1.4.1. None.

1.5. Personnel Information

Nationality	South African	Gender	Male	Age	61
Licence Type	Airline Transport Pilot Licence (ATPL)				
Licence Valid	Yes	Type Endorsed	Yes		
Ratings	Night, Instrument, Safety Pilot				
Medical Expiry Date	31 January 2026				
Restrictions	Corrective lenses required				
Previous Accidents	None				

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

1.5.1. The pilot had a display authorisation approval that was issued by the Regulator (SACAA) on 10 March 2025 with an expiry date of 10 March 2026. The pilot was a member of the Aero Club of South Africa (AeCSA) under Airshow South Africa Association (ASSA) and Sport Aerobatic Club (SAC); the membership had a validity from 1 January 2025 to 31 December 2025. The pilot had an Advance Aerobatic Rating.

Flying Experience:

Total Hours	17 235
Total Past 24 Hours	0.13
Total Past 7 Days	6.8
Total Past 90 Days	157
Total on Type Past 90 Days	13.7
Total on Type	636

1.5.2. The pilot had an Airline Transport Pilot Licence (ATPL) that was initially issued by the Regulator on 25 November 1996. He began his aviation career with the South African Air Force (SAAF) before he joined the airline sector in which he gained extensive experience flying both domestic and international routes. The pilot was also a skilled aerobatic display pilot. At the time of the accident, he was employed by the South African Airways (SAA). His last recorded commercial flight took place on 11 August 2025 from O.R. Tambo International Airport (FAOR) in Gauteng province to Julius Nyerere International Airport (HTDA) in Dar es Salaam (DAR), Tanzania. He returned to FAOR the following day, on 12 August 2025, and flew to FALE to participate in the airshow in Durban.

1.5.3. On 13 August 2025, the pilot spent the day involved in airshow preparations. He also conducted a site visit and inspection of the airshow venue to familiarise himself with the layout and operational arrangements. On the morning of 14 August 2025, he attended the official airshow safety briefing in which he joined other participants as part of the event's final safety preparations.

1.5.4. The pilot's licence was renewed on 9 June 2025 with an expiry date of 31 May 2026. The pilot's Class I aviation medical certificate was issued on 31 July 2025 with an expiry date of 31 January 2026. The medical certificate had a restriction for him to wear corrective lenses for defective distance vision.

1.5.5. The pilot was qualified and rated on the aircraft type and its series, which were endorsed on his licence. The pilot had a total of 17 235 hours of flying, of which approximately 636 hours were accrued on the aircraft type.

1.5.6. At the time of the accident, the pilot was performing a left-hand aileron roll. The manoeuvre was initiated at 1700 ft AMSL instead of the planned 2200 ft AMSL; he completed five consecutive rolls at a 45-degree dive angle before the aircraft impacted the water (ocean) in a level-off attitude.

1.6. Aircraft Information

1.6.1. Aircraft Description (Source: Pilot Operating Handbook [POH])

The Extra 300L is a two-seat, tandem-configuration, low-wing aerobatic monoplane with a conventional tailwheel (taildragger) undercarriage. The aircraft is powered by a Lycoming AEIO-540-L1B5 six-cylinder, fuel-injected, aerobatic engine, driving an MT-Propeller MTV-9-B-C constant-speed propeller. It is fitted with a fixed landing gear comprising two main spring struts and a steerable tailwheel.

