



**MALDIVES CIVIL AVIATION AUTHORITY**  
**Republic of Maldives**

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**AIR SAFETY CIRCULAR**  
**ASC 139 - 10**

Aerodrome Operations Personnel & Competency Requirement

Issue 1.00, 8 May 2025

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## **Subpart A – General**

### **ASC139-8.A.01 Regulatory Compliance**

MCAR 139.22 (a) requires aerodrome operators to employ adequate number of qualified and skilled personnel to perform all critical activities for aerodrome operation and maintenance. Also, MCAR 139.22 (c) requires an aerodrome operator to implement a programme to upgrade the competency of aerodrome operational and maintenance personnel.

This circular establishes the acceptable means of compliance to develop and implement a programme referred to in MCAR 139.22.

Compliance with this Circular is mandatory. This circular will come into effect on 01 May 2026.

### **ASC139-8.A.05 Scope**

This Air Safety Circular establishes guidelines for aerodrome operators to ensure the highest levels of safety, compliance, and operational efficiency. It requires that all personnel involved in aerodrome operations are adequately trained, qualified, and competent to perform their duties. The circular also mandates the employment of sufficient and qualified staff to meet operational demands. In addition, it emphasizes the importance of fostering a culture of continuous improvement and professional development, ensuring that personnel remain aligned with evolving industry standards and technological advancements. Compliance with these requirements is essential for maintaining operational approval and certification.

### **ASC139-8.A.010 Applicability**

- 1.1 This document provides mandatory requirements and additional acceptable means of compliance for the competency and assessment of aerodrome operations and technical personnel. It outlines the specific areas of competency required and the corresponding training curriculum necessary for these personnel to meet the standards set forth in this Air Safety Circular. The acceptable means of compliance offer guidance on how to adhere to these mandatory requirements, ensuring that all personnel are adequately equipped to perform their duties effectively, thereby contributing to overall safety and operational efficiency.
- 1.2 Guidance on competency and training of aerodrome rescue and firefighting personnel is available in Airport Services Manual (Doc 9137) Part 1 – Rescue and Firefighting (Chapter 14 – Training) and Part 8 – Airport Operations Services (Chapter 17, 17.6 – Training). Therefore, this manual excludes the rescue and fire-fighting services from the scope.

- 1.3 Guidance on foreign object debris (FOD) training, wildlife hazard management training and framework for an airside vehicle driver training programme is available in PANS-Aerodrome (Doc 9981).

## **Subpart B – Personnel Requirements**

### **ASC139-8.B.015 Personnel Requirements**

- (a) The aerodrome operator shall appoint an Accountable Manager, who has the authority for ensuring that all activities can be financed and carried out in accordance with the applicable requirements. The accountable manager shall be responsible for establishing and maintaining effective management system.
- (b) The aerodrome operator shall nominate persons responsible for the management and supervision of the following areas:
- 1) operational services of the aerodrome; and
  - 2) maintenance of the aerodrome.
- (c) The aerodrome operator shall nominate a person or group of persons responsible for the development, maintenance and day-to-day management of the safety management system. Those persons shall act independently of other managers within the organisation, shall have direct access to the accountable manager and to appropriate management for safety matters and shall be responsible to the accountable manager.
- (d) The aerodrome operator shall have sufficient and qualified personnel for the planned tasks and activities to be performed in accordance with the applicable requirements.
- (e) The aerodrome operator shall assign a sufficient number of personnel supervisors to defined duties and responsibilities, taking into account the structure of the organisation and the number of personnel employed.
- (f) The aerodrome operator shall ensure that personnel involved in the operation, maintenance and management of the aerodrome are adequately trained in accordance with the training programme.

### **AMC1 ASC139-8.B.015 (a) Personnel Requirements**

#### **ACCOUNTABLE MANAGER**

- (a) Accountable Manager – General

- (1) The Accountable Manager should:

- (i) ensure that all necessary resources are available to operate the aerodrome in accordance with the applicable requirements and the aerodrome manual.
- (ii) ensure that if there is a reduction in the level of resources or abnormal circumstances which may affect safety, the required reduction in the level of operations at the aerodrome is implemented.
- (iii) establish, implement, and promote the safety policy; and
- (iv) ensure compliance with relevant applicable requirements, certification basis, and the organization's safety management system, as well as its quality management system with regard to aeronautical data and aeronautical information provision activities.

(2) The Accountable Manager should have:

- (i) an appropriate level of authority within the aerodrome operator's organization to ensure that activities are financed and carried out to the standard required.
- (ii) knowledge and understanding of the documents that prescribe relevant aerodrome safety standards.
- (iii) understanding of the requirements for competence of aerodrome management personnel, so as to ensure that competent persons are in place.
- (iv) knowledge and understanding of safety, quality, and security management
- (v) systems related principles and practices, and how these are applied within the organisation.
- (vi) knowledge of the role of the accountable manager; and knowledge and understanding of the key issues of risk management within the aerodrome.

(b) Accountable Manager – Delegation of responsibilities:

- (1) The technical knowledge and understanding expected by an accountable manager is high level, with particular reference to his/her own role in ensuring that standards are maintained.
- (2) During periods of absence, the day-to-day responsibilities of the accountable manager may be delegated; however, the accountability ultimately remains with the accountable manager.
- (3) Depending on the size and the complexity of operations, the accountable manager may delegate his/her responsibilities in the area of training, by nominating a training manager whose responsibilities should be the establishment, coordination, implementation of training programmes, and relevant record keeping of personnel training, as well as of the proficiency check programmes.

In any case, the accountability, ultimately, remains with the accountable manager.

### **GM1 ASC139-8.B.015 (a) Personnel Requirements**

#### **ACCOUNTABLE MANAGER**

Depending on the size, structure and complexity of the organization, the accountable manager may be:

- (a) the chief executive officer (CEO).
- (b) the chief operating officer (COO).
- (c) the chairperson of the board of directors, partners; or
- (d) the proprietor.

The appointment of an accountable manager who is given the required authorities and responsibilities, requires that the individual has the necessary attributes to fulfil the role. The accountable manager may have more than one function in the organisation. Nonetheless, the accountable manager's role is to instil safety as a core organisational value, and to ensure that the safety management system is properly implemented and maintained through the allocation of resources and tasks.

### **AMC1 ASC139-8.B.015 (b) Personnel Requirements**

#### **NOMINATED PERSONS**

##### (a) General

- (1) A description of the functions of the nominated persons, including their names, as well as clearly defined responsibilities and authorisations, should be contained in the aerodrome manual. Nominated persons should have adequate resources available to perform their duties.
- (2) The aerodrome operator should make arrangements to ensure adequate continuity of supervision in the absence of nominated persons.
- (3) The person nominated by the aerodrome operator should not be nominated by another aerodrome operator, unless agreed with the CAA.
- (4) Persons nominated should be foreseen to work sufficient hours to fulfil the management functions associated with the scale and complexity of the operation.
- (5) A nominated person may hold more than one of the nominated posts if such an arrangement is considered suitable and properly matched to the aerodrome operator's organisation, and the complexity of its operations.

##### (b) Competence of nominated persons:

The manager of Operational Services and the Maintenance manager should have:

- (1) adequate practical experience and expertise in aerodrome operations or maintenance (or similar area) respectively.
- (2) comprehensive knowledge of the applicable requirements in the area of aerodromes.
- (3) appropriate level of knowledge of safety and quality management; and
- (4) knowledge of the aerodrome manual.

### **GM1 ASC139-8.B.015 (b) Personnel Requirements**

#### **COMBINATION OF NOMINATED PERSONS RESPONSIBILITIES**

- (a) The acceptability of a single person holding more than one post, possibly in combination with being the accountable manager, should depend upon the aerodrome operator's organisation, and the complexity of its operations. The two main areas of concern should be competence, and an individual's capacity to meet his/her responsibilities.
- (b) As regards 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 complexity of the aerodrome operator's organisation, or of its operation may prevent, or limit, combinations of posts.

### **AMC1 ASC139-8.B.015(c) Personnel Requirements**

#### **SAFETY MANAGER**

- (a) The safety manager should be the focal point and responsible for the development, administration, and maintenance of an effective safety management system.
- (b) The role of the safety manager should be to:
  - (1) facilitate hazard identification, risk analysis, and management.
  - (2) monitor the implementation and functioning of the safety management system, including the necessary safety actions.
  - (3) manage the safety reporting system of the aerodrome.
  - (4) provide periodic reports on safety performance.
  - (5) ensure maintenance of safety management documentation.
  - (6) ensure that there is safety management training available, and that it meets acceptable standards.

- (7) provide advice on safety matters; and
  - (8) initiate and participate in internal occurrence/accident investigations.
- (c) The Safety Manger should have:
- (1) adequate practical experience and expertise in aerodrome operations, or aerodrome maintenance, or similar area.
  - (2) adequate knowledge of safety and quality management.
  - (3) adequate knowledge of the aerodrome manual; and
  - (4) comprehensive knowledge of the applicable requirements in the area of aerodromes.
- (d) The safety manager should not be one of the persons referred to in ASC139-8.B.015(b). However, in the case of less complex aerodrome organisations/operations, the safety manager may be the accountable manager, or one of the persons referred to in ASC139-8.B.015(b), or any other person at appropriate management level, provided that he/she can act independently of other managers within the organisation of the aerodrome operator, and has direct access to the accountable manager and to appropriate management for safety matters.

#### **AMC1 ASC139-8.B.015(d) Personnel requirements**

#### **DETERMINATION OF PERSONNEL NEEDS AND QUALIFICATIONS**

- (a) The aerodrome operator should determine the required personnel for the planned tasks.
- (b) The aerodrome operator should determine the required personnel qualifications, in accordance with the applicable requirements and include them in the aerodrome manual. A documented system with defined responsibilities should be in place, in order to identify any needs for changes with regard to personnel qualifications.

#### **GM1 ASC139-8.B.015(d) Personnel requirements**

#### **QUALIFICATION OF PERSONNEL**

The term 'qualified' denotes fitness for the purpose. This may be achieved through fulfilment of the necessary conditions such as completion of required training, or acquisition of a diploma or degree, or through the gaining of suitable experience. It, also, includes the ability, capacity, knowledge, or skill that matches or suits an occasion, or makes someone eligible for a duty, office, position, privilege, or status.

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 occupying such a post is expected to possess the necessary qualifications at an acceptable level.

**AMC1 ASC139-8.B.015(d);(e) Personnel requirements**

**DISTRIBUTION OF RULES AND PROCEDURES**

The aerodrome operator should have a system in place to distribute the rules and procedures to personnel to exercise their duties and responsibilities.

**GM1 ASC139-8.B.015 (d);(e) Personnel requirements**

**DISTRIBUTION MEANS OF RULES AND PROCEDURES**

The aerodrome operator may use electronic means, or conventional means to distribute rules and procedures to personnel. The method used should verify that the information reached the intended recipient.

## **Subpart C- Training and proficiency check programmes**

### **ASC139-8.C.017 Training and proficiency check programmess**

- (a) The aerodrome operator shall establish and implement a training programme for personnel involved in the operation, maintenance and management of the aerodrome, to ensure their continued competence, and that they are aware of the rules and procedures relevant to operation of the aerodrome and the relationship of their functions and tasks to the aerodrome operation as a whole.
- (b) The training referred to in point (a) shall:
- (1) include initial, recurrent, refresher and continuation training.
  - (2) be appropriate to the functions and tasks for the personnel.
  - (3) include the applicable operational procedures and requirements of the aerodrome, as well as driving.
- (c) The aerodrome operator shall ensure that any other personnel, including personnel of other organisations that operate or provide services at the aerodrome, allowed unescorted access to the movement area and other operational areas of the aerodrome, is adequately trained and qualified for such unescorted access.
- (d) The training referred to in point (c) shall:
- (1) include initial, recurrent, refresher and continuation training.
  - (2) include the applicable operational procedures and requirements of the aerodrome, as well as driving.
- (e) The aerodrome operator shall ensure that personnel referred to in points (a) and (c) have successfully completed the necessary initial training prior to being allowed:
- (1) to perform their duties unattended.
  - (2) unescorted access to the movement area and other operational areas of the aerodrome.
- The initial training shall include theoretical and practical training of adequate duration and competence assessments of the personnel following the provision of the training.
- (f) In order to continue to perform their duties unattended and being allowed unescorted access to the movement area and other operational areas of the aerodrome and the aerodrome operator shall ensure that personnel referred to in points (a) and (c) have been trained on the rules and procedures relevant to operation of the aerodrome by successfully completing:
- (1) recurrent training, at intervals not exceeding 36 months since the completion of their initial training. If the recurrent training is undertaken within the last 3 calendar months of the

interval, the new interval period shall be counted from the expiry date of the original interval.

