PRELIMINARY SERIOUS INCIDENT REPORT

Accident and Incident Investigations Division

Serious Incident
- Preliminary Report -
AIID Ref No: CA18/3/2/1391

Figure 1: The aircraft registered ZS-ASN. (Source: jetphotos.com)

Figure 2: The aircraft registered ZS-ZWF. (Source: jetphotos.com)

Description:

On Tuesday morning, 8 February 2022, two pilots and two crew members on-board a MacDonnell Douglas DC3-TP67 with registration marking ZS-ASN took off on a local flight from Lanseria International Airport (FALA) to Magaliesburg general flying area (GFA). Upon their return from the GFA, the pilot flying requested if he could do a simulated Area Navigation (RNAV)/Global Navigation Satellite System (GNSS) approach for Runway 07 (RWY 07); the air traffic control (ATC) approved this request and instructed the pilot to report 6 nautical miles (nm) final approach. Meanwhile, the ZS-ZWF aircraft was inbound to FALA; the crew requested a visual approach on RWY 07 while on radial 215-14 Distance Measuring Equipment (DME). ATC approved this request and cleared the aircraft for right visual approach RWY 07; thereafter, instructed them to report 5nm final approach and to reduce speed to the minimum safe approach. There was loss of separation as ZS-ZWF was 500 feet (ft) above ZS-ASN and both aircraft were on final approach for RWY 07. ATC told ZS-ASN to turn left and report left downwind RWY 07. Both aircraft received a Traffic Collision Avoidance System (TCAS) warning followed by a Resolution Advisory (RA). The ZS-ASN complied with the RA and the ATC's instruction. The ZS-ZWF continued with approach and landed on RWY 07 at 0837Z. Both aircraft were not damaged during the serious incident and no injuries were reported.

INTRODUCTION

Reference Number	**:**	CA18/3/2/1391
Name of Owner/Operator	**:**	Spectrem Air (Pty) Ltd and Comair
Manufacturer	**:**	McDonnell Douglas Corp and Boeing Company
Model	**:**	DC3-TP67and B738
Nationality	**:**	South African
Registration Mark	**:**	ZS-ASN and ZS-ZWF
Place	**:**	7.17nm final approach RWY 07 FALA
Date	**:**	8 February 2022
Time	**:**	0830Z

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 Investigation Division (AIID) of the South African Civil Aviation Authority (SACAA) was informed about an aircraft serious incident involving a DC3-TP67 and a Boeing 738 which occurred on final approach RWY 07 at Lanseria International Airport on 8 February 2022. The accident was notified to the AIID investigator-on-call on 8 February 2022.

The AIID appointed an investigator-in-charge to conduct an investigation. Notifications were sent to the State of Registry, State of Operator and State of Manufacture and Design. The AIID is leading the investigation and will issue a final report.

The information contained in this Preliminary Report is derived from the information gathered during the on-going investigation into the occurrence. Later, an Interim Report or the 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.

Notes:

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

- *Incident — this investigated serious incident*
- *Aircraft — the McDonnel Douglas DC3-TP67 and the Boeing 737-800 involved in this serious incident*
- *Investigation — the investigation into the circumstances of this serious incident*
- *Pilot — the pilots involved in this serious incident*
- *Report — this serious incident report*

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

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:

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ABBREVIATION	DESCRIPTION
AGL	Above Ground Level
AIID	Accident and Incident Investigations Division
AMO	Aircraft Maintenance Organisation
°C	Degree Celsius
CAR	Civil Aviation Regulations
CAVOK	Ceiling and Visibility OK
C of R	Certificate of Release
CVR	Cockpit Voice Recorder
E	East
FDR	Flight Data Recorder
ft	Feet
GPS	Global Positioning System
hPa	hectopascal
IIC	Investigator-in-charge
IOC	Investigator-on-call
kt	Knot(s)
m	Metre(s)
METAR	Meteorological Routine Aerodrome Report
MPI	Mandatory Periodic Inspection
NM	Nautical Mile
QNH	Query: Nautical Height
RWY	Runway
SACAA	South African Civil Aviation Authority
VFR	Visual Flight Rules
Z	Zulu (Zero Hours Greenwich)