Airframe:

Manufacturer/Model	Extra Flugzeugbau GmbH/ EA-300L	
Serial Number	1209	
Year of Manufacture	2005	
Total Airframe Hours (At Time of Accident)	TBA	
Last Inspection (Date & Hours)	25 February 2025	726.5
Hours Since Last Inspection	TBA	
CRS Issue Date	26 February 2025	
C of A (Issue Date & Expiry Date)	27 March 2025	30 April 2026
C of R (Issue Date) (Present Owner)	25 March 2025	
Type of Fuel Used	AVGAS 100LL	
Operating Category	Standard Acrobatic	
Previous Accidents	None	

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

Engine:

Manufacturer/Model	Lycoming/ AEIO-540-L1B5
Serial Number	RL 25057-48E
Part Number	AEIO-540-L1B5
Hours Since New	TBA
Hours Since Overhaul	TBO has not yet received

Propeller:

Manufacturer/Model	MT Propeller/ MTV-9-B-C
Serial Number	05581
Part Number	WE-23069/ WE-23070/ WE-23071
Hours Since New	TBA
Hours Since Overhaul	74.5

Note: The total aircraft hours and the operating times of the components listed above could not be determined because the aircraft's cockpit section and the flight folio were not yet found at the time of compilation of this report.

1.6.2. The aircraft had a Certificate of Airworthiness (C of A) that was issued on 27 March 2025 with an expiry date of 30 April 2026. The aircraft was registered under the current owner on 14 November 2016.

1.6.3. The maintenance of the aircraft was conducted on 25 February 2025 at 726.5 airframe hours after which a Certificate of Release to Service (CRS) was issued with an expiry date of 26 February 2026 or at 826.5 airframe hours, whichever comes first.

1.7. Meteorological Information

1.7.1. The weather information below was obtained from the Meteorological Aerodrome Report (METAR) that was issued by the South African Weather Service (SAWS), recorded at FAVG on 14 August 2025 at 1200Z. The accident site was approximately 4 nm from FAVG.

Wind Direction	060°	Wind Speed	07kt	Visibility	CAVOK
Temperature	25°C	Cloud Cover	None	Cloud Base	None
Dew Point	18°C	QNH	1016hPa		

1.8. Aids to Navigation

1.8.1. The aircraft was equipped with standard navigational equipment as approved by the Regulator. There were no records indicating that the navigational equipment was unserviceable before the flight.

1.9. Communication

1.9.1. The aircraft was equipped with a standard communication system as approved by the Regulator. There were no recorded defects with the communication system prior to the flight. All communication with the aircraft was conducted through 120.9-MHz radio frequency within the display box. There were no defects reported with the aircraft's radio before the flight.

1.10. Aerodrome Information

1.10.1. The accident occurred offshore during a display airshow at the beach near Suncoast Casino, approximately 4 nm south of FAVG at GPS co-ordinates determined to be 29°50'18.91"S, 031°2'29.40"E at a depth of approximately 9m.

Aerodrome Name	Virginia Airport (FAVG)
Aerodrome Location	KwaZulu-Natal
Aerodrome Status	Licensed
Aerodrome GPS co-ordinates	29°46'21.10" South, 0 31° 3'27.01" East
Aerodrome Elevation	20ft
Runway Headings	05/23
Dimensions of Runway Used	925 m x 22 m
Heading of Runway Used	05
Surface of Runway Used	Asphalt
Approach Facilities	None
Radio Frequency	120.60-MHz

1.11. Flight Recorders

1.11.1. The aircraft was neither equipped with a flight data recorder (FDR) or a cockpit voice recorder (CVR), nor was it required by regulation to be fitted to the aircraft type.

1.12. Wreckage and Impact Information

1.12.1. The aircraft performed five consecutive left aileron rolls whilst descending from 1700 ft AMSL (instead of 2200 ft AMSL) at a 45-degree angle. The video footage submitted as evidence showed the aircraft in a left aileron roll (rolling to the left) before it levelled off and impacted the water (see Figure 3).

1.12.2. The aircraft impacted the water at GPS co-ordinates determined to be 29°50'18.91"S, 031°02'29.40"E and the wreckage was sinking to a depth of 9-11m. The aircraft disintegrated during the impact sequence; parts of the aircraft, including sections of the outer skin, engine cowling and sections of the wings were later recovered from the water. Some of the debris was found floating near the impact site whilst other fragments drifted and washed up along the coastline near FAVG.

