

# CIVIL AVIATION AUTHORITY



## **GUIDELINES FOR AN OPERATIONS MANUAL.**

This document “Guidelines for an Operations Manual” is to assist airport authorities in the setting up of an operations manual and at the same time ensure uniformity in the development of such operations manual.

It is not intended that these guidelines limit or regulate the operation of an aircraft.

## FOREWORD.

The airport authority is responsible for developing an aerodrome operations manual. The operations manual must also include plans and procedures for emergency operations, applicable to the aerodrome's particular characteristics and operations. Based on the guidelines, the aerodrome authority will develop an operations manual which will include the following;

- a) Define the responsibilities of the airport authority and other participating agencies;
  - b) Create effective lines of communication and adequate communication facilities to identify the "cascade" call system to include persons/ agencies responsible for "cascade" information. Where possible a 24-hour coverage shall be maintained.
  - c) Arrange for the availability of a fixed emergency operation center (EOC) and a mobile command post at the airport for use during an emergency.
  - d) Integrate assistance from local support services such as fire departments, security, medical, civil defense, government agencies and local amateur radio organizations in a Local Aerodrome Security Committee (LASC)
  - e) Describe the functions of air traffic services (airport control tower or airport flight information service) relating to emergency actions; and
  - f) Give instructions for response to accidents or incidents.
1. The airport emergency plan documents must be written to facilitate identification of subject matter pertinent to local aerodrome and community conditions.
  2. The emergency plans and procedures should be issued under the airport or appropriate authority, who will define and negotiate responsibilities of all agencies and personnel on or off the airport, who would or could be involved in an emergency affecting the airport.
  3. In developing the emergency plans and procedures, it is vital that arrangements be simple and easily understood by all involved in the different airport emergency plans. To this end flow control charts are of prime importance.

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## Chapter 1.

## General.

### 1.1 Abbreviations and symbols.

|         |  |
|---------|--|
| ACN     | Aircraft classification number.                  |
| Approx. | Approximately.                                   |
| ASDA    | Accelerate-stop distance available.              |
| ATS     | Air traffic services.                            |
| cd      | Candela.   |
| C       | Degree Celsius.                                  |
| cm      | Centimetre.                                      |
| DME     | Distance measuring equipment.                    |
| ft      | Foot.  |
| ILS     | Instrument landing system                        |
| IMC     | Instrument meteorological conditions.            |
| K       | Degree Kelvin.                                   |
| kg      | Kilogram.  |
| km      | Kilometre.                                       |
| km/h    | Kilometre per hour.                              |
| kt      | Knot.  |
| L       | Litre.   |
| LDA     | Landing distance available.                      |
| m       | Metre.   |
| max     | Maximum.   |
| mm      | Millimetre.                                      |
| mm      | Minimum.   |
| MN      | Meganewton.                                      |
| Mpa     | Megapascal.                                      |
| NM      | Nautical mile.                                   |
| NU      | Not usable.                                      |
| OCA/H   | Obstacle clearance altitude/height.              |
| OFZ     | Obstacle free zone.                              |
| PCN     | Pavement classification number.                  |
| RESA    | Runway end safety area.                          |
| RVR     | Runway visual range.                             |
| TODA    | Take-off distance available.                     |
| TORA    | Take-off run available.                          |
| VMC     | Visual meteorological conditions.                |
| VOR     | Very high frequency omnidirectional radio range. |

### Symbols.

|                  |                         |
|------------------|-------------------------|
| ° Degree.        | = Equals                |
| ´ Minute of arc. | μ Friction coefficient. |
| > Greater than.  | < Less than.            |
| % Percentage     | ± Plus or minus.        |

## 1.2 Reference codes.

The intent of this manual “Guidelines for an operations manual” is to serve as a guideline only and as such may not be used, as a standard, for the installation, operation and maintenance of an Aerodromes Civil, electrical and navigational aids.

- 1.2.1.1. Civil Aviation Regulations – Part 139.  
Aerodromes and Heliports: Licensing and Operation.
- 1.2.1.2. International Standards and Recommended Practices.  
Aerodromes – Annex 14. - ICAO.  
Volume 1. Aerodrome Design and Operations.
- 1.2.1.3. International Standards and Recommended Practices.  
Aerodromes – Annex 14. - ICAO.  
Volume II. Heliports.
- 1.2.1.4. International Standards and Recommended Practices.  
Aerodrome Design Manual. - ICAO.  
Part I. Runways.
- 1.2.1.5. International Standards and Recommended Practices.  
Operation of Aircraft – Annex 6. - ICAO.  
Part III. International Operations - Helicopters.
- 1.2.1.6. International Standards and Recommended Practices.  
Aerodrome Design Manual. - ICAO.  
Part IV. Visual Aids.
- 1.2.1.7. International Standards and Recommended Practices.  
Airport Services Manual. - ICAO.  
Part VI. Control of Obstacles.
- 1.2.1.8. International Standards and Recommended Practices.  
Aerodrome Design Manual. - ICAO.  
Part VI. Electrical Systems.
- 1.2.1.9. Occupational Health and Safety Act.  
No 85 of 1993.
- 1.2.10. Code of Practice for  
The Application of the National Building Regulations.  
SABS 0400 – 1990
- 1.2.11. Code of Practice for  
The Wiring of Premises.  
SABS 0142 – 1993

## 1.2 **Applicability.**

The interpretation of some of the specifications and requirements in the “Guidelines for an Operations Manual” expressly requires the exercising of discretion, the taking of a decision or the performance of a function by the aerodrome authorities.