1. FACTUAL INFORMATION

1.1. History of Flight

1.1.1 On Tuesday morning, 8 February 2022 at approximately 0830Z, two pilots and two crew members on-board a MacDonnell Douglas DC3 aircraft with registration marking ZS-ASN were on their return flight to Lanseria International Airport, from Magaliesburg general flying area (GFA). The aircraft had taken off from FALA earlier that morning. The crew were doing proficiency checks on the aircraft type. The flight was conducted under visual flight rules (VFR) by day and under the provisions of Part 141 of the Civil Aviation Regulations (CAR) 2011 as amended. Clear weather conditions prevailed at the time leading to the serious incident. Another aircraft, a Boeing 737-800 with registration marking ZS-ZWF (operated by Comair) with two pilots, four crew and 108 passengers on-board was also due to land at FALA. The aircraft took off from King Shaka International Airport (FALE). The flight was conducted under instrument flight rules (IFR) and under the provisions of Part 121 of the CAR 2011 as amended. Clear weather conditions prevailed at the time leading to the serious incident.

1.1.2 During initial contact with FALA air traffic control (ATC), the ZS-ASN aircraft requested a simulated Area Navigation (RNAV)/Global Navigation Satellite Systems (GNSS) approach for Runway 07 (RWY 07). The ATC approved the request and cleared the aircraft to route to position LA1N1, below FALA Terminal Control Area (TMA) at an altitude of 6400' (feet) and on a query nautical height (QNH) of 1021. Upon reaching LA1N1, ATC cleared the aircraft for the simulated approach and advised that they report at 6 nautical miles (nm) final approach for RWY 07.

1.1.3 About 2 minutes and 8 seconds later, the ZS-ZWF aircraft contacted FALA ATC and requested a right visual approach for RWY 07. The ATC asked ZS-ZWF to report their radial DME LIV crossing, which was radial 215 and 14 DME. After about 20 seconds, ATC cleared ZS-ZWF for right visual approach RWY 07 at a QNH of 1021 as well as instructed them to report at 5nm final approach and that they reduce speed to the minimum safe approach.

1.1.4 After 1 minute and 32 seconds, ATC called and asked ZS-ASN aircraft to break off the approach to the left and re-join the late left downwind RWY 07. The ZS-ASN reported that they were 8nm final approach. They found this confusing as they were getting ready to call at 6nm final approach as previously requested. They asked for confirmation on the north bound turn, and downwind reporting. The ATC affirmed “turn left now, continue routing north”. The ATC then told ZS-ZWF to continue approach and

also made the crew aware of a DC 3 aircraft that was breaking off to their left, routing north. The pilot of ZS-ZWF told ATC that he has visual of traffic.

1.1.5 The ZS-ASN stated that as they commenced the turn to the north, the Airborne Collision Avoidance System/Traffic Collision Avoidance System (ACAS/TCAS) displayed a Resolution Advisory (RA) with the instruction to descend immediately. A descent was initiated by the ZS-ASN crew. The ZS-ZWF aircraft approached from behind the ZS-ASN and was approximately 500' (feet) above at the time (see Figure 3 - the red dots show ZS-ASN flight path, and the yellow dots show ZS-ZWF flight path). A few seconds later, the RA was cancelled on the aircraft, now clear of the threat. A minute and 9 seconds later, the ZS-ASN called ATC and stated that they were climbing back to their last assigned altitude of 6400' (feet) and that they had encountered an RA.

1.1.6 Meanwhile, the ZS-ZWF aircraft told ATC that they were on final approach. ATC told them to continue approach RWY 07 and that there was traffic which was about to vacate the runway. The ZS-ASN told the ATC that they were repositioning to late left downwind; ATC acknowledged and asked if they still wanted the GNSS/RNAV approach; the ZS-ASN opted to cancel but continued with the circuits. The ATC then cleared ZS-ZWF to land on RWY 07 and gave them the surface wind. The ZS-ASN aircraft completed three circuits before landing.

1.1.7 After the serious incident, the ZS-ZWF crew stated that 2nm before position LA1F1 whilst turning for final approach, they had a RA warning instructing them to climb. Corrective action was taken and, once they were clear of the traffic, they continued with final approach and landed on RWY 07.

1.1.8 Both aircraft were not damaged during this serious incident and both pilots, crew and passengers were not injured.

1.1.9 The serious incident occurred during day light, approximately 7.17nm on final approach for landing RWY 07 at FALA and at Global Positioning System (GPS) co-ordinates determined to be 26°01'14.58" South 27°49'28.27" East, at an elevation of 4796 feet.