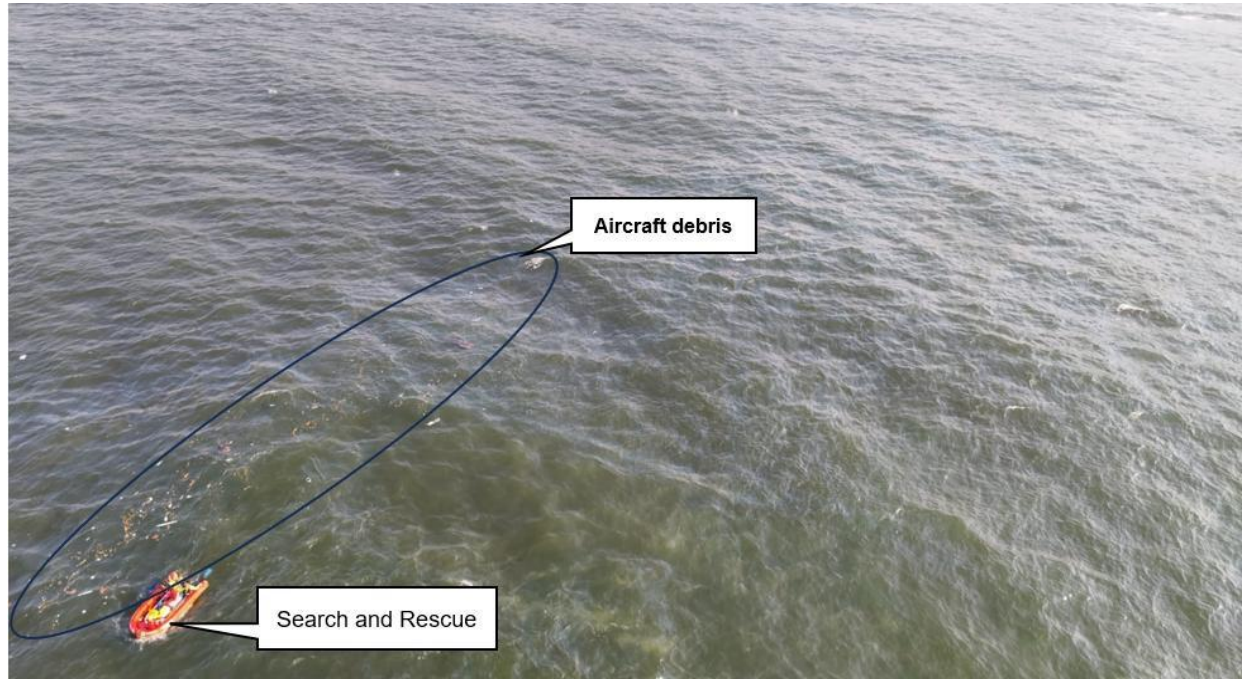


Figure 6: Aerial view of the accident site. (Source: SAPS Air-Wing)

1.12.3. On 20 August 2025, the engine and the aircraft control columns from both cockpits were successfully recovered from a depth of approximately 11m below the surface of the water. The engine was largely intact; however, it showed noticeable damage to the mountings and several external accessory components, including the oil filter and electrical wiring.