#### 1.4 Definitions.

In the document “Guide Lines for an Operations Manual”, when the following terms are used they have the following meanings.

- 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 reference field length.*** The minimum field length required for take-off at maximum certificated take-off Mass, sea level, standard atmospheric conditions, still air and zero runway slope, as shown in the appropriate aeroplane flight manual prescribed by the certification authority or equivalent data from the aeroplane manufacturer. Field length means balanced field length for aeroplanes, if applicable, or take-off distance in other cases.
- Aeronautical beacon.*** An aeronautical ground light visible at all azimuths, either continuously or intermittently to designate a particular point on the surface of the earth.
- Aircraft stand.*** A designated area on an apron intended to be used for parking an aircraft.
- Apron.*** A defined area, on a land aerodrome, intended to accommodate aircraft for purposes of loading or unloading passengers, mail or cargo, fuelling, parking or maintenance.
- Dangerous area.*** An area in which a dangerous atmosphere exists or may exist. Dangerous areas are classified as follows;
- Division 0 area.** An area in which a dangerous atmosphere is continuously present.
- Division 1 area.** An area in which a dangerous atmosphere is likely to occur under normal operating conditions
- Division 2 area.** An area in which a dangerous atmosphere is likely to occur under abnormal operating conditions.
- Displaced Threshold.*** A threshold not located at the extremity of a runway.

**Electric fence.** Means an electrified barrier against the trespass of persons or animals, which consists of one or more bare conductors.

**Emergency lighting.** A system that provides sufficient illumination to replace the existing safety and normal lighting system in the event of a power failure, so that people can evacuate a place of assembly.

**Fixed light.** A light having constant luminous intensity when observed from a fixed point.

**Frangible object.** An object of Low Mass designed to break, distort or yield on impact so as to present the minimum hazard to aircraft.

**Helicopter stand.** An aircraft stand which provides for parking a helicopter and where air taxiing operations are contemplated, the helicopter touchdown and lift-off.

**Heliport.** An Aerodrome or a defined area on a structure intended to be used wholly or in part for the arrival, departure and surface movement of helicopters.

**Landing area.** That part of a movement area intended for the landing or take-off of aircraft.

**Manoeuvring area.** That part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, excluding aprons.

**Marking.** A symbol or group of symbols displaced on the surface of the movement area in order to convey aeronautical information.

**Point of control.** Means the point at which the electrical installation on or in any premises can be switched off by a user or lessor from the electricity supplied from the point of supply.

**Permit.** A document issued by an authorised person, or persons, permitting specific work to be carried out in one or more defined areas.

**Obstacle.** All fixed (whether temporary or permanent) and mobile objects, or parts thereof, that are located on an area intended for the surface movement of aircraft or that extend above a defined surface intended to protect aircraft in flight.

**Runway.** A defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft.

***Runway guard lights.*** A light system intended to caution pilots or vehicle drivers that they are about to enter an active runway.

***Taxiway.*** A defined path on a land aerodrome established for the taxiing of aircraft and intended to provide a link between one part of the Aerodrome and another.

***The Act.*** The Occupational Health and Safety Act 1993. To provide for the health and safety of persons at work and for the health and safety of persons in connection with the use of plant and machinery; the protection of persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work; to establish an advisory council Occupational health and safety; and to provide for matters connected therewith.

***Threshold.*** The beginning of that portion of the runway usable for landing.

***Touchdown Zone.*** The portion of a runway, beyond the threshold, where it is intended landing aeroplanes, first contacts the runway.

## **PARTICULARS TO BE INCLUDED IN AN AERODROME OPERATIONS MANUAL**

### **Chapter 1: Particulars of the aerodrome site**

#### **1.1 Particulars of the aerodrome site, including the following:**

- (a) A plan of the aerodrome showing the main aerodrome facilities for the operation of the aerodrome;
- (b) A plan of the aerodrome showing the aerodrome boundaries;
- (c) A plan showing the distance of the aerodrome from the nearest city, town or other populous area, and the location of any aerodrome facilities and equipment outside the boundaries of the aerodrome;
- (d) Particulars of title of
  - (i) The aerodrome site; or
  - (ii) If the boundaries of the aerodrome are not defined in the documents of title---particulars of title of, or interest in, the property on which the aerodrome is located and a plan showing the boundaries and position of the aerodrome.

