	GHANA	ADVISORY CIRCULAR
	CIVIL AVIATION AUTHORITY	AC 14-022

PERSONNEL REQUIREMENT AND COMPETENCE

GENERAL

Ghana Civil Aviation Authority (GCAA) Advisory Circulars from Aerodrome Safety and Standards (ASAS) contain information about standards, practices and procedures that the Authority has found to be an Acceptable Means of Compliance (AMC) with the associated Directives.

An AMC is not intended to be the only means of compliance with a Directive, and consideration will be given to other methods of compliance that may be presented to the Authority.

PURPOSE

This Advisory Circular provides methods, acceptable to the Authority, for showing compliance with Ghana Civil Aviation Directives (GCADs) Directive Part 32 as well as explanatory and interpretative material to assist in showing compliance.

REFERENCE
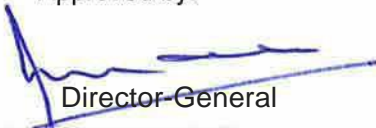
The Advisory Circular relates specifically to GCADs.

STATUS OF THIS AC

This is the first AC to be issued on this subject.

FORWARD

This document provides guidance to aerodrome operators on the requirement and the basis for assessment of competency of key aerodrome personnel whose decisions and actions can impact aerodrome operational safety.

APPROVAL

IssueNo: 01	Approved by: Director-General	Nov. 2018

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1 GENERAL

The Ghana Civil Aviation Authority's Advisory Circulars contains information about standards, practices and procedures that the Authority has found to be an Acceptable Means of Compliance (AMC) with the associated Regulations.

An AMC is not intended to be the only means of compliance with a Regulation, and consideration will be given to other methods of compliance that may be presented to the Authority.

Information considered directive in nature is described in this AC in terms such as "shall" and "must", indicating the actions are mandatory. Guidance information is described in terms such as "should" and "may" indicating the actions are desirable or permissive, but not mandatory.

1.1 Purpose

This Advisory Circular provides guidance to aerodrome operators on the qualification requirements and the basis for assessment of competency of key aerodrome personnel based on the relevant provisions of the GCAD Part 32.

It outlines the principles, obligations and provisions pertaining to the training of aerodrome personnel involved in aerodrome operations, including a recommended structure and basic components of a training programme and provisions for demonstrating competence checks.

The objective of this AC is to assist Aerodrome Operators to ensure that persons within the management and operational structure possess the relevant operational safety competence, and be able to identify any gaps that may exist in the areas of competence for their particular aerodrome. The size, complexity and scale of operations of an aerodrome will be a component of the Operator's assessment process.

The competency assessment of operational personnel could be carried out as part of on-site verification of operational procedures and administrative inspections as this provides a good picture about training and qualification of who performs critical activities and maintenance at the aerodrome.

1.2 Description of Changes

This AC is the second to be issued on this subject

1.3 Reference

a) GCAD Part 14 – Airport Design and Operations
b) GCAD Part 32 - Certification of Aerodrome
c) AC 14-036 – Certification of Aerodromes
d) ICAO Doc 9137, Part 9 - Maintenance Practises

e) ICAO Doc 9981 - PANS Aerodromes

1.4 Background

The activities conducted by an aerodrome operator requires the competence and appropriate training of personnel in order to carry out their assigned tasks. This training is generally conducted by the individual's employer, aerodrome operator or third parties.

The GCAD Part 32 requires that the aerodrome operator employs an adequate number of skilled and qualified personnel for performing all critical activities in-relation to the aerodrome operations and maintenance processes.

Notwithstanding the requirements of GCADs Part 32 section 32.4.1, the Aerodrome Operator shall train all personnel who access movement and safety areas and perform duties in compliance with the Requirements of the GCAD Part 14.

1 AUTHORITY'S ASSESSMENT CRITERIA FOR AERODROME POST HOLDER(S)

This Appendix contains the minimum assessment criteria for an Aerodrome Post Holder.

1. Accountable Manager

(a) Performance Criteria

(i) Full control of the human resources required for the operations authorized to be conducted under the Aerodrome Certificate.

(ii) Full control of the technical resources required for the operations authorized to be conducted under the Aerodrome Certificate.

(iii) Full control of the financial resources required for the operations authorized to be conducted under the Aerodrome Certificate.

(iv) Final authority over operations authorized to be conducted under the Aerodrome Certificate.

(v) Ultimate responsibility and accountability for the establishment, implementation and maintenance of the Safety Management System.

(vi) Authority and accountability for establishment, implementation, communication and promotion of the safety policy.

(vii) Authority and accountability for establishment of the organization's safety objectives and safety targets.

(viii) Final responsibility for the resolution of all safety issues.

(ix) Authority and accountability for establishment, implementation and maintenance of the organization's competence to learn from the analysis of data collected through its safety reporting system.

(x) Safety Data Collection and Processing Systems (SDCPS) in place; and

(xi) Authority and accountability for establishment of a just culture which encourages safety reporting.

(b) Knowledge Criteria

(i) Knowledge and understanding of the Civil Aviation Act in-force, the GCADs and related publications, the Aerodrome Operators Act (if applicable), and the Aerodrome Manual.

(ii) Understanding of the requirements for competence of key aerodrome management personnel, so as to ensure that competent persons are employed.

(iii) Knowledge and understanding of safety, quality, and security management systems related principles and practices, and how these are applied within the organization.

(iv) Knowledge and understanding of the key issues of risk assessment and management within the aerodrome.

(v) Knowledge of the organizational structure and lines of reporting

(vi) Knowledge about international organizations (ICAO, ACI, IATA etc.)

(vii) The GCAA's State Safety Programme and Aerodrome SMS

(viii) The GCAA's Aerodrome Certification Process

(ix) The GCAA's Regulatory Oversight Process

(x) The GCAA's Enforcement Process

(c) Supporting Documents

(i) Curriculum Vitae, Job Description and proof of relevant Training and Qualifications

(ii) Other relevant documents if requested by Authority

2. Head of Aerodrome Safety and Compliance Department

(a) Performance Criteria

(i) Responsible individual and focal point for the development and maintenance of an effective Safety Management System

(ii) Ensure that processes needed for the SMS are established, implemented and maintained

(iii) Reports directly to the Accountable Manager on the performance of the SMS and on any need for improvement

(iv) Ensure safety promotion throughout the organization

(v) Ensure that the safety manager demonstrates the following:

(1) Facilitate hazard identification, risk assessment, analysis and management; monitor the implementation and functioning of the Safety Management System, including the necessary safety actions;

(2) Manage the safety reporting system of the aerodrome; provide periodic reports on safety performance;

(3) Ensure maintenance of safety management documentation;

(4) Ensure that there is safety management training available, and that it meets acceptable standards;

(5) Provide advice on safety matters; and

(6) Initiate and participate in internal incident/accident investigations.

(b)   Knowledge Criteria

(i) Theoretical and Practical experience and expertise in aerodrome operations, maintenance or similar areas.

(ii) Knowledge and understanding of the Civil Aviation Act in-force, the GCADs and related publications, the Aerodrome Operators Act (if applicable), and the Aerodrome Manual

(iii) Comprehensive knowledge of the applicable requirements in the GCAD Parts 14 and 36.

(iv) Ensure basic understanding of aerodrome bird and wildlife hazard management programme, Rescue and Firefighting, Apron management and Aerodrome Emergency Plan

(v) The GCAA's process for the reporting and follow-up of accidents, incidents and emergencies on the aerodrome.

(vi) Knowledge of the organizational structure and lines of reporting

(vii)   The GCAA's State Safety Programme / Aerodrome SMS

(viii)   The GCAA's Aerodrome Certification Process

(ix) The GCAA's Regulatory Oversight Process

(x) The GCAA's Enforcement Process

(c)   Supporting Documents

(i)   Curriculum Vitae, Job Description and proof of relevant Training and Qualifications

(ii)   Other relevant documents if requested by Authority

3.   Head of Aerodrome Operations Department

(a)   Performance Criteria
(i)   Ensure that the aerodrome certification requirements are met, and that the aerodrome operates in accordance with certificate conditions and regulatory requirements.
(ii)   Accountable for day-to-day aerodrome operations.
(iii)   Ensure management and maintenance of the certification status of the Aerodrome.
(iv)   Responsible for the management of the operational services of the aerodrome.
(v)   Analyse audit and inspection findings, and submit a detailed corrective action plan to the Authority, and initiate actions.
(vi)   Use feedback from safety audits and inspections to recommend appropriate changes to airside safety management procedures and ensure implementation.
(vii)   Monitor airside planning and development for compliance.

(viii) Develop proactive working relationships with aerodrome users

      (b)   Knowledge Criteria
- (i)   Theoretical and Practical experience and expertise in aerodrome operations or maintenance (or similar areas) respectively.
- (ii)   Knowledge and understanding of the Civil Aviation Act in-force, the GCADs and related publications, the Aerodrome Operators Act (if applicable), and the Aerodrome Manual
- (iii)   Comprehensive knowledge of the applicable requirements in the GCAD Part 14.
- (iv)   Appropriate level of knowledge of safety and quality management
- (v)   Ensure basic understanding of aerodrome bird and wildlife hazard management programme, Rescue and Firefighting, Apron management and Aerodrome Emergency Plan
- (vi)   The GCAA's process for the reporting and follow-up of accidents, incidents and emergencies on the aerodrome.
- (vii)   Knowledge of the organizational structure and lines of reporting
- (viii)   The GCAA's State Safety Program / SMS
- (ix)   The GCAA's Aerodrome Certification Process
- (x)   The GCAA's Regulatory Oversight Process
- (xi)   The GCAA's Enforcement Process

      (c)   Supporting Documents
- (i)   Curriculum Vitae, Job Description and proof of relevant Training and Qualifications
- (ii)   Other relevant documents if requested by Authority

4.   Head of Aerodrome Engineering and/or Maintenance Department

      (a)   Performance Criteria

(i)   Ensure that aerodrome certification requirements are met, and that relevant aerodrome data are accurately recorded in the Aerodrome Manual/AIP (as applicable) and in accordance with the applicable Standards.

(ii)   Ensure aerodrome facilities are compatible with the critical aircraft the aerodrome is intended to serve.

(iii)   Ensure the establishment of a detailed maintenance programme, relevant SOPs and trainings in compliance with provisions in the aerodrome manual.

(iv)   Ensure supervision of all relevant engineering specialties (Civil, Electrical, Electro-mechanical, Mechanical)

      (b)   Knowledge Criteria

- (i)   Qualified in the role, with appropriate education, experience and/or certification

(ii) Theoretical and practical experience and expertise in aerodrome Design, construction and maintenance

(iii) Comprehensive knowledge of the applicable requirements in the areas of electrical systems, aeronautical ground lighting and pavements

(iv) Knowledge of the Aerodrome Manual

(v) Comprehensive knowledge of the applicable requirements in the GCAD Part 14.

(vi) Knowledge of applicable ICAO guidance materials such as; Aerodrome Design Manual

(vii) Knowledge of the organizational structure and lines of reporting

(viii) The GCAA's State Safety Programme / Aerodrome SMS

(ix) The GCAA's Regulatory Oversight Process and Authority Enforcement Process

(x) The GCAA's process for the reporting and follow-up of accidents, incidents and emergencies on the aerodrome.

(xi) Ensure understanding of regulatory requirements specified in the GCAD Part 14 (Design and Operations of Aerodromes)

(xii) Ensure basic understanding of aerodrome bird and wildlife hazard management programme, Rescue and Firefighting, Apron management and Aerodrome Emergency Plan

(xiii) Ensure understanding of role as related to aerodrome reporting systems to include hazard identification, defect identification and reporting of safety critical information to the aerodrome Air Traffic Service Unit.

(xiv) Ensure understanding of requirement for corrective and preventive maintenance programme

(xv) Ensure understanding of competency standards and evaluation programme for engineering and maintenance staff working at safety critical assets or working in safety critical areas (including both technical and operational (RT/Driving) competencies as necessary)

(xvi) Ensure understanding of aerodrome certification scope and process as applicable to both maintenance and facility development activities.

(c) Supporting Documents

(i) Curriculum Vitae, Job Description and proof of relevant Training and Qualifications.

(ii) Other relevant documents if requested by Authority.

5. Head of Aerodrome Rescue and Firefighting Service Department

(a) Performance Criteria

(i) Ensure that aerodrome certification requirements are met, and that the aerodrome operates in accordance with the regulatory requirements in the provision of RFFS.

(ii) Ensure the rescue and firefighting facilities are compatible with sizes, types and frequency of aircraft operating at the aerodrome, in accordance with the applicable Standards.

(iii) Ensure that rescue and firefighting policies, procedures and training, complies with the applicable standards and the requirement in the Aerodrome manual.

(iv) Ensure that procedures for auditing RFF vehicle drivers / operators training programmes are established to meet the relevant standards.

(v) Ensure the use of communication protocols and procedures complies with the applicable regulations.

(vi) Assess the feasibility of continuing aerodrome operations in an emergency situation.

(vii)   Ensure all RFF appliances and equipment meet the regulatory requirements.

(viii)   Establish an effective Incident Command & Control System.

(b)   Knowledge Criteria

(i) Qualified in the role, with appropriate education, experience and/or certification

(ii) Theoretical and Practical knowledge, experience and expertise in aerodrome RFFS.

(iii) Comprehensive knowledge of the applicable requirements in the areas of RFFS and aerodromes.

(iv) Knowledge of the Aerodrome Manual

(v) Knowledge of the organizational structure and lines of reporting

(vi) The GCAA's Regulatory framework

(vii)   The GCAA's State Safety Programme/ Aerodrome SMS

(viii)   The GCAA's Regulatory Oversight Process

(ix) The GCAA's Enforcement Process

(x) The GCAA's Process for the reporting and follow-up of accidents, incidents and emergencies on the aerodrome.

(c)   Supporting Documents

(i)   Curriculum Vitae, Job Description and proof of relevant Training and Qualifications

(ii)   Other relevant documents if requested by Authority

6.   Head of Wildlife and Environmental Department

(a) Performance Criteria

    (i) Ensure that an FOD control program is established and is commensurate with the assessed risk.

    (ii) Ensure that the FOD prevention includes awareness, training and education as well as mitigating measures for FOD prevention.

    (iii) Ensure that methods for the monitoring and inspection of FODs on the movement areas are established.

    (iv) Ensure that approved operational procedures and relevant equipment are made available for the removal, containment and disposal of FOD from the movement area.

    (v) Ensure that a system for the collection and recording of data and information about FOD is established.

    (vi) Ensure the establishment and implementation of a Wildlife Hazard Management Program at the aerodrome.

    (vii) Ensure that a wildlife safety risk assessment covering the aerodrome and its vicinity is conducted.

    (viii) Ensure that the wildlife hazard reduction measures and procedures are integrated into the aerodrome operator's SMS.

(b) Knowledge Criteria

    (i) Knowledge in the FOD control program as well as the prevention, detection, removal and evaluation procedures.

