



AIRCRAFT ACCIDENT REPORT

FINAL REPORT ON THE ACCIDENT INVOLVING
AEROJET SAAB 340 AIRCRAFT, REGISTRATION UR-ALG
WHICH OCCURRED AT SÃO TOMÉ INTERNATIONAL AIRPORT
ON 27th SEPTEMBER, 2021.

NATIONAL ACCIDENT INVESTIGATION COMMISSION

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GLOSSARY OF ABBREVIATION USED IN THIS REPORT

ACCID	Accident
ADR	Accident Data reporter
AOC	Air Operator Certificate
ASDA	Accelerate Stop Distance Available
CB	Cumulonimbus
CNIPAIA	National Investigation Commission for Prevention of Aircraft Accident and Incident
CWY	Clearway
CVR	Cockpit Voice Recorder
DOC	Document
FDR	Flight Data Recorder
FR	Final Report
FPPR	ICAO code for Príncipe Airport
FPST	ICAO Code for São Tomé Airport
ICAO	International Civil Aviation Organization
IDR	Incident Data Report
INAC	National Civil Aviation Authority (Sao Tome and Principe)
INCID	Incident
LDA	Landing Distance Available
N/A	Not Applicable
STRIP	Landing Runway
SR	Safety Recommendation

STP	Sao Tome and Principe
TODA	Take Off Distance Available
TORA	Take Off Run Available
UTC	Universal Time Coordinated

GENERAL INFORMATION

AIRCRAFT ACCIDENT REPORT Nº: AEJ/27/09/2021/RF

TITLE: Accident.

NAME OF OWNER: A.L.I. Airlink International (CY) LTD

OPERATOR: AEROJET, LTD. (WET LEASE FOR STP AIRWAYS)

MANUFACTURER: SAAB-SCANIA AB, Sweden.

MODEL: SAAB 340B.

NATIONALITY AND REGISTRATION: UR-ALG.

PLACE OF OCCURRENCE: São Tomé International Airport.

DATE OF ACCIDENT: September 27th, 2021.

TIME OF OCCURENCE: 08 hours and 30 minutes UTC.

CREW: 2 pilots, 1 maintenance engineer + 1 cabin crew.

PASSENGERS: NIL

EXPLANATORY NOTE

This report states the technical findings to the circumstances and causes of this occurrence, in accordance with Annex 13 to the Chicago Convention and the Law No. 3/ 2021, published in Diário da República (National Gazette) No.7 of January 28.

This report does not seek to apportion blame or establish accountability, but it is only the determination of causes and making recommendations aimed at preventing its recurrence. The sole purpose of this technical report is to draw lessons, which could prevent future accidents.

SYNOPSIS

National Commission for Accident and Incident Investigation (CNIPAIA) was notified of the occurrence on the September 27th, 2021. Investigators were dispatched on the same day to carry out investigation on the occurrence and all stakeholders were notified accordingly.

At 08 hours and 20 minutes UTC the aircraft SAAB 340B, UR-ALG suffered an external damage, during the flight preparation, caused by the tractor belonging to handling operator. The damage occurred in the right side of fuselage in the region of cargo/baggage compartment with a dimension of approximately 30 x 15 cm.

1.0 FACTUAL INFORMATION

1.1 HISTORY OF FLIGHT

As part of preparation of STP Airways Flight 8F 211 to FPPR, the aircraft was towed after the clearance from the Control Tower, from parking area to the parking position at Sao Tome International apron.

Thereafter the ramp assistant brought the ground power to be connected to the aircraft. While doing so the tractor moved adrift towards the aircraft hitting the fuselage of aircraft and causing damage to fuselage skin on the right side region of cargo/baggage compartment.

1.2 INJURIES TO PERSONS

INJURIES	CREW	PASSENGERS	OTHERS
FATAL	NIL	NIL	NIL
SERIOUS	NIL	NIL	NIL
MINOR	NIL	NIL	NIL
NONE	4	NIL	1

1.3 DAMAGE TO AIRCRAFT: The aircraft partially damaged.



Figure 1: Picture showing a pictorial view of the aircraft, tractor and ground power in the apron.



Figure 2: Picture showing damage to right side region of aircraft cargo compartment.



Figure 3: Picture showing damage to right side region of aircraft cargo compartment.