### **Chapter 2. Particulars of the aerodrome operating procedures**

#### **Aerodrome Rescue and Fire Fighting Services; Part 139.02.07**

#### **2.1 Particulars about the aerodrome Rescue and Fire Fighting Services.**

- (a) Total number of Fire fighting personnel available for rescue and fire fighting services during normal aerodrome operational hours;
- (b) The number of additional Rescue personnel available for rescue work during an aircraft accident;
- (c) Number of shifts providing these services on the aerodrome;
- (d) Total number and type of fire fighting vehicles;
- (e) Total carrying capacity of these individual fire fighting vehicles;
- (f) Total discharge rates of these individual vehicles, including complimentary agent;
- (g) Number of staffing per individual fire fighting vehicle;
- (h) A list of all rescue equipment carried on the fire fighting vehicles;
- (i) Name and telephone number of responsible person co-ordinating these services;

- (j) Procedure to check the fire fighting appliances for operational status;
- (k) Record keeping of the check results and where it is kept;

**Aerodrome emergency plan: Part 139.02.6** *A separate emergency procedure manual as well as an airport security manual is required. See part 139.02.6. The following must be included in the operational manual.*

2.2 Particulars of the aerodrome emergency plan, including the following:

- (a) plans for dealing with emergencies or possible emergencies on or near the aerodrome that are caused by or may affect aircraft operations;
- (b) details of tests for aerodrome facilities and equipment to be used in emergencies, including the frequency of those tests;
- (c) details of exercises to test emergency plans, including the frequency of those exercises;
- (d) arrangement for reviewing the effectiveness of responses in emergencies or exercises;
- (e) the establishment of an aerodrome emergency committee to deal with emergencies and organise training and other preparation for emergencies;
- (f) a list of the organisations represented on the emergency committee and the powers and function of the committee.

**Aerodrome lighting: Part 139.01.5**

2.3 Particulars of the inspection and maintenance procedures of the aerodrome electrical distribution and lighting system.

- (a) the procedure for carrying out inspections on the electrical distribution system and the completion of the inspection check lists;
- (b) the procedure and method of recording the inspection results and the procedure of corrective action to be taken with regards critical and non critical items;
- (c) the procedure for carrying out routine maintenance;
- (d) the procedure for carrying out emergency maintenance and repairs;
- (e) the procedure of testing the secondary power supply if available. The type of system in operation and the method of change over;
- (f) the names and telephone numbers of responsible persons for the switching of High Tension distribution switchgear
- (g) Names and telephone numbers of the personnel responsible for the maintenance and repairs of the electrical distribution system during normal working hours;
- (h) Names and designations of personnel responsible for the repairs of the electrical distribution system after normal working hours.

**Notification of aerodrome data and information.: Part 139.02.9**

2.4 Particulars of the procedures for the reporting of the following;

- (a) Any changes in the aerodrome data and information as set out in the AIP. Method of reporting and recording the of notifications of the changes, during normal working hours as well as after hours;
- (b) the names and designations of the persons who are responsible for notifications of the changes and the telephone numbers for contacting persons during and after working hours;
- (c) the department name and telephone numbers, at CAA where any change in the data and aerodrome information must be reported to;

**Control of access into restricted area's: Part 139.02.26 and 139.02.29**

2.5 Particulars of the methods and procedures for the preventing of unauthorised entry of persons, vehicles, equipment, plant or animals, or other things into the aerodrome area which must include the following;

- (a) The method of control and procedures of prevention of access to the aircraft manoeuvring area;
- (b) The method of control and procedures of prevention of access to the Runways and taxiways;
- (c) The method and procedures of control of vehicle required for aircraft operations onto the apron area.
- (d) The procedures of two way radio operations to limit access to the above mentioned areas;

**Aerodrome inspections by aerodrome operator: Part 139.**

(Minimum standards for a quality control system Part 139.02.4.)

2.6 Particulars of the procedures and methods for ensuring that a quality control system is maintained on the aerodrome and which must ensure that the following is included;

- (a) the arrangement for carrying out inspections during and outside the normal hours of aerodrome operation;
- (b) the means of communicating with Air Traffic Control during an inspection, if applicable;
- (c) the arrangement for keeping an inspection logbook and the place where the logbook is kept;
- (d) details of the intervals at which the inspections are carried out and the times of the inspections;
- (e) details of the inspection checklist;
- (f) the arrangement for reporting the result of the inspections and for taking prompt follow up action to ensure correction of unsafe conditions;
- (g) the names and roles of the **managers** who are responsible for **the** inspections and the telephone numbers for contacting those persons during and after working hours.
- (h) **On the eleven ACSA aerodromes: The inspection lists for each maintenance department to be controlled and issued by the supervisor/manager of the appropriate department.**

- (i) If the maintenance are to be carried out by contractors, then the ops manual must indicate as such and the name of the responsible person (ACSA) must be reflected in the ops manual.

#### **Aerodrome works safety: Part 139.02.20**

2.7 Particulars of the procedures for planning and safely carrying out works (including works which may have to be carried out at short notice) on, or in the vicinity of, the movement area, that may extend above an obstacle limitation surface, including the following:

- (a) the arrangement for communicating with Air Traffic Control during the carrying out of the works;
- (b) the names and telephone numbers and roles of the persons and organisations responsible for carrying out the works, and the arrangements for contacting those persons and organisations at all times;
- (c) the names of the aerodrome fixed base operators and aircraft operators who are to be notified of the works, and the telephone numbers for contacting those operators during and after working hours;
- (d) the distribution list for method of working plans, if required.
- (e) Description of work.
- (f) Permit control system.
- (g) Accompany procedures to workplace.
- (h) Access and vacate procedure with ATC.
- (i) Responsible person (in writing) to inspect and confirm runway safe and clean after construction workers vacated.