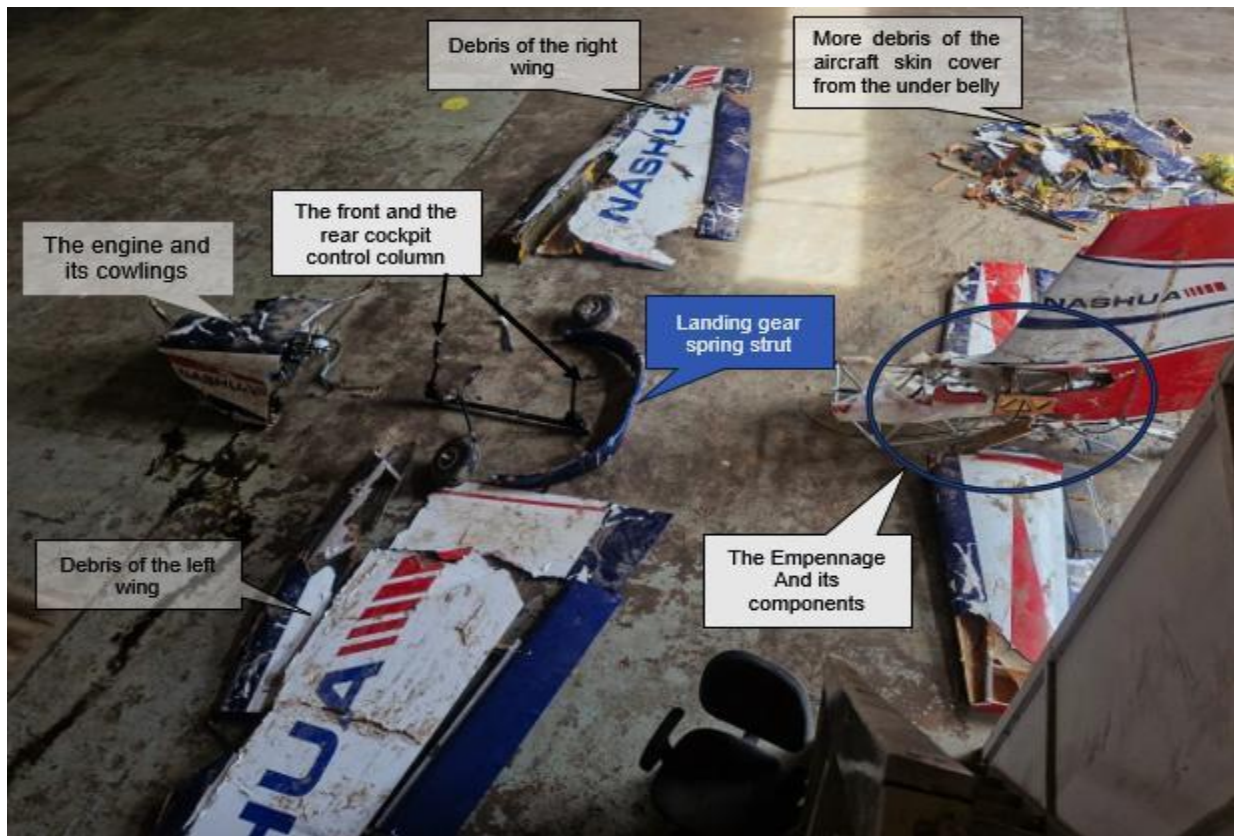


Figure 7: A reconstruction of the aircraft using recovered debris.