- (2) refresher training, prior to performing their duties unattended or being allowed unescorted access to the movement area or other operational area of the aerodrome, when they are absent from their duties for a period not less than 3 and not more than 12 consecutive months. In case of absence beyond 12 consecutive months, such personnel shall undergo initial training in accordance with point (c).
  - (3) continuation training due to changes to their operating environment or assigned tasks, as necessary.
- (g) The aerodrome operator shall establish and implement a proficiency check programme for personnel referred to in point (a), and ensure for personnel referred to in point (c) that they have demonstrated their capabilities in the performance of their tasks, in accordance with a proficiency check programme, in order to ensure:
- (1) their continued competence.
  - (2) that they are aware of the rules and procedures relevant to their functions and tasks.
- The aerodrome operator shall ensure that persons referred to in points (a) and (c) undergo proficiency checks at intervals not exceeding 36 months since the completion of their initial training.
- (h) The aerodrome operator shall ensure that:
- (1) adequately qualified and experienced instructors for the provision of training and assessors for the assessments and the proficiency checks are used.
  - (2) suitable facilities, means and equipment are used for the provision of the training and, where applicable, for the conduct of the proficiency checks.
- (i) The aerodrome operator shall establish and implement procedures for the implementation of the training and proficiency check programmes and shall:
- (1) maintain appropriate qualification, training and proficiency check records to demonstrate compliance with this requirement.
  - (2) upon request, make such records available to its personnel concerned.
  - (3) If a person is employed by another employer, upon request, make such records of that person available to that new employer.

## **ASC139-8.C.017(a);(b) Training and proficiency check programmes**

### **TRAINING OF AERODROME PERSONNEL — GENERAL**

- (a) The training programme should cover all personnel:
- (1) involved in the operation, maintenance, and management of the aerodrome (supervisors, managers, senior managers, and the accountable manager); and
  - (2) operating unescorted on the movement area, and other operational areas of the aerodrome, and which are related to the aerodrome operator regardless of their level in the organization.
- (b) The training programme should include safety management system training whose level of detail should be appropriate to the individual's responsibility and involvement in the safety management system and should also include human and organisational factors.
- (c) The training programme should consist of the following:
- (1) a process to identify training standards, including:
    - (i) syllabi, duration, and frequency for each type of training and area of activity for the persons mentioned in point (a), including for the instructors and assessors.
    - (ii) method(s) for delivery of training and competency assessment; minimum performance to be achieved by trainees; and
    - (iii) track completion of required training.
  - (2) a validation process that measures the effectiveness of training.
  - (3) initial job-specific training.
  - (4) practical training.
  - (5) recurrent training.
  - (6) fresher training; and
  - (7) continuation training.
- (d) The training program should identify training responsibilities and contain procedures:
- (1) for training and competency assessment of the trainees.
  - (2) to be applied in the event that personnel do not achieve or maintain the required standards.
- (e) A training file should be developed for each employee, including management, and a system should be in place to assist in identifying and tracking employee training requirements, and verifying that personnel have received the required/planned training.

- (f) Information related to points (c) and (d), including the identified training standards and the related syllabi and frequency, should be included in the aerodrome manual.

**Appendix A** provides a sample of Competency Matrices related to nine aerodrome operational functional areas.

### **AMC1 ASC139-8.C.017(c);(d) Training and proficiency check programmes**

#### **TRAINING OF PERSONNEL OF OTHER ORGANISATIONS — GENERAL**

With regard to the training of the personnel employed by other organisations which operate or provide services at the aerodrome, and which are allowed unescorted access to the movement area or other operational areas of the aerodrome, the provisions of AMC1 ASC139-8.C.017 (a);(b) apply, except that the safety management system training may cover only the necessary elements (e.g. relevant procedures, safety reporting system, aerodrome safety programmes, etc.).

### **GM1 ASC139-8.C.017(a); (b); (c); (d) Training and proficiency check programmes**

#### **TRAINING — GENERAL**

(a) Aerodrome operator's personnel

- (1) The purpose of the training program is to ensure the initial and continued competence of the aerodrome operator's personnel to perform their duties, irrespective of their level in the organization of the aerodrome. This is to be achieved by ensuring that each person receives initial, recurrent, and if necessary, refresher training (as a result of absence from duties), and other ad hoc training (e.g. due to the planned/implemented change to the aerodrome system, etc.), which is relevant to his or her function and tasks.

One method to achieve this is by identifying the tasks of the employees and ensuring that each one of them receives the training that corresponds to such tasks.

For example, an employee whose tasks involve driving would need to undergo the relevant driving training (depending on the area of the aerodrome that he or she will operate in the course of his or her duties). Moreover, if the duties of that person involve also conducting inspections of the movement area, then the training plan for that employee would also need to include relevant training for that area.

Moreover, apart from this specific type of training, one would also consider the need for all personnel to undergo safety management system training relevant to their duties.

- (2) As part of the process of the development of the training program, there are also other issues that need to be considered, such as:

- (i) the content and duration of the courses.
- (ii) the minimum performance required by the trainees.
- (iii) the method to be used for the delivery of the training.
- (iv) the way the competency assessments of the trainees will be performed; and
- (v) the development of the relevant procedures to ensure that the training program achieves its objectives and covers circumstances that may occur (e.g. the case where an employee fails to achieve the required competency level).

Consideration needs to be given to the fact that the relevant procedures would also need to address the organization and implementation of the recurrent, refresher and continuation training.

(b) Personnel of other organisations operating or providing services at the aerodrome

- (1) At the aerodrome environment, there may be also other organizations that operate or provide their services to other organizations or the aerodrome operator. Given that such activities may have an effect on safety and affect aerodrome operations, it is necessary to ensure that the personnel of these organizations that are allowed unescorted access to the movement area and other operational areas of the aerodrome, are trained in the applicable aerodrome's operational procedures and requirements, so that they are enabled to safely operate within the aerodrome environment (e.g. the apron, and sometimes on the maneuvering area), sharing a common understanding about safety management.

To achieve this, the aerodrome operator needs to identify which are the applicable operational procedures and requirements for the relevant training of this type of personnel.

For instance, if an employee of another organization needs to drive and work on the apron or on the maneuvering area, then he or she would need to undergo the relevant training prior to being allowed to do so. This would involve the relevant driving training. On the other hand, the same person would be subject to certain aerodrome operational procedures and requirements which apply on this area, and so he or she would need to also receive training on these procedures and requirements (e.g. as part of the FOD control Programme). Moreover, there is also an additional need for this employee to receive a safety management system training relevant to their duties, e.g. how to file an occurrence report, etc.

- (2) As part of this process, the aerodrome operator would need to make considerations similar to the ones referred to in (a)(2) above, in order to ensure the continued competence and awareness of such personnel in the required fields.
- (3) In this way, the aerodrome operator is expected to be able to safely manage the interfaces it

has with the other organisations present at the aerodrome. However, in order to ensure the successful implementation of this training, the aerodrome operator would need to cooperate and have relevant arrangements with the organisations whose employees need to complete this training. Depending on the situation and the solutions chosen in each case, the content of the arrangements may vary and cover different areas, such as the exchange of relevant information regarding absence of personnel for the organization of a refresher training, the use of instructors or assessors proposed by these organizations for the implementation of the relevant part of the training programme, etc.

(4) It is to be noted that the training related to the performance of the actual duties of this type of personnel (e.g. how to use its own organisation's equipment, or the internal procedures of that organisation, etc.) falls outside of the scope of this part of the training required under ASC139-8.C.017 .

(c) Understanding of the aerodrome system as a whole. It is important that the training provides all trainees with an understanding of the interdependencies between the various functions and actors at the aerodrome environment, and how their work is related to the functions and work of other personnel and organisations, so that they acquire a rather 'global' (as opposed to an 'isolated') perspective.

### **AMC1 ASC139-8.C.017(e) Training and proficiency check programmes**

#### INITIAL TRAINING

(a) Theoretical training

(1) A suitable method (or suitable methods) for the delivery of each part of the required training should be identified and specified in the training program.

(2) The theoretical training should be delivered at appropriate training facilities, and the delivery of the training should be supported by means and equipment which are suitable for the training area covered.

Computer-based training may also be used, where interaction of the trainee(s) with other persons is not necessary and where the training material has been prepared, reviewed and updated by an instructor nominated in accordance with AMC1 ASC139-8.C.017(h). Where provided, such training should consider human factors principles, and, as a minimum, should also cater for the possibility for the trainees to ask questions and receive clarifications, as well as to provide feedback.

(3) After the initial training, the acquired competency should be assessed. The competency assessment should be accomplished by using identified method(s), appropriate to the training element to be assessed. Assessment procedures should be established, addressing,

as a minimum, location(s), identity check and invigilation, and assessment discipline. Computer-based systems may be used for the assessment of the trainees provided that:

- (i) the assessment material is prepared, reviewed and updated by an assessor nominated in accordance with AMC1 ASC139-8.C.017(h); and
- (ii) The assessment is conducted in a controlled facility and environment and in a manner that physically ensures the identity of the trainees during the assessment process.

(4) Training elements that require individual practical participation may be combined with practical assessments.

(b) Practical training

- (1) The practical training should follow the successful completion of the theoretical training and should be provided by an instructor nominated in accordance with AMC1 ASC139-8.C.017(h). The duration of the practical training should be appropriate to the area covered.
- (2) A practical competency assessment should be conducted by an assessor nominated in accordance with AMC1 ASC139-8.C.017(h), following the completion of each practical training provided. Assessment procedures should be established, addressing, as a minimum, location(s), identity check, and assessment discipline.

**AMC2 ASC139-8.C.017 (e) Training and proficiency check programmes**

**INITIAL TRAINING PROCESS — NEW EMPLOYEES**

When an aerodrome operator employs personnel mentioned in point (a) of AMC1 ASC139-8.C.017(a);(b), who have already completed a training Programme with another aerodrome operator, the current employer may, when determining the training needs required for the post to be filled by that employee, decide to credit training subjects on which the individual has already completed relevant training, as they are documented in his or her training records. In any case, no credit may be given for training areas which are specific to that aerodrome.

**GM1 ASC139-8.C.017 (e) Training and proficiency check programmes**

**INITIAL TRAINING METHODS**

- (a) The methods to be used for the delivery of the theoretical training include, but are not limited to, the following:
- (1) lecture.
  - (2) lesson/demonstration.
  - (3) case study.

- (4) exercises, including computer-based practical exercises.
  - (5) facilitation.
  - (6) group work.
  - (7) interactive training; and
  - (8) supervised practices.
- (b) The methods to be used for the competency assessment of the trainees upon completion of the theoretical training could include:
- (1) practical demonstration.
  - (2) computer-based assessment.
  - (3) oral or written assessments.
- or combinations of such methods, as appropriate.

When determining the method(s) to be used for the assessment of the trainees, the advantages and the limitations of each method, as well as the objectives of the training, would need to be taken into account.

For example, the oral assessment may be used to test the understanding of the trainees around certain issues, as well as the requirements governing them, to have a clearer indication that the trainee not only knows what he or she should be doing in a given case, but also why he or she should be doing it. However, the oral assessment requires considerable skills and it should be undertaken in a way that ensures consistency among individual assessors. On the other hand, written assessments may also be used to test the theoretical knowledge and to a lesser degree the understanding of the trainees. Written tests may be easier to administer and to ensure their consistency, particularly when using multiple-choice questions. However, multiple-choice questions may test knowledge, but they may not be appropriate for determining how a person would react in an operational situation. A written assessment may also be computer-based.

### **AMC1 ASC139-8.C.017 (f) Training and proficiency check programmes RECURRENT, REFRESHER AND CONTINUATION TRAINING**

#### (a) Recurrent training

The recurrent training may be only theoretical and should cover the areas addressed in the initial theoretical training provided. The recurrent training should be designed to review, reinforce or enhance the existing knowledge and skills of the trainees, and should also take into account the changes that have taken place in the content of the subjects covered by the initial training.