    (ii) Well trained and experienced, with vivid awareness of the measures for FOD prevention.

    (iii) Knowledge in the collection, recording and analysing of information / data in relation to FOD, it sources and trends.

    (iv) Knowledge in the procedures for wildlife safety risk assessment.

    (v) Knowledge in the WHMP including procedures and measures for reducing the wildlife risk at the aerodrome to an acceptable level.

    (vi) Knowledge of the organizational structure and lines of reporting

    (vii) Understanding of the GCAA regulatory framework.

    (i) Understanding the GCAA Regulatory Oversight Process.

    (ii) Understanding the GCAA Enforcement Process.

(c) Supporting Documents

    (i) Curriculum Vitae, Job Description and proof of relevant Training and Qualifications

Other relevant documents if requested by Authority

2 ORGANIZATIONAL COMPETENCE OF THE AERODROME OPERATOR'S STAFF

2.1 Organization of the Aerodrome Technical Services

(a) The owner of an aerodrome is responsible for providing the necessary technical services at the aerodrome.

    (i) When an aerodrome is owned and operated by the State, it is possible, in certain circumstances, for responsibilities to be delegated in whole or in part to other bodies. For example, the organization in charge of air traffic control services may be directly or indirectly responsible for carrying out certain tasks. The structure adopted will take national customs into account.

    (ii) A typical example of a simple organization chart for the administration of an aerodrome would look like this:

(b) In the event that certain services or functions appearing on the organization chart below are outsourced, the organization of the entity and the competence of the personnel in question must correspond at least to the criteria indicated in this AC for the service or the corresponding function.
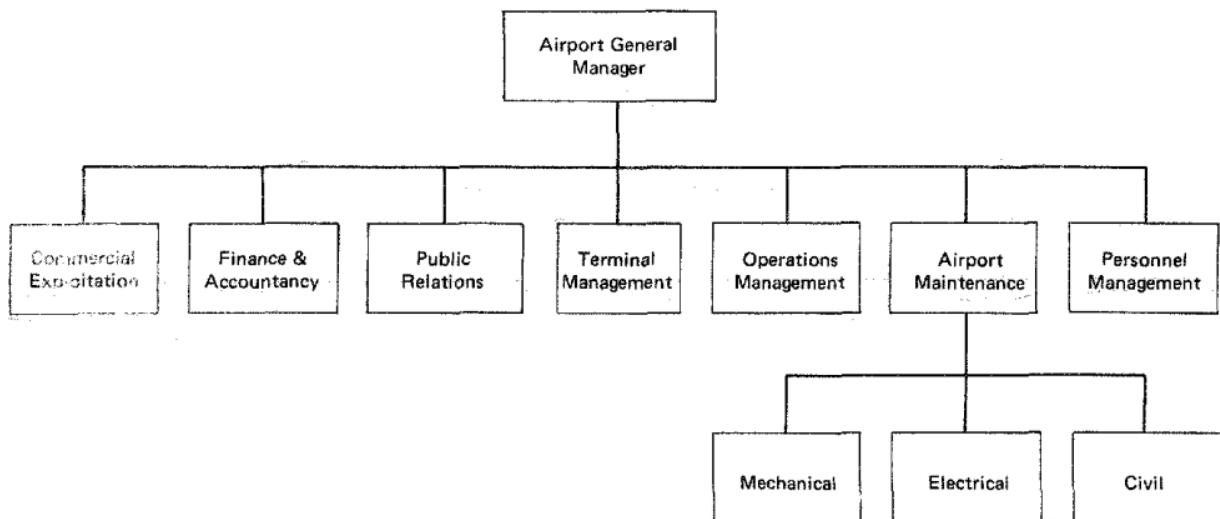
2.2 Operations Department

To carry out airport activities, the aerodrome operator will have an operations department, which will assume the following functional responsibilities:

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                        ┌─────────────────┐
                        │   Operations    │
                        │   Management    │
                        └─────────────────┘
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Organizational chart:
- Operations Management
  - Rescue and Fire Fighting Service
  - Airport Operations
    - Movement Area Safety Unit
    - Apron Management Unit
    - Duty Operations Officer
  - Operations Services
  - Mechanical Transport
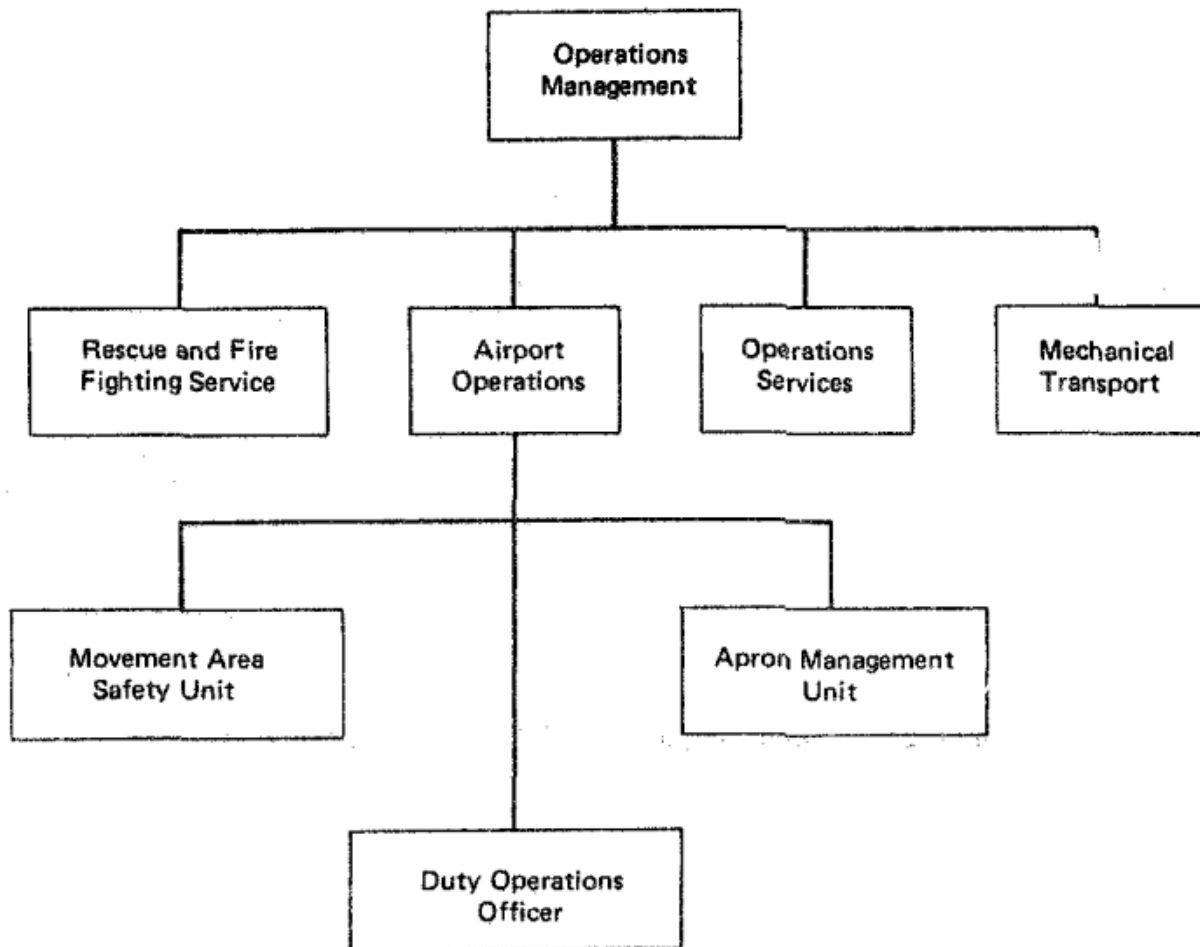
2.2.1 Department of airport operations.

(a) The Airport Operations Department will be responsible for organizing and controlling the day-to-day movements of aircraft on the aerodrome to and from aircraft parking stands in the best conditions of safety and speed. The Operations Manager is responsible for ensuring the efficiency of operations. On large aerodromes, several people take turns at this post to ensure 24 hours daily operations. The Airport Operations Service may include specialized services, for example a movement area safety service and an apron management service.

(b) The movement area safety department is responsible for most of the routine functions of the Department of Operations, with the exception of control of the apron. However, on a small aerodrome, this last function can also be

entrusted to it. The movement area safety department will normally be responsible for the following functions:

(i) complete and regular inspection of surfaces on the manoeuvring area, and preparation of reports for the attention of the air traffic control services, maintenance and airport operations on the condition of the surfaces inspected and the need for them provide sweeping or repair;

(ii) complete and regular inspection of the surface of the aprons and preparation of reports for the ATC departments, maintenance and airport operations on the condition of the surface of the aprons inspected and the need to sweep, clean or repair it;

(iii) inspection of light fixtures and preparation of reports for use by air traffic control, maintenance and airport operations to report burnt out lamps, circuit failures and other malfunctions;

(iv) dispersal of birds;

(v) measurement of the coefficient of friction;

(vi) control and issuance of temporary passes for people and vehicles that occasionally have to go to the traffic areas.

(c) The apron management service will normally be responsible for the following functions:

(i) allocation of stands to arriving aircraft;

(ii) keeping of registers concerning the allocation of parking positions to aircraft, in particular with a view to the imposition of landing and parking fees;

(iii) assignment of flaggers to parking positions for aircraft that are not equipped with a guidance system for docking;

(iv) at certain aerodromes, possible organization of apron services, including cargo and baggage handling and aircraft services.

The functions of apron management and movement area safety can be entrusted to a single service at a small aerodrome.

2.2.2 Operations Services Section

The Auxiliary Services Section is responsible for the support functions necessary for the smooth running of aerodrome operations. Noise measurement, airside pass control, liaison with outside emergency services are examples of the responsibilities entrusted to this section.

2.2.3 Transport Section

The transport section is normally responsible for the following functions:

(i) maintenance of all vehicles and specialized mobile devices, including rescue and fire vehicles, equipment for the removal of disabled aircraft, as well as the allocation of priorities according to need;

(ii) assignment of drivers of aerodrome vehicles according to the needs and

(iii) the provision of drivers for specific tasks, including sweeping, clearing aircraft parking positions and removing accidentally disabled aircraft.

2.2.4 Rescue and Fire Fighting Service.

This service will be responsible for:

(i) Responding to all fires, emergencies or similar incidents at the aerodrome, including fires caused by or caused by aircraft on the aerodrome or in the immediate vicinity, as well as fires buildings, fuel spills and road accidents;

(ii) Liaison with local fire, ambulance and police services;

(iii) the intervention in the event of an aircraft crash in the immediate vicinity of the aerodrome, which requires knowledge of the access routes;

(iv) regular training of personnel to improve the effectiveness of interventions in difficult terrain (water bodies, swamps, etc.) near the aerodrome;

(v) any other task deemed necessary, provided that this does not prevent the service from respecting the intervention deadlines stipulated in Section 9.2 of GCAD Part 14.

(vi) management of the fire prevention program, from the point of view of planning and implementation, and the training of personnel from other departments in fire prevention methods.

2.3 Maintenance Department

The aerodrome operator will also have a maintenance department within it, which will be responsible for the following functions:
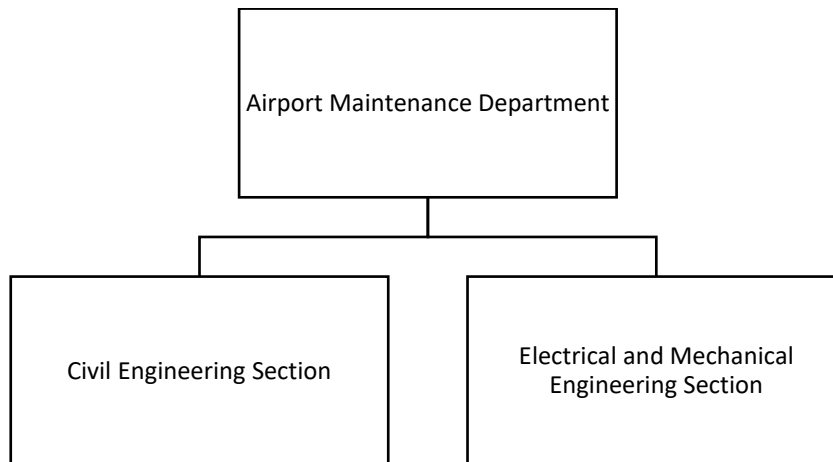
2.3.1 Civil Engineering Section

This section should be responsible, either directly, or indirectly through use of a contractor, for carrying out remedial repairs to surfaces of the airport, including all the paved areas and the grass areas (including cutting grass), and the marking pavements, together with the associated drainage, fire mains (if provided) and boundary fencing.

2.3.2 Electrical and Mechanical Engineering Section

The Electrical Maintenance Section is responsible, either directly or indirectly through use of a contractor for the maintenance of all aerodrome lighting,

associated taxiing guidance signs and other signs, apron guidance systems, telescopic bridges on the apron and standby power supplies serving these facilities.

Note **-** *These three sections are also in charge of the maintenance of buildings.*

2.4   Operations Office

(a) The aerodrome operator should also have an operations office. This office will act as a coordination center which will receive and disseminate information relating to the operation of the aerodrome. It may possibly combine the functions of the apron management service and the movement area safety service.

(b) This center should be in direct telephone contact with the ATC, MET and AIS services as well as with the other operations control offices, and in radio contact with the operating personnel circulating on the aerodrome, whether on foot or in vehicles.

(c) This operations office should also make the necessary arrangements for the preparation of and the publication of NOTAMs.

(d) A communication system should be established with the office possibly responsible for ensuring the permanent management of all aerodrome operations.

3 AERODROME OPERATORS PERSONNEL REQUIREMENTS

3.1 Post Holders:

(a) Each Aerodrome Operator prior to the grant of an Aerodrome Certificate and on an on-going basis must engage, employ or contract:

(i) sufficient and qualified personnel for the planned tasks and activities to be performed related to the operations, maintenance and management of the aerodrome in accordance with the applicable requirements and the Aerodrome Operator's training programme; and

(ii) sufficient number of supervisors to defined duties and responsibilities, taking into account the structure of the organization and the number of personnel employed.

(b) The Aerodrome Operator must nominate post holders acceptable to the Authority, who are responsible for the management and supervision of the critical safety areas: The portfolios of the aerodrome post holders may be as follows:

(i) **Accountable Manager**: The most senior post holder who has full control of the resources, absolute authority over operations specified in the conditions of the Aerodrome certificate, and ultimate responsibility and accountability for the establishment, implementation and maintenance of the SMS; safety policies and the timely resolution of all safety issues. His/her duties and responsibilities shall include but not limited to the following:

(1) communication and promotion of the safety policy;

(2) establishment of the organization's safety objectives and safety targets;

(3) establishment and implementation of a detailed training programme, and maintenance of personnel competence for all critical safety operational and maintenance aspects of the airport operations.

