

### **EXHIBIT FF 9**

### **HENDRIK JACOBUS**

**MARAIS** 

**STATEMENT & ANNEXURE** 



### JUDICIAL COMMISSION OF INQUIRY INTO ALLEGATIONS OF STATE CAPTURE, CORRUPTION AND FRAUD IN THE PUBLIC SECTOR INCLUDING ORGANS OF STATE

2<sup>nd</sup> floor, Hillside House 17 Empire Road, Parktown Johannesburg 2193 Tel: (010) 214 to 0651

Email: inquiries@sastatecapture.org.za

Website: www.sastatecapture.org.za

#### **INDEX: EXHIBIT FF 9**

	Description	Pages
1.	Statement of H Marais	01 to 29



STATEMENT

From

AIR TRAFFIC AND NAVIGATION SERVICES SOC LIMITED

Presented by:

Mr H. Marais

CHIEF: AIR TRAFFIC SERVICES

to

THE JUDICIAL COMMISSION OF INQUIRY INTO ALLEGATIONS OF STATE CAPTURE, CORRUPTION AND FRAUD IN THE PUBLIC SECTOR INCLUDING ORGANS OF STATE

#### **TABLE OF CONTENTS**

1		INITIONS	
2		REVIATIONS	
3		RODUCTION	. o
	3.1	Brief Career Background of Mr Marais	. 8
		ATNS Business Overview	. 8
	3.3	Objects of Company	10
	3.4	ATNS Vision	
		ATNS Mission	
	3.6	ATNS Values	10
4	ECO	NOMIC REGULATION	11
5	THE	PURPOSE OF ATNS	11
6	SAF	ETY	12
7	FLIG	HT PLANS	12
	7.1	Requirement for Filing of Flight Plans	13
	7.2	Contents of Flight Plans	14
8	THE	PROCESS OF PROVIDING AIR TRAFFIC SERVICES	15
	8.1	Flight Planning	
	8.2	Departure	16
	8.3	Climb-out and Cruise.	16
	8.4	Descent	17
	8.5	Landing	17
	8.6	Coordination	17
9	FLIC	HT PLANS RECEIVED FOR JET AIRWAYS OPERATIONS	18
	9.1	Flight JAI9900 Flight Plan from Indira Gandhi International Airport to Air Force Base	1000
	0.1	Waterkloof	18
	9.2	Flight JAI9002 from Air Force Base Waterkloof O. R. Tambo International Airport	
	9.3	Flight JAI9901 O. R. Tambo International Airport to Indira Gandhi International Airport	19
	9.4	Flight Plan Interpretation	20
10	SEO	UENCE OF EVENTS FOR THREE JET AIRWAYS OPERATIONS	22
1	10.1	Sequence of Events for Flight JAI9900 From Indira Gandhi International Airport to Air For	CE
	10.1	Base Waterkloof	
	10.2	Sequence of Events for Flight JAI9002 From Air Force Base Waterkloof to O R Tambo	
	10.2	International Airport	26
	10.3	Sequence of Events for Flight JAI9002 O R Tambo International Airport to Indira Gandhi	
	10.5	International Airport	27
1	1 001	ICLUSION	
12	DEE	ERENCES	20
12	Z KEF	ERENCES	20
		INTE OF	

#### 1 DEFINITIONS

**Aerodrome.** A defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.

Aerodrome control service. Air traffic control service for aerodrome traffic.

Air traffic control instruction. Directives issued by air traffic control for the purpose of requiring a pilot to take a specific action.

Air traffic control service. A service provided for the purpose of:

- a) preventing collisions between aircraft, and on the maneuvering area between aircraft and obstructions; and
- b) expediting and maintaining an orderly flow of air traffic.

Air traffic control unit. A generic term meaning variously, area control centre, approach control unit or aerodrome control tower.