Upon completion of the recurrent training, an assessment of the trainee should be conducted.

(b) Refresher training

The refresher training may be only theoretical, and shorter than the recurrent training, and its content should take into account the length of the person's absence and the magnitude of the relevant changes that may have taken place during the period of absence of the employee.

Upon completion of the refresher training, an assessment of the trainee should be conducted (for the process of the assessment, see AMC1 ASC139-8.C.017(e)).

(c) Continuation training

Continuation training should be provided in the following cases:

(1) A person is assigned new/different tasks

In the case a person is to be assigned to different/additional tasks, an appropriate theoretical and practical training which covers any differences between his or her previous and future tasks should be completed. This differences training should be determined based on a comparison between the training required for the new tasks, and the training already completed by that person, as documented in his or her training records.

The provision of training should be followed by relevant competency assessment (for the process of the assessment, see [AMC1 ASC139-8.C.017\(e\)](#));

(2) A change is introduced to the operating environment of a person, which is of such nature and/or magnitude that it requires the training of the personnel (e.g. a new system to be used by the personnel concerned).

A method should be established and documented to be used for determining the need (or not) for, as well as the type(s) (theoretical, practical, or both) of, training to be provided following changes. The provision of training should be followed by a relevant competency assessment.

### **AMC1 ASC139-8.C.017 (g) Training and proficiency check programmes**

#### **PROFICIENCY CHECKS**

(a) The purpose of the proficiency check is to establish the ability of an individual to perform satisfactorily, in accordance with applicable requirements and the content of the aerodrome manual as they relate to his or her tasks.

In particular, the proficiency check of the aerodrome operator's personnel should determine the performance of an individual regarding the tasks assigned to him or her. Regarding personnel of other organizations operating or providing services at the aerodrome, the objective of the

proficiency check should be the assessment of the performance of the individual with regard to the applicable operational procedures and requirements of the aerodrome.

2.2 proficiency / Competency checks may be used as an alternative to recurrent training whereby the employer can ensure its personnel demonstrate continued competence in a task and therefore do not require recurrent training.

2.3 proficiency Competency checks 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.

To this end, the elements that each proficiency check should cover should be identified and documented.

A proficiency check does not need to cover all associated elements at the same time; however, all elements of a proficiency check should be covered within the period specified in ASC139-8.C.017 (g).

Depending on the situation, specialty and element checked, and provided that it will not affect the quality and completeness of the proficiency check, a single proficiency check may be used to cover more than one person. The person(s) to be checked should be made aware prior to the proficiency check.

Proficiency checks may be conducted during normal and/or abnormal/emergency conditions depending on the situation and the specialty of the person being checked.

(b) The proficiency check programme should:

- (1) include a process to identify the frequency of proficiency checks, including for the instructors and assessors, and track completion of the required checks;
- (2) identify checking responsibilities and relevant checking methods and procedures;
- (3) include procedures to be applied in the event that personnel do not achieve the required standards; and
- (4) include a validation process that measures the effectiveness of the programme.

(c) Information related to the proficiency check programme should be included in the aerodrome manual.

### **GM1 ASC139-8.C.017 (g) Training and proficiency check programmes**

#### **PROFICIENCY CHECKS**

Proficiency checks may be conducted at shorter intervals following, for example, an occurrence or to ensure that the person is able to apply in practice knowledge acquired due to updated training.

## **AMC1 ASC139-8.C.017(h) Training and proficiency check programmes**

### **INSTRUCTORS — ASSESSORS**

- (a) The aerodrome operator should nominate instructors and assessors to be used for the implementation of the training and proficiency check programmes. The personnel to be nominated may also include contracted instructors or organisations for individual subjects.
- (b) The aerodrome operator may also nominate personnel proposed by organisations operating or providing services at the aerodrome to be used as instructors and assessors for the implementation of the respective part of the training and proficiency check programmes of these organisations' personnel. Irrespective of the solution chosen, the aerodrome operator remains responsible for the proper implementation of the training programme and the proficiency check programme in a consistent manner, and according to the relevant procedures and standards established by the aerodrome operator.

A person may be qualified and nominated both as an instructor and as an assessor by the aerodrome operator. However, such a person may not provide assessment for own instruction, courses, or material.

#### (c) Instructors:

(1) Theoretical instruction should be given by appropriately qualified instructors. They should have:

- (i) appropriate level and depth of knowledge in the field where instruction is to be given;
- (ii) documented ability to use appropriate instructional techniques; and
- (iii) adequate experience in the subject where instruction is to be given.

(2) Instruction on practical skills should be given by appropriately qualified instructors who:

- (i) meet the theoretical knowledge, and the working experience requirements appropriate to the instruction being given;
- (ii) have demonstrated the ability to instruct, and to use appropriate instructional techniques;
- (iii) are proficient in instructional techniques in the areas in which it is intended to provide instruction; and
- (iv) receive relevant training, in accordance with the training programme, to ensure that the instructional competencies are maintained.

#### (d) Assessors:

The persons who are responsible for assessing the competence and skills of the personnel should:

- (1) have demonstrated the ability to assess the performance of, and conduct tests and checks in the areas covered by the training;
- (2) receive relevant training, in accordance with the training programme, to ensure that the assessment standards are maintained up to date; and
- (3) meet the theoretical knowledge requirements appropriate to the instruction being given and have adequate working experience in the area of instruction.

**AMC1 ASC139-8.C.017(i) Training and proficiency check programmes**  
**PERSONNEL RECORDS**

- (a) The aerodrome operator should use its record keeping system to record the following information for each person:
- (1) starting date of employment/ending date of employment (if applicable);
  - (2) area of activity;
  - (3) previous working experience;
  - (4) qualifications;
  - (5) training (before entry and subsequent); and
  - (6) proficiency checks, including language proficiency as appropriate;
- (b) Latest changes should be reflected into personnel records.

**AMC2 ASC139-8.C.017(i) Training and proficiency check programmes**  
**TRAINING RECORDS**

- (a) Training programme — general:

The records of the training sessions provided, should include as a minimum the following:

- (1) type of training, area of training and subjects covered;
- (2) names of participants/signed list of participants;
- (3) date and duration of training; and
- (4) names of the instructor and assessor.

- (b) Training records of individuals:

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

- (1) the name of the trainee;
- (2) the date(s) and the duration of the training;
- (3) the place where the training was received;
- (4) the name of the organisation that provided the training;
- (5) the subjects covered, and the methodology of the course;
- (6) any comments made by the instructor, if applicable;
- (7) the performance assessment of the trainee, as applicable; and
- (8) the name and signature of the instructor.

**AMC3 ASC139-8.C.017(i) Training and proficiency check programmes**  
**PROFFICIENCY CHECK RECORDS**

The proficiency check records maintained for each individual should include as a minimum:

- (a) the name of the person checked;
- (b) the date(s) and the duration of the proficiency check;
- (c) the methodology of the check conducted;
- (d) any comments made by the assessor;
- (e) the performance evaluation of the person checked; and
- (f) the name and signature of the assessor.

## **APPENDIX A - AERODROME OPERATIONS PERSONNEL COMPETENCY REQUIREMENTS**

Following definitions may be used to determine the level of competency of the aerodrome operations personnel in the matrices provided below

- a) Basic - Possess basic fundamental knowledge and general awareness of the subject to comprehend the works and processes involved. Generally, applicable to management levels that oversee the operations.

Basic level of competency maybe achieved attending a relevant course.

- b) Intermediate - Possess technical skills and practical working knowledge of the subject that are required to execute the works competently under supervision. Generally, applicable to operational personnel or project officers who are responsible to perform the duties and are involved in planning/implementation of the system.

Intermediate level of competency maybe achieved attending a relevant course and after having certain periods of practical experiences, as determined by the appropriate authority, on the relevant field or on-the-job trainings.

- c) Advanced - Possess advanced and in-depth knowledge to be able to provide training and expert opinion/advice on the subject. Generally, applicable to specialist who is well versed with the subject with hands-on experiences and specialised trainings.

Advanced level of competency maybe achieved attending a specialized course and after having certain periods of practical experiences, as determined by the appropriate authority, on the relevant field.

**Table A1-0: AOPC Matrix – Accountable Executive**

Aerodrome Operations Personnel	Competency areas (knowledge, skills and attitudes)	Required Competency Level (Basic/ Intermediate/ Advanced)	Training Areas	Required Type of Training (Initial, OJT, Refresher, Recurrent, Specialised)	Requirement of Competency Test
Accountable Executive	National Legislation and regulations/ requirements, including the need for aerodrome certification  References: - ICAO Annexes 14 and 19 - PANS Aerodromes (Doc 9981)	Basic	a) National aerodrome regulations; b) ICAO Annex 14 requirements on aerodrome certification and Annex 19 requirements on SMS	Initial training Recurrent training (when significant amendment/ changes applied)	No
	Aerodrome operations and safety management system	Basic	Aerodrome/SMS manuals	Initial training	No

**Table A1-1: AOPC Matrix - Runway Surface Conditions Assessment and Reporting**

Aerodrome Operations Personnel	Competency areas (knowledge, skills and attitudes)	Required Competency Level (Basic/ Intermediate/ Advanced)	Training Areas	Required Type of Training (Initial, OJT, Refresher, Recurrent, Specialised)	Requirement of Competency Test
Head of Aerodrome Operation	National Legislation and regulations / requirements, including aerodrome certification process	Basic	National aerodrome regulations	Initial training Recurrent training (when significant amendment/ changes applied)	No
	Aerodrome operations and safety management system	Basic	a) Relevant parts of aerodrome/SMS manuals b) Airside Safety and Operations	Initial training Recurrent training	No
	Aerodrome layout	Intermediate	Aerodrome layout  (Based on aerodrome layout drawing and onsite orientation)	Initial training Recurrent training Refresher training as required	No

	<p>Job related requirements:                  National and international requirements and best practices on:</p> <ul style="list-style-type: none"> <li>a) Runway pavement characteristics with different types of distress on runway pavement</li> <li>b) Runway friction evaluation and assessment</li> <li>c) Runway surface conditions assessment</li> </ul> <p>References:</p> <ul style="list-style-type: none"> <li>- ICAO Annexes 14 and 19</li> <li>- PANS Aerodromes (Doc 9981)</li> <li>- Airport Services Manual (Doc 9137), Part 2 –                         <ul style="list-style-type: none"> <li>o Pavement Surface condition.</li> </ul> </li> </ul>	<p>Basic</p>	<p>Runway Condition Reporting</p>	<p>Initial training                  Recurrent training                  Refresher training                  as required</p>	<p>No</p>
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	<ul style="list-style-type: none"> <li>- Aerodrome Design Manual (Doc 9157), Part 3 Pavements</li> <li>- Safety Management Manual (Doc 9859)</li> <li>- ACI Runway Safety Handbook</li> <li>- ACI Apron Safety Handbook</li> </ul>				
Managers/ Supervisors	<ul style="list-style-type: none"> <li>a) National Legislation and regulations / requirements, including aerodrome certification process</li> <li>b) NOTAM/SNOWTAM and AIP</li> </ul>	Basic	<ul style="list-style-type: none"> <li>a) National aerodrome regulations;</li> <li>b) NOTAM/SNOWTAM and AIP</li> </ul>	Initial training Recurrent training Refresher training as required Specialized training	Yes
	<u>Aerodrome operations and Safety management system, covering:</u> <ul style="list-style-type: none"> <li>a) Identification of safety Hazards</li> <li>b) Risk assessment and Mitigation</li> <li>c) Accident/Incident Investigation</li> <li>d) Safety/Audits Inspections</li> </ul>	Intermediate	Relevant parts of aerodrome/SMS manuals	Initial training Recurrent training Refresher training as required	Yes
	Aerodrome layout	Intermediate	Aerodrome layout  (Based on aerodrome layout drawing and onsite orientation)	Initial training Recurrent training Refresher training as required	Yes