#### **Aircraft parking control: Part 139.02.27**

2.8 Particulars of the procedures for aircraft parking control, if established, including the following:

- (a) The arrangement for allocating the aircraft parking positions;
- (b) The arrangement for initiating engine start and ensuring clearances for aircraft push-back;
- (c) An inventory and the description of any visual docking guidance system used at the aerodrome if applicable.
- (d) Type of electronic Docking system to be described.

#### **Airside vehicle control: Part 139.02.28 and part 139.01.29**

2.9 Particulars of the procedure for the control of surface vehicles operating on, or in the vicinity of, the movement area, including the following:

- (a) Details of the applicable traffic rules (including speed limits and the means of enforcement of the rules;
- (b) The method of instructing and testing drivers in relation tot the applicable traffic rules.
- (c)

**Bird hazard management: Part 139.02.8**

2.10 Particulars of the procedure to deal with danger to aircraft operations caused by the presence of birds on or in the vicinity of the aerodrome (“bird hazard”) including the following:

- (a) The arrangement for assessing any bird hazard;
- (b) The arrangement for the removal of any bird hazard;
- (c) The names and roles of the persons responsible for dealing with bird hazard, and the telephone numbers for contacting those persons during and after working hours.

**Obstacle control: Part 139.02.02**

2.11 Particulars setting out the procedures:

- (a) For monitoring the obstacle limitation surfaces for obstacles;
- (b) For monitoring building developments (in relation to heights of buildings and other structures) within the horizontal limits of the obstacle limitation surfaces;
- (c) For notifying CAA of the nature and location of obstacles.

**Disabled aircraft removal:**

2.12 Particulars of the procedures for removing an aircraft which is disabled on or near the movement area except in an emergency, including the following;

- (a) The roles of the aerodrome operator and the holder of the aircraft’s certificate of registration;
- (b) The arrangement for notifying the holder of the certificate of registration;
- (c) The arrangement for liaising with Air Traffic Control;
- (d) The arrangement for obtaining equipment and persons to remove the aircraft;
- (e) The names and roles of the persons who are responsible for arranging for the removal of an aircraft which is disabled, and the telephone numbers for contacting those persons during and after hours.

### **Handling of hazardous materials: Part 92.00.1 through 28**

- 2.13 Particulars for the procedure for the safe handling of hazardous materials on the aerodrome, including the following:
- (a) The names, telephone numbers and roles of the persons who are responsible for the storage and handling of the hazardous materials;
  - (b) The arrangement for special areas on the aerodrome to be set up for the storage of flammable liquids (including aviation fuels) and any other hazardous materials;
  - (c) The methods to be followed for the delivery, storage, dispensing and handling of these materials.

(NOTE: Hazardous material includes explosives, flammable liquids and solids, corrosive liquids, oxidising or infectious substances, gasses, poisons, magnetised and radio active materials.)

### **Protection of radar and navigational aids: Part 139.02.30**

- 2.14 Particulars of the procedure for protection of radar's and navigational aids located on the aerodrome to ensure that their performance will not be degraded, including the following;
- (a) The arrangement for the control of activities in the vicinity of the radar/ s and navigational aid installations;
  - (b) The arrangement for ground maintenance in the vicinity of these installations;
  - (c) The arrangement for the supply and installation of signs warning of hazardous microwave radiation.

### **Low visibility operations: Part 172**

- 2.15 Particulars of the procedure for the measurement of visibility along the runway and the procedure for passing that information to the Air Traffic Control, if required, including the following:
- (a) In relation to the procedures, the names and roles of the persons who are responsible for measuring the runway visual range and the telephone numbers for contacting those persons during and after working hours; and
  - (b) The arrangement for taking the measurement and for giving the result to the Air Traffic Control.

### **Chapter 3. Particulars of the aerodrome which is required for notification in the AIP**

**Particulars of the aerodrome that are required for notification in the AIP, including the following: Part 139.02.3 & part 172**

### 3.1 **Aerodrome general information:**

- (i) The name of the aerodrome; and
- (ii) The Province or region where the aerodrome is located; and
- (iii) The geographic co-ordinates of the aerodrome reference point; and
- (iv) The elevation of the aerodrome above sea level; and
- (v) Details of the aerodrome beacon; and
- (vi) The name of the aerodrome operator and the address and telephone number at which the operator can be contacted at all times;

### 3.2 **Runway information:**

- (vii) The magnetic bearing of the runway and the runway number;
- (viii) The length, width and slopes of the runway; (cross-fall or camber slope)
- (ix) Touch down area surface type;
- (x) Touch down area surface strength rating;
- (xi) The length of the clear-way;
- (xii) The length of the stop-way;
- (xiii) The length and width of the graded and overall runway strips; and
- (xiv) The pavement surface type and its strength rating; and
- (xv) The grading from the end of runway strip or clear-way to the critical obstacle; and
- (xvi) The supplementary take-off distances and associated gradients; and
- (xvii) The Aerodrome Obstacle Chart Type A if applicable;

### 3.3 **Infrastructure information:**

- (i) List all other services available on the aerodrome that has not been covered in other parts.