Air Traffic Management (ATM). The dynamic, integrated management of air traffic and airspace including air traffic services, airspace management and air traffic flow management — safely, economically and efficiently — through the provision of facilities and seamless services in collaboration with all parties and involving airborne and ground-based functions.

Air Traffic Service means an aerodrome control service, an approach control service, an area control service, a flight information service, an air traffic advisory service, an alerting service or any other service designated by the Commissioner, as defined in section 1 of the Aviation Act, 1962;

Air Navigation Service means the planning, provision and maintenance of air navigation infrastructure;

Approach control service. Air traffic control service for arriving or departing controlled flights.

Approach control unit. A unit established to provide air traffic control service to controlled flights arriving at, or departing from, one or more aerodromes.

Area control centre (ACC). A unit established to provide air traffic control service to controlled flights in control areas under its jurisdiction.

Area control service. Air traffic control service for controlled flights in control areas.

**Control zone.** A controlled airspace extending upwards from the surface of the earth to a specified upper limit.

Flight information region (FIR). An airspace of defined dimensions within which flight information service and alerting service are provided.

**Flight level.** A surface of constant atmospheric pressure which is related to a specific pressure datum, 1013.2 hectopascals (hPa), and is separated from other such surfaces by specific pressure intervals.

Flight plan. Specified information provided to air traffic services units, relative to an intended flight or portion of a flight of an aircraft.

Heading. The direction in which the longitudinal axis of an aircraft is pointed, usually expressed in degrees from North (true, magnetic, compass or grid)

Reporting point. A specified geographical location in relation to which the position of an aircraft can be reported.

Visual approach. An approach by an IFR flight when either part or all of an instrument approach procedure is not completed and the approach is executed in visual reference to terrain.

#### 2 ABBREVIATIONS

ACC - Area Control Centre

ANSP - Air Navigation Service Provider

ATA - Aviation Training Academy

ATC - Air Traffic Control/ler

ATCC - Air Traffic Control Centre

AIM - Aeronautical Information Management

AIMO - Aeronautical Information Management Officer

AIMU - Aeronautical Information Management Unit

ATM - Air Traffic Management

ATNS - Air Traffic Navigation Services SOC Limited

CAMU - Central Airspace Management Unit

CTR - Control Zone

DoT Department of Transport

EPSEK - Five-letter ICAO designated reporting point

IAIP - Integrated Aeronautical Information Package

ICAO - International Civil Aviation Organisation

IFR - Instrument Flight Rules

ILS - Instrument Landing System

FAOR - ICAO four letter designator for O R Tambo International
Airport

FAWK - ICAO four letter designator for Waterkloof Air Force Base

hPa Hectopascals

MHz - Megahertz

NIGOD - Five-letter ICAO designated reporting point

PFMA - Public Fund Management Act

RWY - Runway

SAAF - South African Air Force

SACAA - South African Civil Aviation Authority

SOC - State Owned Company

TWY - Taxiway

VIDP - ICAO four letter designator for Indira Gandhi International

Airport

#### 3 INTRODUCTION

#### 3.1 Brief Career Background of Mr Marais

I started my career as an air traffic controller (ATC) in the South African Air Force in 1980 and worked as aerodrome and approach controller in the SAAF until April 1984. I joined the Department of Transport as an air traffic controller in May 1984 and worked at Kimberly, Wonderboom and O. R. Tambo International Airports as an Aerodrome and Approach controller. My career progressed through the roles of ATC Instructor and Training Manager to Safety Assurance Manager and Senior Air Manager Traffic Management Planning. I am currently the Chief of Air Traffic Services. In this role I am the Executive Manager responsible to lead ATNS core operations strategically and to provide safe, orderly and expeditious air traffic services, in an environment where risk is effectively managed. In total I have thirty-nine years of ATC and ATM experience.

