



A-Z of careers in aviation



transport

Department:
Transport
REPUBLIC OF SOUTH AFRICA

SOUTH AFRICAN



**CIVIL AVIATION
AUTHORITY**



**AIRPORTS COMPANY
SOUTH AFRICA**



SOUTH AFRICAN AIRWAYS

A STAR ALLIANCE MEMBER



SOUTH AFRICAN AIR FORCE



SOUTH AFRICAN POLICE AIR WING

What is **AVIATION?**



- Science and technology of flight through the air.
- Anyone on anything that is anyhow involved in transportation of people and cargo by air.

OBJECTIVES

- To create awareness about careers in aviation.
- To attract previously disadvantaged learners into the industry.
- To contribute to the transformation of the aviation industry.



A-Z of careers in aviation

AERONAUTICAL ENGINEER: He or she develops, designs and tests aircraft, missiles, satellites and other systems.

AIRCRAFT ASSEMBLER: He or she assembles, fits and installs pre-fabricated parts to manufacture fixed wing or rotary wing aircraft or aircraft subassemblies.

AIRCRAFT COMPOSITE STRUCTURES WORKER: The Technician in this trade is responsible for the maintenance, repair and manufacture of plastic, fiberglass and honeycomb structure components.

AIRCRAFT ELECTROPLATER: This trade entails the plating of a thin protective layer on aircraft parts by means of electrochemical processes.

AIRCRAFT INSTRUMENT MECHANIC: is trained to repair, test and install navigational and flying instruments, such as the automatic pilot and electronic compasses.

AIRCRAFT MAINTENANCE ENGINEERS (AMES): He or she diagnoses, adjusts, repairs, replaces or overhauls aircraft engines and assemblies, such as hydraulic and pneumatic systems, wings and fuselage, and functional components including rigging, surface controls, and plumbing to ensure airworthiness.

AIRCRAFT PAINTER: Technicians in this trade are responsible for the protective and decorative finishing of the aircraft, its engines and components.

AIRCRAFT RADIORICIAN: This person's responsibility is to carry out maintenance of all communication equipment of the aircraft.

AIRCRAFT STRUCTURES WORKER: The Aircraft Structures Worker is mainly responsible for the maintenance, repair, overhaul, manufacturing and modification of the aircraft structure and its components.

AIRCRAFT TRIMMER: This trade is responsible for the manufacturing, maintenance and repair of interior components such as fabric covered panels, carpets, curtains and seat covers.

AIRCRAFT WELDER: This Technician is responsible for the repairing of aircraft components by applying various welding processes and advanced technologies.



AIRLINE STATION MANAGER: The station manager is in charge of all ground and flight operations for his/her airline.

AIRPORT PLANNER: It is this person's job to plan and design airport facilities. It is also his or her role to create a master plan for the airport, noting the increasing demands of passengers and the airline services.

AIRPORT CUSTOMER RELATIONS AGENTS:

This person is responsible for management and resolution of customer queries. They also ensure availability and serviceability of Airport infrastructure.

AIR TRAFFIC CONTROLLER: An air traffic controller's job includes tower control, which handles all aircraft movements, take-offs and landings, while approach control monitors approaching and departing traffic, en route control and information and advisory services.

AVIATION LAW: This is a highly specialised aspect of the law, and is very much internationally orientated. It is recommended that you contact universities for more information.

AVIATION MEDICINE: General practitioners take the course, to be in a better position to deal with patients transported by air, or to carry out the required medical examinations for the issue and renewal of personnel licenses.

AVIATION SAFETY SPECIALIST:

Aviation safety specialists report incidents and accidents and ensure that their causes are made widely known to all that could benefit by the knowledge.

AVIATION TURNER AND MACHINIST:

The technician in this trade is responsible for the modifications, repair and manufacture of aircraft parts.