1.4 OTHER DAMAGE: Tractor right door partially damaged.



Figure 4: Picture showing rearview and right door of the tractor.

1.5 PERSONNEL INFORMATION

1.5.1 The Captain

Year of Birth: 1973

Nationality: Ukrainian

Gender: Male.

Licence: ATPL

Licence Validity: In accordance with medical certificate validity.

Medical Certificate /Validity: Class 1/ 29.04.2022

1.5.2 The First Officer

Year of Birth: 1976

Nationality: Ukrainian

Gender: Male.

Licence: ATPL

Licence Validity: In accordance with medical certificate validity.

Medical Certificate /Validity: Class 1 /29.04.2022

1.5.3 The Maintenance Engineer

Year of Birth: 1984

Nationality: Ukrainian

Gender: Male.

Licence: Aircraft Maintenance Licence

Licence Validity: 11/03/2024

Medical Certificate /Validity: N/A

1.5.4 The Cabin Attendant

Year of Birth: 1966

Nationality: Ukrainian

Gender: Female.

Licence: Cabin Attendant

Licence Validity: 05.03.2022

Medical Certificate /Validity: 07/03/2022

1.5.5 Ramp Assistant

Year of Birth: 1981

Nationality: Santomean

Gender: Male

Driving Licence Validity: 14.03.2025

1.6 AIRCRAFT INFORMATION

1.6.1 General Information

Type: SAAB 340B

Manufacturer: SAAB SCANIA AB

Serial Number: 340B-233

1.7 METEOROLOGICAL INFORMATION

Time: 06:00 UTC

Wind: 110°/03 KTS

Visibility: +10 km

Present Weather: Nil

Clouds: Few 025

Temperature: 27° C

Dew Point: 22° C

QNH: 1014

Time: 09:00 UTC

Wind: 100/03 kts

Visibility: +10 km

Present Weather: Nil

Clouds: Few 025

Temperature: 27° C

Dew Point: 22° C

QNH: 1015

1.8 AIDS TO NAVIGATION

N/A

1.9 COMMUNICATIONS

There was two-way communication between the crew and control tower during aircraft towing from parking area to departure apron

1.10 AERODROME INFORMATION

Sao Tome International Airport with ICAO location indicator FPST has a runway designation of 11/29.

The surface is coated with asphalt and has a dimension, 2160m/45m. The Aerodrome Reference Point is: 00°2'40" and 006° 42'47" E with an elevation of 10m (33 ft.).

Other declared distances of RWY 11/29 are as follows:

RWY length- 2160m

RWY width – 45 m

TORA – 2160m

TODA – 2160m

ASDA-2160m

LDA-2160m

Strip-2240m * 150m

CWY- 60m

1.11 FLIGHT RECORDERS

Not Applicable

1.12 WRECKAGE AND IMPACT INFORMATION

The impact of the tractor that hit the aircraft caused damage to the fuselage skin on the right side region of cargo/baggage compartment with a dimension of approximately 30 x 15 cm.

1.13 MEDICAL AND PATHOLOGICAL INFORMATION

There was no medical, pathological or toxicological examination.

1.14 FIRE

There was no post occurrence fire.

1.15 SURVIVAL ASPECT

There was no need for any survival operation.

1.16 TEST AND RESEARCH

N/A

1.17 ORGANIZATIONAL MANAGEMENT

1.17.1 OPERATOR

STP Airways-Transportes Aéreos de Sao Tome e Príncipe is national air Carrier Company registered and incorporated according to the Laws of Sao Tome and Principe and is holder of Air Operator Certificate nº 01/AOC/2016 issued on 29 September 2021 valid to 31 March 2022.

The company is authorized to perform commercial air operations, as defined in the operations specifications, in accordance with Operations Manual and the Regulation STP CAR Part 119 and ICAO Annex 6.

STP Airways flights to Principe have been operating by AEROJET, LTD on Wet Lease.

AEROJET, LTD is a company registered and incorporated according to the Laws of UKRAINE and is holder of Air Operator Certificate nº UK036 issued on 28 JUNE 2019 valid to 15JUNE 2022.

This certificate certifies that AEROJET, LTD is authorized to perform commercial air operations, as defined in the operations specifications, registered in Ministry of Justice of Ukraine 22nd July 2010 nº 558/17853 in accordance with the Operations Manual and the Air Operators Certification Rules for civil aircraft operations to perform commercial air transportations as approved by the order of the Ministry of Transport and Communications of UKRAINE dated 5TH July 2010 nº 430.