#### 3.2 ATNS Business Overview

The South African Government through the Department of Transport (DoT) is the sole Shareholder of ATNS and thus the company is regarded as a State-Owned Company (SOC) in terms of the *Public Finance Management Act*. Act 1 of 1999 (PFMA) and the Companies Act No.71 of 2008 (Companies Act). The company is legally and financially independent and operates under applicable South African laws.

ATNS was established in 1993 in terms of the ATNS Act, to provide Air Traffic Management solutions and associated services on behalf of the State, in accordance with ICAO Standards and Recommended Practices (ICAO Document 4444, Procedures for Air Navigation Services) and the South African Civil Aviation Regulations and Technical Standards. ATNS is an Air Navigation Service Provider (ANSP) and is governed by the nation's legislative and administrative framework. ATNS is also a commercialized ANSP operating on the "User Pays" principle.

For ATNS to execute its core mandate the company employs various technical experts. These experts are:

#### 3.2.1 Air Traffic Controllers (ATC)

Air traffic controllers are the ATNS personnel responsible for the safe, orderly and expeditious flow of air traffic in the airspace for which ATNS is responsible. The air traffic controllers are based at the airports where ATNS provides aerodrome control services and at the air traffic services units where ATNS provides Approach and Area Control services.

#### 3.2.2 Aeronautical Information Management Officers (AIMO)

The objective of the Aeronautical Information is to ensure the flow of information necessary for the safety, regularity and efficiency of international air navigation. Aeronautical Information Management (AIM) offices refer to the offices gathering aeronautical data/information needed at all phases of flights (before/during/after flights) and putting the same into use of aircraft

operators and pilots. The AIMO are the personnel who will receive and process the flight plan.

#### 3.3 Objects of Company

The objects of Air Traffic and Navigation Services SOC Limited ("ATNS"), in terms of section 4 of Air Traffic and Navigation Services Company Act No. 45 of 1993 (ATNS Act), are the acquisition, establishment, development, provision, maintenance, management, control or operation of air navigation infrastructures, air traffic services or air navigation services.

#### 3.4 ATNS Vision

To be the preferred supplier of Air Traffic Management solutions and associated services to the African continent and selected international markets.

#### 3.5 ATNS Mission

To provide safe, expeditious and efficient Air Traffic Management solutions and associated services.

#### 3.6 ATNS Values

- Accountability
- Fairness and Consistency
- Safety and Customer Service
- Open and Effective Communication
- Continuous Improvement and Innovation

Employee Engagement and Development

#### 4 ECONOMIC REGULATION

The economic regulation regime is specified in Section 11 of the ATNS Act. Section 11 of the ATNS Company Act (45 of 1993) specifies the economic regulation regime in respect of ATNS and prescribes that the Company shall not levy any air traffic service charge unless it is in possession of a valid written Permission that provides a tariff regime to be charged to users over a five-year cycle. The purpose of regulating or limiting the total amount of air traffic service charges that may be levied by ATNS is to restrain ATNS from abusing its monopoly position.

The Permission is issued by the Regulating Committee, which is required to balance the interests of the company with those of its clients, including promoting the safe, efficient, economic and profitable operation of the company. This encourages timely investment and ensures that the company can finance its obligations and has a reasonable prospect of earning a commercial return.

#### 5 THE PURPOSE OF ATNS

ATNS is the primary provider of air traffic, navigation and associated services within South Africa. The Company's operations further include:

 The supply of aeronautical information services, technical maintenance and aerodrome services;

- Alerting, and Search and Rescue co-ordination services;
- Management of the flexible use of airspace through the Central Airspace
   Management Unit (CAMU);
- Support for special events and special requirements such as test flights, demonstration flights;
- The implementation and maintenance of communication, navigation and surveillance infrastructure; and
- The training of licensed air traffic controllers and air traffic safety electronics personnel (ATSEP) through the ATNS Aviation Training Academy (ATA).