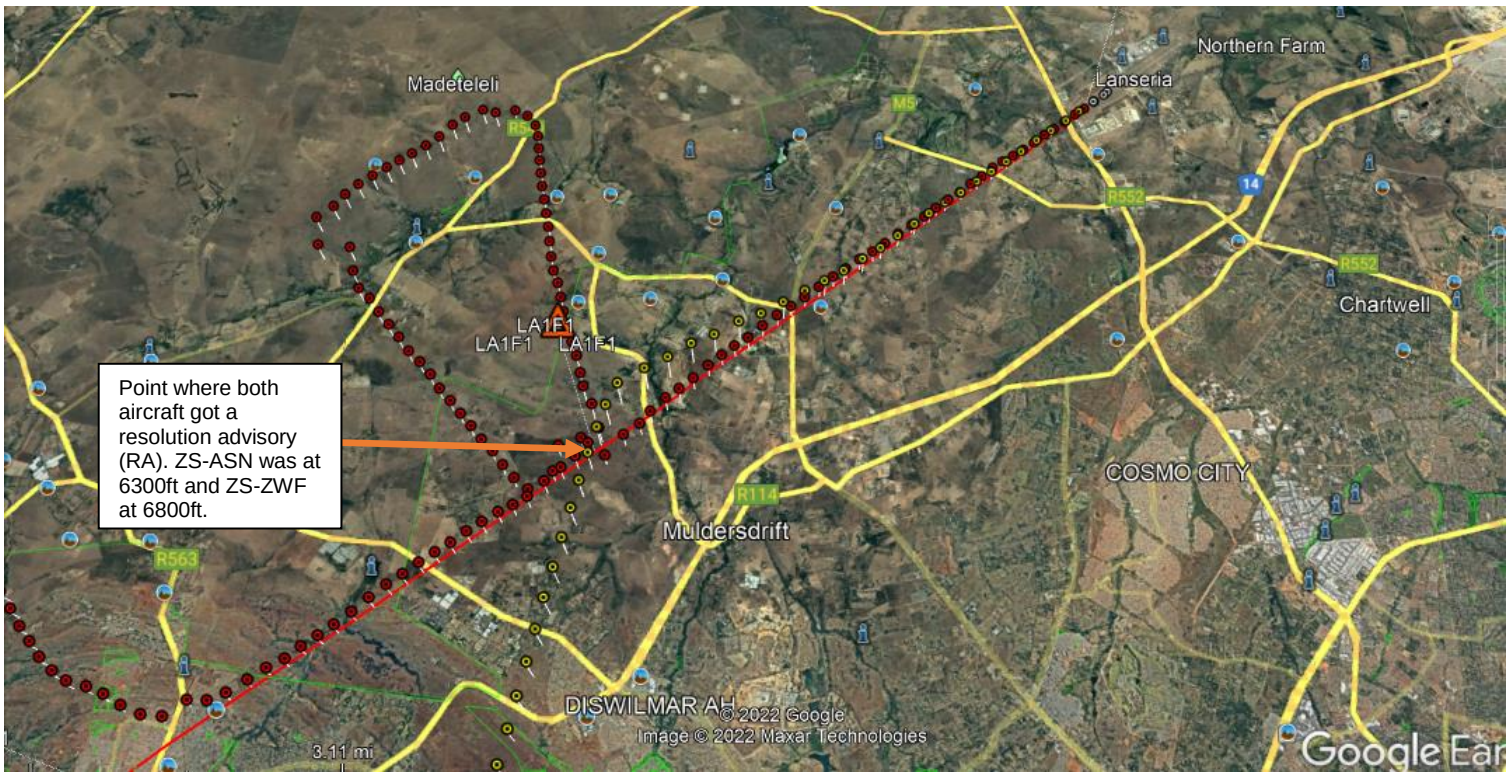

Figure 3: Serious incident location, 7.17nm from RWY 07 at FALA. (Source: Google Earth)

1.2. Injuries to Persons

1.2.1 ZS-ASN

Injuries	Pilot	Crew	Pass.	Total On-board	Other
Fatal	-	-	-	-	-
Serious	-	-	-	-	-
Minor	-	-	-	-	-
None	2	2	-	4	-
Total	2	2	-	4	-

Note: Other means people on ground.