#### **(b) as visual aid system information:**

- (i) The type of runway lighting and stand-by power, if any, for that lighting; and a detail description of type of essential supply systems. (Diesel or UPS)
- (ii) The type of approach lighting; and
- (iii) The precision approach path indicator system, if applicable;

#### **(c) As local information, any other matters that relate to safety of aircraft using the aerodrome.**

## **Chapter 4 Aerodrome emergency management manual of PROCEDURE: Part 139.02.6 (This need to be a separate operations manual)**

**Particulars of an aerodrome emergency manual of procedure that includes the following:**

**Section 1:**

**Emergency telephone numbers**

- a) Air traffic services;
- b) Rescue and fire fighting services (fire departments);
- c) Police and security;
- d) Medical services;
  - 1. hospitals
  - 2. ambulances; and
  - 3. doctors – business/ residence
- e) Aircraft operators;
- f) Government authorities;
- g) Civil defense; and
- h) Others.

**Section 2:**

**Aircraft accident on the airport.**

- a) Action by air traffic control (airport control tower or flight information service);
- b) Action by fire fighting services;
- c) Action by police and security service;
- d) Action by airport authority;
  - 1. vehicle escort; and
  - 2. maintenance;
- e) Action by medical services;
  - 1. hospitals;
  - 2. ambulances;
  - 3. doctors; and
  - 4. medical personnel;

- f) Action by aircraft operator involved;
- g) Action by emergency operations center and mobile command post;
- h) Action by government authorities;
- i) Communications network (emergency operations center and mobile command post);
- j) Action by agencies involved in mutual aid emergency agreements;
- k) Action by transportation authorities (land, sea, air);
- l) Action by public information officer(s);
- m) Action by local fire departments when structures involved; and
- n) Action by all other agencies.

**Section 3.**

**Aircraft accident off the airport.**

- a) Action by air traffic control (airport control tower or flight information service);
- b) Action by rescue and fire fighting services;
- c) Action by local fire services;
- d) Action by police and security service;
- e) Action by airport authority;
- f) Action by medical services;
  - 5. doctors; and
  - 6. medical personnel;
- g) Action by agencies involved in mutual aid agreements;
- h) Action by aircraft operator involved;
- i) Action by emergency operations center and mobile command post;
- j) Action by government authorities;
- k) Communications network (emergency operations center and mobile command post);

- l) Action by transportation authorities (land, sea, air);
- m) Action by public information officer(s);
- n) Action by all other agencies.

**Section 4:**

**Malfunction of aircraft in flight (full emergency or standby)**

- a) Action by air traffic control (airport control tower or flight information service);
- (j) Action by airport rescue and fire fighting services;
- (k) Action by police and security service;
- (l) Action by airport authority;
- (m) Action by medical services;
  - 1. hospitals;
  - 2. ambulances;
  - 3. doctors; and
  - 4. medical personnel;
- (n) Action by aircraft operator involved;
- (o) Action by emergency operations center and mobile command post;
- (p) Action by all other agencies.

**Section 5:**

**Structural fires (Sierra foxtrot phase)**

- a) Action by air traffic control (airport control tower or flight information service);
- b) Action by fire fighting services (local fire department)
- c) Action by police and security service;
- d) Action by airport authority;
- e) Evacuation of structure;
- f) Action by medical services;

1. Hospitals;
  2. Ambulances;
  7. Doctors; and
  8. Medical personnel;
- g) Action by emergency operations center and mobile command post;
- h) Action by public information officer(s);
- i) Action by all other agencies.

**Section 6:**

**Sabotage including bomb threat. (Aircraft or structure) (Bravo Whiskey Phase)**

- a) Action by air traffic control (airport control tower or flight information service);
- b) Action by emergency operations center and mobile command post;
- c) Action by police and security service;
- d) Action by airport authority;
- e) Action by rescue and fire fighting services;
- f) Action by medical services;
1. hospitals;
  2. ambulances;
- g) Action by aircraft operator involved;
- h) Action by government authorities;
- i) Isolated aircraft parking position;
- j) Evacuation;
- k) Searches by dogs and trained personnel;
- l) Handling and identification of luggage and cargo on board of aircraft;
- m) Handling and disposal of suspected bomb;
- n) Action by public information officer(s); and
- o) Action by all other agencies.

## **Section 7**

### **Unlawful seizure of aircraft**

- a) Action by air traffic services ( airport control tower or flight information services;
- b) Action by rescue and fire fighting services;
- c) Action by police and security services;
- d) Action by airport authority;
- e) Action by medical services;
  - 1. hospitals;
  - 2. ambulances;
  - 3. doctors; and
  - 4. medical personnel;
- f) Action by aircraft operator involved;
- g) Action by government authorities;
- h) Action by emergency operation center and mobile command post;
- i) Isolated aircraft parking position;
- j) Action by public information officer;
- k) Action by all other agencies;

## **Section 8;**

### **Incident on the airport.**

An incident on the airport may require any or all of the actions detailed in section 2, “ Aircraft accidents on the airport.” Examples of incidents the airport authority should consider include fuel spills at the ramp, passengers loading bridge, and fuel storage area; dangerous goods occurrences at freight handling areas; collapses of structures; vehicle/ aircraft collisions; etc.