#### 6 SAFETY

The primary objective of an Air Navigation Service Provider (ANSP) and the air traffic controllers they employ, is to ensure safety of flights in the airspace for which they are responsible. Efficiency is important to ensure optimised operations, but it will never overshadow the safety concerns. The focus of the ANSP's is on safety and the security arrangements and considerations reside with the appropriate security functions of the State.

#### 7 FLIGHT PLANS

ATNS provides a service based on a flight plan being received for a specific flight. The flight plan can be submitted by the pilot or the airline operations centre. This section provides information regarding the requirements for flights to submit flight plans and the content of flight plans.

#### 7.1 Requirement for Filing of Flight Plans

The South African Civil Aviation Regulations Part 91 stipulates clear requirements for the mandatory filing of flight plans for specific flights. The requirements are described in the En-Route Section (ENR) of the Integrated Aeronautical Information Package (IAIP) and reads as follows:

- "91.03.4 (1) The owner or operator of an aircraft shall ensure that an ATS flight plan is completed if required in terms of sub regulation (4).
- (2) The items to be contained in the ATS flight plan shall be as prescribed in Document SA-CATS 91.
- (3) The ATS flight plan shall be filed with the appropriate ATSU unless other arrangements have been made for submission of repetitive flight plans and such unit shall be responsible for transmitting such ATS flight plan to all ATSUs concerned with the flight.
- (4) The ATS flight plan shall be filed in respect of—
- (a) all flights to be conducted in controlled or advisory airspace:

  Provided that this requirement shall not apply in respect of—
  - (i) a local flight;
- (ii) a flight crossing an airway or advisory routes at right angles; or
  - (iii) a VFR flight entering or departing from an aerodrome traffic zone or control zone, from or to an unmanned aerodrome and

where no other controlled or advisory airspace will be entered during the flight;

- (b) an international flight;
- (c) all flights undertaken in terms of a Class I or Class II license issued in terms of the Air Services Licensing Act, No. 115 of 1990 or the International Air Services Act, No. 60 of 1993;
- (d) any flight within or into designated areas, or along designated routes, when so required by the appropriate ATS authority to facilitate the provision of flight information, alerting and search and rescue services; and
- (e) any flight within or into designated areas, or along designated routes, when so required by the appropriate ATS authority to facilitate co-ordination with appropriate military units or with ATSUs in adjacent States in order to avoid the possible need for interception for the purpose of identification."

#### 7.2 Contents of Flight Plans

Civil Aviation Regulations Part 91 further stipulates the items to be included in a flight plan as follows:

An air traffic service flight plan filed prior to departure must contain the following items –

- (a) aircraft identification and transponder data;
- (b) flight rules and type of flight;
- (c) number and type(s) of aircraft and wake turbulence category;
- (d) radio communication, navigation and approach-aid equipment;
- (e) aerodrome of departure and time;
- (f) flight information region boundaries and estimated times;
- (g) cruising speed and flight level;
- (h) route to be followed;
- (i) aerodrome of destination and estimated times of arrival;
- (j) alternate aerodrome(s);
- (k) alerting action required;
- (I) fuel endurance;
- (m) total number of persons on board;
- (n) emergency and survival equipment and colour of aircraft;
- (o) other pertinent information; and
- (p) name, postal address, telephone and telefax number of the owner or operator of the aircraft which must be completed in field 18 of the standard flight plan form."

#### 8 THE PROCESS OF PROVIDING AIR TRAFFIC SERVICES

#### 8.1 Flight Planning

An airspace user will submit a flight plan containing the specified information as indicated in paragraph 7.2, above. The flight plan is distributed via the Aeronautical Telecommunication Network (ATN) to the destination and

alternate aerodromes, the flight information regions within which or through which the flight will operate. States also normally specify addresses for flight plans which will inform the security agencies and/or defence forces of the States of the flight and its flight plan. The flight plan data is processed by the ANSP's in terms of their automation systems and presented to the air traffic controller as a paper flight strip or electronic data block, depending upon the air traffic management automation system deployed.