(4) establishment of a just culture which encourages safety reporting.

(5) Supervision of other post holders who will be responsible for the critical safety aspects of the aerodrome including those in section 3.1(b) (ii) to 3.1(b) (vi).

(ii) **Head of Aerodrome Safety and Compliance Department**: A person who should be the responsible individual and focal point for the development and maintenance of an effective Safety Management System. He/she advises the accountable manager and other line managers on safety management matters and is responsible for coordinating and communicating safety issues within the organization

as well as with external stakeholders. He/she reports directly to the Accountable Manager.

(iii) **Head of Aerodrome Operations Department** – The most senior/experienced person who is responsible for ensuring that the aerodrome and its operations complies with the requirements of GCADs and other technical publications by the Authority, and is also responsible for the effective management and implementation of the Aerodrome Emergency Plan.

(iv) **Head of Aerodrome Engineering and/or Maintenance Department** – The most senior/experienced person who is responsible for ensuring that the aerodrome's infrastructure complies with the requirements of the GCADs and other technical publications by the Authority.

(v) **Head of Aerodrome Rescue and Firefighting Services Department** – A competent person who is responsible for effectively managing all aspects of an aerodromes Rescue and Firefighting Services.

(vi) **Head of Wildlife and Environmental Department:** A competent person who is responsible for establishing and effectively managing all aspects related to environmental and wildlife hazard management and control.

(c) An applicant for the grant of an aerodrome certificate must establish a procedure for initially assessing and for maintaining the competence of personnel required to manage, operate and maintain the aerodrome and its services and facilities.

(d) The Aerodrome Operator should give consideration to the size and complexity of the organization, recognizing that some managers may hold multiple Aerodrome Post Holder positions.

(e) The Aerodrome Operator shall notify the Authority of proposed changes of Aerodrome Post Holders. The Authority may assess the competence of the proposed Aerodrome Post Holders prior to acceptance of the change.

(f) The Aerodrome Operator shall update its Aerodrome Manual including the organizational structure with respect to the accepted Aerodrome Post Holders.

(g) The Aerodrome Operator shall establish and implement a training programme to maintain the competency of all personnel involved in the operations and maintenance of the aerodrome.

(h) The Aerodrome Operator must maintain appropriate qualification training and proficiency check records to demonstrate compliance with the requirement in the GCAD Part 32.

3.2   Determination of Personnel Needs and Qualifications:

(a) The Aerodrome Operator should determine the number of required personnel for each activity conducted at the aerodrome.

(b) The Aerodrome Operator should determine the required personnel qualifications, in accordance with the applicable requirements.

(c) A documented system with defined responsibilities should be in place, in order to identify any need for changes with regard to personnel qualifications. The documentation should define:

   (i)   the method by which staffing levels are determined in relation to the operations, maintenance and management of the aerodrome;

   (ii) the training requirements and relevant training programme to ensure that personnel are adequately trained.

(d) The procedures for the determination of personnel needs and qualifications should include the mechanisms that ensure only trained and competent personnel undertake the planned tasks and activities assigned to them.

3.3   Distribution of Aerodrome Safety Rules and Standard Operating Procedures

The Aerodrome Operator shall have a system in place to distribute and ensure effective implementation of the aerodrome safety rules and SOPs by personnel, to enable them exercise their duties and responsibilities safely and effectively.

3.4   Gap Analysis: Minimum Number of Personnel, Personnel Requirements and Training Needs Analysis

(a) The Aerodrome Operator should conduct a personnel gap analysis in order to provide an assessment and demonstration of the following:

   (i)   Sufficient number of qualified personnel for the planned tasks and activities being performed.

   (ii) That there are a sufficient number of supervisors assigned to defined duties and responsibilities, taking into account the structure of the organization and the number of personnel employed.

   (iii) Those personnel involved in the operations, maintenance and management of the aerodrome are adequately trained in accordance with the organization's approved training programme.

(b) The gap analysis should be used as a tool to compare existing operations with the requirement to provide sufficient numbers of trained personnel appropriate for the scale and complexity of the aerodrome and its operations.

(c) As part of the gap analysis process, each assessment should refer to the following categorization of "High" "Medium" or "Low" in relation to the scale,

complexity and demands of the operation and for the provision of a dedicated aerodrome operations team.

(d) Once the gap analysis has been completed and fully documented, the staffing levels, resources and processes that have been identified as missing or inadequate will form the basis for an implementation plan, in order to become compliant with the applicable GCADs.

Table 1: Matrix for Gap Analysis

Categorization	Scale, Complexity and demand of operations at aerodromes	Demand of operations
High	*One or more runways* *Complex in nature* *Significant developments*	*Dedicated operations team* *No extraneous or ancillary duties* *(Other than AEP response tasks)*
Medium	*One runway* *Instrument runway* *Traffic density of ATC unit:* *medium*	*Dedicated operations team* *Extraneous or ancillary duties* *allowable under assessment* *(Other than AEP response tasks)*
Low	*One runway* *Non-instrument runway* *No shift patterns* *Traffic density of ATC unit: low*	*Option to have a multi-tasked team* *extraneous duties team allowable* *under assessment*

(e) An example of elements to be considered for the gap analysis, as part of the aerodrome Safety Management System process, is as follows:

   (i)   Aerodrome inspection requirements appropriate to the operational use of runway(s) and taxiways;

   (ii)   Complexity of aerodrome layout, for example:

      (1) Scale of aerodrome (geographical)

      (2) Scale of aerodrome (number of runways and taxiways)

      (3) Scale of aerodrome (number of aprons and stands);

   (iii)   Complexity of operations i.e. CAT I, CAT II, CAT III, number of runways, movement rates;

   (iv)   Low visibility operations;

   (v)   Day and night use;

(vi) Duty hours for operational staff with reference to the following list:

    (1) Compliance with the maximum allowable working hours as defined within the Ghana Labour Law;

    (2) Sufficient break periods / rest-time;

    (3) An awareness of the problematic fatigue issues relating to the circadian body clock, to ensure so far as is reasonably possible, fatigue does not impair operational safety;

    (4) Environmental factors

    (5) Operational duties required (day & night);

    (6) Handover time;

    (7) Shift patterns; and

    (8) Maximum consecutive hours for both day and night duties (not exceeded)

(vii) The number and complexity of aerodrome development projects inspections and oversight of contractors;

(viii) Aerodrome operations procedural requirements and activities, for example:

    (1) Aerodrome inspection requirements;

    (2) Marshalling duties;

    (3) Wildlife hazard control duties;

    (4) FOD management duties;

    (5) Follow-me requirements;

    (6) Fuel management; and

    (7) Control and management of aeronautical data;

(ix) Pavement maintenance duties and inspections;

(x) Visual aids maintenance (signs, markings and markers) duties and inspections;

(xi) AGL maintenance duties and inspections;

(xii) Allowance for annual leave, public holidays (in lieu), training including OJT training, special leave and sickness; and

(xiii) Sufficient operational administrative support staff (the number of support staff will depend on the complexity of the operations).

3.5 Qualification of Personnel

(a) The term 'qualified' denotes suitability or fit-for-the-purpose. This may be achieved through fulfilment of the necessary conditions such as; completion of required training, or acquisition of a relevant diploma or degree certificate

as specified in the organisations conditions of service or recruitment policy and through the gaining of suitable experience. It also includes the ability, capacity, knowledge or skill that matches or suits a position, or makes someone eligible for a duty, office, privilege or status.

(b) Certain posts may by nature, be associated with the possession of certain qualifications in a specific field (e.g. rescue and firefighting, civil, mechanical or electrical engineering, wildlife, biology, etc.). In such cases, the person(s) occupying such post is expected to possess the necessary minimum qualifications as stated below.

3.5.1 Accountable Manager

3.5.1.1 Qualification

(a) Evidence of a University Degree or appropriate qualification preferably in any of the technical or operational areas at the aerodrome

(b) Evidence of training in airport management must be provided. It is expected that a person appointed as Accountable Manager will have completed a number of formal and refresher courses for advancement or career progression through the aerodrome's technical or operations cadre, after gaining the initial qualification in any area of the airport operations field.

3.5.1.2 Relevant Work Experience

(a) At least ten (10) years working experience at an airport, preferably gained in any one of the following areas of aerodrome field: aerodrome operations, aerodrome maintenance, aerodrome rescue and firefighting, wildlife hazard management or aviation security.

(b) Experience in dealing with airlines, fixed based operators, such as ground handling companies and fuelling companies, airport related contractors, aviation related government agencies

(c) Experience in the effective day-to-day management of operations at the airport.

(d) Evidence of having spent at least five (5) years in a supervisory capacity.

3.5.2 Head of Aerodrome Operations

3.5.2.1 Qualification

(a) Evidence of a University Degree in physical sciences or an appropriate qualification in airport operations field.

(b) Evidence of training in airport operations must be provided. It is expected that a person appointed as Head of Aerodrome Operations will have completed a number of formal and refresher courses for advancement or career progression through the aerodrome operations cadre, after gaining the initial qualification in any of the airport operations field.

3.5.2.2 Relevant Work Experience

(a) At least eight (8) years working experience in the airport's operations.

(b) Experience in the day-to-day conduct of airside safety and management activities. In addition, experience in the conduct of one or more of the following: landside, terminal operations, aerodrome safeguarding, and wildlife management activities.

(c) Experience in coordinating with other airport safety departments such as rescue and firefighting and aerodrome maintenance, as necessary to ensure safety of aerodrome operations

(d) Experience in dealing with airlines, fixed based operators, such as ground handling companies and fuelling companies, airport related contractors, aviation related government agencies to ensure compliance with applicable rules. The Head of Aerodrome Operations shall demonstrate experience as a supervisor in the operations field.

(e) Evidence of having spent at least three (3) years in a supervisory capacity

3.5.3 Head of Aerodrome Rescue and Firefighting Services

3.5.3.1   Qualification

(a) Evidence of a University Degree or its equivalent

(b) Evidence of training in aerodrome rescue and firefighting shall be provided. It is expected that a person appointed as chief aerodrome firefighting officer will have completed a number of formal and refresher courses for performing the broad range of aerodrome rescue and firefighting tasks necessary for advancement or career progression through the aerodrome fire cadre, after gaining the initial qualification. Examples are training as crew commander, watch commander, etc.

3.5.3.2   Relevant Work Experience

(a) At least eight (8) years working experience in the aerodrome rescue and firefighting department at an airport. The Chief Aerodrome Firefighting Officer (CAFO) must demonstrate experience in:
(i) the day-to-day coordination of aerodrome recue and firefighting activities.
(ii) development and monitoring of the implementation of training programmes, regular and emergency fire drills in difficult terrain for firefighting personnel
(iii) Planning and coordinating execution of partial and full scale simulated emergency response programmes and fuel spill clean-up activities.
(iv) Overseeing the maintenance of rescue and firefighting vehicles, equipment and tools.
(v) planning and coordinating the conduct of response test, vehicle and agent performance tests and alarm system test
(vi) Providing training and drills to rescue and firefighting personnel.

(b) The CAFO must demonstrate experience as a supervisor in the rescue and firefighting field.

(c) Evidence of having spent at least three (3) years in a supervisory capacity.

3.5.4 Head of Aerodrome Safety and Compliance

3.5.4.1   Qualification

(a) A university degree or an appropriate qualification in aviation, systems safety, engineering, or physical sciences.
(b) Evidence of training in one of the principal areas of aerodrome safety e.g. aerodrome operations or aerodrome maintenance or aerodrome rescue and firefighting. It is expected that a person appointed as Head of Aerodrome Safety and Compliance will, after gaining the initial qualification have satisfactorily completed a number of formal and refresher courses necessary for advancement or career progression through any one of the aerodrome safety cadres.
(c) Evidence of training in integrated safety management system and aeronautical studies and risk assessment.

3.5.4.2   Relevant Work Experience

(a) At least eight (8) years working experience in aerodrome safety. The Head of Aerodrome Safety must demonstrate experience in:
    (i)   The development of management of an incident reporting system.
    (ii)   Application of the principles of safety risk management in analysing accidents and incidents.
    (iii)   Management of a safety database, establishing and monitoring safety performance indicators.
    (iv)   Development and implementation of safety audit programs.
    (v)   Training of airport employees and airport tenants on the principles of safety management.
    (vi)   The conduct of promotional safety activities.
    (vii)   Application of the principles of safety assessment in change management.
    (viii) Working in coordination with Airport Safety Committees.
    (ix)   Coordinating Runway Safety Team (RST) activities.
    (x)   Planning and coordination of airport emergency.
(b) The Head of Aerodrome Safety and Compliance must spend at least three (3) years in a supervisory capacity and demonstrate experience as a supervisor in any of the aerodrome safety departments.

3.5.5 Head of Aerodrome Engineering and/or Maintenance

3.5.5.1   Qualification:

(a) A university degree in civil, mechanical or electrical engineering or equivalent qualification
(b) Evidence of training in either: aerodrome planning and design, construction and maintenance of aerodrome facilities, equipment, civil and building structures or airfield lighting, power supply and electrical systems. It is expected that a person appointed as Head of aerodrome engineering and/or maintenance will, after gaining the initial qualification have satisfactorily

completed a number of formal and refresher courses necessary for advancement or career progression through either of the aerodrome engineering cadres.

3.5.5.2 Relevant Work Experience

(a) At least eight (8) years working experience in civil, mechanical or airfield lighting section of the airport. Head of Aerodrome Engineering and/or Maintenance should demonstrate experience in the following areas as they apply to his background field of expertise:
  (i) the planning and implementation of aerodrome paved and unpaved areas or airfield lighting maintenance programmes
  (ii) planning or coordinating the implementation of airport expansion and upgrading projects
  (iii) planning and maintenance of aerodrome facilities and equipment
  (iv) serving as aerodrome operator's representative in the supervision of aerodrome engineering project
  (v) planning and implementation of pavement management programmes, pavement evaluation and friction test programmes, FOD and rubber removal programmes
  (vi) conduct of routine and emergency maintenance of visual aids
  (vii) working with airport contractors to ensure projects are executed in accordance with terms of contractual agreement and project specifications
  (viii) preparation of project estimates
  (ix) evaluating project proposals of contractors and recommending for implementation
  (x) developing tender documents
  (xi) planning and managing the inventory of airport maintenance equipment/tools and equipment spares
(b) The Head of Engineering and/or Maintenance must have spent at least three (3) years in a supervisory capacity and demonstrate experience as a supervisor in aerodrome facility management and maintenance as it relates to the Maintenance field of expertise.

3.5.6 Head of Wildlife and Environmental

3.5.6.1 Qualification

(a) Evidence of a University Degree or its equivalent
(b) Evidence of training in wildlife and environment shall be provided. It is expected that a person appointed as Head of Wildlife and Environmental will have completed a number of formal and refresher courses for performing the broad range of wildlife hazard management activities necessary for advancement or career progression through the cadre, after gaining the initial qualification.