	<p><u>Job related requirements:</u></p> <ul style="list-style-type: none"> <li>a) Pavement characteristics</li> <li>b) Evaluation of pavements and identification of types of distress</li> <li>c) Correct use of equipment as required for friction testing and other assessments</li> <li>d) Friction assessment, evaluation and reporting methodology</li> <li>e) Procedures for reporting runway surface conditions</li> <li>f) Radiotelephone</li> <li>g) Runway incursion</li> <li>h) FOD management</li> </ul> <p>References:</p> <ul style="list-style-type: none"> <li>□ ICAO Annexes 14 and 19</li> <li>□ PANS Aerodromes (Doc 9981)</li> <li>□ Safety Management Manual (Doc 9859)</li> <li>□ Airport Services Manual (Doc 9137), Part 2 - Pavement Surface condition.</li> <li>□ Aerodrome Design Manual (Doc 9157), Part 3 - Pavements (relevant Chapters only)</li> <li>□ ACI Runway Safety Handbook</li> <li>□ ACI Apron Safety Handbook</li> </ul>	Advanced	<ul style="list-style-type: none"> <li>a) Aerodrome Pavement Maintenance</li> <li>b) Friction measurement training provided by friction testing equipment manufacturer</li> <li>c) Runway Condition Reporting</li> <li>d) Airside Safety and Operations</li> <li>e) Runway Incursion Awareness and Prevention</li> <li>f) Radiotelephone phraseology</li> </ul>	<p>Initial training Recurrent training Refresher training if required Specialized training as required</p>	Yes
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Officers/ Technicians	a) National Legislation and regulations / requirements including aerodrome compliance to regulations (applicable parts/chapters only) b) NOTAM/SNOWTAM and AIP	Basic	a) National aerodrome regulations b) NOTAM/SNOWTAM and AIP	Initial training Recurrent training Refresher training if required	Yes
	<u>Aerodrome operations (applicable parts/chapters) and safety management system, covering:</u> a) Identification of safety Hazards b) Safety reporting – mandatory, voluntary and confidential reports on hazard and risk management	Intermediate	Relevant parts of aerodrome/SMS manuals	Initial training + OJT Recurrent training Refresher training as required	Yes
	Aerodrome layout	Intermediate	Aerodrome layout  (Based on aerodrome layout drawing and onsite orientation)	Initial training + OJT Recurrent training Refresher training as required	Yes

	<p><u>Job related requirements:</u></p> <ul style="list-style-type: none"> <li>a) Pavement characteristics</li> <li>b) Evaluation of pavements and identification of types of distress</li> <li>c) Correct use of equipment as required for friction testing</li> <li>d) Friction assessment, evaluation and reporting methodology</li> <li>e) Procedures for reporting runway surface conditions</li> <li>f) Radiotelephone</li> <li>g) Runway incursion</li> <li>h) FOD management</li> </ul> <p>References:</p> <ul style="list-style-type: none"> <li>- Annex 14 (applicable chapters only)</li> <li>- PANS-Aerodromes (Doc 9981) (applicable <ul style="list-style-type: none"> <li>o parts/chapters only)</li> </ul> </li> <li>- Airport Services Manual (Doc 9137), Part 2</li> </ul> <p>- Pavement Surface condition</p>	Intermediate	<ul style="list-style-type: none"> <li>a) Aerodrome Pavement Maintenance</li> <li>b) Friction measurement training provided by friction testing equipment manufacturer</li> <li>c) Runway Condition Reporting</li> <li>d) Airside Safety and Operations</li> <li>e) Runway Incursion Awareness and Prevention</li> <li>f) Radiotelephone phraseology</li> </ul>	Initial training + OJT Recurrent training Refresher training as required	Yes
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**Table A1-2: AOPC Matrix - Aerodrome Movement Area Maintenance**

Aerodrome Operations Personnel	Competency areas (knowledge, skills and attitudes)	Required Competency Level (Basic/ Intermediate/ Advanced)	Training Areas	Required Type of Training (Initial, OJT, Refresher, Recurrent, Specialised)	Requirement of Competency Check
Head of Aerodrome Maintenance (Technical Services)	National Legislation and regulations / requirements, including aerodrome certification process	Basic	National aerodrome regulations	Initial training Recurrent training (when significant amendment/changes applied)	No
	Aerodrome operations and safety management system	Basic	Relevant parts of aerodrome/SMS manuals	Initial training Recurrent training	No
	Aerodrome layout	Intermediate	Aerodrome layout  (Based on aerodrome layout drawing and onsite orientation)	Initial training Recurrent training Refresher training as required	No

	<p><u>Job related requirements:</u> National and International requirements and best practices on:</p> <ul style="list-style-type: none"> <li>a) Aerodrome pavement management system</li> <li>b) Runway surface conditions assessment</li> <li>c) Obstacle limitation Surfaces d) Maintenance Management</li> <li>e) Aerodrome visual aids</li> </ul> <p>References:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> ICAO Annexes 14 and 19</li> <li><input type="checkbox"/> PANS Aerodromes (Doc 9981)</li> <li><input type="checkbox"/> ACI Aerodrome maintenance</li> <li><input type="checkbox"/> Airport Services Manual (Doc 9137), Part 2 – Pavements</li> </ul>	Basic	Understanding Annex 14 and PANS- Aerodromes	Initial training Recurrent training Refresher training as required	No
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	<ul style="list-style-type: none"> <li>☐ Safety Management Manual (Doc 9859)</li> <li>☐ ACI Runway Safety Handbook</li> <li>☐ ACI Apron Safety Handbook</li> </ul>				
Managers/ Supervisors	<ul style="list-style-type: none"> <li>a) National Legislation and regulations / requirements, including aerodrome certification process</li> <li>b) NOTAM and AIP</li> </ul>	Basic	<ul style="list-style-type: none"> <li>a) National aerodrome regulations;</li> <li>b) NOTAM and AIP</li> </ul>	Initial training Recurrent training Refresher training as required Specialized training	Yes
	<p><u>Aerodrome operations and Safety management system covering:</u></p> <ul style="list-style-type: none"> <li>a) Identification of safety Hazards</li> <li>b) Risk assessment and Mitigation</li> <li>c) Accident/incident investigation</li> <li>d) Safety/Audits Inspections</li> <li>a) Occupational health and safety</li> </ul>	Intermediate	Relevant parts of Aerodrome/SMS manuals	Initial training Recurrent training Refresher training as required	Yes
	Aerodrome layout	Intermediate	Aerodrome layout  (Based on aerodrome layout drawing and onsite orientation)	Initial training Recurrent training Refresher training as required	Yes

<p><u>Job related requirements:</u></p> <ul style="list-style-type: none"> <li>a) Developing SOP</li> <li>b) Preventive maintenance of visual aids and paved and non-paved movement areas</li> <li>c) Runway Incursion</li> <li>d) Radiotelephone</li> <li>e) Maintenance Management</li> <li>f) Removal of runway contaminants (e.g. snow, slush, ice, rubber, fuel etc.)</li> <li>g) Providing maintenance Trainings</li> <li>h) FOD management</li> </ul> <p>References:</p>	<p>Advanced</p>	<ul style="list-style-type: none"> <li>a) Understanding Annex 14 and PANS-Aerodromes</li> <li>b) Aerodrome Pavement Maintenance</li> <li>c) Airfield Lighting including PAPI/VASIS Maintenance</li> <li>d) Maintenance of Markings, Signs and markers</li> </ul>	<p>Initial training Recurrent training Refresher training as required Specialized training as required</p>	<p>Yes</p>
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	<ul style="list-style-type: none"> <li>- ICAO Annexes 14 and 19</li> <li>- PANS Aerodromes (Doc 9981)</li> <li>- Airport Services Manual (Doc 9137), Part 2 Pavement Surface condition.</li> <li>- Airport Services Manual (Doc 9137), Part 6 Control of Obstacles</li> <li>- Airport Services Manual (Doc 9137), Part 8 Airport Operational Services</li> <li>- Airport Services Manual (Doc 9137), Part 9 Maintenance practices</li> <li>- Airport Services Manual (Doc 9137), Part 5 Electrical Systems</li> <li>- Safety Management Manual (Doc 9859)</li> <li>- ACI Runway Safety Handbook</li> <li>- ACI Apron Safety Handbook</li> </ul>		<ul style="list-style-type: none"> <li>e) Removal of Contaminants from Aerodrome Pavements</li> <li>f) Runway Incursion Awareness and Prevention</li> <li>g) Radiotelephone phraseology</li> <li>h) Maintenance of Unpaved Surfaces</li> </ul>		
Officers / Technicians (Carrying out day-to day Aerodrome Movement Area Maintenance )	<ul style="list-style-type: none"> <li>a) National Legislation and regulations / requirements, including aerodrome compliance to regulations (applicable parts only)</li> <li>b) NOTAM and AIP</li> </ul>	Basic	<ul style="list-style-type: none"> <li>a) National aerodrome regulations;</li> <li>b) NOTAM and AIP</li> </ul>	Initial training Recurrent training Refresher training as required	Yes
	<u>Aerodrome operations and safety management system, covering:</u> <ul style="list-style-type: none"> <li>a) Identification of safety Hazards</li> <li>b) Safety reporting - mandatory, voluntary &amp; confidential</li> </ul>	Intermediate	Relevant parts of aerodrome and SMS manuals	Initial training + OJT	Yes
	Aerodrome layout	Intermediate	Aerodrome layout  (Based on aerodrome layout drawing and onsite orientation)	Initial training + OJT Recurrent training Refresher training as required	Yes

	<p><u>Job related requirements:</u></p> <p>a) Pavement characteristics b) Method and technology for pavements maintenance c) Maintenance of the paved and unpaved areas including storm-water drainage systems d) Maintenance of aerodrome visual aids e) Foreign Object debris (FOD) management f) Protection of navigational aids</p> <p>References:</p> <ul style="list-style-type: none"> <li>□ Relevant parts of Annex 14</li> <li>□ PANS-Aerodromes (Doc 9981) (applicable parts/chapters only)</li> <li>□ Airport Services Manual (Doc 9137), Part 2 - Pavement Surface condition.</li> <li>□ Airport Services Manual (Doc 9137), Part 6 - Control of Obstacles</li> <li>□ Airport Services Manual (Doc 9137), Part 8 - Airport Operational Services</li> <li>□ Airport Services Manual (Doc 9137), Part 9 - Maintenance practices</li> <li>□ Airport Services Manual (Doc 9137), Part 2 - Pavements</li> <li>□ Airport Services Manual (Doc 9137), Part 5 - Electrical Systems</li> <li>□ Safety Management Manual (Doc 9859)</li> <li>□ ACI Runway Safety Handbook</li> <li>□ ACI Apron Safety Handbook</li> </ul>	Intermediate	<p>a) Understanding Annex 14 and PANS-Aerodromes b) Airside Safety and Operations c) Aerodrome Pavement Maintenance d) Airfield Lighting Maintenance e) Maintenance of Markings, Signs and markers f) Removal of Contaminants from Aerodrome Pavements g) Runway Incursion Awareness and Prevention h) FOD Training i) Maintenance of Unpaved Surfaces j) Radiotelephone phraseology</p>	Initial training + OJT Recurrent training Refresher training as required	Yes
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*Note: - Managers/supervisors and Officers / Technicians carrying out day-to day aerodrome movement area maintenance may be from Civil Engineering or Electrical Engineering background depending on the field of the maintenance.*

**Table A1-3: AOPC Matrix - Inspection of Movement Area**

Aerodrome Operations Personnel	Competency areas (knowledge, skills and attitudes)	Required Competency Level (Basic/ Intermediate/ Advanced)	Training Areas	Required Type of Training (Initial, OJT, Refresher, Recurrent, Specialised)	Requirement of Competency Check
Head of Aerodrome Operation	National Legislation and regulations / requirements, including aerodrome certification process	Basic	National aerodrome regulations	Initial training Recurrent training (when significant amendment/changes applied)	No
	Aerodrome operations and safety management system	Basic	Relevant parts of aerodrome/SMS manuals	Initial training Recurrent training	No
	Aerodrome layout	Intermediate	Aerodrome layout  (Based on aerodrome layout drawing and onsite orientation)	Initial training Recurrent training Refresher training as required	No