1.2.2 ZS-ZWF

Injuries	Pilot	Crew	Pass.	Total On-board	Other
Fatal	-	-	-	-	-
Serious	-	-	-	-	-
Minor	-	-	-	-	-
None	2	4	108	114	-
Total	2	4	108	114	-

1.3. Damage to Aircraft

1.3.1 Both aircraft were not damaged during the serious incident sequence.

1.4. Other Damage

1.4.1 None.

1.5. Personnel Information

1.5.1 **ZS-ASN Pilot**

Nationality	South African	Gender	Male	Age	52
Licence Number	**********	Licence Type	Airline Transport Pilot Licence (ATPL)		
Licence Valid	Yes	Type Endorsed	Yes		
Ratings	Instrument				
Medical Expiry Date	30 September 2022				
Restrictions	Correction for defective near vision				
Previous Incidents	None				

Note: Previous incidents refer to past serious incidents the pilot was involved in, when relevant to this serious incident.

Flying Experience:

Total Hours	7856.1
Total Past 24 Hours	0
Total Past 7 Days	2.7
Total Past 90 Days	7.2
Total on Type Past 90 Days	7.2
Total on Type	3473.1

1.5.1.1 The pilot was initially issued an Airline Transport Pilot Licence (ATPL) on 30 March 1994. The pilot did his re-validation on 9 April 2021 with an expiry date of 30 June 2022. The pilot was issued a Class 1 aviation medical certificate on 3 September 2021 with an expiry date of 30 September 2022.

1.5.2 **ZS-ASN Co-Pilot**

Nationality	South African	Gender	Male	Age	37
Licence Number	**********	Licence Type	Airline Transport Pilot Licence (ATPL)		
Licence Valid	Yes	Type Endorsed	Yes		
Ratings	Instrument				
Medical Expiry Date	31 August 2022				
Restrictions	None				
Previous Incidents	None				

Note: Previous incidents refer to past serious incidents the pilot was involved in, when relevant to this serious incident.

Flying Experience:

Total Hours	5241.6
Total Past 24 Hours	0
Total Past 7 Days	0
Total Past 90 Days	4.6
Total on Type Past 90 Days	1.5
Total on Type	1369.4

1.5.2.1 The co-pilot was initially issued an ATPL on 4 May 2017. The co-pilot did his re-validation on 9 April 2021 with an expiry date of 30 June 2022. The co-pilot was issued a Class 1 aviation medical certificate on 4 August 2021 with an expiry date of 31 August 2022.

1.5.3 **ZS-ZWF Pilot**

Nationality	South African	Gender	Male	Age	49
Licence Number	**********	Licence Type	Airline Transport Pilot Licence (ATPL)		
Licence Valid	Yes	Type Endorsed	Yes		
Ratings	Instrument				
Medical Expiry Date	30 November 2022				
Restrictions	None				
Previous Incidents	None				

Note: Previous incidents refer to past serious incidents the pilot was involved in, when relevant to this serious incident.

Flying Experience:

Total Hours	19 123
Total Past 24 Hours	TBA
Total Past 7 Days	TBA
Total Past 90 Days	166
Total on Type Past 90 Days	166
Total on Type	15 983

1.5.3.1 The ZS-ZWF pilot was initially issued an ATPL on 14 August 1997. The pilot did his re-validation on 15 December 2021 with an expiry date of 31 May 2022. The pilot was issued a Class 1 aviation medical certificate on 3 November 2021 with an expiry date of 30 November 2022. *Total hours past 24 hours to be verified on receipt of the pilot logbook*.

1.5.4 **ZS-ZWF First Officer**

Nationality	South African	Gender	Female	Age	37
Licence Number	**********	Licence Type	Airline Transport Pilot Licence (ATPL)		

Licence Valid	Yes	Type Endorsed	Yes
Ratings	Instrument		
Medical Expiry Date	31 December 2022		
Restrictions	None		
Previous Incidents	None		

Note: Previous incidents refer to past serious incidents the pilot was involved in, when relevant to this serious incident.