## **Section 9**

### **Persons of authority – site roles**

To include but not limited to the following according to local requirements;

- a) **On- airport;**
  - 1. Airport chief fire officer;
  - 2. Airport authority;
  - 3. Police and security – officer in charge; and
  - 4. Medical coordinator; and
  
- b) **Off airport;**
  - 1. Local chief fire officer;
  - 2. Government authority;
  - 3. Police and security – officer in charge;

The on scene commander must be appointed as required from within the pre- arranged mutual aid agreement.

Experience indicates that confusion in identifying command personnel in incident situations is a serious problem. To alleviate this problem it is suggested that distinctive colored hard hats and vests or apparel with reflective lettering be worn by command personnel, for their easy identification. The following are the internationally recommended colors:

|                        |                         |
|------------------------|-------------------------|
| Red:                   | -Chief Fire Officer     |
| Blue:                  | -Police Chief           |
| White: (red lettering) | -Medical Coordinator    |
| International orange;  | -Airport administration |
| Lime green;            | -Transportation officer |
| Dark brown;            | -Forensic Chief         |

### **Chapter 5. Aerodrome security manual: Part 139.02. (This need to be detachable annexe to the aerodrome operations manual)**

#### **5.1 The establishment of a Local Aerodrome Security Committee (LASC), including the establishment of an aerodrome security program (ASP): Part 139.**

- (a) Details of the name and contact numbers of participants to the local aerodrome security committee (LASC);
  
- (b) Details of the roles and functions of each individual institution serving on the ASP; (airlines, aerodrome operators, aerodrome management etc.

- (c) Details of the frequency of LASC meetings;
- (d) Details of the procedure and frequency for testing of the functions of the ASP program;

**5.2 The establishment of an aerodrome emergency {Joint Operations Center (JOC)} or Emergency Operations Center (EOC)**

- (a) Details on the location of the aerodrome JOC or EOC;
- (b) Details of the procedure according to which the JOC or EOC will be functioning; This should form part of the ASP;
- (c) Details on the appointment of a coordinator for the JOC or EOC functions;
- (d) A list of all participants to the JOC or EOC as well as their contact numbers during normal operational hours as well as after aerodrome operational hours;
- (e) Details of the procedure to test the operations of the JOC or EOC and the method to identify and rectify discrepancies identified during such tests;
- (f) Details and contact number of the responsible person for the record keeping of JOC or EOC operations and where it is kept;
- (g) Details of the procedure to notify CAA of all incidents jeopardising or involving the integrity of airport security;

**5.3 The establishment of a communications network within the JOC or EOC:**

**Aspects that needs to be included in the consideration:**

- (a) Provision of telephone and fax facilities;
- (b) Provision of Radio facilities on all frequencies needed by participating institutions to the ASP;
- (c) The provision of an internal communications system etc.
- (d) Details and contact number of the responsible person for the procedure to check these systems, and the frequency thereof;
- (e) Details of the record keeping of these checks and where it is kept'

**5.4 Particulars of the aerodrome security procedure including the following:**

- (a) Procedures towards the prevention of unauthorised access to the airside of the aerodrome;
- (b) Procedure and mechanism to establish a sterile area for departing passengers;
- (c) Procedure for the screening of departing passengers;
- (d) Procedure for the screening of air crew and aerodrome operators;
- (e) Procedure for the segregation of screened and un-screened passengers;
- (f) Procedure for the access of vehicles unto the airside and the screening of its occupants and contents;
- (g) Procedure to identify aerodrome personnel operating within the airside. (permit system);
- (h) Procedure to ensure the integrity of the aerodrome security program is not jeopardised by unsafe/ or un-screened freight.
- (i) Details of the procedure to ensure freight accepted for transportation by air is rendered safe.
- (j) Details of the reporting procedure of any unsafe freight to;
  - (i) The airport authority
  - (ii) The Civil Aviation Authority
  - (iii) The airline involved;
- (k) Name and all hour contact number, of the person responsible for the airport security procedure;

**5.5 Aerodrome perimeter fence:**

- (a) The identification of the aerodrome boundaries;
- (b) The protection of these boundaries by means of a perimeter fence;
- (c) An indication of the type of fence incorporated to protect these boundaries;
- (d) The number and identification method of gates within this fence;
- (e) The method for allowing access through these gates;
- (f) The procedure to ensure the integrity of the aerodrome fence;
- (g) The frequency of aerodrome fence inspection and repair, if damaged;
- (h) The procedure to record these inspections and the particulars of repairs;

- (i) The protection method of storm-water drains or water streams that passes through underneath the aerodrome fence.
- (j) Name and contact number of the person responsible for the upkeep of the aerodrome fence.



**SOUTH AFRICAN CIVIL AVIATION AUTHORITY  
CIVIL AVIATION REGULATIONS, 1997**

**APPLICATION FOR THE ISSUING OF AN AERODROME LICENCE  
APPLICATION FOR THE AMENDMENT OF AN AERODROME LICENCE  
APPLICATION FOR THE RENEWAL OF AN AERODROME LICENCE**

**Notes:**

- (i) An application for the issuing of an aerodrome licence, or an amendment thereof, must comply with the provisions of CAR 139.02.10.
- (ii) An application for the renewal of an aerodrome licence must comply with the provisions of CAR 139.02.17.
- (iii) Section 1 of this form must be completed in all cases.
- (iv) All other sections must be completed if applicable to the specific application.
- (v) The original application must be submitted to the Commissioner for Civil Aviation.
- (vi) Where the required information cannot be furnished in the space provided, the information must be submitted as a separate memorandum and attached hereto.
- (vii) Please delete if not applicable.