1.17.2 CIVIL AVIATION AUTHORITY

National Civil Aviation Authority (INAC) is the civil aviation regulatory of Sao Tome and Principe. It is a Department under the Ministry of Infrastructures and Natural Resources. INAC is concerned with the following main competencies:

- Cooperation with International Civil Aviation Organization
- Agreements on air transport and other Civil Aviation matters
- Permission for overfly, entry, exit and transit of aircraft
- Certification and supervision of Airport and Air Operators
- Authorization and Supervision of flight operations

- Certification of the Aircraft
- Certification of Aircraft Maintenance Base
- Certification and supervision of ATS
- Licensing of air navigation facilities
- Airspace regulation and supervision of navigation and air traffic services
- Licensing of Aeronautical Personnel

1.17.3 AIRPORT OPERATOR

National Airports and Safety Corporation (ENASA) is the Operator of the Sao Tome International Airport. It is also in charge of air navigation services.

1.17.4 HANDLING OPERATOR

STP AIRWAYS, the national air carrier holder of Handling Licence nº INAC/DTA/LAE/07/2021 issued on 15 July 2021 valid to 15 July 2022, is the only authorized operator to carry out the handling and respective associated services at Sao Tome international airport.

1.18 ADDITIONAL INFORMATION

On the same day of the ground occurrence, the Ramp Assistant was taken to the General Hospital for blood sample collection. CNIPAIA urged the company to make necessary arrangements to make it possible, however that was not possible to be made due to the lack of technical condition at that time.

2.0 ANALYSIS

Before the departure of any flight there is ground handling preparation; On the day of the occurrence, STP Airways Flight 8F 211 to FPPR, the aircraft was towed after the clearance from the Control Tower, from parking area to the parking position at International apron.

As next step the ramp assistant brought the ground power to be connected to the aircraft. Before leaving the tractor to proceed to connect the ground power, the ramp assistant should switch off the tractor, apply the parking brake and place the pads accordingly; no doing so the tractor moved adrift towards the aircraft hitting the fuselage causing damage to fuselage skin on the right side region of cargo/baggage compartment with dimension to extent of 30x 15 cm.

The fact of working alone in the ramp could be the reason that he was in hurry to meet the flight schedule.

More so the tractor was not technically in perfect condition as we found that the gear was not functioning properly due to missing of one screw and another one was loosened that caused it to release from original parking position to the rear position.

The right hand side door of moving tractor was left open what made it to hit the aircraft fuselage.

3.0 CONCLUSIONS

3.1. FINDINGS

The Investigation revealed the following:

- (1) The state of registration and operator is Ukraine (on Wet Lease for STP Airways)
- (2) The aircraft had a valid Certificate of Airworthiness
- (3) The company had a valid Air Operator Certificate
- (4) The cabin attendant was inside the aircraft while the flight crew was still outside making preparations for the flight.
- (5) The pilots were certified and qualified to conduct the flight
- (6) The ramp assistant was qualified for ground ramp operation
- (7) Rush and failure to comply with tractor parking procedures by the ramp assistant
- (8) One ramp assistant was not enough to perform the entire task on this specific ground operation
- (9) The tractor had some technical deficiencies.
- (10) The tractor collision protection rubber was missing as well.

3.2 CAUSAL FACTORS

- Ramp assistant in hurry during the duty
- The tractor engine was not switched off
- The parking brake was off
- The pads were not placed on.

3.3 CONTRIBUTORY FACTORS

- Lack of attention of the ramp assistant
- Single ramp assistant on duty
- Tractor with technical deficiencies such as missing of one screw and loosening of another one in the gear system.

4.0 SAFETY RECOMMENDATION

4.1 RECOMMENDATION n° 1

In the light of handling licence granted to the operator, the Civil Aviation Authority should proceed on regular basis the inspection and audits of the respective services.

4.2 RECOMMENDATION n° 2

Handling operator should improve the maintenance work in order to maintain the ground equipment in perfect condition

4.3 RECOMMENDATION n° 3

Handling Operator should henceforth increase the number of ramp assistant team during handling services

4.4 RECOMMENDATION n° 4

Handling Operator should invest on upgrading and acquisition of new equipments