#### 8.2 Departure

Before a flight departs it will contact the air traffic controller at the departure aerodrome and obtain a departure clearance and approval to start. The departure clearance will contain the runway fort departure, the flight path or direction of turn after the flight gets airborne and the altitude or flight level to which the flight will climb. The frequency of the air traffic control sector to be contacted and transponder code for the flight will be included. In many cases there will also be departure slot allocated to the flight. Once the aircraft has started it will taxi to the runway in use and depart under the jurisdiction of aerodrome control.

#### 8.3 Climb-out and Cruise

After getting airborne the flight will contact the appropriate ATC sector for initial clearance to climb and for positioning onto the flight plan route. This activity in South Africa takes place under the jurisdiction of Approach Control and in most cases is supported by surveillance. Upon reaching a specific flight level of airspace boundary the flight is transferred to the suitable Area

Control sector. Area Control will manage the last part of the climb and the cruise of the flight. Flights are transferred between adjacent Area Control sectors, depending upon the distance flown.

#### 8.4 Descent

The flight will obtain an inbound clearance to the destination from the last Area control sector it enters. When ready the flight will obtain descent clearance on the inbound route. At a specified flight level or airspace boundary the flight will be transferred to the suitable Approach Control sector. This sector will continue the descent of the flight and position the flight into the arrival sequence for the airport. When the flight is on the final approach to the runway it will be transferred to Aerodrome Control. for the landing and taxi phase until the flight enters the apron at the airport.

#### 8.5 Landing

The landing and taxi phase will take place under the jurisdiction of aerodrome control until the flight enters the apron at the airport.

#### 8.6 Coordination

To ensure safety there is a requirement for all flights to be coordinated between sectors. In the sequence described above the departure Aerodrome Control will coordinate the flight with the Approach Control into which the flight will depart. The Approach Control sector will coordinate the flight with the relevant Area Control sector. Adjacent Area Control sectors will coordinate the flight and so forth.

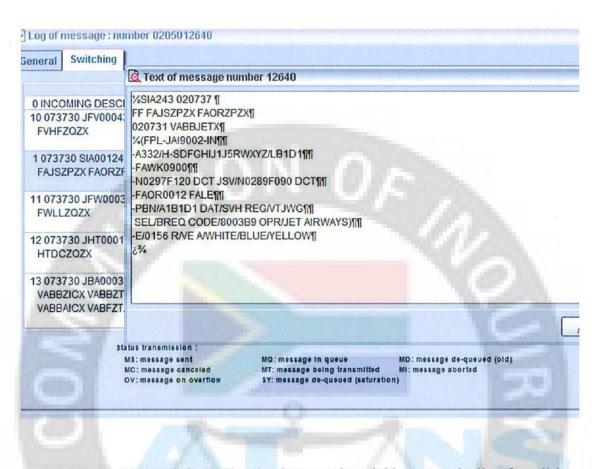
#### 9 FLIGHT PLANS RECEIVED FOR JET AIRWAYS OPERATIONS

The following three flight plans were submitted for the above-mentioned aircraft. These flight plans cover the flights operating into South Africa on 30 April 2013, positioning from Air Force Base Waterkloof to O. R. Tambo International Airport on 2 May 2013 and departing from South Africa on 3 May 2013.

### 9.1 Flight JAI9900 Flight Plan from Indira Gandhi International Airport to Air Force Base Waterkloof



### 9.2 Flight JAI9002 from Air Force Base Waterkloof O. R. Tambo International Airport



#### 9.3 Flight JAI9901 O. R. Tambo International Airport to Indira Gandhi

#### International Airport



9.4 Flight Plan Interpretation

This paragraph provides the interpretation and explanation of abbreviations

used in the flight plan for JAI9900.