Mark the appropriate block:

- Application for the issuing of an aerodrome licence.
- Application for the amendment of an aerodrome licence.
- Application for the renewal of an aerodrome licence.

**1. PARTICULARS REGARDING THE APPLICANT/HOLDER**

|                               |
|-------------------------------|
| 1.1 Full name: .....<br>..... |
|-------------------------------|

- 2 -

|                                |
|--------------------------------|
| 1.2 Trade name: .....<br>..... |
|--------------------------------|

|  |   |
|--|---|
| 1.3 Full business / residential address:<br>.....<br>.....<br>.....<br>..... | 1.4 Postal address:<br>.....<br>.....<br>.....<br>Postal code ..... |
|--|---|

|                             |                           |
|-----------------------------|---------------------------|
| 1.5 Telephone number: ..... | 1.6 Telefax number: ..... |
|-----------------------------|---------------------------|

|                                  |                           |
|----------------------------------|---------------------------|
| 1.7 Cellular phone number: ..... | 1.8 E-mail address: ..... |
|----------------------------------|---------------------------|

|                               |                          |
|-------------------------------|--------------------------|
| 1.9 SITA code (if any): ..... | 1.10 Telex number: ..... |
|-------------------------------|--------------------------|

|   |
|---|
| 1.11 Legal status of applicant/holder (individual/close corporation/company/trust/other - specify:<br>..... |
|---|

|   |
|---|
| 1.12 Registration number in the case of a close corporation/company/trust: .....<br>..... |
|---|

|   |          |                 |             |                                |
|---|----------|-----------------|-------------|--------------------------------|
| 1.13 Full particulars in respect of the individual/each responsible director/shareholders/partner/<br>member/office bearer: |          |                 |             |                                |
| Name  | Position | Identity number | Nationality | Country of permanent residence |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| ..... | ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... | ..... |

1.14 I hereby declare that the above particulars are true in every respect and undertake in so far as possible to keep the aerodrome/landing strip in a serviceable condition.

.....  
Signature

.....  
Date

- 3 -

**2. APPLICATION FOR THE ISSUING OF AN AERODROME LICENCE**

- 2.1 (a) Proposed name for aerodrome/  
Landing strip : .....
- (b) Alternative name : .....
- (c) Category: Public/Private :
- .....

2.2 (a) For what purpose is the aerodrome/landing strip intended?  
.....  
.  
.....  
.  
.....  
.  
.....  
.....

(b) Night flying? : .....

2.3 Type of aircraft for which the aerodrome is planned.  
.....  
.....  
.....

2.4 Geographical Position: South Latitude :  
..... ° ..... ' ..... " .

..... : East Longitude :  
 .....°.....'.....”.

Elevation .....VT/FT

Direction and distance from nearest town / city: .....

Have you previously applied to licence this aerodrome? : .....

Name of nearest existing aerodrome : .....

Distance from this aerodrome : .....

For what period is the aerodrome intended : .....yrs.

2.5 Runway particulars : .....

- 4 -

| (a) Runway bearing<br>(Magnetic) | Length X Width<br>m m | Surface<br>(Type) | Strength<br>(LCN) |
|----------------------------------|-----------------------|-------------------|-------------------|
| 1. .... / .....                  | .....X.....           | .....             | .....             |
| 2. .... / .....                  | .....X.....           | .....             | .....             |
| 3. .... / .....                  | .....X.....           | .....             | .....             |
| 4. .... / .....                  | .....X.....           | .....             | .....             |

Remarks (if any) : .....  
 .....

(b) Slopes on runways

| Longitudinal | Transverse |
|--------------|------------|
| 1. /in       | /in        |
| 2. /in       | /in        |
| 3. /in       | /in        |
| 4. /in       | /in        |

2.6 Obstructions :

.....

| Type  | Height above ground level | Height above aerodrome elevation | Direction and distance from nearest runway |          |
|-------|---------------------------|----------------------------------|--|----------|
|       |                           |                                  | Direction                                  | Distance |
| ..... | .....                     | .....                            | .....                                      | .....    |
| ..... | .....                     | .....                            | .....                                      | .....    |
| ..... | .....                     | .....                            | .....                                      | .....    |
| ..... | .....                     | .....                            | .....                                      | .....    |
| ..... | .....                     | .....                            | .....                                      | .....    |
| ..... | .....                     | .....                            | .....                                      | .....    |
| ..... | .....                     | .....                            | .....                                      | .....    |
| ..... | .....                     | .....                            | .....                                      | .....    |
| ..... | .....                     | .....                            | .....                                      | .....    |
| ..... | .....                     | .....                            | .....                                      | .....    |

2.7 Safe approach slope: :on .....

2.8 Aerodrome markings affixed

or X

- (i) Runway designation markings \_\_\_\_\_
- (ii) Threshold \_\_\_\_\_
- (iii) Runway edge \_\_\_\_\_
- (iv) Centre line \_\_\_\_\_
- (v) Circle and wind cone \_\_\_\_\_
- (vi) Status symbol U + P \_\_\_\_\_
- (vii) Identification \_\_\_\_\_

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2.9 Apron

- (i) Size : .....
- (ii) Tie-down facilities : .....