3.5.6.2 Relevant Work Experience

(a) At least eight (8) years working experience in the wildlife and environmental department at an airport. The Head of Wildlife and Environmental must demonstrate experience in:
   (i) The day-to-day coordination of wildlife hazard activities.
   (ii) development and monitoring of the implementation of training programmes for wildlife and environmental personnel
   (iii) planning and coordinating execution of wildlife surveys
   (iv) development and implementation of wildlife hazard management plan
   (v) Overseeing the maintenance of wildlife control equipment and tools.
   (vi) planning and coordinating the conduct of community sensitization relating to land use and wildlife activities within the vicinity of the aerodrome
(b) The Head of Wildlife and Environmental must demonstrate experience as a supervisor in the wildlife hazard and management field.
(c) Evidence of having spent at least three (3) years in a supervisory capacity.

3.6 Combination of Nominated Aerodrome Post Holders:

(a) The acceptability of a single person holding more than one post, possibly in combination with being the Accountable Manager/Airport Manager, should depend upon the Aerodrome Operator's organisation, and the size and complexity of its operations. The two main areas of concern should be competence, and an individual's capacity to meet his/her responsibilities.
(b) With regards to competence in different areas of responsibility, there should not be any difference from the requirements applicable to persons holding only one post.
(c) The capacity of an individual to meet his/her responsibilities should primarily be dependent upon the complexity of the aerodrome operator's organisation and its operations. However, the size and complexity of the aerodrome operator's organization or of its operation may prevent, or limit, combinations of posts.

3.7 Changes to Aerodrome Post Holders:

The Aerodrome Operator should apply for a change to the nominated Aerodrome Post Holder by submitting an application for a change of Aerodrome Post Holder, with required supporting documentation to the GCAA. The application should additionally include evidence of management of change.

3.8 Temporary Aerodrome Post Holders:

When an Aerodrome Post Holder is unavailable for lengthy periods, or has left the organization, the Aerodrome Operator should notify the GCAA of a replacement or temporary Aerodrome Post Holder. The GCAA may request an interview with a proposed temporary Aerodrome Post Holder

4 TRAINING PROGRAMME TO BE ESTABLISHED AND IMPLEMENTED

4.1 Training programme:

(a) The training programme should cover all personnel:

    (i) involved in the operations, maintenance and management of the aerodrome; and

    (ii) operating unescorted on the Movement Area, and other operational areas of the aerodrome which are either related to the aerodrome operator, or other organizations which operate or provide services at the aerodrome, regardless of their level in the organization.

(b) Personnel mentioned in 4.1(a) should complete at least the initial training and related OJT as contained in the training programme prior to the performance of their duties, or allowing them unescorted access on the Movement Area and other operational areas of the aerodrome, as appropriate.

(c) The training programme should include training on Safety Management System and its details should be appropriate to the individual's responsibility and involvement in SMS including human and organisational factors; for those persons referred to in 4.1(a) (ii) employed by other organisations operating or providing services at the aerodrome, the SMS training may cover only the appropriate parts (e.g. relevant procedures, safety reporting system, aerodrome safety programme, FOD awareness, etc.).

(d) The training programme should include:
    (i) Theoretical training
    (ii) Practical or on-the-job training
    (iii) Testing of understanding; and
    (iv) Demonstrating competence or recurrent theoretical and/or practical training

(e) The training programme should identify training responsibilities and contain procedures:

    (i) for training and checking of the trainees;

    (ii) to be applied in the event that personnel do not achieve or maintain the required standards.

(f) Training contents and syllabi should comply with the training requirements described in the Aerodrome Manual.

(g) A training file should be developed for each employee including management, to assist in identifying and tracking employee training requirements, and verifying that personnel have received the planned training.

4.2 Structure of a Training Programme

4.2.1 Initial Training

Initial training should be composed of theoretical and practical training modules. Personnel should be assessed and demonstrate their capability to safely accomplish the required tasks upon completion of the initial training and prior to starting on-the-job training.

4.3 Recurrent Training

Recurrent training should be completed by aerodrome personnel every three (3) years after the completion of their initial training programme.

4.4 Refresher Training

When a person has not performed any of their assigned tasks for a significant period of time, or has been involved in an accident, incident or serious occurrence, in which training-related issues have been identified as a contributing factor, that person should complete relevant refresher training prior to:
(a) performing assigned tasks; or
(b) being allowed unescorted access on the movement area and other operational areas of the aerodrome, as appropriate

4.5 Minimum Training Requirement

(a) The curriculum for initial and recurrent training shall include at least the following areas:

(i) Aerodrome familiarization, including aerodrome visual aids;

(ii) Procedures for access to, and operation in movement areas and safety areas;

(iii) Aerodrome communications, including radio communication between the air traffic control tower and personnel, use of the common traffic advisory frequency if there is no air traffic control tower or the tower is not in operation, and procedures for reporting unsafe aerodrome conditions;

(iv) Aircraft Rescue and Fire Fighting operational requirements;

(v) Airside Ground Vehicles Operations;

(vi) Aerodrome Inspection programme;

(vii) Wildlife Hazard management.

(viii) Duties required under the Aerodrome Manual and the requirements of the GCADs Part 32, section 4.4.1;

    (ix) Any additional subject areas required under the GCADs Part 32, Section 4

    (x) In respect of aerodrome maintenance, the training of personnel shall include the following areas as appropriate:

        (1) Maintenance of runway, taxiway, apron and emergency access roads (paved and unpaved);
        (2) Runway and taxiway strips and shoulders and runway end safety areas;
        (3) Aerodrome drainage and fencing;
        (4) Aerodrome Visual aids and electrical systems;
        (5) Passenger and Cargo building facilities.

Note - See appendix 2 of this AC, for the minimum competence requirement of aerodrome operator's staff

4.6 Methodology - Checking of Trainees:

The methods to be used for the checking of the trainees could include:

    (a) practical demonstration,

    (b) computer based assessment,

    (c) oral or written tests, or combinations of such methods, as appropriate.

4.7 Training Records

The GCAD Part 32 2.3.2(o) states "An application for an Aerodrome certificate shall include details of competence of the key aerodrome personnel; including resume', training records, history and any other information that may be sought by the Authority, to ascertain the competency of the person(s) as prescribed by the Authority.

    (a) The aerodrome operator shall maintain records of in-house training sessions that it has provided, including as a minimum the following:

        (i) area of training and subjects covered;

        (ii) names and signed list of participants;

        (iii) date and duration of training; and

        (iv) name and qualification of the instructor(s).

    (b) The training records maintained for each individual should include as a minimum:

        (i) the name of the trainee;

        (ii) the date(s) and the duration of the training;

        (iii) the place where the training was received;

(iv) the name of the organization that provided the training;

(v) the subjects covered, and the methodology of the course;

(vi) the climatic conditions (for practical training)

(vii) any comments made by the instructor if applicable;

(viii) performance evaluation of the trainee if applicable; and

(ix) the name and signature of the instructor.

(c) Proficiency Check Records:

The proficiency check records (where applicable) maintained for each individual should include as a minimum:

(i) the name of the person checked;

(ii) the date(s) and the duration of the proficiency check;

(iii) the methodology of the check conducted;

(iv) any comments made by the assessor;

(v) the performance evaluation of the person checked; and

(vi) the name and signature of the assessor.

5   AERODROME PERSONNEL COMPETENCY ASSESSMENT

The GCAA will ensure, through the application of appropriate regulatory principles and processes that Aerodrome Operators personnel responsible for operations and maintenance tasks are competent to carry out those tasks.

In order to demonstrate competence in a specific task, the aerodrome operators' personnel shall demonstrate that the theory, practical training and local knowledge can be applied together in a satisfactory way, usually by successfully completing a competence check. Records of all steps taken to achieve the task shall be made and an evaluation completed.

The purpose of competence assessment is to affirm competence and to identify areas in need of improvement as appropriate, either in the individual or the system within which the individual works.

5.1   Nominated Persons

(a) Selection of the Post Holder is the responsibility of the applicable Aerodrome Operator. However, acceptance from the GCAA will be required for all persons nominated as Aerodrome Post Holders.

(b) The Authority's acceptance of nominated Aerodrome Post Holders will be based on the applicable Competency Assessment and the applicant's demonstration of knowledge of the applicable GCADs and related publications as well as related provisions in the aerodrome manual, and an understanding of the proposed position. While the specific job title designations for the posts may differ, the scope should include the accountabilities and responsibilities of the Post Holder.

(c) For personnel to be recognized as competent, periodic audits or checks should be carried out and recorded. Similarly, after any accident or serious occurrence, it may be prudent to review training programmes to ensure that they remain appropriate.

5.2   Interviews with nominated Aerodrome Post Holders:

(a) An interview session between the Authority and the nominated Aerodrome Post Holder may be scheduled to:

(i)   exchange information between the intended nominated persons and the GCAA for the latter to acquire information on the intended work areas and the applicant's competence level so as to verify their suitability for the post(s);

(ii)   create good contact and understanding between both parties, and to come to a mutual conclusion on, if necessary, possible solutions for training and personal development over time.

(iii)   evaluate the applicant demonstrating knowledge of the applicable GCADs, Aerodrome Manual, relevant SOPs, and understanding of the role applied for.

(b) The interview may be arranged prior to the start of operations and before issuing the first Aerodrome Certificate; or

(c) when there is a change of Aerodrome Post Holders at a Certified Aerodrome.

5.3   Methods of Assessment of Competence:

(a) The Aerodrome operator may assess competence by a system of;

    (i)   Continuous assessment; or

    (ii)   Dedicated practical check; or

    (iii)   Combination of (a) and (b) above; and

    (iv)   An Oral Examination and/or a written test of the personnel's knowledge of aerodrome operations and maintenance procedures

(b) The performance and knowledge assessment criteria are detailed in **Appendix 1 of this AC.**

5.3.1   Continuous Assessment:

Continuous assessment can be completed during day-to-day activities by having a competent individual accompany and assess the staff member on a task they are required to complete.

5.3.2   Dedicated Practical Assessments:

To conduct a dedicated practical assessment, a competent individual sits with the assessed personnel with the sole purpose of observing the quality and standard of work being carried out. This differs from continuous assessment in that the competence assessor is not involved in any tasks other than observation of the personnel being assessed. The personnel concerned should be briefed on the conduct of the assessment particularly when it is necessary to monitor and observe him from a remote position. Following a dedicated practical check, the competence assessor should de-brief the personnel being assessed and give feedback regarding the quality of working practices observed.

5.3.3   Oral Examination:

The oral element of the process is usually carried out after the practical element. All key performance objectives must be tested to confirm understanding. Scenario-type questioning allows the competence assessor to gather additional evidence of how the operator's personnel would have reacted in circumstances that were not observable but are nevertheless considered important to the overall operations at that Unit. Aerodrome personnel who demonstrate practically that he can do the job (seen by direct observation) and can explain the reasons for

acting in a particular way (verified through the oral element) has demonstrated understanding and has fulfilled the requirements to be considered competent.

The oral examination will give a clear indication that the personnel know, not only what he should be doing, but why he should be doing it.

5.3.4 Written Examination:

It is easier to administer and to ensure the consistency of written examinations particularly when using multiple-choice questioning. Although multiple-choice questioning can test knowledge it is not appropriate for determining what an aerodrome personnel would do in a particular operational situation. The most comprehensive method of testing an operation or maintenance personnel understanding, as opposed to his possession of pure knowledge, would be a combination of multiple-choice questions that assess the personnel's knowledge of national procedures, together with a separate oral examination which tests the personnel's reaction to operational situations.

5.4 Record Keeping

Records of all the steps taken to achieve the task shall be made and an evaluation shall be completed. The Aerodrome Operator will keep records of the periods during which they observe and assess the competence of its personnel. Where continuous assessment is the chosen process, Aerodrome Operators are required to be particularly disciplined in this requirement. These records would be short and informal if the competence assessor had no reservations about a personnel's competence. Where the competence assessor is concerned that an aerodrome personnel 's operational competence is declining, but not yet to the extent that he is assessed as being not competent, more comprehensive records would be required and early intervention possibly in the form of remedial training may be needed.

5.5 Outcome of a Competence Assessment

The competence of the Aerodrome Operators' staff should be measured against performance objectives contained within their job descriptions. Following an assessment, personnel will have been found to be either 'competent' or 'further training required'.

All shortfalls should be addressed by reviewing and updating the training material, providing refresher training or increasing the frequency of recurrent training.

6   DEVELOPMENT OF PERFORMANCE OBJECTIVES

6.1   Performance Objectives for Aerodrome Operations and Maintenance Personnel (Use of Checklist)

The aim of aerodrome operations and maintenance personnel is to ensure safe operations are maintained at aerodrome. Personnel can achieve this objective in different ways.

A set of key performance objectives must be developed to ensure that the focus of the competence assessment is correct. Through the use of key performance objectives for assessment purposes, areas of training needs can be identified for the individual(s) being assessed. To assist the confirmation of competence requirements, the availability of a relatively simple checklist is beneficial. It should be noted however, that the checklist should not distract from the primary task of observation. The checklist would best be completed before the formal debriefing and it would also be of great assistance to the Aerodrome Operator when compiling a report. Whatever are the key performances demanded off the aerodrome personnel, one of the most important elements of any competence assessment is that the person being assessed has a clear understanding of the objectives against which he is being assessed.

7 CONDITIONS FOR APPROVAL OF TRAINERS AND TRAINING BODIES IN RELATION TO ESTABLISHED TRAINING REQUIREMENT.

7.1 Introduction

(a) This chapter deals with the conditions for obtaining approval. It lists the general characteristics of an accreditation, indicates the procedure to be followed for renewal and updating of the accreditation and defines the competency framework for trainers. This chapter does not apply to TRAINAIR PLUS approved organisations.

(b) Approval is an administrative authorization issued by the DG, GCAA. It is valid for a period of six (06) months if it is a first approval or one (01) year in the event of renewal.

For foreign organizations or trainers, the approval is valid for a period of six (06) months.

The applicant for an authorization must pay the fees relating to the issue of the authorization.

The request for renewal must be made three months before the expiry of the current approval.

(c) The application for approval is filed by the legal representative of the training organization. It will include the following parts:
   (i) a copy of the statutes if it is a legal person or an independent trainer;
   (ii) a copy of the contract if it is a foreign organization or trainer;
   (iii) the detailed program and duration of the training;
   (iv) details of the materials used during the lessons;
   (v) a description of the premises, which must comply with the general health and safety rules, as well as the teaching equipment used, which must be adapted to the teaching provided;
   (vi) the types of checks carried out to validate the various modules;
   (vii) CV + photocopies of the diplomas of the trainer(s).

7.2 Types of Approvals

7.2.1 Approval of a trainer

An applicant for approval is a person who meets the conditions for approval in section 7.3, and who produces the documents that must accompany his application. He/she must also fulfil the obligations of an approved trainer.