Flying Experience:

Total Hours	7515
Total Past 24 Hours	6.1
Total Past 7 Days	26.1
Total Past 90 Days	166
Total on Type Past 90 Days	166
Total on Type	15 983

1.5.4.1 The ZS-ZWF first officer was initially issued an ATPL on 12 May 2011. The first officer did his re-validation on 1 October 2021 with an expiry date of 30 June 2022. The first officer was issued a Class 1 aviation medical certificate on 3 September 2021 with an expiry date of 28 February 2022.

1.5.5 **FALA ATC on duty**

Nationality	South African	Gender	Male	Age	41
Licence Number	**********	Licence Type	Air Traffic Services Licence (ATS)		
Licence Valid	Yes				
Ratings	Aerodrome Control, Approach Control and Designated Examiner				

Experience:

Ratings Issued

Name	Issue Date	Expiry Date
Aerodrome Control	14 March 2008	22 December 2023
Approach Procedural	9 September 2011	22 December 2023
Designated Examiner	15 March 2013	25 March 2022

Rating validation

Rating	Unit	Last Proficiency	Expiry Date
Aerodrome Control	FALA	23 December 2021	22 December 2022
Approach Procedural	FALA	23 December 2021	22 December 2022

Instructor rating

Rating	Unit	Last Proficiency	Expiry Date	Grade
Aerodrome Control	FALA	23 December 2021	22 December 2022	1
Approach Procedural	FALA	23 December 2021	22 December 2022	1

Experience

Total Years Air Traffic Service Officer (ATSO)	17 years
Total Years Aerodrome Control	14 years
Total Years Approach Procedural	10 years

1.5.5.1 The ATC was initially issued an Aerodrome Control Rating on 14 March 2008. The ATC did his proficiency on Approach Procedural at FALA on 23 December 2021 and was issued a licence on the same day with an expiry date of 22 December 2022.

1.6. Aircraft Information

1.6.1 The McDonnell Douglas DC3-TP67 was manufactured in the United States of America in 2002 by McDonnell Douglas Corp. The aircraft is a propeller driven airliner fitted with two Pratt & Whitney PT6 engines and a two blade Hartzell propellers. (Source: https://centreforaviation.com/data/profiles/aircraft/dc-3t)

Airframe: ZS-ASN

Manufacturer/Model	McDonnell Douglas DC3-TP67	
Serial Number	33581	
Year of Manufacture	2005	
Total Airframe Hours (At Time of Accident)	45 966.9	
Last MPI (Date & Hours)	28 June 2021	45 961
Hours Since Last MPI	5.9	
C of A (Issue Date)	25 February 2008	
C of A Expiry Date	28 February 2022	
C of R (Issue Date) (Present Owner)	15 February 2008	
Type of Fuel Used in the Aircraft	Jet A1	
Operating Categories	Private (Part 91)	
Previous Accidents	None	

Engine 1:

Manufacturer/Model	Pratt & Whitney PT6-67R
Serial Number	PCE-106187
Part Number	PT6-67R
Hours Since New	15 458.5
Hours Since Overhaul	4732.7

Engine 2:

Manufacturer/Model	Pratt & Whitney PT6-67R
Serial Number	PCE-106188
Part Number	PT6-67R
Hours Since New	14 913.8
Hours Since Overhaul	1468.5

Propeller 1:

Manufacturer/Model	Hartzell HC-B5MA-3M
Serial Number	HBA-1554
Part Number	HC-B5MA-3M
Hours Since New	3062.6
Hours Since Overhaul	91.4

Propeller 2:

Manufacturer/Model	Hartzell HC-B5MA-3M
Serial Number	HBA-1553
Part Number	HC-B5MA-3M
Hours Since New	3062.6
Hours Since Overhaul	91.4

1.6.2 The Boeing 737-800 was manufactured in the United States of America in 2015 by The Boeing Company. The aircraft is a narrow body aircraft featuring a redesigned wing with a larger area, a wider wingspan, greater fuel capacity, and a higher maximum take-off weight (MTOW). It is equipped with CFM International CFM56-7 series engines and a glass cockpit. (Source: https://www.boeing.com/commercial/737ng/)