	<p><u>Job related requirements:</u> National and international requirements and best practices on:</p> <ul style="list-style-type: none"> <li>a) Wildlife Hazard Management</li> <li>b) Obstacle limitation Surfaces</li> <li>c) Movement area Inspection</li> <li>d) Visual aids</li> <li>e) Low visibility operations, if applicable</li> <li>f) Adverse weather operations</li> <li>g) FOD management</li> </ul> <p>References:</p> <ul style="list-style-type: none"> <li>□ ICAO Annexes 14 and 19</li> <li>□ PANS Aerodromes (Doc 9981)</li> </ul>	<p>Basic</p>	<ul style="list-style-type: none"> <li>a) Aerodrome safeguarding</li> <li>b) Aerodrome Inspection</li> <li>c) Airside safety and operations (which includes Wildlife Hazard Management, Adverse Weather, Low Visibility Operations)</li> </ul>	<p>Initial training Recurrent training Refresher training as required</p>	<p>No</p>
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	<ul style="list-style-type: none"> <li><input type="checkbox"/> Airport Services Manual (Doc 9137), Part 2 - Pavement Surface condition.</li> <li><input type="checkbox"/> Airport Services Manual (Doc 9137), Part 6 - Control of Obstacles</li> <li><input type="checkbox"/> Airport Services Manual (Doc 9137), Part 8 - Airport Operational Services</li> <li><input type="checkbox"/> Airport Services Manual (Doc 9137), Part 3 - Wildlife Control and Reduction</li> <li><input type="checkbox"/> Aerodrome Design Manual (Doc 9157), Part 4 - Visual Aids</li> <li><input type="checkbox"/> Manual of all Weather Operations (Doc 9365)</li> <li><input type="checkbox"/> Safety Management Manual (Doc 9859)</li> <li><input type="checkbox"/> ACI Runway Safety Handbook</li> <li><input type="checkbox"/> ACI Apron Safety Handbook</li> </ul>				
Managers/ Supervisors	<u>National and international requirements:</u> a) National Legislation and regulations / requirements, including aerodrome certification process b) NOTAM and AIP	Basic	a) National aerodrome regulations;  b) NOTAM and AIP	Initial training Recurrent training Refresher training as required	Yes
	<u>Aerodrome operations and Safety management system, covering:</u>  a) Identification of safety Hazards b) Risk assessment and Mitigation c) Accident/Incident Investigation d) Safety/Audits Inspections	Intermediate	Relevant parts of aerodrome/SMS manuals	Initial training Recurrent training Refresher training as required	Yes
	Aerodrome layout	Intermediate	Aerodrome layout  (Based on aerodrome layout drawing and onsite orientation)	Initial training Recurrent training Refresher training as required	Yes

	<p><u>Job related requirements:</u></p> <ul style="list-style-type: none"> <li>a) Developing SOP related to inspection of movement area</li> <li>b) Radiotelephone</li> <li>c) Runway incursion</li> <li>d) Knowledge on Wildlife Hazard Management e) Obstacle limitation Surfaces</li> <li>f) Movement area Inspection</li> <li>g) Visual aids</li> <li>h) Low visibility operations, if applicable i) Adverse weather operations</li> <li>j) Providing Inspection Trainings k) FOD management</li> </ul> <p>References:</p> <ul style="list-style-type: none"> <li>☐ ICAO Annexes 14 and 19</li> <li>☐ PANS Aerodromes (Doc 9981)</li> <li>☐ Safety Management Manual (Doc 9859)</li> <li>☐ Aerodrome Design Manual (Doc 9157), Part 4 – Visual Aids</li> <li>☐ Airport Services Manual (Doc 9137), Part 2 -Pavement Surface Condition.</li> <li>☐ Airport Services Manual (Doc 9137), Part 6 - Control of Obstacles</li> <li>☐ Airport Services Manual (Doc 9137), Part 8 - Airport Operational Services</li> <li>☐ Airport Services Manual (Doc 9137), Part 3 - Wildlife Control and Reduction</li> <li>☐ Manual of all Weather Operations (Doc 9365)</li> <li>☐ ACI Runway Safety Handbook</li> <li>☐ ACI Apron Safety Handbook</li> <li>☐ ACI Wildlife Hazard Management Handbook</li> </ul>	<p>Advanced</p>	<ul style="list-style-type: none"> <li>a) Understanding Annex 14 and PANS-Aerodrome</li> <li>b) Aerodrome Inspection</li> <li>c) Aerodrome safeguarding</li> <li>d) Airside safety and operations (which includes Wildlife Hazard Management, Adverse Weather, Low Visibility Operations)</li> <li>e) Radio telephony phraseology</li> <li>f) Runway incursion awareness and prevention</li> </ul>	<p>Initial training Recurrent training Refresher training as required Specialized training as required</p>	<p>Yes</p>
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Officers/ Technicians (Carrying out day-to day inspection of the movement area)	a) National Legislation and regulations / requirements including aerodrome compliance to regulations (applicable parts/chapters only) b) NOTAM and AIP	Basic	a) National aerodrome regulations; b) NOTAM and AIP	Initial training Recurrent training Refresher training as required	Yes
	<u>Aerodrome operations and safety management system, covering:</u> a) Identification of safety hazards b) Safety reporting – mandatory, voluntary & confidential	Intermediate	Relevant parts of aerodrome/SMS manuals	Initial training + OJT Recurrent training Refresher training as required	Yes
	Aerodrome layout	Intermediate	Aerodrome layout (Based on aerodrome layout drawing and onsite orientation)	Initial training + OJT Recurrent training Refresher training as required	Yes

	<p><u>Job related requirements:</u></p> <ul style="list-style-type: none"> <li>a) Radiotelephone</li> <li>b) Runway incursion</li> <li>c) Wildlife Hazard Management</li> <li>d) Obstacle Control</li> <li>e) Visual aids</li> <li>f) Low visibility operations, if applicable</li> <li>g) Adverse weather operations</li> <li>h) FOD management</li> </ul> <p><u>References:</u></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Annex 14 (applicable parts only)</li> <li><input type="checkbox"/> PANS-Aerodromes (Doc 9981) (applicable parts/chapters only)</li> <li><input type="checkbox"/> Aerodrome Design Manual (Doc 9157), Part 4 – Visual Aids</li> <li><input type="checkbox"/> Airport Services Manual (Doc 9137), Part 6 – Control of Obstacles</li> <li><input type="checkbox"/> Airport Services Manual (Doc 9137), Part 8 – Airport Operational Services</li> <li><input type="checkbox"/> Airport Services Manual (Doc 9137), Part 3 – Wildlife Control and Reduction</li> <li><input type="checkbox"/> Manual of all Weather Operations (Doc 9365)</li> <li><input type="checkbox"/> Safety Management Manual (Doc 9859)</li> <li><input type="checkbox"/> ACI Runway Safety Handbook <ul style="list-style-type: none"> <li><input type="checkbox"/> ACI Apron Safety Handbook</li> </ul> </li> </ul>	Intermediate	<ul style="list-style-type: none"> <li>a) Understanding Annex 14 including PANS Aerodrome</li> <li>b) Aerodrome Inspection</li> <li>c) Aerodrome safeguarding</li> <li>d) Airside safety and operations (which includes Wildlife Hazard Management, Adverse Weather, Low Visibility Operations)</li> <li>e) Radio telephony phraseology</li> <li>f) Runway incursion awareness and prevention</li> <li>g) Adverse weather and low visibility operations (if applicable)</li> </ul>	Initial training + OJT Recurrent training Refresher training as required	Yes
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**Table A1-4: AOPC Matrix - Works in progress on the airside**

Aerodrome Operations Personnel	Competency areas (knowledge, skills and attitudes)	Required Competency Level (Basic/ Intermediate/ Advanced)	Training Areas	Required Type of Training (Initial, OJT, Refresher, Recurrent, Specialised)	Requirement of Competency Check
Head of Aerodrome Maintenance (Technical Services)	National Legislation and regulations / requirements, including aerodrome certification process	Basic	National aerodrome regulations	Initial training Recurrent training (when significant amendment/changes applied)	No
	Aerodrome operations and safety management system	Basic	Relevant parts of aerodrome/SMS manuals	Initial training Recurrent training	No
	Aerodrome layout	Intermediate	Aerodrome layout  (Based on aerodrome layout drawing and onsite orientation)	Initial training Recurrent training Refresher training as required	No
	<u>job related requirements:</u> National and International requirements and best practices on:  a) Compliance with aerodrome works safety plan and procedures including OLS b) Aerodrome emergency plan c) Development of training program to mitigate potential safety hazards caused by works in progress d) Works authorization procedure e) Promoting safety awareness f) Accidents and incidents Investigation g) Hazards Identification and Risk management	Basic	a) Understanding Annex 14 and PANS-Aerodromes b) Aerodrome Safety Management System c) Accident/incident investigation d) Runway incursion Awareness and Prevention e) Aerodrome Inspection f) Managing Works in Progress	Initial training Recurrent training Refresher training as required	No

Managers/ Supervisors	a) National Legislation and regulations / requirements, including aerodrome certification process b) NOTAM and AIP	Basic	a) National aerodrome regulations; b) NOTAM and AIP	Initial training Recurrent training Refresher training as required	Yes
	<u>Aerodrome operations and safety management system, covering:</u> a) Identification of safety Hazards b) Risk assessment and Mitigation c) Accident/incident investigation d) Safety/Audits Inspections	Intermediate	Relevant parts of aerodrome and SMS manuals	Initial training Recurrent training Refresher training as required	Yes
	Aerodrome layout	Intermediate	Aerodrome layout  (Based on aerodrome layout drawing and onsite orientation)	Initial training Recurrent training Refresher training as required	Yes

	<p><u>Job related requirements:</u></p> <p>a) Develop work safety plan and work control procedures</p> <p>b) Aerodrome emergency plan</p> <p>c) Provide work safety training</p> <p>d) Promote work safety awareness</p> <p>e) Evaluate and control of contractor</p> <p>f) Prepare inspection checklist</p> <p>g) Perform safety inspection</p> <p>h) Reduced runway length operations</p> <p>i) FOD management</p> <p>References:</p> <ul style="list-style-type: none"> <li>□ ICAO Annexes 14 and 19</li> <li>□ PANS-Aerodromes (Doc 9981)</li> <li>□ Safety Management Manual (Doc 9859)</li> <li>□ ACI Managing Operations During Construction Handbook</li> <li>□ CAA Advisory Circular (relevant parts only)</li> </ul>	Advanced	<p>a) Understanding Annex 14 and PANS-Aerodromes</p> <p>b) Managing Operations during construction</p> <p>c) Runway incursion Awareness and Prevention which includes FOD control</p> <p>d) Emergency Planning and Response</p> <p>e) Airside operation and safety</p> <p>f) Aerodrome Safety Management System</p>	<p>Initial training</p> <p>Recurrent training</p> <p>Refresher training as required</p> <p>Specialized training as required</p>	Yes
Officers/ Technicians	<p>a) National Legislation and regulations / requirements including aerodrome compliance to regulations (applicable parts/chapters only)</p> <p>b) NOTAM and AIP</p>	Basic	<p>a) National aerodrome regulations;</p> <p>b) NOTAM and AIP</p>	<p>Initial training</p> <p>Recurrent</p> <p>Refresher training as required</p>	Yes
	<p><u>Aerodrome operations and safety management system, covering:</u></p> <p>a) Identification of safety Hazards</p> <p>b) Safety reporting - mandatory, voluntary and confidential</p>	Intermediate	Relevant parts of aerodrome and SMS manuals	<p>Initial training + OJT</p> <p>Recurrent training</p> <p>Refresher training as required</p>	Yes
	Aerodrome layout	Intermediate	<p>Aerodrome layout</p> <p>(Based on aerodrome layout drawing and onsite orientation)</p>	<p>Initial training + OJT</p> <p>Recurrent training</p> <p>Refresher training as required</p>	Yes

	<p><u>Job related requirements:</u></p> <ul style="list-style-type: none"> <li>a) Execute work safety plan and procedures and monitor the height of installations/equipment</li> <li>b) Role in aerodrome emergency plan</li> <li>c) Ensure works in progress in accordance with work plan</li> <li>d) Ensure working area are marked and lit in accordance with work plan</li> <li>e) Ensure access routes in accordance with work plan</li> <li>f) Ensure safety measures implemented in accordance with work plan</li> <li>g) Identify and report hazards</li> <li>h) Perform safety inspection</li> <li>i) FOD management</li> </ul>	<p>Intermediate</p>	<ul style="list-style-type: none"> <li>a) Understanding Annex 14 and PANS-Aerodromes</li> <li>b) Managing Operations during construction</li> <li>c) Runway incursion Awareness and Prevention which includes FOD control</li> <li>d) Emergency Planning and Response</li> <li>e) Airside operation and safety</li> <li>f) Aerodrome Safety Management System</li> </ul>	<p>Initial training + OJT Recurrent training Refresher training as required</p>	<p>Yes</p>
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**Table A1-5: AOPC Matrix – FOD Management**