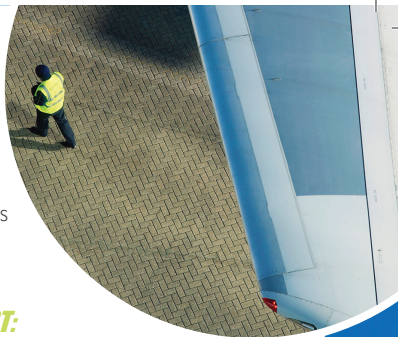
CABIN CREW / FLIGHT ATTENDANT: He or she checks passengers' names and destinations, enforces safety rules, serves food, oversees passengers' comfort, and directs evacuation procedures in the case of an emergency.


CO-PILOT: The co-pilot assists the pilot in the operation of the flight controls, watches the instruments and weather, handles radio communications, and keeps logs.

ELECTROMECHANIC: The electromechanic maintains teletype equipment, landing lights, beacons, and stand-by generators.

ELECTRONICS MAINTENANCE TECHNICIAN:

This person maintains navigational aids and communication equipment, such as radar and radio beacons.





FITTER AND TURNER: The fitter and turner is trained to manufacture parts and aircraft components.

FLIGHT DISPATCHER: The flight dispatcher works with the pilot planning flight requirements, authorizes take-offs or cancels flights, and advises pilots in the air on weather or route changes.

FLIGHT ENGINEER: The flight engineer monitors the in-flight operation of the engines and aircraft's mechanical and electrical systems.

FLIGHT LINE MECHANIC: The airplane is prepared for test flight after final assembly by the flight line mechanic.

GROUND HANDLING AND EMERGENCY SERVICES:

When on the ground, aircraft need to be moved around, refueled, cleaned and so on. Also, emergency services such as airport rescue and fire-fighting teams have to be available at all times to react to emergencies. Paramedics and firefighters are employed by these services.

HELICOPTER PILOT: These pilots can make flights to otherwise inaccessible areas.

LOADMASTER: He or she supervises proper tie-down procedures of cargo and calculates weight distribution of the load.

METEOROLOGIST: He or she analyzes weather data and makes weather reports to the pilot and dispatcher. He or she may also work with the flight dispatcher preparing flight plans.

NAVIGATOR: The navigator plots the course, reports positions, and estimates arrival time.

OPERATIONS AGENT: The operations agent oversees the loading and unloading of the aircraft and checks the distribution of the aircraft load and fuel.

PILOT: He or she flies aircraft of all sizes, transporting passengers and cargo across the country and around the world. They are responsible for the safety of the airplane, its passengers, the crew, and any cargo on board.

RADARTRICIAN: Radar systems are used in aircraft as well as on the ground. The radartrician is responsible for this equipment in the aircraft.

RESERVATIONS CLERK: This clerk handles telephone inquiries about flight schedules and fares and makes flight reservations for airline passengers.

TICKET AGENT: The ticket agent sells tickets, weighs and tags baggage, and answers questions on schedules and fares.



Careers offered by **SACAA**

SOUTH AFRICAN



CIVIL AVIATION
AUTHORITY

SACAA CADET PILOT TRAINING PROGRAMME

REQUIREMENTS

- Matric certificate/Grade 12/N3 or relevant qualifications (SAQA accredited)
- Pure Mathematics: Level 5 (60% or higher)
- Physical Science or Computer Science: Level 5 (60% or higher)
- English: Level 5 (60% or higher)





AIRCRAFT MAINTENANCE ENGINEER (AME): AIRCRAFT AVIONIC, AIRCRAFT MECHANIC, AIRCRAFT STRUCTURAL WORKER

REQUIREMENTS

- Matric Certificate/Grade 12
- Pure Mathematics: Level 4 (50% or higher)
- Physical Science: Level 4 (50% or higher)
- English: Level 4 (50% or higher)

AERONAUTICAL ENGINEER

REQUIREMENTS

- Matric certificate/Grade 12
- Pure Mathematics: Level 5 (60% or higher)
- Physical Science or Computer Science:
Level 5 (60% or higher)
- English: Level 5 (60% or higher)



Careers offered by **ACSA**



AIRPORT OPERATIONS

- Aviation Safety & Security Officer
- Airport Fire Fighter

REQUIREMENTS

Grade 12, Safety & Security Diploma, Fire Fighter 2 and other relevant Regulatory Qualifications, e.g. NKP, PSIRA.