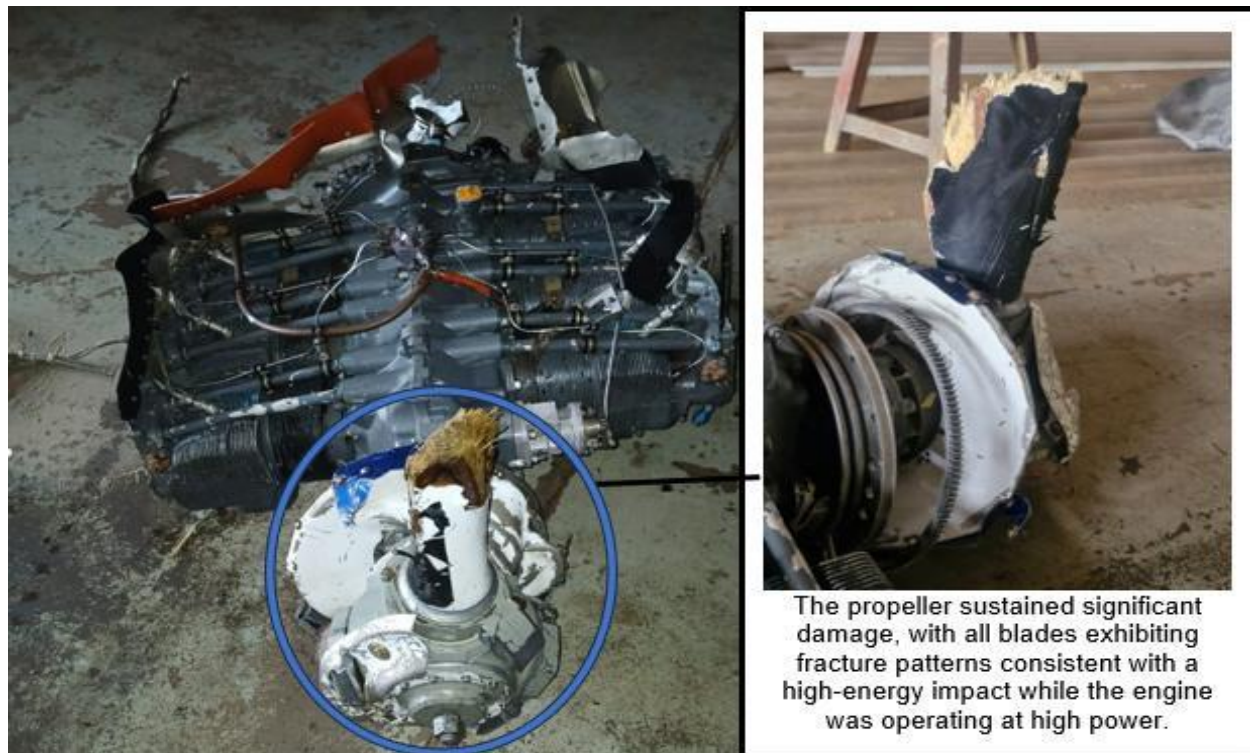


Figure 8: The recovered aircraft engine. (Source: SAPS Search and Rescue)

1.12.4. Part of the firewall, the propeller gearbox and one of the propeller blades were still attached to the engine; the (attached) propeller blade was damaged, and the other two blades were missing. The fracture patterns on the wooden blades showed signs of high-energy impact which indicated that the engine was delivering significant power at the time of crash.

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 not considered survivable as the evidence suggested that the aircraft, including the cockpit section, was destroyed by impact forces. The NSIR and the EMPSR responded to the site approximately 10 minutes after the crash; they could not locate the pilot or the cockpit section of the aircraft during the initial rescue operation. The remains of the pilot were found on 12 September 2025. The remains of the pilot only washed up on Bay Beach on the evening of 12 September 2025; the cockpit has still not been found.

1.16. Tests and Research

1.16.1. To be discussed in the final report.

1.17. Organisational and Management Information

1.17.1. The aircraft operator had an Aircraft Operator Certificate (AOC) that was issued by the Regulator on 8 March 2025 with an expiry date of 31 March 2026 under the provisions of Part 135. The ZS-AEC was listed on the operator's operation specifications. The operator used the aircraft for professional aerobatic displays.

1.17.2. The maintenance of the aircraft was conducted by an AMO which had a valid AMO Certificate that was issued by the Regulator on 2 January 2025 with an expiry date of 31 January 2026.

1.17.3. Airshow (Source: Special Air Events (SAE) Handbook published by SACAA on 24 February 2021)
According to the SAE, an airshow is defined as an approved special air event managed by accredited FDD/FDSO and other accredited officials and pilots with valid display authorisations at an aerodrome or airfield for the purpose of a public gathering and entertainment by means of aerial displays, including flat, aerobatic and formation displays.

1.17.4. This event was organised by Smoke on Go Foundation on behalf of the SACAA. The event was aimed at showcasing aviation expertise as well as inspiring learners by highlighting the opportunities within the aviation industry.