Aerodrome Operations Personnel	Competency areas (knowledge, skills and attitudes)	Required Competency Level (Basic/ Intermediate/ Advanced)	Training Areas	Required Type of Training (Initial, OJT, Refresher, Recurrent, Specialised)	Requirement of Competency Check
Head of Aerodrome Operation	National Legislation and regulations / requirements, including aerodrome certification process	Basic	National aerodrome regulations	Initial training Recurrent training (when significant amendment/changes applied)	No
	Aerodrome operations and safety management system	Basic	Relevant parts of aerodrome/SMS manuals	Initial training Recurrent training	No
	Aerodrome layout	Intermediate	Aerodrome layout  (Based on aerodrome layout drawing and onsite orientation)	Initial training Recurrent training Refresher training as required	No
	<u>Job related requirements:</u> a) Documentation and Reporting b) Analysis and Evaluation c) FOD Mitigation  References: <input type="checkbox"/> ICAO Annexes 14 and 19 <input type="checkbox"/> PANS-Aerodromes (Doc 9981) <input type="checkbox"/> Relevant parts of Doc 9137 <input type="checkbox"/> CAA Advisory Circular (Guidance materials)	Basic	FOD Management (Refer to PANS-Aerodrome)	Initial training Recurrent training Refresher training as required	No

Managers/ Supervisors	National Legislation and regulations / requirements, including aerodrome certification process	Basic	National aerodrome regulations	Initial training Recurrent training Refresher training as required	Yes
	<u>Aerodrome operations and safety management system covering:</u>  a) Identification of safety Hazards b) Risk assessment and Mitigation c) Accident/incident investigation d) Safety/Audits Inspections	Intermediate	Relevant parts of aerodrome/SMS manuals	Initial training Recurrent training Refresher training as required	Yes
	Aerodrome layout	Intermediate	Aerodrome layout  (Based on aerodrome layout drawing and onsite orientation)	Initial training Recurrent training Refresher training as required	Yes

	<p><u>Job related requirements:</u></p> <ul style="list-style-type: none"> <li>a) FOD management</li> <li>b) FOD occurrence analysis and evaluation</li> <li>c) Airside Driving</li> <li>d) Specific equipment operation</li> <li>e) Radiotelephone</li> <li>f) Aerodrome markings, signs and lights</li> <li>g) Familiar with actions for emergency cases</li> </ul> <p>References:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> ICAO Annexes 14 and 19</li> <li><input type="checkbox"/> PANS-Aerodromes (Doc 9981)</li> <li><input type="checkbox"/> Relevant parts of Doc 9137</li> <li><input type="checkbox"/> CAA Advisory Circular (Guidance materials)</li> </ul>	<p>Advanced</p>	<ul style="list-style-type: none"> <li>a) FOD Management (Refer to PANS-Aerodrome)</li> <li>b) Airside driving (Refer to PANS-Aerodromes)</li> <li>c) Radiotelephone phraseology</li> <li>d) Aerodrome markings, signs and lights</li> <li>e) FOD detection equipment (if applicable, provided by manufacturer)</li> </ul>	<p>Initial training Recurrent training Refresher training as required Specialized training as required</p>	<p>Yes</p>
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Officers/ technicians	National Legislation and regulations / requirements, including aerodrome certification process	Basic	National aerodrome regulations	Initial training Recurrent training Refresher training as required	Yes
	<u>Aerodrome operations and safety management system covering:</u> a) Identification of safety Hazards b) Safety reporting – mandatory, voluntary and confidential c) FOD inspection and reporting	Intermediate	Relevant parts of aerodrome/SMS manuals	Initial training + OJT Recurrent training	Yes
	Aerodrome layout	Intermediate	Aerodrome layout  (Based on aerodrome layout drawing and onsite orientation)	Initial training + OJT Recurrent training Refresher training as required	Yes
	<u>Job Related Requirements</u> a) FOD inspection and reporting b) Airside Driving c) Specific equipment operation d) Radiotelephone e) Aerodrome markings, signs and lights f) Familiar with actions for emergency cases  References: <input type="checkbox"/> ICAO Annexes 14 and 19 <input type="checkbox"/> PANS-Aerodromes (Doc 9981) <input type="checkbox"/> Relevant parts of Doc 9137 <input type="checkbox"/> CAA Advisory Circular (Guidance materials)	Intermediate	a) FOD Management (Refer to PANS-Aerodrome) b) Airside driving (Refer to PANS-Aerodromes) c) Radiotelephone phraseology d) Aerodrome markings, signs and lights e) FOD detection equipment (if applicable, provided by manufacturer)	Initial training + OJT Recurrent training Refresher training as required	Yes

**Table A1-6: AOPC Matrix – Wildlife Hazard Management**

Aerodrome Operations Personnel	Competency areas (knowledge, skills and attitudes)	Required Competency Level (Basic/ Intermediate/ Advanced)	Training Areas	Required Type of Training (Initial, OJT, Refresher, Recurrent, Specialised)	Requirement of Competency Check
Head of Aerodrome Operation	National Legislation and regulations / requirements, including aerodrome certification process	Basic	National aerodrome regulations	Initial training Recurrent training (when significant amendment/changes applied)	No
	Aerodrome operations and safety management system	Basic	Relevant parts of aerodrome/SMS manuals	Initial training Recurrent training	No
	Aerodrome layout	Intermediate	Aerodrome layout  (Based on aerodrome layout drawing and onsite orientation)	Initial training Recurrent training Refresher training as required	Yes
	<p><u>Job related requirements:</u>                      Airport wildlife hazard management programme, focusing:</p> <ul style="list-style-type: none"> <li>□ Role and responsibility of aerodrome wildlife committee;</li> <li>□ Operational practices to control wildlife hazard;</li> <li>□ Staff training requirements.</li> </ul> <p>References:</p> <ul style="list-style-type: none"> <li>□ Annexes 14 and 19</li> <li>□ PANS Aerodromes (Doc 9981)</li> <li>□ Airport Services Manual (Doc 9137), Part 3 -</li> </ul>	Basic	Wildlife Hazard Management (Refer to PANS-Aerodrome)	Initial training Recurrent training	No

Managers/ Supervisors (In charge of wildlife hazard management of the airport)	National Legislation and regulations / requirements, including aerodrome certification process	Basic	National aerodrome regulations	Initial training Recurrent training Refresher training as required	Yes
	<u>Aerodrome operations and safety management system, covering:</u> a) Accident and incident investigation management b) Hazard and risk management including wildlife strike risk assessment and mitigation	Basic	Relevant parts of aerodrome/SMS manuals	Initial training Recurrent training Refresher training as required	Yes
	Aerodrome layout	Intermediate	Aerodrome layout  (Based on aerodrome layout drawing and onsite orientation)	Initial training Recurrent training Refresher training as required	Yes
	<u>Job related requirements:</u> a) Wildlife survey b) Understanding of habitat management - how wildlife is attracted to the environment c) Understanding of wildlife ecology - how wildlife could respond to different control methods d) Documentation and strike reporting f) Review/evaluation of the effectiveness of the airport wildlife hazard management programme g) Radiotelephone h) Airside driving i) Use of dispersal equipment  References: □ Annexes 14 and 19	Advanced	a) Wildlife Hazard Management (Refer to PANS-Aerodrome) b) Dispersal equipment (provided by manufacturer) c) Radiotelephone phraseology d) Airside driving (Refer to PANS-Aerodromes)	Initial training Recurrent training Refresher training as required Specialized training as required	Yes

	<ul style="list-style-type: none"> <li>□ PANS Aerodromes (Doc 9981)</li> <li>□ Airport Services Manual (Doc 9137), Part 3 - Wildlife Hazard Management;</li> <li>□ ACI Wildlife Hazard Management Handbook;</li> <li>□ CAA Advisory Circular (if available)</li> </ul>				
Officers/ Technicians (Doing day- to day wildlife surveys, patrols, dispersal)	National Legislation and regulations / requirements, including aerodrome certification process	Basic	National aerodrome regulations	Initial training Recurrent training Refresher training as required	Yes
	<u>Aerodrome operations and safety management system, covering:</u> a) Hazard and risk management b) Safety reporting – mandatory, voluntary and confidential reports	Intermediate	Relevant parts of aerodrome/SMS manuals	Initial training + OJT	Yes
	Aerodrome layout	Intermediate	Aerodrome layout  (Based on aerodrome layout drawing and onsite orientation)	Initial training + OJT Recurrent training Refresher training as required	Yes

	<p><u>Job related requirements:</u></p> <ul style="list-style-type: none"> <li>a) Wildlife identification and management</li> <li>b) Biology and behavior of wildlife</li> <li>c) Documentation and strike reporting</li> <li>d) Use of dispersal equipment and other methodology</li> <li>e) Analysis and evaluation</li> <li>f) Wildlife habitat management</li> <li>g) Migration of bird</li> <li>h) Airside driving i) Radiotelephone</li> </ul> <p>References:</p> <ul style="list-style-type: none"> <li>□ Annexes 14 and 19</li> <li>□ PANS Aerodromes (Doc 9981)</li> <li>□ Airport Services Manual (Doc 9137), Part 3 - Wildlife Hazard Management;</li> <li>□ ACI Wildlife Hazard Management Handbook;</li> <li>□ CAA Advisory Circular (if available)</li> </ul>	Intermediate	<ul style="list-style-type: none"> <li>a) Wildlife Hazard Management (Refer to PANS- Aerodrome)</li> <li>b) Dispersal equipment (provided by manufacturer)</li> <li>c) Radiotelephone phraseology</li> <li>d) Airside driving (Refer to PANS- Aerodromes)</li> </ul>	Initial training + OJT Recurrent training Refresher training as required	Yes
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**Table A1-7: AOPC Matrix - Apron Safety**

Aerodrome Operations Personnel	Competency areas (knowledge, skills and attitudes)	Required Competency Level (Basic/ Intermediate/ Advanced)	Training Areas	Required Type of Training (Initial, OJT, Refresher, Recurrent, Specialised)	Requirement of Competency Check
Head of Aerodrome Operation	National Legislation and regulations / requirements, including aerodrome certification process	Basic	National aerodrome regulations	Initial training Recurrent training (when significant amendment/changes applied)	No
	Aerodrome operations and safety management system	Basic	Relevant parts of aerodrome/SMS manuals	Initial training Recurrent training	No
	Aerodrome layout	Intermediate	Aerodrome layout (Based on aerodrome layout drawing and onsite orientation)	Initial training Recurrent training Refresher training as required	No

	<p><u>Job related requirements:</u> <u>National and international requirements and best practices on:</u></p> <p>a) Aircraft turnaround procedures b) Role in Aerodrome Emergency Plan</p> <p>References:  <input type="checkbox"/> Annexes 14 and 19 (relevant parts)  <input type="checkbox"/> PANS Aerodromes (Doc 9981)  <input type="checkbox"/> Safety Management Manual (Doc 9859)  <input type="checkbox"/> ACI Apron Safety Handbook</p>	Basic	<p>a) Understanding Annex 14 and PANS-Aerodromes b) Aerodrome Safety Management System (SMS) c) Airside Safety and Operations d) Emergency Planning and Response</p>	<p>Initial training Recurrent training Refresher training as required</p>	No
Managers/ Supervisors	National Legislation and regulations / requirements, including aerodrome certification process	Basic	National aerodrome regulations	<p>Initial training Recurrent training Refresher training as required</p>	Yes
	<p><u>Aerodrome operations, including:</u></p> <p>a) FOD management b) Safety management during construction and maintenance works c) Understanding of aerodrome emergency procedures d) Follow-me procedures</p> <p><u>Safety management systems</u></p>	Intermediate	Relevant parts of aerodrome and SMS manuals	<p>Initial training Recurrent training Refresher training as required</p>	Yes
	Aerodrome layout	Intermediate	<p>Aerodrome layout  (Based on aerodrome layout drawing and onsite orientation)</p>	<p>Initial training Recurrent training Refresher training as required</p>	Yes