FSSSZQZX FSSSYFYX FSSSFDPA FQBEZQZX FQBEYFYX FQBEFDPA

FMMMZQZX FMMMYFYX FMMMFDPA FAWKZTZX FAWKYFYX FAWKFDPA

FALEZTZX FAJAZQZX FAJAYFYX FAJAFDPA

These are the Aeronautical Fixed Telecommunication Network (AFTN)

addresses that the flight plan was addressed to by the originator, VIDPZPZX

(Indira Gandhi International Airport, New Delhi). The top line of addresses

including the first address on the second line all belong to different international

Flight Information Regions (FIR) that the aircraft would have transited.

FAWKZTZX is the Tower at the Waterkloof Airforce Base.

FALEZTZX is the King Shaka International Airport Tower, as this was the

alternate airport in the event of a diversion from Waterkloof. FAJAZQZX is the

Johannesburg FIR and FAJAYFYX goes to the Briefing Unit, and FAJAFDPA is

the flight data processing position in the FAOR Air Traffic Control Centre

(ATCC). The addresses provided here are different from the address provided

in the screenshot of the flight plan. The additional addresses were added by the

Johannesburg Briefing Unit when processing the flight plan.

<u>(FPL-JAI9900-YN</u>

-A332/H-SDFGHIJ1J5RWXYZ/LB1D1

The JAI9900 is the Callsign and flight number for Jet Airways – the Y represents flight rules (it means the flight planned to fly IFR {Instrument Flight Rules} and later change to VFR {Visual Flight Rules}) the N represents the type of operation meaning Non-Scheduled.

The A332 is the type of aircraft meaning Airbus A330-200 and the H stands for the wake turbulence category which is Heavy. What follows next is a string of code letters for navigation equipment carried on board this aircraft.

#### VIDP1800

-N0476F340 DCT REBON Q2 BBB B459 GUNDI/N0474F360 B459 CLAVA
UB459 BOMOB/N0470F380 UB459 PRA UG465 OVANA/N0463F400 UG465
WIV/N0408F260

<u>UG745 JSV/N0358F180 G653 HBV DCT VFR</u>

The flight was planned to leave Indira Gandhi International Airport (VIDP) at 1800Z (2000 South African time). What follows is the planned speed and Flight level and the planned routing.

#### FAWK1008 FALE

This is the Destination Airport (Waterkloof Airforce Base) and the time it will take the flight to get there, which is 10 hours 08 minutes. The flight is required to nominate an alternate should the aircraft be not be able to make a landing at destination, which in this case is King Shaka International airport.

# PBN/A1B1D1 COM/TCAS DAT/SVH REG/VTJWG EET/VABF0038 FSSS0417 FMMM0622 FQBE0720 FAJA0917 SEL/BREQ CODE/8003B9 OPR/JET AIRWAYS RALT/FSIA FVHA VABB)

This is additional information pertinent to the whole flight and operator. This field includes the navigation capabilities of the aircraft not captured under the equipment field, the estimated elapsed times for the flight to reach the flight information regions it will cross en-route, additional communication capabilities and the aircraft operator.

#### 10 SEQUENCE OF EVENTS FOR THREE JET AIRWAYS OPERATIONS

The information below summarise the sequence of events for the three flights undertaken by Jet Airways on 30 April and 2 and 3 May 2013 respectively

# 10.1 Sequence of Events for Flight JAI9900 From Indira Gandhi International Airport to Air Force Base Waterkloof

03:01 - Beira ACC coordinates JAl9900 with Johannesburg Area control03:04 - Johannesburg Area control requests from Johannesburg FilterCentre the Flight Plan for JAl9900

03:30:30 - JAI9900 displays an un-coupled track on the ATNS Display system

03:50:48 - JAI9900 track couples at NIGOD

03:58:55 - Johannesburg Area Controller tries to establish communication with JAI9900-no response

04:00:25 - JAI9900 tries to establish communication with Johannesburg

Area control

04:00:38 - JAI9900 calls again

04:00:41 - Johannesburg Area control establishes communication with JAI9900

I 04:00:54 - Johannesburg Area control confirms destination with JAI9900

04:01:26 - JAI9900 requests the weather for Waterkloof

04:06:00 - Johannesburg Area control passes on the weather at Waterkloof to JAI9900