7.2.2 Approval of a training organization

This category of approval concerns a legal person, including a non-profit organization, or a company. To be approved as such, you must satisfy the approval conditions listed in paragraph section 7.4 below, and must produce the

required documents to accompany your application. The training body must also respect the obligations of an approved training body.

7.3 Approval of a Trainer

7.3.1 Approval Condition

(a) To be accredited as a trainer, the applicant must meet the following accreditation conditions:
    i. demonstrate that he has an experience of at least five (05) years for a company trainer or at least ten (10) years for an independent trainer in each of the professional fields in which the training will be given;
    ii. successfully pass a theoretical and practical exam on the techniques of facilitating a course or demonstrate that he has a minimum of 50 hours of training in methods of transmitting knowledge;
    iii. successfully pass a theoretical and/or practical exam in each of the professional fields in which the training will be given.

(b) The purpose of the theoretical examinations is to check whether the candidate has the knowledge necessary for the instruction. The purpose of the practical exams is to verify the general knowledge of the candidate and to assess his aptitude for management.

(c) In the event of a substantial difference between the professional skills of the person concerned and those acquired by the training allowing him to exercise the function of trainer, the person concerned may be put in a position to demonstrate that he has acquired the missing knowledge and skills by a test consisting of a real-life situation, allowing the GCAA to ensure that it masters its subject and is able to provide animation lessons independently.

(d) In the event that the result of the tests undergone by the person concerned proves to be negative, the person concerned is informed that he cannot carry out the service envisaged.

(e) The maintenance of the approval is subordinated for the beneficiary to the completion of training courses in each of the professional fields in which the training will be given or to the execution of a minimum of 10 hours of training.

(f) The approval is immediately suspended when its beneficiary no longer meets one of the conditions provided for above.

7.3.2 Obligations of a certified trainer

(a) The approved trainer can only use his approval for the professional field(s) for which he has obtained his approval.

(b) The certified trainer must provide each employee who has successfully completed or participated in the training with a training certificate.

(c) The approved trainer must also fully respect the contracts he concludes with his clients.

7.4 Approval of a Training Organization

7.4.1 Approval Condition

(a) To be accredited as a training organization, the applicant must have the legal status of a legal person or a partnership. This condition does not affect legal persons governed by public law (e.g., ministries, hospitals, school boards, etc.) which are not legally required to have such registration.

(b) To meet the other conditions, the applicant must:

(i) Demonstrate that the trainers (salaried or contractual) of his organization have average work experience of at least three years in each of the professional fields for which he is applying for certification.
For example, a training organization has two trainers. One has five years of work experience in the field covered by the certification application, including two as a trainee, while the second has only one year of experience in the same professional field. The training organization thus fulfils the requirement of an average experience of three years for all of its trainers.

(ii) Demonstrate that each of its trainers (employees or contractors) has at least 30 hours of experience as a trainer;

Experience, as a trainer, corresponds to any activity allowing the transmission of knowledge in a structured way from, for example, a specific training plan, a course syllabus or a defined methodology. Experience acquired through conferences, facilitation activities, team building or problem solving is not considered eligible experience as a trainer.

7.4.2 Obligations of an Approved Training Body

(a) The approved training organization can only use its approval for the professional field(s) for which it has obtained its approval and only for the training given by its trainers, members of its staff.

(b) The approved training organization must provide each employee who has successfully completed or participated in the training with a training certificate.

(c) The accredited training organization must also:

(i) Comply fully with the contracts it enters into with its customers.

(ii) Ensure that any training it offers is given by a trainer with the required experience and competence.

7.5 Trainer Competency Framework

(a) The competency framework consists of competency units, competency elements, and performance criteria.

(b) The trainer competency framework is based on the following competency units:

(i) Preparation of training tools

(ii) Trainee management

(iii) Training Delivery

(iv) Evaluation of trainees

(v) Training evaluation

(vi) Continuous performance improvement

(c) Details on the trainer's competency framework are provided in appendix 4 of this AC.

APPENDIX 2: MINIMUM COMPETENCE REQUIREMENT FOR AERODROME OPERATOR'S PERSONNEL

Table 1: Accountable Manager, Emergency Plan Coordinator and Removal Plan Coordinator

Note: By fulfilling the requirements of Table 1, the accountable manager and plan coordinators can be considered to have fulfilled the competency requirements for nine operational function areas of the aerodrome.

Aerodrome operator staff	Skills domains (knowledge, skills and attitudes)	Minimum skill level required (Basic / Intermediate / Advanced)	Training areas	Type of training required (Initial, OJT, Retraining, Recurrent, Specialized)	Requirement of skill test
Accountable Manager	National legislative and regulatory requirements including requirements for aerodrome certification/approval Reference: ▪ GCADS Parts 14 and GCADS Part 36 ▪ PANS Aerodromes (Doc 9981)	Basic	a) National Aerodrome Regulations b) GCADS Part 14C: Certification of Aerodromes Requirements c) GCADS Part 36: SMS Requirements	Initial training Recurring training (when a change/modification is applied)	No
	Aerodrome operation and safety management system	Basic	Aerodrome and Safety Management System Manuals	Initial training	No
Emergency Plan	National legislative and regulatory requirements	Basic	a) National aerodrome emergency plan	Initial training Recurring training (when a	No

Coordinator	including requirements for aerodrome certification/approval Reference: ▪ GCADS Parts 14 and GCADS Part 36 ▪ GCAA AC 14-002 Aerodrome Emergency Planning		regulations b) Safety 1 2 3 Basic	change/modification is applied)	
	Emergency measures planning	Intermediate	a)　　Need to establish a plan b)　　Business Continuity c) Contingency planning phase d)　　Types of events e)　　Organs concerned f) Emergency Operations Center g)　　Mobile command post h)　　Grid plan i) Responsibilities and Roles j) emergency response k) Difficult terrain (Accident in the water) l) Triage of victims and medical care Family Assistant	Initial training Recurring training (when a change/modification is applied)	No
	Job requirements:	Advanced	a) The crisis: Perception and general concept	Initial training	Yes

	a) Implementation of the Emergency Plan b) Crisis management References: ▪ GCADS Parts 14 ▪ GCAA AC 14-002 Aerodrome Emergency Planning ▪ Airport Services Manual (Doc 9137), Part 7 – Airport Emergency Planning.		b) Risk analysis c) Responsibilities of the operator as part of emergency plans d) Activation of the emergency plan e) The crisis: Communication issues f) Crisis management g) The preparation of a contingency plan exercise m) Analysis of accidents	Recurring training Refresher training (if required) Specialized training (if needed)	
Disabled Aircraft Removal Plan Coordinator	National legislative and regulatory requirements including requirements for aerodrome certification/approval Reference: ▪ GCADS Parts 14 and GCADS Part 36	Basic	a) National regulations on the removal of disabled aircraft and the aerodrome emergency plan	Initial training Recurring training (when a change/modification is applied)	No
	Plan for the removal of accidentally immobilized aircraft from the airport	Intermediate	Aerodrome Manual and Disabled Aircraft Removal Plan from the Airport	Initial training Recurring training (when a change/modification is applied)	No
	Removal of disabled	Intermediate	a) Legal Aspects of Aircraft	Initial training	No

| | aircraft | | Removal
b) Emergency plan and responsibility
c) Aircraft Removal Category
d) Health and Safety Matters
e) Investigation − Physical Foundations
f) law of leverage
g) Load determination
h) Weight reduction and management
i) Aircraft preparation and stabilization
j) Aircraft Removal Operation Process
k) Aircraft lifting methods
l) Aircraft lifting procedures and concerns
m) ARC movement and lateral loads
n) Towing and winching procedure
o) Familiarization with aircraft removal equipment
p) Development and implementation of the recovery plan
q) Identification of required recovery equipment
r) Aircraft lifting with pneumatic lifting devices and spreader bars | Recurring training (when a change/modification is applied) | |

			s) Lifting of narrow-body aircraft;		

Table 2: _Evaluation and report of the condition of the runway surface_

Aerodrome operator staff	Skills domains (knowledge, skills and attitudes)	Minimum skill level required (Basic / Intermediate / Advanced)	Training areas	Type of training required (Initial, OJT, Retraining, Recurrent, Specialized)	Requirement of skill test
Head of aerodrome operations	National legislative and regulatory requirements including requirements for aerodrome certification/approval Reference: ▪ GCADS Parts 14 and GCADS Part 36 ▪ PANS Aerodromes (Doc 9981)	Basic	a) National Aerodrome Regulations b) GCADS Part 14C: Certification of Aerodromes Requirements c) GCADS Part 36: SMS Requirements	Initial training Recurring training (when a change/modification is applied)	No
	Aerodrome operation and safety management system	Basic	Aerodrome and Safety Management System Manuals	Initial training	No
	Airfield layout	Intermediate	Airfield layout (Based on the airfield plan and on the orientation of the site)	Initial training Recurring training Refresher training (if needed)	No
	Job Requirements: National, international requirements and best	Basic	Runway surface condition report	Initial training Recurring training	No

| | practices on:

▪ the characteristics of the runway pavement with different types of damage to the runway surface
▪ evaluation of the friction coefficient of the runway
▪ runway surface condition assessment

References:

▪ GCADS Parts 14 and GCADS Part 36
▪ GCAA AC 14-037 Global Reporting Format for Runway Surface Condition Reporting
▪ PANS Aerodromes (Doc 9981)
▪ Airport Services Manual (Doc 9137), Part 2 - Pavement Surface | | | Refresher training (if needed) | |

	Condition. • Aerodrome Design Manual (Doc 9157), Part 3 - Pavements • Safety Management Manual (Doc 9859) • ACI Runway Safety Manual • ACI Apron Safety Handbook				
Section Head/Supervisor	a) National legislative and regulatory requirements including requirements for aerodrome certification/approval b) NOTAM/SNOWTAM and AIP	Basic	a) National Aerodrome Regulations b) NOTAM/SNOWTAM and AIP	Initial training Recurring training Refresher training (if needed) Specialized training	Yes
	Airfield operations and safety management system, covering: a) identification of security risks b) risk assessment and mitigation c) Accident/Incident Investigation d) Safety Inspections/Audits	Intermediate	Relevant parts of aerodrome and SMS manuals	Initial training Recurring training Refresher training (if needed)	Yes

	Airfield layout	Intermediate	Airfield layout (Based on the airfield plan and on the orientation of the site)	Initial training Recurring training Refresher training (if needed)	Yes
	Job requirements: a) Pavement characteristics b) Assessment of pavements and identification of types of degradation c) Proper use of necessary friction testing equipment and other assessments d) Friction test evaluation, reporting methodology e) Procedures for reporting runway surface conditions f) Radiotelephony g) Runway incursion h) FOD management	Advanced	a) Airfield pavement maintenance b) Friction test training provided by the manufacturer of friction test equipment c) Runway surface condition report d) Safety and airside operations e) Awareness and prevention of runway incursions f) Phraseology	Initial training Recurring training Refresher training (if required) Specialized training (if needed)	Yes

	References:				
	• GCADS Parts 14 and GCADS Part 36 • GCAA AC 14-037 Global Reporting Format for Runway Surface Condition Reporting • PANS Aerodromes (Doc 9981) • Airport Services Manual (Doc 9137), Part 2 - Pavement Surface Condition. • Aerodrome Design Manual (Doc 9157), Part 3 - Pavements • Safety Management Manual (Doc 9859) • ACI Runway Safety Manual • ACI Apron Safety Handbook				
Office Agent/Technician	a) National legislative and regulatory requirements, including aerodrome	Basic	a) National Aerodrome Regulations b) NOTAM/SNOWTAM and AIP	Initial training Recurring training	Yes

	compliance with regulations (applicable parts/chapters only) b) NOTAM/SNOWTAM and AIP			Refresher training (if required)	
	Aerodrome operations (applicable parts/chapters) and system safety management system, covering: a) identification of security risks b) Safety reports - mandatory, voluntary and confidential hazard and risk management reports	Intermediate	Relevant parts of aerodrome and SMS manuals	Initial training + OJT Recurring training Refresher training (if needed)	Yes
	Airfield layout	Intermediate	Airfield layout (Based on the airfield plan and on the orientation of the site)	Initial training + OJT Recurring training Refresher training (if needed)	Yes
	Job requirements: a) Pavement characteristics b) Assessment of pavements and identification of types of	Intermediate	a) Airfield pavement maintenance b) Friction test training provided by the manufacturer of friction test equipment c) Runway surface condition report	Initial training + OJT Recurring training Refresher training (if needed)	Yes

	degradation c) Proper use of necessary friction testing equipment and other assessments d) Friction test evaluation, reporting methodology e) Procedures for reporting runway surface conditions f) Radiotelephony g) Runway incursion h) FOD management References: - GCADS Parts 14 and GCADS Part 36 - GCAA AC 14-037 Global Reporting Format for Runway Surface Condition Reporting - PANS Aerodromes (Doc 9981)		d) Safety and airside operations e) Awareness and prevention of runway incursions f) Phraseology		

	▪ Airport Services Manual (Doc 9137), Part 2 - Pavement Surface Condition. ▪ Aerodrome Design Manual (Doc 9157), Part 3 - Pavements ▪ Safety Management Manual (Doc 9859) ▪ ACI Runway Safety Manual ▪ ACI Apron Safety Handbook				

Table 3: Maintenance of the aerodrome movement area

Aerodrome operator staff	Skills domains (knowledge, skills and attitudes)	Minimum skill level required (Basic / Intermediate / Advanced)	Training areas	Type of training required (Initial, OJT, Retraining, Recurrent, Specialized)	Requirement of skill test
Aerodrome maintenance manager	National legislative and regulatory requirements including requirements for aerodrome certification/approval	Basic	National Aerodrome Regulations	Initial training Recurring training (when a change/modification is applied)	No
	Aerodrome operation and safety management system	Basic	Aerodrome and Safety Management System Manuals	Initial training Recurring training	No
	Airfield layout	Intermediate	Airfield layout (Based on the airfield plan and on the orientation of the site)	Initial training Recurring training Refresher training (if needed)	No
	Job Requirements: National, international requirements and best practices on: ▪ Airfield Pavement Management System ▪ runway surface condition assessment ▪ Obstacle limitation surfaces	Basic	Understanding of GCADS Parts 14 and PANS-Aerodromes	Initial training Recurring training Refresher training (if needed)	No