	<p><u>Job related requirements:</u></p> <ul style="list-style-type: none"> <li>a) Airside driving regulations</li> <li>b) Aircraft turnaround procedures (e.g. Passenger loading bridge operations, Passenger safety on apron, Aircraft fueling safety, flight catering safety etc.)</li> <li>c) Jet blast hazards</li> <li>d) Marshalling</li> <li>e) Apron signs and marking</li> <li>f) Operations under adverse weather</li> <li>g) Handling of fuel and oil spills</li> <li>h) Apron inspection and cleaning (FOD, pavement, markings, signs, ensuring GSE in place etc.)</li> <li>i) Use of personal protective equipment (earplugs, high-visibility vest etc.)</li> <li>j) Role in Aerodrome Emergency Plan</li> <li>k) Radiotelephone terminology</li> <li>l) Compliance with safety rules during construction and maintenance works</li> </ul> <p>References:</p> <ul style="list-style-type: none"> <li>□ Annexes 14 and 19 (relevant parts)</li> <li>□ PANS Aerodromes (Doc 9981)</li> <li>□ Safety Management Manual (Doc 9859)</li> <li>□ ACI Apron Safety Handbook</li> </ul>	Advanced	<ul style="list-style-type: none"> <li>a) Understanding Annex 14 and PANS-Aerodromes</li> <li>b) Managing Works in Progress</li> <li>c) Emergency Planning and Response</li> <li>d) Airside Safety and Operations</li> <li>e) Aerodrome Safety Management System</li> <li>f) FOD Training</li> </ul>	<p>Initial training</p> <p>Recurrent training</p> <p>Refresher training as required</p> <p>Specialized training as required</p>	Yes
Officers/ Technicians	<ul style="list-style-type: none"> <li>a) National Legislation and regulations / requirements</li> <li>b) NOTAM and AIP</li> </ul>	Basic	<ul style="list-style-type: none"> <li>a) National aerodrome regulations;</li> <li>b) NOTAM and AIP</li> </ul>	<p>Initial training</p> <p>Recurrent training</p> <p>Refresher training as required</p>	Yes

	<p><u>Aerodrome operations, including:</u> a) Apron management b) Apron safety management c) Follow-me procedures</p> <p><u>Safety management system, covering:</u> a) Identification of safety Hazards b) Safety reporting - mandatory, voluntary and confidential</p>	Intermediate	Relevant parts of aerodrome and SMS manuals	Initial training + OJT Recurrent training Refresher training as required	Yes
	Aerodrome layout including apron layouts and stand configurations	Intermediate	Aerodrome layout  (Based on aerodrome layout drawing and onsite orientation)	Initial training + OJT Recurrent training Refresher training as required	Yes

	<p><u>Job related requirements:</u></p> <ul style="list-style-type: none"> <li>a) Airside driving regulations and safety hazards</li> <li>b) Aircraft turnaround procedures (e.g. Passenger loading bridge operations, Passenger safety on apron, Aircraft fueling safety, flight-catering safety etc.)</li> <li>c) Jet blast hazards</li> <li>d) Marshalling</li> <li>e) Apron signs and marking</li> <li>f) Operations under adverse weather</li> <li>g) Handling of fuel and oil spills</li> <li>h) Apron inspection and cleaning (FOD, pavement, markings, signs, ensuring GSE in place etc.)</li> <li>i) Use of personal protective equipment (earplugs, high-visibility vest etc.)</li> <li>j) Role in Aerodrome Emergency Plan</li> <li>k) Radiotelephone terminology</li> <li>l) Compliance with safety rules during construction and maintenance works</li> </ul> <p>References:</p> <ul style="list-style-type: none"> <li>□ Annexes 14 and 19 (relevant parts)</li> <li>□ PANS Aerodromes (Doc 9981)</li> <li>□ ACI Apron Safety Handbook</li> </ul>	<p>Intermediate</p>	<ul style="list-style-type: none"> <li>a) Understanding Annex 14 and PANS-Aerodromes</li> <li>b) Airside Safety and Operations</li> <li>c) Aerodrome Safety Management System</li> </ul>	<p>Initial training + OJT                  Recurrent training                  Refresher training as required</p>	<p>Yes.</p>
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**Table A1-8: AOPC Matrix - Runway Safety**

Aerodrome Operations Personnel	Competency areas (Knowledge, skills and attitudes)	Required Competency Level (Basic / Intermediate / Advanced)	Training Areas	Required Type of Training (Initial, OJT, Refresher, Recurrent, Specialized)	Requirement of Competency Check
Head of Aerodrome Operation	National Legislation and regulations / requirements, including aerodrome certification process	Basic	National aerodrome regulations	Initial training Recurrent training (when significant amendment/changes applied)	No
	Aerodrome operations and safety management systems	Basic	Relevant parts of aerodrome/SMS manuals	Initial training Recurrent training	No
	Aerodrome layout	Intermediate	Aerodrome layout (Based on aerodrome layout drawing and onsite orientation)	Initial training Recurrent training Refresher training as required	No

	<p><u>Job related requirements:</u> <u>National and international requirements and best practices on:</u></p> <p>a) Emergency planning and response b) Aerodrome operations and maintenance in general c) Accident and incident investigation d) Runway Safety Programme and runway safety team</p> <p>References:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Annexes 14 and 19 (relevant parts)</li> <li><input type="checkbox"/> PANS Aerodromes (Doc 9981)</li> <li><input type="checkbox"/> Safety Management Manual (Doc 9859)</li> <li><input type="checkbox"/> ACI Runway Safety Handbook</li> <li><input type="checkbox"/> Manual on Prevention of Runway Incursion (Doc 9870)</li> <li><input type="checkbox"/> Runway Safety Team Handbook</li> <li><input type="checkbox"/> Runway Safety Programme – Global Runway Safety Action Plan First Edition, November 2017</li> <li><input type="checkbox"/> CAA Advisory Circulars (Relevant Parts)</li> </ul>	Basic	<p>a) Emergency Planning and Response b) Airside Safety and Operations c) Aerodrome accident and incident investigation d) National and Airport runway safety programmes</p>	Initial training Recurrent training Refresher training as required	No
Managers/ Supervisors	National Legislation and regulations / requirements, including aerodrome certification process	Basic	National aerodrome regulations	Initial training Recurrent training Refresher training as required	Yes

	<p><u>Aerodrome operations including:</u>  a) FOD management  b) Safety management during construction and maintenance works  c) Understanding of aerodrome emergency procedures  d) Follow-me procedures</p> <p><u>Safety management systems</u></p>	Intermediate	Relevant parts of aerodrome/SMS manuals	Initial training Recurrent training Refresher training as required	Yes
	Aerodrome layout	Intermediate	Aerodrome layout  (Based on aerodrome layout drawing and onsite orientation)	Initial training Recurrent training Refresher training as required	Yes

	<p><u>Job related requirements:</u> All of the competency requirements for frontline officers, but at advanced level, plus:</p> <ul style="list-style-type: none"> <li>a) Understanding of disabled aircraft removal plan.</li> <li>b) Re-declaration of runway distances</li> <li>c) SMS principles including safety risk management.</li> <li>d) Preliminary investigations of accidents and incidents</li> <li>e) Safety during construction and maintenance works</li> <li>f) Runway Safety Programme and runway safety team</li> </ul> <p>References:</p> <ul style="list-style-type: none"> <li>□ Annexes 14 and 19 (relevant parts)</li> <li>□ PANS Aerodromes (Doc 9981)</li> <li>□ Safety Management Manual (Doc 9859)</li> <li>□ Manual on Prevention of Runway Incursion (Doc 9870)</li> <li>□ Runway Safety Team Handbook</li> <li>□ Runway Safety Programme – Global Runway Safety Action Plan First Edition, November 2017</li> <li>□ ACI Runway Safety Handbook</li> <li>□ CAA Advisory Circulars (Relevant Parts)</li> </ul>	Advanced	<ul style="list-style-type: none"> <li>a) Emergency Planning and Response</li> <li>b) Understanding Annex 14 and PANS-Aerodrome</li> <li>c) Aerodrome SMS</li> <li>d) Aerodrome Incident/Accident Investigation</li> <li>e) Managing Works in Progress</li> <li>f) Airside Safety and Operations</li> <li>g) Runway incursion awareness and prevention</li> <li>h) Runway safety management</li> <li>i) Wildlife hazard management (Refer to PANS-Aerodromes)</li> <li>j) National and Airport runway safety programmes</li> </ul>	Initial training Recurrent training Refresher training as required Specialized training as required	Yes.
Officers / Technicians	<ul style="list-style-type: none"> <li>a) National Legislation and regulations / requirements</li> <li>b) NOTAM and AIP</li> </ul>	Basic	<ul style="list-style-type: none"> <li>a) National aerodrome regulations</li> <li>b) NOTAM and AIP</li> </ul>	Initial training Recurrent training Refresher training as required	Yes

	<p><u>Aerodrome operations</u> a) Understanding of the aerodrome manual of the airport concerned b) Follow-me procedures</p> <p><u>Safety management system, covering:</u> a) Identification of safety Hazards b) Safety reporting – mandatory, voluntary and confidential</p>	Intermediate	Relevant parts of aerodrome and SMS manuals	Initial training + OJT Recurrent training Refresher training as required	Yes
	Aerodrome layout	Intermediate	Aerodrome layout (Based on aerodrome layout drawing and onsite orientation)	Initial training + OJT Recurrent training Refresher training as required	Yes

	<p><u>Job related requirements:</u></p> <ul style="list-style-type: none"> <li>a) Runway inspection including FOD, pavement conditions, drainage, markings and signs, in-pavement lights, obstacles, etc.</li> <li>b) Runway surface condition reporting</li> <li>c) Airside driving including airfield signs and markings</li> <li>d) Radiotelephone</li> <li>e) Adverse weather operations and low visibility procedures</li> <li>f) Removal of runway contaminants, e.g. rubber, ice, snow</li> <li>g) Vegetation control</li> <li>h) Wildlife hazard management i) Follow-me procedures</li> <li>j) Prevention of runway incursion</li> <li>k) Compliance with safety rules during construction and maintenance works</li> <li>l) Emergency response procedures</li> <li>m) Role in Runway Safety Team</li> </ul> <p>References:</p> <ul style="list-style-type: none"> <li>□ Annexes 14 and 19 (relevant parts)</li> <li>□ PANS Aerodromes (Doc 9981)</li> <li>□ Safety Management Manual (Doc 9859)</li> <li>□ Runway Safety Team Handbook</li> <li>□ ACI Runway Safety Handbook</li> </ul>	Intermediate	<ul style="list-style-type: none"> <li>a) Understanding Annex 14 and PANS Aerodromes</li> <li>b) Aerodrome Inspection</li> <li>c) Runway Condition Reporting</li> <li>d) Airside Driving (Refer to PANS-Aerodrome)</li> <li>e) Adverse weather and low Visibility Operations</li> <li>f) Removal of Contaminants from Aerodrome Pavements</li> <li>g) Escort and Follow-Me Operations</li> <li>h) Runway Safety Management</li> <li>i) Runway incursion awareness and prevention</li> <li>j) Airside Safety and Operations</li> <li>k) Managing Works in Progress</li> <li>l) Wildlife hazard management</li> <li>m) Emergency Planning and Response</li> <li>n) National and Airport runway safety programmes</li> </ul>	Initial training + OJT Recurrent training Refresher training as required	Yes.
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**Table A1-9: AOPC Matrix - Aerodrome Driver Permit Scheme and Vehicle/Equipment Safety Requirement**

Aerodrome Operations Personnel	Competency/knowledge areas	Required Competency Level (Basic/ Intermediate / Advanced)	Training Areas	Required Type of Training (Initial, OJT, Refresher, Recurrent, Specialized)	Requirement of Competency Check
Head of Aerodrome Operation	National Legislation and regulations / requirements, including aerodrome certification process	Basic	National aerodrome regulations	Initial training Recurrent training (when significant amendment/changes applied)	No
	Aerodrome operations and safety management system	Basic	Relevant parts of aerodrome/SMS manuals	Initial training Recurrent training	No
	Aerodrome layout	Intermediate	Aerodrome layout (Based on aerodrome layout drawing and onsite orientation)	Initial training Recurrent training Refresher training as required	No
	<p><u>Job related requirements:</u></p> <p>(a) Emergency procedures for aerodrome driving</p> <p>(b) Vehicle/equipment safety requirements</p> <p>(c) Aerodrome driver training program</p> <p>(d) Aerodrome driver permit record system and vehicle/equipment permit record system</p> <p>References:</p> <ul style="list-style-type: none"> <li>□ ICAO Annexes 14 and 19</li> <li>□ PANS-Aerodromes (Doc 9981)</li> <li>□ Safety Management Manual (Doc 9859)</li> <li>□ Airport Services Manual (Doc 9137), Part 9 –</li> </ul>	Basic	Airside driving (Refer to PANS-Aerodromes)	Initial training Recurrent training Refresher training as required	No