Airframe: ZS-ZWF

Manufacturer/Model	The Boeing Company B737-8LD	
Serial Number	40856	
Year of Manufacture	2015	
Total Airframe Hours (At Time of Incident)	15 877.38	
Last MPI (Date & Hours)	10 December 2021	15 385.28
Hours Since MPI inspection	492.1	
C of A (Issue Date)	16 October 2016	
C of A Expiry Date	31 October 2022	
C of R (Issue Date) (Present Owner)	12 October 2015	
Type of Fuel Used in the Aircraft	Avgas100LL	
Operating Categories	Commercial (Part 121)	
Previous Accidents	None	

Engine 1:

Manufacturer/Model	CFM56-7B2**6**E
Serial Number	PP862489
Part Number	CFM56-7B26E
Hours Since New	16428:44
Hours Since Overhaul	11864

Engine 2:

Manufacturer/Model	CFM56-7B2**6**E
Serial Number	PP862512
Part Number	CFM56-7B26E
Hours Since New	16428:44
Hours Since Overhaul	11864

1.7. Meteorological Information

1.7.1 The information provided in the table below was obtained from the South African Weather Service by ATC at FALA tower for 8 February 2022 at 0800Z.

Wind Direction	330°	Wind Speed	5kts	Visibility	10km
Temperature	23°C	Cloud Cover	FEW	Cloud Base	1500ft
Dew Point	15°C	QNH	1021		

1.8. Aids to Navigation

1.8.1 Both aircraft were equipped with standard navigational equipment as approved by the Regulator (SACAA) for these aircraft types. There were no records indicating that the navigational systems were unserviceable prior to the serious incident flight.

1.9. Communication

1.9.1 Both aircraft were equipped with standard communication equipment as approved by the Regulator for the aircraft types. There were no records indicating that the communication systems were unserviceable prior to the serious incident flight.

1.10. Aerodrome Information

1.10.1 The serious incident occurred at approximately 7.17nm on final approach for Runway 07 at FALA.

Aerodrome Location	Republic of South Africa – Lanseria International Airport
Aerodrome Coordinates	GPS S 26°01'14.58" E 027° 49'28.27"
Aerodrome Elevation	4461ft. (AMSL)
Runway Designations	07/25
Runway Dimensions	3047m x 47m
Runway Used	Runway 07
Runway Surface	Asphalt
Approach Facilities	VOR

1.11. Flight Recorders

1.11.1. The ZS-ASN was not fitted with a cockpit voice recorder (CVR) or a flight data recorder (FDR), and neither was required by regulation to be fitted to this type of aircraft. The ZS-ZWF was fitted with a cockpit voice recorder (CVR) and a flight data recorder (FDR) as required by regulation. Both recorders were not downloaded.

1.12 Wreckage and Impact Information

1.12.1 Not applicable.

1.13 Medical and Pathological Information

1.13.1 Not applicable.

1.14 Fire

1.14.1 There was no evidence of a pre- or post-impact fire.

1.15 Survival Aspects

1.15.1 This serious incident was considered survivable as there was no damage to both aircraft and the manoeuvres taken did not endanger the pilots, passengers or crew.

1.16 Tests and Research

1.16.1 None.

1.17 Organisational and Management Information

1.17.1 The ZS-ASN flight was conducted in accordance with the provisions of Part 91 of the CAR 2011 as amended. The ZS-ZWF flight was conducted in accordance with the provisions of Part 121 of the CAR 2011 as amended.

1.17.2 The operator of ZS-ASN was issued an Air Operating Certificate (AOC) AOC number: CAA/N830D, Certificate number: FO 15425 on 27 September 2021 with an expiry date of 30 September 2022.

1.17.3 The ZS-ASN aircraft was maintained by an aircraft maintenance organisation (AMO), licensed by the Regulator, with an AMO number 1135. The AMO certificate was issued on 22 July 2021 with an expiry date of 31 August 2022.

1.17.4 The ZS-ZWF aircraft was maintained by an aircraft maintenance organisation (AMO), licensed by the Regulator.

1.18 Additional Information

1.18.1 None.

1.19 Useful or Effective Investigation Techniques

1.19.1 None.

2. Findings

2.1 General

From the available evidence, the following preliminary findings were made with respect to this serious incident. 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 serious incident. The findings are significant steps in this accident sequence, but they are not always causal or indicate deficiencies.

2.2 Findings

2.2.1 The ZS-ASN pilot was initially issued an ATPL on 30 March 1994. The pilot did his re-validation on 9 April 2021 with an expiry date of 30 June 2022. The pilot was issued a Class 1 aviation medical certificate on 3 September 2021 with an expiry date of 30 September 2022.