				Initial training	
				Aerodrome maintenance management					
	• Aerodrome visual aids References: • GCADS Parts 14 and GCADS Part 36 • PANS Aerodromes (Doc 9981) • GCAA AC 14-004 Aerodrome maintenance • ACI Aerodrome Maintenance Doc • Airport Services Manual (Doc 9137), Part 2 - Pavement Surface Condition. • Safety Management Manual (Doc 9859) • ACI Runway Safety Manual • ACI Apron Safety Handbook				
Section Head/Supervisor	a) National legislative and regulatory requirements including requirements for aerodrome certification/approval b) NOTAMs and AIPs	Basic	a) National Aerodrome Regulations b) NOTAMs and AIPs	Initial training Recurring training Refresher training (if needed) Specialized training	Yes
	Airfield operations and safety management system, covering: a) identification of security risks	Intermediate	Relevant parts of aerodrome and SMS	Initial training Recurring training	Yes

	b) risk assessment and mitigation c) Accident/Incident Investigation d) Safety Inspections/Audits e) Occupational health and safety		manuals	Refresher training (if needed)	
	Airfield layout	Intermediate	Airfield layout (Based on the airfield plan and on the orientation of the site)	Initial training Recurring training Refresher training (if needed)	Yes
	Job requirements: ▪ Development of procedures ▪ Preventative maintenance of visual aids and paved and unpaved movement areas ▪ Runway incursion ▪ Radiotelephony ▪ maintenance management ▪ FOD management ▪ Removing contaminants from the runway (e.g. rubber deposit, fuel, etc.) ▪ Provide maintenance training References: ▪ GCADS Parts 14 and GCADS Part 36	Advanced	▪ Understanding of GCADS Part 14A and PANS _ Aerodromes ▪ Maintenance of airfield pavements ▪ Maintenance of aerodrome lights including PAPI/VASIS ▪ Maintenance of marks and signs ▪ Removal of contaminants from airfield pavements ▪ Runway incursion awareness and prevention ▪ Phraseology ▪ Maintenance of uncoated surfaces	Initial training Recurring training Refresher training (if needed) Specialized training (if needed)	Yes

	▪ PANS Aerodromes (Doc 9981) ▪ GCAA AC 14-004 Aerodrome maintenance ▪ Airport Services Manual (Doc 9137), Part 2 - Pavement Surface Condition. ▪ Airport Services Manual (Doc 9137), Part 6 – Obstacle Regulations. ▪ Airport Services Manual (Doc 9137), Part 8 – Operations. ▪ Airport Services Manual (Doc 9137), Part 9 – Maintenance. ▪ Aerodrome Design Manual (Doc 9157), Part 5 – Electrical Systems ▪ Safety Management Manual (Doc 9859) ▪ ACI Runway Safety Manual ▪ ACI Apron Safety Handbook		References: ▪ GCADS Parts 14 and GCADS Part 36 ▪ PANS Aerodromes (Doc 9981) ▪ GCAA AC 14-004 Aerodrome maintenance ▪ Airport Services Manual (Doc 9137), Part 2 - Pavement Surface Condition. ▪ Airport Services Manual (Doc 9137), Part 6 – Obstacle Regulations. ▪ Airport Services Manual (Doc 9137), Part 8 – Operations. ▪ Airport Services Manual (Doc 9137), Part 9 – Maintenance. ▪ Airport Services Manual (Doc 9137), Part 5 – Electrical Systems. ▪ Safety Management Manual (Doc 9859) ▪ ACI Runway Safety Manual		

			▪ ACI Apron Safety Handbook		
	a) National legislative and regulatory requirements, including aerodrome compliance with regulations (applicable parts/chapters only) b) NOTAMs and AIPs	Basic	c) National Aerodrome Regulations d) NOTAMs and AIPs	Initial training Recurring training Refresher training (if required)	Yes
Clerks/Technicians (daily conduct of movement area maintenance)	Airfield operations and safety management system, covering: f) identification of security risks g) Safety reports - mandatory, voluntary and confidential hazard and risk management reports	Intermediate	Relevant parts of aerodrome and SMS manuals	Initial training + OJT	Yes
	Airfield layout	Intermediate	Airfield layout (Based on the airfield plan and on the orientation of the site)	Initial training + OJT Recurring training Refresher training (if needed)	Yes
	Job requirements: ▪ Pavement characteristics ▪ Method and technology for pavement maintenance ▪ Maintenance of paved and unpaved areas, including storm water drainage systems ▪ Maintenance of aerodrome visual aids ▪ FOD management	Intermediate	a) Understanding of GCADS Parts 14 and PANS _ Aerodromes b) Maintenance of airfield pavements c) Maintenance of aerodrome lights including PAPI/VASIS d) Maintenance of marks and signs e) Removal of contaminants from	Initial training + OJT Recurring training Refresher training (if needed)	Yes

	▪ Protection of NAVAIDs References: ▪ GCADS Parts 14 and GCADS Part 36 ▪ PANS Aerodromes (Doc 9981) ▪ GCAA AC 14-004 Aerodrome maintenance ▪ Airport Services Manual (Doc 9137), Part 2 - Pavement Surface Condition. ▪ Airport Services Manual (Doc 9137), Part 6 – Obstacle Regulations. ▪ Airport Services Manual (Doc 9137), Part 8 – Operations. ▪ Airport Services Manual (Doc 9137), Part 9 – Maintenance. ▪ Aerodrome Design Manual (Doc 9157), Part 5 – Electrical Systems ▪ Aerodrome Design Manual (Doc 9157), Part 3 – Pavements ▪ Safety Management Manual (Doc 9859) ▪ ACI Runway Safety Manual ▪ ACI Apron Safety Handbook		airfield pavements f) Runway incursion awareness and prevention g) Phraseology h) Maintenance of uncoated surfaces		

Note: - Section Chiefs/Supervisors and Desk Officers/Technicians who carry out the daily maintenance of the airfield movement area may be from Civil Engineering or Electrical Engineering depending on the area of maintenance.

Table 4: _Inspection of the aerodrome movement area_

Aerodrome operator staff	Skills domains (knowledge, skills and attitudes)	Minimum skill level required (Basic / Intermediate / Advanced)	Training areas	Type of training required (Initial, OJT, Retraining, Recurrent, Specialized)	Requirement of skill test
Aerodrome maintenance manager	National legislative and regulatory requirements including requirements for aerodrome certification/approval	Basic	National Aerodrome Regulations	Initial training Recurring training (when a change/modification is applied)	No
	Aerodrome operation and safety management system	Basic	Aerodrome and Safety Management System Manuals	Initial training Recurring training	No
	Airfield layout	Intermediate	Airfield layout (Based on the airfield plan and on the orientation of the site)	Initial training Recurring training Refresher training (if needed)	No
	Job Requirements: National, international requirements and best practices on: ▪ Wildlife risk management ▪ Movement area inspection ▪ Obstacle limitation surfaces	Basic	a) Airfield protection b) Aerodrome inspection c) Safety and airside operations (including wildlife risk management, low visibility operation, adverse weather conditions)	Initial training Recurring training Refresher training (if needed)	Nope

	- Operation in low visibility, if applicable - Aerodrome visual aids - Operations in Adverse Weather Conditions - FOD management References: - GCADS Parts 14 and GCADS Part 36 - PANS Aerodromes (Doc 9981) - GCAA AC 14-003 Aerodrome inspection programme and condition reporting - ACI Aerodrome Maintenance Doc - Airport Services Manual (Doc 9137), Part 2 - Pavement Surface Condition - Airport Services Manual (Doc 9137), Part 3 - Bird Hazard Control - Airport Services Manual (Doc 9137), Part 6 – Obstacle Regulations. - Airport Services Manual (Doc 9137), Part 8 – Operations. - Aerodrome Design Manual (Doc 9157), Part 4 – Visual Aids - Safety Management			

	Manual (Doc 9859) ▪ ACI Runway Safety Manual ▪ ACI Apron Safety Handbook				
Section Head/Supervisor	a) National legislative and regulatory requirements including requirements for aerodrome certification/approval b) NOTAMs and AIPs	Basic	a) National Aerodrome Regulations b) NOTAMs and AIPs	Initial training Recurring training Refresher training (if needed) Specialized training	Yes
	Airfield operations and safety management system, covering: a) identification of security risks b) risk assessment and mitigation c) Accident/Incident Investigation d) Safety Inspections/Audits	Intermediate	Relevant parts of aerodrome and SMS manuals	Initial training Recurring training Refresher training (if needed)	Yes
	Airfield layout	Intermediate	Airfield layout (Based on the airfield plan and on the orientation of the site)	Initial training Recurring training Refresher training (if needed)	Yes
	Job requirements: ▪ Development of procedures for the inspection of the movement area ▪ Runway incursion ▪ Radiotelephony ▪ Knowledge of wildlife risk	Advanced	a) Understanding of GCADS Parts 14 and PANS _ Aerodromes b) Aerodrome inspection c) Airfield protection d) Runway incursion awareness and prevention	Initial training Recurring training Refresher training (if needed) Specialized training	Yes

	management • Obstacle Limitation Surface • Movement area inspection • Visual aids • FOD management • Low visibility operations, if applicable • Operations in Adverse Weather Conditions • Provide inspection training <u>References</u>: • GCADS Parts 14 and GCADS Part 36 • PANS Aerodromes (Doc 9981) • GCAA AC 14-003 Aerodrome inspection programme and condition reporting • ACI Aerodrome Maintenance Doc • Airport Services Manual (Doc 9137), Part 2 - Pavement Surface Condition • Airport Services Manual (Doc 9137), Part 3 - Bird Hazard Control • Airport Services Manual (Doc 9137), Part 6 – Obstacle Regulations. • Airport Services Manual (Doc 9137), Part 8 –		e) Phraseology f) Safety and airside operations (including wildlife risk management, operation in low visibility, adverse weather conditions)	(if needed)	

	Operations. • Aerodrome Design Manual (Doc 9157), Part 4 – Visual Aids • Safety Management Manual (Doc 9859) • ACI Runway Safety Manual • ACI Apron Safety Handbook • ACI Wildlife Risk Management Handbook				
Clerks/Technicians (daily conduct of movement area inspection)	a) National legislative and regulatory requirements, including aerodrome compliance with regulations (applicable parts/chapters only) b) NOTAMs and AIPs	Basic	e) National Aerodrome Regulations f) NOTAMs and AIPs	Initial training Recurring training Refresher training (if needed)	Yes
	Airfield operations and safety management system, covering: a) identification of security risks b) Safety reports - mandatory, voluntary and confidential hazard and risk management reports	Intermediate	Relevant parts of aerodrome and SMS manuals	Initial training + OJT Recurring training Refresher training (if needed)	Yes
	Airfield layout	Intermediate	Airfield layout (Based on the airfield plan and on the orientation of the site)	Initial training + OJT Recurring training Refresher training (if needed)	Yes

	Job requirements: - Runway incursion - Radiotelephony - Knowledge of wildlife risk management - Obstacle Limitation Surface - Movement area inspection - Visual aids - FOD management - Low visibility operations, if applicable - Operations in Adverse Weather Conditions - Provide inspection training References: - GCADS Parts 14 and GCADS Part 36 - PANS Aerodromes (Doc 9981) - GCAA AC 14-003 Aerodrome inspection programme and condition reporting - ACI Aerodrome Maintenance Doc - Airport Services Manual (Doc 9137), Part 2 - Pavement Surface Condition - Airport Services Manual (Doc 9137), Part 3 - Bird Hazard Control	Intermediate	a) Understanding of GCADS Parts 14 and PANS _ Aerodromes b) Aerodrome inspection c) Airfield protection d) Runway incursion awareness and prevention e) Phraseology f) Safety and airside operations (including wildlife risk management, operation in low visibility, adverse weather conditions)	Initial training Recurring training Refresher training (if needed)	Yes

	▪ Airport Services Manual (Doc 9137), Part 6 – Obstacle Regulations. ▪ Airport Services Manual (Doc 9137), Part 8 – Operations. ▪ Aerodrome Design Manual (Doc 9157), Part 4 – Visual Aids ▪ Safety Management Manual (Doc 9859) ▪ ACI Runway Safety Manual ▪ ACI Apron Safety Handbook ▪ ACI Wildlife Risk Management Handbook				

_Table 5__: **Work in progress on the airside**_

Aerodrome operator staff	Skills domains (knowledge, skills and attitudes)	Minimum skill level required (Basic / Intermediate / Advanced)	Training areas	Type of training required (Initial, OJT, Retraining, Recurrent, Specialized)	Requirement of skill test
Aerodrome maintenance manager	National legislative and regulatory requirements including requirements for aerodrome certification/approval	Basic	National Aerodrome Regulations	Initial training Recurring training (when a change/modification is applied)	No
	Aerodrome operation and safety management system	Basic	Aerodrome and Safety Management System Manuals	Initial training Recurring training	No
	Airfield layout	Intermediate	Airfield layout (Based on the airfield plan and on the orientation of the site)	Initial training Recurring training Refresher training (if needed)	No
	Job Requirements: National, international requirements and best practices on: ▪ Compliance with aerodrome work safety plan and procedures, including OLS ▪ Development of a training program to	Basic	a) Understanding of GCADS Parts 14 and PANS _ Aerodromes b) Aerodrome Safety Management System c) Accident and Incident Investigation d) Runway incursion awareness and prevention e) Aerodrome inspection	Initial training Recurring training Refresher training (if needed)	No

| | mitigate potential safety risks caused by ongoing airside work
■ Work authorization procedure
■ Promoting Safety
■ Accident and Incident Investigation
■ Hazard identification and risk management
■ Conduct internal security audit and implement proposed mitigation measures
■ Coordination with ATS and other stakeholders/agencies as appropriate

References:

■ GCADS Parts 14 and GCADS Part 36
■ PANS Aerodromes (Doc 9981)
■ Safety Management Manual (Doc 9859)
■ ACI Handbook on Managing Operations During Construction Works
■ AGA Guide to Airside Work | | f) Airside work management | | |
| Section Head/Supervisor | a) National legislative and regulatory requirements including requirements for | Basic | c) National Aerodrome Regulations
d) NOTAMs and AIPs | Initial training | Yes |

				Recurring training Refresher training (if needed)	
aerodrome certification/approval b) NOTAMs and AIPs					
Airfield operations and safety management system, covering: a) identification of security risks b) risk assessment and mitigation c) Accident/Incident Investigation d) Safety Inspections/Audits		Intermediate	Relevant parts of aerodrome and SMS manuals	Initial training Recurring training Refresher training (if needed)	Yes
Airfield layout		Intermediate	Airfield layout (Based on the airfield plan and on the orientation of the site)	Initial training Recurring training Refresher training (if needed)	Yes
Job requirements: ▪ Development of work safety plan and work control procedures ▪ Aerodrome emergency plan ▪ Provide workplace safety training ▪ Promoting Workplace Safety Awareness ▪ Assess and monitor the worker ▪ Prepare an inspection checklist		Advanced	a) Understanding of GCADS Part 14A and PANS _ Aerodromes b) Manage operations during construction works c) Runway incursion awareness and prevention d) Emergency planning and response e) Safety and airside operations f) Aerodrome Safety Management System	Initial training Recurring training Refresher training (if needed) Specialized training (if needed)	Yes