AIRPORT ENGINEERS & TECHNICIANS

REQUIREMENTS

Grade 12, B-Degree in Engineering (Industrial, Mechanical, Electrical, etc.) or any other relevant three year qualification.

AVIATION SERVICES

- Airport Planner
- Airport Statistician
- Environmental Safety

REQUIREMENTS

Grade 12, B-Degree in Environmental studies, Architecture, etc.



AIRPORT CUSTOMER RELATIONS AGENT

REQUIREMENTS

Grade 12 and relevant Tertiary Qualification, e.g. Travel & Tourism or similar field.

Careers offered by ATNS



AIR TRAFFIC CONTROLLER (ATC)

REQUIREMENTS

- Must be at least 18 years
- Grade 12
- Pure Maths: Level 4 (50% or higher)
- English: Level 4 (50% or higher)



AIR TRAFFIC SERVICES ASSISTANT (ATSA)

REQUIREMENTS

The same as for the ATC.

ENGINEERING TECHNICIANS

REQUIREMENT

S4 Electrical Engineering (Light Current)



Careers offered by **SAA**



SOUTH AFRICAN AIRWAYS

A STAR ALLIANCE MEMBER

SAA CADET PILOT TRAINING PROGRAMME

REQUIREMENTS

- Matric certificate/Grade 12/N3 or relevant qualifications (SAQA accredited)
- Pure Maths or Statistics 101: Level 5 (60% or higher)
- Physical Science or Computer Science: Level 5 (60% or higher)
- English: Level 5 (60% or higher)



CABIN CREW/FLIGHT ATTENDANT

REQUIREMENTS

Applicants should be outgoing
South African citizens, medically fit and
at least 1.58 metres tall.



SAA TECHNICAL

Aircraft Mechanic; Aircraft Electrician; Aircraft Instrument Mechanic; Aircraft Radiotrician; Aircraft Structures Worker; Aircraft Welder; Aviation Turner and Machinist; Aircraft Painter; Aircraft Trimmer; and Aircraft Electroplater.

REQUIREMENTS

- Grade 12
- Pure Maths: Level 4 (50% or higher)
- Physical Science: Level 4 (50% or higher) OR
- N3 Certificate with Mathematics and Engineering Science

Careers offered by SAAF



SOUTH AFRICAN AIR FORCE

PILOT & NAVIGATOR TRAINING

REQUIREMENTS

- Grade 12
- English: Level 4 (50% or higher)
- Pure Maths: Level 4 (50% or higher)
- Physical Science: Level 4 (50% or higher) OR
- N4 with Mathematics and Physical Science: 60% or higher OR
- N5/6 or first year university of Technology: 50% or higher



Careers offered by **SAPS**



SOUTH AFRICAN POLICE AIR WING

PILOT

Fixed-wing and Helicopter.

REQUIREMENTS

- Grade 12
- Private Pilot License
- Previous flying experience



TECHNICAL

Aircraft Avionician; Electronics Mechanic; and Aircraft Maintenance Engineering.

REQUIREMENTS

- Grade 12 (Pure Maths & Science Level 5 [50% or higher]) or
- N3 with Aircraft Maintenance Theory as a subject (for apprenticeship)



CONTACT DETAILS

Department of Transport (DOT)
Private Bag x193, Pretoria, 0001
www.dot.gov.za

South African Civil Aviation Authority (SACAA)
Private Bag x73 Halfway House, 1685
www.caa.co.za

South African Air Force (SAAF)
SANDF Recruiting Centre,
Private Bag x281, Pretoria, 0001
www.saairforce.co.za

South African Police Service (SAPS Air Wing)
Career Management
Private Bag X241, Pretoria, 0001
www.saps.org.za

Airports Company South Africa (ACSA)
PO Box 75480, Gardenview, 2047
www.airports.co.za

Air Traffic & Navigation Services (ATNS)
Private Bag x15, Kempton Park, 1620
Email: recruitment@atns.co.za
www.atns.co.za

South African Airways (SAA)
Private Bag x13,
OR Tambo International Airport, 1627
www.flysaa.com



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