2.2.2 The ZS-ASN co-pilot was initially issued an ATPL on 4 May 2017. The co-pilot did his re-validation on 9 April 2021 and was reissued the licence with an expiry date of 30 June 2022. The co-pilot was issued a Class 1 aviation medical certificate on 4 August 2021 with an expiry date of 31 August 2022.

2.2.3 The ZS-ZWF pilot was initially issued an ATPL on 14 August 1997. The pilot did his re-validation on 15 December 2021 and was reissued the licence with an expiry date of 31 May 2022. The pilot was issued a Class 1 aviation medical certificate on 3 November 2021 with an expiry date of 30 November 2022.

2.2.4 The ZS-ZWF first officer was initially issued an ATPL on 12 May 2011. The first officer did her re-validation on 1 October 2021 and was reissued the licence with an expiry date of 30 June 2022. The pilot was issued a Class 1 aviation medical certificate on 3 September 2021 with an expiry date of 28 February 2022.

2.2.5 The ZS-ASN aircraft was issued a Certificate of Airworthiness on 25 February 2008 with an expiry date of 28 February 2022. The aircraft was issued a Certificate of Registration on 15 February 2008. The aircraft was issued a Certificate of Release to Service on 28 June 2021 with an expiry date of 27 June 2022 or at 46 077 airframe hours, whichever occurs first.

2.2.6 The last mandatory periodic inspection (MPI) carried out on the ZS-ASN aircraft was on 31 January 2022 at 45 961.1 airframe hours. The aircraft had accumulated an additional 5.8 airframe hours in operation since the last MPI.

2.2.7 The flight was conducted under the provisions of Part 91 of the Civil Aviation Regulations (CAR) 2011 as amended.

2.2.8 The aircraft was maintained by an AMO that was licensed by the Regulator.

2.2.9 The ZS-ZWF was issued a Certificate of Airworthiness on 16 October 2016 with an expiry date of 31 October 2022. The aircraft was issued a Certificate of Registration on 12 October 2015. The aircraft was issued a Certificate of Release to Service on 10 December 2021 with an expiry date of 25 November 2022 or at 17 806 airframe hours, whichever occurs first.

2.2.10 The last MPI was carried out on 28 June 2021 at 15 385.28 airframe hours. The aircraft had accumulated an additional 492.1 airframe hours in operation since the last MPI.

2.2.11 The flight was conducted under the provisions of Part 121 of the Civil Aviation Regulations (CAR) 2011 as amended.

2.2.12 The aircraft was maintained by an AMO that was licensed by the Regulator.

2.2.13 The ATC was initially issued an Aerodrome Control Rating on 14 March 2008. The ATC did his proficiency on Approach Procedural at FALA on 23 December 2021 with an expiry date of 22 December 2022.

2.2.14 Fine weather conditions prevailed at the time of the serious incident. Weather had no bearing on the serious incident.

2.2.15 The ZS-ASN (DC3) was cleared to report 6nm final approach for RWY 07 when ZS-ZWF (B738) was cleared for the right visual approach on RWY 07 and to report 5nm final approach. Whilst approximately 7.17nm on final approach for RWY 07, ATC instructed the ZS-ASN to break off to the left and route north; and ZS-ZWF to continue with approach. The ATC informed ZS-ZWF crew about traffic, which was ZS-ASN. Both aircraft received RA warnings (ZS-ASN was at 6300 feet and was alerted by RA to descend, whilst ZS-ZWF was at 6800 feet and was alerted by RA to ascend); both aircraft complied with RA and ATC instructions.

2.2.16 The reduced separation which resulted in RA was caused by ATC clearing ZS-ZWF for right visual approach RWY 07 before instructing ZS-ASN to break off final approach and reposition to left downwind. This resulted in a much faster aircraft (ZS-ZWF) being behind a slower aircraft (ZS-ASN), as well as being 500 feet apart.

3. Recommendation

3.1 None.

4. On-going Investigation

4.1 The AIID investigation is on-going and the investigator will be looking into the loss of separation which may or may not have safety implications.

5. Appendix

5.1 The RNAV/GNSS Approach Chart for Runway 07

This report is issued by:

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

Appendix 1: RNAV/GNSS Approach Chart for Runway 07