1.17.5. The following documents were submitted for the airshow application as part of the planning and execution:

- A signed application form CA91-34 requisition for the display flight and aviation event by the event organiser, dated 2 June 2025, was submitted to Airshow South Africa (ASA) and Central Airspace Management Unit (CAMU) for further processing. The form was submitted to SACAA for further approval on 28 July 2025.
- The application was sent to eThekweni Municipality for approval of the airshow venue; it was signed on 19 June 2025.
- An indemnity form for special air events was signed by the event organiser on 28 July 2025 and was sent to the SACAA inspector on 28 July 2025.
- The letter of confirmation for the appointment of the flight display director (FDD) for SACAA airshow was signed on 29 July 2025.
- Confirmation of an insurance policy cover was signed on 1 August 2025.
- The Air Traffic and Navigation Services (ATNS) at FALC confirmed the airspace allocation via email on 10 August 2025.
- An emergency plan was signed by the eThekweni Municipal Fire and Emergency Services on 12 August 2025.
- An evacuation plan for the SACAA airshow was signed on 12 August 2025.
- A Netcare Emergency Medical Service Operational Plan was signed on 12 August 2025.
- The fire department approval of the site layout was signed on 12 August 2025.
- A letter of confirmation of emergency service for the airshow was signed on 13 August 2025.
- A pre-event safety audit (form CA 183-427) was signed on 13 August 2025.
- A letter from SAPS regarding the appointment of an authorised member for a medium-risk event was signed on 13 August 2025.
- The special air event approval was signed on 14 August 2025.
- The airshow oversight form was signed on 14 August 2025.
- The aviation event approval checklist (form CA 91-33) was signed by an inspector on 14 August 2025.

According to the SAE Handbook, the event was considered a medium airshow (Class B) category as it consisted of 11 individual acts for the display show.

Minimum Requirements and Limitations for the Airshow Plan

- a. This category is allocated to an event that consists of **11-19** individual acts.*
- b. A formal application needs to be submitted to SACAA no less than 150 days in advance.*
- c. Controlled airspace is preferred, and ATC availability is confirmed.*
- d. Most types of flying displays are permitted by suitably rated display pilots for the purpose of entertaining the public.*
- e. A distinct barrier needs to be in place between the public/crowd line and the active airside of such an event.*
- f. This category event requires an FDD and two FDSO's of which one may be part of a mentoring programme if recommended by ASSA.*

1.17.6. According to the event organiser, this airshow was planned and organised within 73 days from 2 June 2025, with day 73 being the actual event. The SACAA's Air Safety Operations (ASO) division received a request for the SAE approval on 28 July 2025. The investigation team contacted the ASO division to seek clarity concerning adherence to the timelines of the event's approval. The investigation team received the following response:

"We had to process urgently as it was the SACAA airshow. The handbook is a guideline and not a regulation."

1.17.7. At the time preceding this accident, the Regulator (SACAA) did not have a regulation governing the special air events (airshows) and relied on the issued SAE Handbook. Approvals for airshows were issued by the Regulator on the strength of the issuance based on the requirements stipulated in the SAE Handbook. The ASO division has advised the investigating team that they are developing a regulation which will govern special air events (airshows).

1.18. Additional Information

1.18.1. To be discussed in the final report.

1.19. Useful or Effective Investigation Techniques

1.19.1. To be discussed in the final report.

2. FINDINGS

2.1. General

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

Man

- 2.2.1. The pilot had an Airline Transport Pilot Licence (ATPL) that was initially issued by the Regulator on 25 November 1996. The ATPL renewal was issued on 9 June 2025 with an expiry date of 31 May 2026.
- 2.2.2. The pilot's Class 1 aviation medical certificate was issued on 31 July 2025 with an expiry date of 31 January 2026. The medical certificate was endorsed with a restriction to wear corrective lenses for defective distance vision.
- 2.2.3. The pilot was qualified and rated on the aircraft type and its series; the accident aircraft type was endorsed on his licence. The pilot had a total of 17 235 hours of flying, of which 636 hours were accrued on the aircraft type.
- 2.2.4. The pilot had a display authorisation approval (DAA) that was issued by the Regulator on 10 March 2025 with an expiry date of 10 March 2026. He was a professional aerobatic display pilot.
- 2.2.5. The pilot was issued an Aero Club of South Africa (AeCSA) under Airshow South Africa Association (ASSA) and Sport Aerobatic Club (SAC) on 1 January 2025 with an expiry date of 31 December 2025. The remains of the pilot only washed up on Bay Beach on the evening of 12 September 2025.