2.10 (a) Fire extinguishing service .....

(b) First Aid : .....

(c) Rescue Equipment :  
.....

2.11 Other facilities:

(a) Hangars : .....

(b)(i) fuel and oil (Mention grades) .....

(b)(ii) Name, Address and Tel No.  
of Supplier of Aviation fuel : .....

(c) Telephone on aerodrome. Yes/No :  
.....

(d) Terminal facilities and/or restrooms : .....

(e) Water supply :

.....

2.12 Additional information required.

(a) Nearest police station : .....

(b) Is the aerodrome fenced? : .....

(c) Do animals graze on the aerodrome? :

.....

(d) In the case of an unmanned aerodrome, name, address, telephone No. and telegraphic address of the person with whom arrangements for landing may be made.

.....

..

.....

..

(e) Has a responsible person been appointed for the aerodrome? : .....

(f) If so, name and address : .....

.....

- 7 -

(g) Are you the owner or tenant of the land on which the aerodrome is situated? : .....

(h) If not the owner, what rights do you hold over the land and for what period? .....

.

.....

.

(i) Is the ownership of the land vested in a South African person? .....

.

.....

**3. APPLICATION FOR THE AMENDMENT OF AN AERODROME LICENCE**

|                           |                        |
|---------------------------|------------------------|
| 3.1 Licence number: ..... | 3.2 Expiry date: ..... |
|---------------------------|------------------------|

|  |
|--|
| 3.3 Particulars of amendments applied for: |
|--|

.....  
.....

3.4 Particulars of non-compliance with, or deviations from, aerodrome design, operation or equipment standards in respect of amendments applied for:  
.....  
.....

3.5 Particulars of non-compliance with, or deviations from, airspace classification requirements in respect of amendments applied for:  
.....  
.....

3.6 Supporting documents:

Mark the appropriate block

Amended operations manual

Approval of local government

Amended environmental impact report

Approval of interested Government institutions

Proof of financial capability

Amended plans of the aerodrome

**4. APPLICATION FOR THE RENEWAL OF AN AERODROME LICENCE**

|                           |                        |
|---------------------------|------------------------|
| 4.1 Licence number: ..... | 4.2 Expiry date: ..... |
|---------------------------|------------------------|

4.3 Category aerodrome applied for: Public / Private

.....

.....

4.4 Particulars of non-compliance with, or deviations from, aerodrome design, operation or equipment standards in respect of amendments:

.....

.....

4.5 Particulars of non-compliance with, or deviations from, airspace classification requirements:

.....

.....

4.6 Supporting documents:

Mark the appropriate block

Operations manual

ANNEXB

**Annexe A.**

The suggested format of the operational manual should be similar to the following;

The front page should indicate the Aerodrome's name e.g.

Name of the Aerodrome.

Operations manual.

Prepared by :

**Page X.** An Index page.

**Page X.** **Foreword.** – Indicating that this document is the operations manual for Airport.....and was compiled in accordance with the Civil Aviation regulation 139.02.3.

**Page X.** **Statement by the accountable Manager .**

Confirming that the operations manual is airport ..... defines the Organisation of the airport and staff and that the procedures and methods for ensuring that the provisions as laid out in the Civil Aviation Regulations will be complied with at all times.

**Page X.** **List of Particulars of the personnel .**

The accountable managers and their various designations.  
The personnel and their designations.  
The maintenance personnel and their designated areas, also indicating HT switching authority, if appropriate and after hours responsibility.

**Page X.** **Organisational chart.**

Page indicating the organisational chart indicating also the lines of responsibilities.

**Page X. Infrastructure Description.**

**1. Physical Characteristics.**

Aerodromes reference co-ordinates:

Distance from nearest town.

Elevation.

Reference temperature.

Variation of temperature.

Operational hours.

Runways.

Main runway – Designation numbers.

True bearing

Magnetic bearing.

Dimensions – Length and width.

Surface.

Surface strength.

Threshold co-ordinates.

Threshold elevation

Longitudinal slope.

Clearway dimensions.

Runway strip dimension.

Secondary runway if present, the same information.

**2. Obstacle Limitations.**

**3. Visual Aids at the aerodrome.**

Runway markings.

Threshold

Designation markings

Centre line marking

Taxiway markings.

4. **Lights.**

Lights are provided for;  
Runway ends/Thresholds – runway edge.

5. **Papis.**

Is Papis provided for and what is the glide slope.

5. **Equipment and Installations.**

Navigational aids.

6. **Airspace classification.**

Controlled or un-controlled.

**Page X Aerodrome environment management programme.**

Bird control.

**Page X. Procedures for the notification of aerodrome data and information.**

**Page X. Quality Control Systems.**

List the various quality control systems containing an aviation safety program, for the control and supervision of the operation and maintenance of the aerodrome and its services and facilities.

**Page X. Security Measures.**

Access and movement control.

**Page X. Air traffic services.**

**Page X. Aerodrome emergency management system.**

**Page X. Air Traffic services**

**Page X. Rescue and fire fighting services.**

**Page X. Lay-out plans.**