	• Perform a safety inspection • Operations with reduced track length • FOD management References: • GCADS Parts 14 and GCADS Part 36 • PANS Aerodromes (Doc 9981) • ACI Aerodrome Maintenance Doc • Safety Management Manual (Doc 9859) • ACI Handbook on Managing Operations During Construction Works • AGA Guide to Airside Work				
Clerks/Technicians	c) National legislative and regulatory requirements, including aerodrome compliance with regulations (applicable parts/chapters only) d) NOTAMs and AIPs	Basic	g) National Aerodrome Regulations h) NOTAMs and AIPs	Initial training Recurring training Refresher training (if needed)	Yes
	Airfield operations and safety management system, covering: c) identification of security risks d) Safety reports -	Intermediate	Relevant parts of aerodrome and SMS manuals	Initial training + OJT Recurring training Refresher training (if needed)	Yes

	mandatory, voluntary and confidential hazard and risk management reports				
	Airfield layout	Intermediate	Airfield layout (Based on the airfield plan and on the orientation of the site)	Initial training + OJT Recurring training Refresher training (if needed)	Yes
	Job requirements: - Execute work safety plan and procedures and monitor facility/equipment height - Role in the aerodrome emergency plan - Ensure that the work is carried out according to the work plan - Ensure that the work area is marked and lit according to the work plan - Ensure access routes in accordance with the work plan - Ensure that security measures are implemented according to the work plan - Perform safety inspections - Manage FODs	Intermediate	a) Understanding of GCADS Parts 14 and PANS _ Aerodromes b) Manage operations during construction works c) Runway incursion awareness and prevention d) Emergency planning and response e) Safety and airside operations a) Aerodrome Safety Management System	Initial training Recurring training Refresher training (if needed)	Yes

	References: - GCADS Parts 14 and GCADS Part 36 - PANS Aerodromes (Doc 9981) - ACI Aerodrome Maintenance Doc - Safety Management Manual (Doc 9859) - ACI Handbook on Managing Operations During Construction Works				

Table 6: _FOD management_

Aerodrome operator staff	Skills domains (knowledge, skills and attitudes)	Minimum skill level required (Basic / Intermediate / Advanced)	Training areas	Type of training required (Initial, OJT, Retraining, Recurrent, Specialized)	Requirement of skill test
Aerodrome operations manager	National legislative and regulatory requirements including requirements for aerodrome certification/approval	Basic	National Aerodrome Regulations	Initial training Recurring training (when a change/modification is applied)	No
	Aerodrome operation and safety management system	Basic	Aerodrome and Safety Management System Manuals	Initial training Recurring training	No
	Airfield layout	Intermediate	Airfield layout (Based on the airfield plan and on the orientation of the site)	Initial training Recurring training Refresher training (if needed)	No
	Job Requirements: • Documentation and reports • Analysis and evaluation • FOD reduction References: • GCADS Parts 14 and GCADS Part 36	Basic	FOD management (PANS Aerodromes)	Initial training Recurring training Refresher training (if needed)	No

	• PANS Aerodromes (Doc 9981) • GUID AGA 6114_Intruder Object Control (FOD) Guide • Relevant parts of Doc 9137				
Section Head/Supervisor	National legislative and regulatory requirements including requirements for aerodrome certification/approval	Basic	National Aerodrome Regulations	Initial training Recurring training Refresher training (if needed)	Yes
	Airfield operations and safety management system, covering: e) identification of security risks f) risk assessment and mitigation g) Accident/Incident Investigation h) Safety Inspections/Audits	Intermediate	Relevant parts of aerodrome and SMS manuals	Initial training Recurring training Refresher training (if needed)	Yes
	Airfield layout	Intermediate	Airfield layout (Based on the airfield plan and on the orientation of the site)	Initial training Recurring training Refresher training (if needed)	Yes
	Job requirements: • Analysis and evaluation of FOD occurrences • FOD management • Airside driving	Advanced	a) FOD management (PANS Aerodromes) b) Airside driving c) Radiotelephony d) Aerodrome markings, signs and lights	Initial training Recurring training Refresher training (if needed)	Yes

	▪ Operation of specific equipment ▪ Radiotelephony ▪ Aerodrome markings, signs and lights ▪ Familiarization with actions in case of emergency References: ▪ GCADS Parts 14 and GCADS Part 36 ▪ PANS Aerodromes (Doc 9981) ▪ GUID AGA 6114_Intruder Object Control (FOD) Guide ▪ Relevant parts of Doc 9137		e) FOD detection equipment (if applicable, provided by the manufacturer)	Specialized training (if needed)	
Clerks/Technicians	National legislative and regulatory requirements including requirements for aerodrome certification/approval	Basic	National Aerodrome Regulations	Initial training Recurring training Refresher training (if needed)	Yes
	Airfield operations and safety management system, covering: e) identification of security risks f) Safety reports - mandatory, voluntary and confidential hazard and risk management reports	Intermediate	Relevant parts of aerodrome and SMS manuals	Initial training + OJT Recurring training)	Yes

	g) FOD inspection and reports				
	Airfield layout	Intermediate	Airfield layout (Based on the airfield plan and on the orientation of the site)	Initial training + OJT Recurring training Refresher training (if needed)	Yes

	Job requirements:
	
	  • FOD Inspection and Reports
	  • Airside driving
	  • Operation of specific equipment
	  • Radiotelephony
	  • Aerodrome markings, signs and lights
	  • Familiarization with actions in case of emergency
	References:
	
	  • GCADS Parts 14 and GCADS Part 36
	  • PANS Aerodromes (Doc 9981)
	  • Relevant parts of Doc 9137
		Intermediate	a) FOD management (PANS Aerodromes)
			b) Airside driving
			c) Radiotelephony
			d) Aerodrome markings, signs and lights
			b) FOD detection equipment (if applicable, provided by the manufacturer)
				Initial training
				
				Recurring training
				
				Refresher training (if needed)
					Yes

Table 7: **_Wildlife risk management_**

Aerodrome operator staff	Skills domains (knowledge, skills and attitudes)	Minimum skill level required (Basic / Intermediate / Advanced)	Training areas	Type of training required (Initial, OJT, Retraining, Recurrent, Specialized)	Requirement of skill test
Aerodrome operations manager	National legislative and regulatory requirements including requirements for aerodrome certification/approval	Basic	National Aerodrome Regulations	Initial training Recurring training (when a change/modification is applied)	No
	Aerodrome operation and safety management system	Basic	Aerodrome and Safety Management System Manuals	Initial training Recurring training	No
	Airfield layout	Intermediate	Airfield layout (Based on the airfield plan and on the orientation of the site)	Initial training Recurring training Refresher training (if needed)	Yes
	Job Requirements: Airport wildlife risk management program focused on: ▪ Role and responsibility of the airport wildlife risk management committee	Basic	Wildlife risk management (PANS Aerodromes)	Initial training Recurring training	No

	▪ Wildlife hazard control operational practices ▪ Staff training requirements References: ▪ GCADS Parts 14 and GCADS Part 36 ▪ PANS Aerodromes (Doc 9981) ▪ GCAA AC 14-012 Wildlife hazard assessments, and wildlife hazard management plans ▪ Airport Services Manual (Doc 9137), Part 3 - Bird Hazard Control				
Section Head/Supervisor (In charge of wildlife risk management at the airport)	National legislative and regulatory requirements including requirements for aerodrome certification/approval	Basic	National Aerodrome Regulations	Initial training Recurring training Refresher training (if needed)	Yes
	Airfield operations and safety management system, covering: a) Risk management including wildlife strike risk assessment and mitigation b) Management of	Intermediate	Relevant parts of aerodrome and SMS manuals	Initial training Recurring training Refresher training (if needed)	Yes

	accident/incident investigations				
	Airfield layout	Intermediate	Airfield layout (Based on the airfield plan and on the orientation of the site)	Initial training Recurring training Refresher training (if needed)	Yes
	Job requirements: • Wildlife survey • Understanding of habitat management - how wildlife are attracted to the environment • Understanding of wildlife ecology – how wildlife might react to different control methods • Documentation and wildlife impact report • Use of dispersal equipment and other methods • Evaluation and review of the effectiveness of the wildlife hazard management program at the airport • Airside driving • Radiotelephony	Advanced	a) Wildlife risk management (PANS Aerodromes) b) Airside driving c) Radiotelephony d) Scaring equipment (provided by the manufacturer)	Initial training Recurring training Refresher training (if needed) Specialized training (if needed)	Yes

	References: - GCADS Parts 14 and GCADS Part 36 - PANS Aerodromes (Doc 9981) - GCAA AC 14-012 Wildlife hazard assessments, and wildlife hazard management plans - Airport Services Manual (Doc 9137), Part 3 - Bird Hazard Control - ACI Wildlife Risk Management Manual				
Clerks/Technicians (In charge of daily control, patrols, wildlife scaring at the airport)	National legislative and regulatory requirements including requirements for aerodrome certification/approval	Basic	National Aerodrome Regulations	Initial training Recurring training Refresher training (if needed)	Yes
	Airfield operations and safety management system, covering: a) Safety hazard and risk management b) Safety reports - mandatory, voluntary and confidential hazard and risk management reports	Intermediate	Relevant parts of aerodrome and SMS manuals	Initial training + OJT	Yes
	Airfield layout	Intermediate	Airfield layout	Initial training + OJT	Yes

			(Based on the airfield plan and on the orientation of the site)	Recurring training Refresher training (if needed)	
	Job requirements: - Wildlife identification and management - Wildlife biology and behavior - Documentation and wildlife impact report - Use of scaring equipment and other methods - Analysis and evaluation - Habitat management - bird migration - Airside driving - Radiotelephony References: - GCADS Parts 14 and GCADS Part 36 - PANS Aerodromes (Doc 9981) - GCAA AC 14-012 Wildlife hazard assessments, and wildlife hazard management plans - Airport Services Manual (Doc 9137), Part 3 - Bird Hazard	Intermediate	a) Wildlife risk management (PANS Aerodromes) b) Airside driving c) Radiotelephony c) Scaring equipment (provided by the manufacturer)	Initial training Recurring training Refresher training (if needed)	Yes

	Control ▪ ACI Wildlife Risk Management Manual				

__Table 8__: Safety on the apron

Aerodrome operator staff	Skills domains (knowledge, skills and attitudes)	Minimum skill level required (Basic / Intermediate / Advanced)	Training areas	Type of training required (Initial, OJT, Retraining, Recurrent, Specialized)	Requirement of skill test
Aerodrome operations manager	National legislative and regulatory requirements including requirements for aerodrome certification/approval	Basic	National Aerodrome Regulations	Initial training Recurring training (when a change/modification is applied)	No
	Aerodrome operation and safety management system	Basic	Aerodrome and Safety Management System Manuals	Initial training Recurring training	No
	Airfield layout	Intermediate	Airfield layout (Based on the airfield plan and on the orientation of the site)	Initial training Recurring training Refresher training (if needed)	No
	Job Requirements: National and international requirements and best practices on: ▪ Aircraft Turnaround	Basic	a) Understanding of GCADS Parts 14 and PANS _ Aerodromes b) Aerodrome Safety Management	Initial training Recurring training Refresher training (if needed)	No

	Procedures • Role in the aerodrome emergency plan References: • GCADS Parts 14 and GCADS Part 36 • PANS Aerodromes (Doc 9981) • GCAA AC 14-029 Apron management service • Safety Management Manual (Doc 9859) • ACI Apron Safety Handbook • ACI Wildlife Risk Management Manual		System (SGS) c) Safety and airside operations d) Emergency planning and response		
Section Head/Supervisor	National legislative and regulatory requirements including requirements for aerodrome certification/approval	Basic	National Aerodrome Regulations	Initial training Recurring training Refresher training (if needed)	Yes
	Aerodrome operations including: a) FOD management b) Safety management during construction and maintenance work c) Understanding of aerodrome emergency procedures d) Follow-me Procedures	Intermediate	Relevant parts of aerodrome and SMS manuals	Initial training Recurring training Refresher training (if needed)	Yes

	Airfield layout	Intermediate	Airfield layout (Based on the airfield plan and on the orientation of the site)	Initial training Recurring training Refresher training (if needed)	Yes
	Job requirements: - Rules of conduct airside - Aircraft turnaround procedures (e.g. passenger boarding bridge operations, tarmac passenger safety, aircraft refueling safety, flight catering safety, etc.) - Jet blast hazards - Marshalling - Apron signs and markings - Operations in Adverse Weather Conditions - Fuel and Oil Spill Handling - Inspection and cleaning of the apron (FOD, pavement, marking, signage, installation of the GSE, etc.) - Use of personal protective equipment (ear plugs, high visibility vest, etc.)	Advanced	a) Understanding of GCADS Parts 14 and PANS _ Aerodromes b) Management of work in progress c) Aerodrome Safety Management System (SGS) d) Safety and airside operations e) Emergency planning and response f) FOD training	Initial training Recurring training Refresher training (if needed) Specialized training (if needed)	Yes

	- Role in the aerodrome emergency plan - Phraseology - Compliance with safety rules during construction and maintenance work References: - GCADS Parts 14 and GCADS Part 36 - PANS Aerodromes (Doc 9981) - GCAA AC 14-029 Apron management service - Safety Management Manual (Doc 9859) - ACI Apron Management Handbook				
Clerks/Technicians	a) National legislative and regulatory requirements b) NOTAMs and AIPs	Basic	a) National Aerodrome Regulations b) NOTAMs and AIPs	Initial training Recurring training Refresher training (if needed)	Yes
	Aerodrome operations including: a) Apron management b) Apron Safety Management c) Follow me procedures Safety management system	Intermediate	Relevant parts of aerodrome and SMS manuals	Initial training + OJT Recurring training Refresher training (if needed)	Yes

	including: a) Identification of security risks b) safety inputs - mandatory, voluntary and confidential hazard and risk management reports				
	Airfield layout including apron and stand configuration	Intermediate	Airfield layout (Based on the airfield plan and on the orientation of the site)	Initial training + OJT Recurring training Refresher training (if needed)	Yes
	Job requirements: ▪ Airside driving rules and safety risk ▪ Aircraft turnaround procedures (e.g. passenger boarding bridge operations, tarmac passenger safety, aircraft refueling safety, flight catering safety, etc.) ▪ Jet blast hazards ▪ Marshalling ▪ Apron signs and markings ▪ Operations in Adverse Weather Conditions ▪ Fuel and Oil Spill	Intermediate	a) Understanding of GCADS Parts 14 and PANS _ Aerodromes b) Aerodrome Safety Management System (SGS) c) Safety and airside operations	Initial training Recurring training Refresher training (if needed)	Yes

	Handling ▪ Inspection and cleaning of the apron (FOD, pavement, marking, signage, installation of the GSE, etc.) ▪ Use of personal protective equipment (ear plugs, high visibility vest, etc.) ▪ Role in the aerodrome emergency plan ▪ Phraseology ▪ Compliance with safety rules during construction and maintenance work References: ▪ GCADS Parts 14 and GCADS Part 36 ▪ PANS Aerodromes (Doc 9981) ▪ GCAA AC 14-029 Apron management service ▪ Safety Management Manual (Doc 9859) ▪ ACI Apron Management Handbook				