04:08:24 - Johannesburg Area control updated the weather information for Waterkloof

04:17:05 - Johannesburg Area control made routing alterations (Flight Plan:

UG4 65 WIV /N0408F260 UG745 JSV/N0358F180 G653 HBV DCT VFR - route not standard)

04:19:17 - JAI9900 requested descent. Johannesburg Area control descends JAI9900 to Flight Level 280

04:23:50 - Johannesburg Area control descends JAI9900 to flight level 220

04:25:45 - Johannesburg Area control transfer control of JAI9900 to Johannesburg Radar frequency 124.5 MHz

04:26:05 - JAI9900 establishes contact with Johannesburg Radar

04:26:18 - Johannesburg Radar descends JAI9900 to flight level 210

04:26:57 -JAI9900 requests further descent

04:27:03 - Johannesburg Radar descends JAI9900 to flight level 200 due to traffic below

04:28:59 - Johannesburg Radar turns JAI9900 heading 230° and descends JAI9900 to flight level160

04:29:54 - Johannesburg Radar descends JAI9900 to 8000'

04:31:08 - Johannesburg Radar turns JAI9900 heading 260°

04:33:59 - Johannesburg Radar instructs JAI9900 to orbit to the left

04:35:09 - Johannesburg Radar informs JAI9900 to expect, as per normal procedure, vectors for a long final approach into Waterkloof. ILS at Waterkloof is not operational/commissioned at the time.

04:35 :09 - Johannesburg Radar informs JAI9900 that 8000' is the lowest altitude (to remain inside controlled airspace)

04:36:10 - Johannesburg Radar instructs JAI9900 to reduce speed to 180 knots and turns JAI9900 heading 230°

04:36:50 - Johannesburg Radar turns JAI9900 heading 240°

04:37:40 - Johannesburg Radar turns JAI9900 heading 200°

04:38:02 - Inside the Waterkloof CTR, Johannesburg Radar descends JAI9900 to 7000'

04:38:42 - Johannesburg Radar informs JAI9900 that Waterkloof is 6 Miles in a 12°clock position

04:38:50 - JAI9900 informs Johannesburg Radar that they do not have Waterkloof in sight

04:38:54 -Johannesburg Radar climbs JAI9900 to 8000' for re-positioning to ensure JAI9900 remains in controlled airspace

- 04:39:29 Johannesburg Radar turns JAI9900 heading 110°
- 04:39:42 -JAI requests vectors for RWY 01 at Waterkloof
- 04:39:48 Johannesburg Radar acknowledges RWY 01 at Waterkloof
- 04:40:59 Johannesburg Radar instructs JAI9900 to maintain heading and altitude
- 04:41 :36 Johannesburg Radar informs the FAOR Aerodrome Controller that he will route JAI9900 through the FAOR CTR
- 04:44:36 Johannesburg Radar turns JAI9900 heading 210°
- 04:45:14 -JAI9900 requests a 10 Nautical mile final approach for RWY01 at Waterkloof
- 04:45: 25 Johannesburg Radar acknowledges that they will provide vectors and issues heading 210°
- 04:47:15 Johannesburg Radar turns JAI9900 right heading 230°
- 04:47:25 Johannesburg Radar informs JAI9900 that they will vector JAI9900 through the JHB CTR for a long final RWY01
- 04:49:10 Johannesburg Radar turns JAI9900 onto heading 310°
- 04:50:17 Johannesburg Radar descends JAI9900 to 7000'
- 04:51:21 JAI9900 turned heading 330°
- 04:52: 25 JAI9900 turned heading 010°
- 04:53:55 JAI9900 informs Johannesburg Radar that they have Waterkloof in sight
- 04:54:04 JAI9900 transferred to Waterkloof Tower