Machine

- 2.2.6. The aircraft had a Certificate of Airworthiness (C of A) that was issued by the Regulator on 27 March 2025 with an expiry date of 30 April 2026. The Regulator registered the aircraft under the current owner on 25 March 2025.
- 2.2.7. The last aircraft's maintenance was conducted on 25 February 2025 at 726.5 airframe hours after which a Certificate of Release to Service (CRS) was issued with an expiry date of 26 February 2026 or at 826.5 airframe hours, whichever comes first.
- 2.2.8. The pilot owned the aircraft; it was operated under the operator with an Aircraft Operator Certificate (AOC) that was issued under the provisions of Part 135.
- 2.2.9. The maintenance of the aircraft was conducted by an aircraft maintenance organisation (AMO) which had a valid AMO Certificate that was issued by the Regulator on 2 January 2025 with an expiry date of 31 January 2026.
- 2.2.10. At the time of release of this preliminary report, the cockpit of the aircraft has not been found, and the search is on-going.

Mission

- 2.2.11. The aircraft performed five consecutive left aileron rolls whilst descending from 1700 ft AMSL (instead of 2200ft AMSL) at a 45-degree angle. The video footage showed the aircraft in a left aileron roll (rolling to the left) before it levelled off and impacted the water.
- 2.2.12. The initial submission of the display sequence during the display briefing indicated that the manoeuvre would start at a height of 2200 ft AMSL but the pilot initiated the manoeuvre at 1700 ft AMSL.

Organisation and Management

- 2.2.13. The airshow event application was made on 2 June 2025. This was approximately 73 days until the actual event date. It was later submitted to the SACAA's ASO division on 28 July 2025 for approval. *The Special Air Event (SAE) Handbook requires a formal application and all documents to be submitted to the SACAA no less than 150 days in advance.*
- 2.2.14. At the time preceding this accident, the Regulator (SACAA) did not have a regulation governing the special air events (airshows) and relied on the issued SAE Handbook.
- 2.2.15. The Regulator issued approvals for airshows on the strength of the issued SAE Handbook.

2.2.16. The ASO division is developing a regulation that will govern special air events (airshows).

3. ON-GOING INVESTIGATION

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

4. SAFETY RECOMMENDATIONS

4.1. General

The safety recommendations listed in this report are proposed according to paragraph 6.8 of Annex 13 to the Convention on International Civil Aviation and are based on the conclusions listed in heading 3 of this report. The AIID expects that all safety issues identified by the investigation are addressed by the receiving States and organisations.

4.2. Safety Recommendation/s

4.2.1. It is recommended that the Director of Civil Aviation expedite the development and implementation of a regulation to manage special air events. This regulation must comply with international best practise and norms.

4.2.2. It is recommended that the flight display director (FDD) and the flight display safety officer (FDSO) ensure strict adherence to the approved display sequences. Any amendments to these sequences should be submitted at least two days prior to the airshow to facilitate proper safety briefings.

4.3. Safety Message

4.3.1. When granting approval for special air events (SAEs), the Regulator must ensure that all stipulated procedures are adhered to. However, deviations or exceptions may be considered upon formal application, provided that safety is not compromised and adequate mitigation measures are in place.

5. APPENDICES

5.1. None.

This report is issued by:

**Accident and Incident Investigations Division
South African Civil Aviation Authority
Republic of South Africa**