Table 9: Runway safety

Aerodrome operator staff	Skills domains (knowledge, skills and attitudes)	Minimum skill level required (Basic / Intermediate / Advanced)	Training areas	Type of training required (Initial, OJT, Retraining, Recurrent, Specialized)	requirement of skill test
Aerodrome operations manager	National legislative and regulatory requirements including requirements for aerodrome certification/approval	Basic	National Aerodrome Regulations	Initial training Recurring training (when a change/modification is applied)	No
	Aerodrome operation and safety management system	Basic	Aerodrome and Safety Management System Manuals	Initial training Recurring training	No
	Airfield layout	Intermediate	Airfield layout (Based on the airfield plan and on the orientation of the site)	Initial training Recurring training Refresher training (if needed)	No
	Job Requirements: National and international requirements and best practices on:	Basic	a) Emergency planning and response b) Aerodrome Accident and	Initial training Recurring training Refresher training	No

			Incident Investigation	(if needed)
	▪ Emergency planning and response ▪ Operation and maintenance of aerodromes ▪ Accident and Incident Investigation ▪ Runway Safety Program and Runway Safety Team <u>References:</u> ▪ GCADS Parts 14 and GCADS Part 36 ▪ PANS Aerodromes (Doc 9981) ▪ GCAA AC 14-021 Runway end safety area programme ▪ Safety Management Manual (Doc 9859) ▪ ACI Runway Safety Manual ▪ Runway Incursion Prevention Manual (Doc 9870) ▪ Runway Safety Team Manual ▪ Runway Safety Program _ Global Runway Safety		c) Safety and airside operations d) National Airport Runway Safety Program	

	Action Plan 1st Edition November 2017				
	National legislative and regulatory requirements including requirements for aerodrome certification/approval	Basic	National Aerodrome Regulations	Initial training Recurring training Refresher training (if needed)	Yes
Section Head/Supervisor	Aerodrome operations including: a) FOD management b) Safety management during construction and maintenance work c) Understanding of aerodrome emergency procedures d) Follow-me Procedures Safety Management System	Intermediate	Relevant parts of aerodrome and SMS manuals	Initial training Recurring training Refresher training (if needed)	Yes
	Airfield layout	Intermediate	Airfield layout (Based on the airfield plan and on the orientation of the site)	Initial training Recurring training Refresher training (if needed)	Yes

	Job requirements:	Advanced	a) Emergency planning and response	Initial training	Yes
	All the skills required for front line officers, but at the advanced level, in addition to:		b) Understanding of GCADS Parts 14 and PANS _ Aerodromes	Recurring training	
	▪ Understanding of disabled aircraft removal plan		c) Aerodrome Safety Management System (SGS)	Refresher training (if needed)	
	▪ Declaration of new runway distances		d) Management of work in progress on the runway side	Specialized training (if needed)	
	▪ SMS principles including safety risk management		e) Awareness and prevention of runway incursions		
	▪ Preliminary investigations of accidents and incidents		f) Runway safety management		
	▪ Safety during construction and maintenance work		g) Wildlife hazard management		
	▪ Runway Safety Program and Runway Safety Team		h) Aerodrome Accident and Incident Investigation		
	References:		i) Safety and airside operations		
	▪ GCADS Parts 14 and GCADS Part 36		j) National Airport Runway Safety Program		
	▪ PANS Aerodromes (Doc 9981)				
	▪ GCAA AC 14-021 Runway end safety area programme				

	- Safety Management Manual (Doc 9859) - ACI Runway Safety Manual - Runway Incursion Prevention Manual (Doc 9870) - Runway Safety Team Manual - Runway Safety Program _ Global Runway Safety Action Plan 1st Edition November 2017				
	c) National legislative and regulatory requirements d) NOTAMs and AIPs	Basic	c) National Aerodrome Regulations d) NOTAMs and AIPs	Initial training Recurring training Refresher training (if needed)	Yes
Clerks/Technicians	Aerodrome operations including: d) Understanding of the aerodrome manual e) Follow me procedures Safety management system including: c) Identification of	Intermediate	Relevant parts of aerodrome and SMS manuals	Initial training + OJT Recurring training Refresher training (if needed)	Yes

	security risks d) safety inputs - mandatory, voluntary and confidential hazard and risk management reports				
	Airfield layout	Intermediate	Airfield layout (Based on the airfield plan and on the orientation of the site)	Initial training + OJT Recurring training Refresher training (if needed)	Yes
	Job requirements: ■ Inspection and cleaning of the apron (FOD, road conditions, markings, signs, lights, obstacles, etc.) ■ Runway surface condition report ■ Airside conduct, including aerodrome signs and markings ■ Operations in Adverse Weather Conditions ■ Removal of contaminants from the track, for example rubber ■ Vegetation control	Intermediate	a) Emergency planning and response b) Understanding of GCADS Parts 14 and PANS _ Aerodromes c) Aerodrome Safety Management System (SGS) d) Management of work in progress e) Awareness and prevention of runway incursions f) Runway safety management g) Wildlife hazard	Initial training Recurring training Refresher training (if needed)	Yes

	• Phraseology • Wildlife risk management • Runway incursion prevention • Compliance with safety rules during construction and maintenance work • Emergency Response Procedures • Role in the track safety team References: • GCADS Parts 14 and GCADS Part 36 • PANS Aerodromes (Doc 9981) • GCAA AC 14-021 Runway end safety area programme • Safety Management Manual (Doc 9859) • ACI Runway Safety Manual • Runway Safety Team Handbook		management h) Aerodrome Accident and Incident Investigation i) Safety and airside operations j) National Airport Runway Safety Program k) Follow-me operations l) Contaminant removal on airfield pavements m) Operations in Adverse Weather Conditions	

_Table 10__: Aerodrome driving permit system and vehicle/equipment safety requirements_

Aerodrome operator staff	Skills domains (knowledge, skills and attitudes)	Minimum skill level required (Basic / Intermediate / Advanced)	Training areas	Type of training required (Initial, OJT, Retraining, Recurrent, Specialized)	requirement of skill test
Aerodrome operations manager	National legislative and regulatory requirements including requirements for aerodrome certification/approval	Basic	National Aerodrome Regulations	Initial training Recurring training (when a change/modification is applied)	Nope
	Aerodrome operation and safety management system	Basic	Aerodrome and Safety Management System Manuals	Initial training Recurring training	Nope
	Airfield layout	Intermediate	Airfield layout (Based on the airfield plan and on the orientation of the site)	Initial training Recurring training Refresher training (if needed)	Nope
	Job Requirements: ▪ Airfield Emergency	Basic	Driving on the airside (See PANS –	Initial training Recurring training Refresher training (if	Nope

	Procedures ▪ Vehicle/equipment safety requirements ▪ Aerodrome driver's permit registration system and vehicle/equipment permit registration system ▪ Deformation program for airfield conductors References: ▪ GCADS Parts 14 and GCADS Part 36 ▪ PANS Aerodromes (Doc 9981) ▪ Safety Management Manual (Doc 9859) ▪ Runway Incursion Prevention Manual (Doc 9870) ▪ Airport Services Manual (Doc 9137), Part 9 – Maintenance. ▪ ACI Apron Safety Manual		Aerodrome)	needed)	
Section Head/Supervisor	National legislative and regulatory requirements including requirements for aerodrome certification/approval	Basic	National Aerodrome Regulations	Initial training Recurring training Refresher training (if needed)	Yes

	Aerodrome operations including: e) Identification of security risks f) Risk assessment and mitigation g) Accident/Incident Investigation h) Safety inspections/audits	Intermediate	Relevant parts of aerodrome and SMS manuals	Initial training Recurring training Refresher training (if needed)	Yes
	Airfield layout	Intermediate	Airfield layout (Based on the airfield plan and on the orientation of the site)	Initial training Recurring training Refresher training (if needed)	Yes
	Job requirements: ▪ Develop airside traffic rules and procedures ▪ Provide airside safety training to drivers ▪ Promote airside safety awareness among drivers ▪ Provide training in radiotelephony ▪ Familiarization with vehicle/equipment safety requirements ▪ Perform	Advanced	Driving on the airside (See PANS – Aerodrome)	Initial training Recurring training Refresher training (if needed) Specialized training (if needed)	Yes

	vehicle/equipment inspection ▪ Retain Aerodrome Operator Permit and Vehicle/Equipment Permit data and records References: ▪ GCADS Parts 14 and GCADS Part 36 ▪ PANS Aerodromes (Doc 9981) ▪ Safety Management Manual (Doc 9859) ▪ ACI Runway Safety Manual ▪ Runway Incursion Prevention Manual (Doc 9870) ▪ ACI Apron Safety Manual				
Clerks/Technicians (Working on maneuvering areas)	National legislative and regulatory requirements including requirements for aerodrome certification/approval	Basic	National Aerodrome Regulations	Initial training Recurring training Refresher training (if needed)	Yes
	Airfield operations and safety management system, covering: a) Safety hazard and risk management b) Safety reports -	Intermediate	Relevant parts of aerodrome and SMS manuals	Initial training + OJT Recurring training Refresher training (if needed)	Yes

	mandatory, voluntary and confidential hazard and risk management reports				
	Airfield layout	Intermediate	Airfield layout (Based on the airfield plan and on the orientation of the site)	Initial training + OJT Recurring training Refresher training (if needed)	Yes
	Job requirements: - Holder of a valid driver's license of the same class of recognized vehicle, issued by the local authority - Medical certificate of fitness - Driving ability - Operation of specific equipment - Radiotelephone - Airside Operations Safety Rules - Rules of conduct airside - Procedures in case of adverse weather conditions - Aerodrome markings, signs and lights	Intermediate	a) Driving on the airside (See PANS – Aerodrome) b) Operation of specific equipment (if applicable, provided by the manufacturer)	Initial training Recurring training Refresher training (if needed)	Yes

	▪ Roles in the aerodrome emergency plan References: ▪ GCADs Parts 14 and GCADs Part 36 ▪ PANS Aerodromes (Doc 9981) ▪ GCAA AC 14-021 Runway end safety area programme ▪ Safety Management Manual (Doc 9859) ▪ ACI Runway Safety Manual ▪ Runway Incursion Prevention Manual (Doc 9870) ▪ ACI Apron Safety Manual				

APPENDIX 3: TRAINING SYLLABUS

Course title	Understanding Annex 14 and the PANS-Aerodrome	Course reference number: 01	Release: 1/2020
	Reference to table n°3, 4, 5, 8 and 9		
Course objective (Aim of the course)	ICAO Annex 14 sets out fundamental Standards and Recommended Practices (SARPs) for the technical design and operation of aerodromes, which States undertake to apply through national legislation. This course introduces the content and structure of Annex 14. This course also covers the implementation of PANS-Aerodrome as part of an aerodrome safety management system.		
Course objective (learning objectives)	Upon successful completion of this course, participants will be able to: ▪ Describe the SARPs contained in Annex 14 ▪ Implement SARPs. ▪ Discuss best practices to meet the requirements of Annex 14. ▪ Share your experience with experts on the different options to implement and further improve best practices. ▪ Perform aerodrome operational safety assessments, in accordance with the PANS-Aerodromes, for safety risk management, aeronautical and compatibility studies.		
Prerequisites to take this course	Training Course Title (If applicable): N/A ☐None ☑Indoctrination/Familiarization ☐Initial ☐On the job training		
Type of training	☐Indoctrination/Familiarization ☑Initial ☐On the job training ☐Recurrent ☐Delivery at level ☐Specialise		
Course content	Reference to training course(s) recognized by ICAO/GCAA: 1) Understanding Annex 14 (AIT); Where https://aci.aero/global-training/training-information/course-categories/safety/understanding-icao-annex-14/ 2) Working with Annex 14 (AIT) https://aci.aero/global-training/training-information/course-categories/safety/gsn-4-working-with-annex-14/ In addition to the above, for PANS-Aerodromes, refer to "Aerodrome Safety Management Integrating PANS-Aerodromes" (IAAA) https://academy.airport.kr:844/academy/pagework_02102.html		
Training method/activities	☐CBT/Online ☑In class ☐Practice/Simulator ☐Practical (on site)☐Factory/Manufacturer		
Evaluation	☐Attendance only (if proficiency test/assessment not required) ☑Minimum pass mark: 80% (if a proficiency test is required) ☐Satisfactory outcome of on-site assessment (if assessment is required)		

Note: Aerodrome operators and GCAA approved training organizations may develop and deliver a training course based on the course content above.

Course title	Trail condition report (ICAO-ACI GRF online Coaching)	Course reference number: 02	Release: 1/2020
	Reference to table 2 and 9		
Course Objective (Course Goal)	The ICAO Global Reporting Format (GRF) is a globally harmonized methodology for assessing and reporting runway surface conditions. It is intended to be the only such reporting format for international aviation, with the aim of reducing runway excursions, thereby improving the safety of airport operations. The objective of the course is to assist airport personnel in implementing the new runway condition reporting requirements as outlined in ICAO Circular 355 (Assessment, Measurement and Reporting of Runway Condition). runway surface condition).		
Course objective (learning objectives)	Upon successful completion of this course, participants will be able to: ▪ Describe the context of runway condition assessment and reporting as it relates to the ICAO Global Reporting Format (GRF). ▪ Explain the main elements of the Runway Condition Assessment Matrix (RCAM). ▪ Describe when a runway condition assessment should be performed. ▪ Describe the steps required to perform a runway condition assessment. ▪ Explain under what circumstances runway condition codes may be adjusted. ▪ Determine the runway condition codes to be used in accordance with the GRF. ▪ Explain the format and use of SNOWTAM and other means of promulgation. ▪ Complete a Runway Condition Report (RCR) using the ACI Runway Condition Worksheet. ▪ Through multiple case scenarios, apply the steps required to generate a CPR and NOTAM.		
Prerequisites to take this course	Title of Training Course (if applicable): ACI/ICAO Global Reporting Format (GRF) Online Training Course (Preferred). https://www.olc.aero/product/icao-global-reporting-format/ ☐None ☑Indoctrination/Familiarization ☑Initial ☐On the job training.		
Type of training	☐Indoctrination/Familiarization ☑Initial ☐On the job training. ☐Recurrent ☐Delivery at level ☐Specialise.		
Course content	Reference to ICAO/GCAA recognized training course(s): ACI-ICAO Global Reporting Format (GRF) for runway surface condition assessment and reporting. https://aci.aero/global-training/training-information/course-categories/safety/grf-forrunway-surface-condition-assessment-and-reporting/		
Training method/activities	☐CBT/Online ☑In class ☐Practice/Simulator. ☐Practical (on site) ☐Factory/Manufacturer.		
Evaluation	☐Attendance only (if proficiency test/assessment not required). ☑Minimum pass mark: 80% (if a proficiency test is required). ☐Satisfactory outcome of on-site assessment (if assessment is required).		

Note - Aerodrome operators and training organizations approved by the GCAA can develop and deliver a training course based on the minimum course content above.