### 10.2 Sequence of Events for Flight JAI9002 From Air Force Base Waterkloof to O R Tambo International Airport

12:36:52 Waterkloof Tower requests start and after departure clearance for JAI9002

12:50:14 JAI9002 couples on EUROCAT

12:50:51 JAI9002 contacts Johannesburg Radar

12:51:08 Johannesburg Radar turns JAI9002 heading 030° for positioning

12:51:22 Johannesburg Radar reconfirms that JAI9002 has to maintain 8000'

12:52:00 Johannesburg Radar turns JAI9002 heading 090°

12:52:48 Johannesburg Radar turns JAI9002 heading 180° to intercept the ILS RWY21L

12:54:50 Johannesburg Radar requests JAI9002 to maintain standard speeds or greater due to traffic behind

12:55:44 JAI9002 handed over to Johannesburg Tower 118, 6 MHz

12:56 JAI9002 contacted JHB TWR 118.1 MHz established on ILS RWY21L

12:57:47 TWR advises JAI9002 of Parking Bay -D25

12:58:34 JAI9002 advised to reduce speed and expect late landing clearance

12:59:28 JAI9002 was cleared to land RWY21L

13:00:28 JAI9002 touched down RWY21L

13:00:55 JAI9002 given taxi instructions via TAXIWAY "T" and "Y" to hold short of taxiway "E"

13:03:15 JAI9002 given taxi via taxiway "E" to holding point RWY21R

13:07:14 JAI9002 given crossing clearance on taxiway "E" to taxi via taxiway "A" and to hold short of taxiway "D"

13:08:48 JAI9002 handed over to GMC 121.9 MHz

13:09:07 JAI9002 establishes contact with GMC. JAI9002 given taxi clearance via taxiway "A" and "H" to parking bay

13:10:44 JAI9002 is instructed that no one should disembark from aircraft until SACAA authorizes.

13:12:45 JAI9002 parks in D25

# 10.3 Sequence of Events for Flight JAI9002 O R Tambo International Airport to Indira Gandhi International Airport

17:42:44 JAI9901 departs Johannesburg

17:44:41 JAI9901 establishes communication with Johannesburg Radar.

Johannesburg Radar climbs JAI9901 to flight level 150

17:45:44 Johannesburg Radar routes JAI9901 to EPSEK

17:45:44 Johannesburg Radar transfers JAI9901 to Johannesburg Area North East (128,9MHz)

17:45:44 JAI9901 establishes communication with Johannesburg Area

17:46:05 Johannesburg Area North East climbs JAI9901 flight level 190 direct EPSEK

17:46:38 Johannesburg Area Planner coordinates, as per LOP, JAI9900 flight details with Maputo Area

18:15:41 JAI9902 exits South African airspace at EPSEK and is transferred to Maputo Area Control

#### 11 CONCLUSION

ATNS provides air traffic services to any flights, based on flight plans received. Once a flight plan is received, ATNS process it and ensure safe operations of the aircraft within the airspace under its jurisdiction, by preventing collisions between aircraft, and on the maneuvering area between aircraft and obstructions; and expediting and maintaining an orderly flow of air traffic.



#### 12 REFERENCES

- 12.1 Air Traffic Navigation Service Act. Act 45 of 1993. South African Government, 1993
- 12.2 Aviation Act, Act 74 of 1962. South African Government, 1962
- 12.3 Public Finance Management Act (PFMA). Act 1 of 1999 South African Government, 1993
- 12.4 Companies Act. Act 71 of 2008. South African Government, 2008
- 12.5 ICAO Document 4444, Procedures for Air Navigation Services,
  International Civil Aviation Organisation, 2016
- 12.6 South African Civil Aviation Regulations, South African Civil Aviation

  Authority

H. Marais

**CHIEF: AIR TRAFFIC SERVICES** 

Date: 28 June 2019