	<ul style="list-style-type: none"> <li><input type="checkbox"/> Manual on prevention of runway incursion (Doc 9870)</li> <li><input type="checkbox"/> ACI Apron Safety Handbook</li> <li><input type="checkbox"/> CAA Advisory Circular (Guidance materials)</li> </ul>				
Managers/ Supervisors	National Legislation and regulations / requirements, including aerodrome certification process	Basic	National aerodrome regulations	Initial training Recurrent training Refresher training as required	Yes
	<u>Aerodrome operations and safety management system, covering:</u> <ul style="list-style-type: none"> <li>a) Identification of safety Hazards</li> <li>b) Risk assessment and Mitigation</li> <li>c) Accident/incident investigation</li> <li>d) Safety/Audits Inspections</li> </ul>	Intermediate	Relevant parts of aerodrome/SMS manuals	Initial training Recurrent training Refresher training as required	Yes
	Aerodrome layout	Intermediate	Aerodrome layout (Based on aerodrome layout drawing and onsite orientation)	Initial training Recurrent training Refresher training as required	Yes

	<p><u>Job Related Requirements:</u>            (a) Develop airside traffic rules and procedures            (b) Provide airside safety training to drivers            (c) Promote airside safety awareness to drivers            (d) Provide Radiotelephone training            (e) Familiarization with vehicle/equipment safety requirements            (f) Conduct inspection for vehicle/equipment            (g) Keep data and records of aerodrome driver permit and vehicle/equipment permit</p> <p>References:  <input type="checkbox"/> ICAO Annexes 14 and 19  <input type="checkbox"/> PANS-Aerodromes (Doc 9981)  <input type="checkbox"/> Safety Management Manual (Doc 9859)  <input type="checkbox"/> Airport Services Manual (Doc 9137), Part 9 – Airport Maintenance Practices (Relevant Chapters)  <input type="checkbox"/> Manual on prevention of runway incursion (Doc 9870)  <input type="checkbox"/> ACI Apron Safety Handbook  <input type="checkbox"/> CAA Advisory Circular (Guidance materials)</p>	Advanced	Airside driving (Refer to PANS-Aerodromes)	Initial training Recurrent training Refresher training as required Specialized training as required	Yes
Officers/ technicians (working on maneuvering area)	National Legislation and regulations / requirements, including aerodrome certification process	Basic	National aerodrome regulations	Initial training Initial training Recurrent training Refresher training as required	Yes

	<u>Aerodrome operations and safety management system, covering:</u>  a) Identification of safety Hazards b) Safety reporting – mandatory, voluntary and confidential	Intermediate	Relevant parts of aerodrome/SMS manuals	Initial training + OJT Recurrent training Refresher training as required	Yes
	Aerodrome layout	Intermediate	Aerodrome layout (Based on aerodrome layout drawing and onsite orientation)	Initial training + OJT Recurrent training Refresher training as required	Yes

	<p><u>Job Related Requirements:</u></p> <p>(a) Holder of a valid official driver license of the same class of vehicle recognized/issued by the local government</p> <p>(b) Medical fitness certificate</p> <p>(c) Driving skill</p> <p>(d) Specific equipment operation</p> <p>(e) Radiotelephone</p> <p>(f) Airside operations safety rules</p> <p>(g) Airside driving rules</p> <p>(h) Adverse weather conditions procedures</p> <p>(i) Aerodrome signage, markings and lightings</p> <p>(j) Roles in aerodrome emergency plan</p> <p>References:</p> <ul style="list-style-type: none"> <li>□ ICAO Annexes 14 and 19</li> <li>□ PANS-Aerodromes (Doc 9981)</li> <li>□ Safety Management Manual (Doc 9859)</li> <li>□ Airport Services Manual (Doc 9137), Part 9 – Airport Maintenance Practices (Relevant Chapters)</li> <li>□ Manual on prevention of runway incursion (Doc 9870)</li> <li>□ ACI Apron Safety Handbook</li> <li>□ CAA Advisory Circular (Guidance materials)</li> </ul>	Intermediate	<p>a) Airside driving (Refer to PANS-Aerodromes)</p> <p>b) Specific equipment operation (if applicable, provided by manufacturer)</p>	Initial training + OJT Recurrent training Refresher training as required	Yes
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## APPENDIX B – TRAINING SYLLABI

Title of Training Course	Understanding Annex 14 and PANS-Aerodrome	Course Reference No.: 01	Version: 1/2020
Reference to AOPC Matrix Table: <b>A1-2, A1-3, A1-4, A1-7, A1-8</b>			
Course Goal (Purpose of the course)	The ICAO Annex 14 sets out the fundamental Standards and Recommended Practices (SARPs) for airport design and operations, which States undertake to apply through national legislation. This course provides an introduction to the content and structure of Annex 14. This course also covers the implementation of the PANS-Aerodrome in the context of an aerodrome Safety Management System.		
Course Objective (Learning objectives)	<p>Upon successful completion of this course, participants will be able to:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Describe the SARPs contained in Annex 14</li> <li><input type="checkbox"/> Implementation of SARPs.</li> <li><input type="checkbox"/> Discuss best practices to meet the requirements of Annex 14.</li> <li><input type="checkbox"/> Share experience with experts on the different options to implement and further improve best practices.</li> <li><input type="checkbox"/> Conduct Aerodrome operational safety assessments, as per PANS-Aerodromes, for safety risk management, aeronautical and compatibility studies</li> </ul>		
Prerequisites for taking this course	<p>Title of Training Course (if applicable): N/A</p> <p><input type="checkbox"/> None      <input checked="" type="checkbox"/> Indoctrination/Familiarization      <input type="checkbox"/> Initial      <input type="checkbox"/> On-Job-Training</p>		
Training Type	<p><input type="checkbox"/> Indoctrination/Familiarization      <input checked="" type="checkbox"/> Initial      <input type="checkbox"/> On-Job-Training</p> <p><input type="checkbox"/> Recurrent      <input type="checkbox"/> Refresher      <input type="checkbox"/> Specialized</p>		
Course Content	<p>Reference to the ICAO/Industry recognized training course(s):</p> <ol style="list-style-type: none"> <li>1) Understanding Annex 14 (ACI); or <a href="https://aci.aero/global-training/training-information/course-categories/safety/understanding-icao-annex-14/">https://aci.aero/global-training/training-information/course-categories/safety/understanding-icao-annex-14/</a></li> <li>2) Working with Annex 14 (ACI) <a href="https://aci.aero/global-training/training-information/course-categories/safety/gsn-4-working-with-annex-14/">https://aci.aero/global-training/training-information/course-categories/safety/gsn-4-working-with-annex-14/</a></li> </ol> <p>In addition to the above, for PANS-Aerodromes, refer to “Aerodrome Safety Management incorporating PANS-Aerodromes” (IAAA) <a href="https://academy.airport.kr:844/academy/pagework_02102.html">https://academy.airport.kr:844/academy/pagework_02102.html</a></p>		
Training method/activities	<p><input type="checkbox"/> CBT/Online      <input checked="" type="checkbox"/> Class room      <input type="checkbox"/> Practical/Simulator</p> <p><input type="checkbox"/> Practical (On-site)      <input type="checkbox"/> Factory/Manufacturer</p>		
Assessment	<p><input type="checkbox"/> Attendance only (If competency test / assessment is not required)</p> <p><input checked="" type="checkbox"/> Minimum passing score: 80% (If competency test is required)</p> <p><input type="checkbox"/> Satisfactory result in on-site assessment (If assessment is required)</p>		

Title of Training Course	Runway Condition Reporting (ICAO-ACI GRF Online Training)	Course Reference No.: 02	Version: 1/2020
Reference to AOPC Matrix Table: <b>A1-1, A1-8</b>			
Course Goal (Purpose of the course)	The ICAO Global Reporting Format (GRF) is a globally-harmonized methodology for runway surface condition assessment and reporting that it is intended to be the only such reporting format for international aviation, with the objective of reducing runway excursions, thus improving the safety of airport operations. The aim of the course is to assist airport personnel to implement the new Runway Condition reporting requirements as outlined in ICAO Circular 355 (Assessment, Measurement and Reporting of Runway Surface Conditions).		
Course Objective (Learning objectives)	<p>Upon successful completion of this course, participants will be able to:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Describe the background for Runway Condition Assessment and Reporting as it relates to the ICAO Global Reporting Format (GRF)</li> <li><input type="checkbox"/> Explain the major elements of the Runway Condition Assessment Matrix (RCAM)</li> <li><input type="checkbox"/> Describe when a Runway Condition Assessment should be conducted</li> <li><input type="checkbox"/> Describe the steps required to conduct a Runway Condition Assessment</li> <li><input type="checkbox"/> Explain under what circumstances Runway Condition Codes can be adjusted</li> <li><input type="checkbox"/> Determine the Runway Condition Codes to be used as per the GRF</li> <li><input type="checkbox"/> Explain the formatting and use of the SNOWTAM and other means of promulgation</li> <li><input type="checkbox"/> Complete a Runway Condition Report (RCR) using the ACI Runway Condition Worksheet</li> <li><input type="checkbox"/> Through multiple case scenarios, apply the steps required to generate an RCR and NOTAM</li> </ul>		
Prerequisites for taking this course	<p>Title of Training Course (if applicable): ACI/ICAO Global Reporting Format (GRF) online training course (Desirable) <a href="https://www.olc.aero/product/icao-global-reporting-format/">https://www.olc.aero/product/icao-global-reporting-format/</a></p> <p><input type="checkbox"/> None    <input checked="" type="checkbox"/> Indoctrination/Familiarization    <input checked="" type="checkbox"/> Initial    <input type="checkbox"/> On-Job-Training</p>		
Training Type	<p><input type="checkbox"/> Indoctrination/Familiarization    <input checked="" type="checkbox"/> Initial    <input type="checkbox"/> On-Job-Training <input type="checkbox"/> Recurrent    <input type="checkbox"/> Refresher    <input type="checkbox"/> Specialized</p>		
Course Content	<p>Reference to the ICAO/Industry recognized training course(s):</p> <p>ACI-ICAO Global Reporting Format (GRF) for Runway Surface Condition Assessment and Reporting. <a href="https://aci.aero/global-training/training-information/course-categories/safety/grf-for-runway-surface-condition-assessment-and-reporting/">https://aci.aero/global-training/training-information/course-categories/safety/grf-for-runway-surface-condition-assessment-and-reporting/</a></p>		
Training method/activities	<p><input type="checkbox"/> CBT/Online    <input checked="" type="checkbox"/> Class room    <input type="checkbox"/> Practical/Simulator <input type="checkbox"/> Practical (On-site)    <input type="checkbox"/> Factory/Manufacturer</p>		
Assessment	<p><input type="checkbox"/> Attendance only (If competency test / assessment is not required) <input checked="" type="checkbox"/> Minimum passing score: 80% (If competency test is required) <input type="checkbox"/> Satisfactory result in on-site assessment (If assessment is required)</p>		

Title of Training Course	Airside Safety and Operations	Course Reference No.: 03	Version: 1/2020
	Reference to AOPC Matrix Table: <b>A1-1, A1-2, A1-3, A1-7, A1-8</b>		
Course Goal (Purpose of the course)	The Airside Operations course provides participants with a broad understanding of airside operations at an airport. Participants will investigate the various components of airside operations and how they interact together to form an operational system.		
Course Objective (Learning objectives)	Upon successful completion of this course, participants will be able to: <ul style="list-style-type: none"> <li><input type="checkbox"/> Describe the safety operations at airports.</li> <li><input type="checkbox"/> Describe the factors that affect safety at airports.</li> <li><input type="checkbox"/> Explain how to control and maintain safety at airports.</li> <li><input type="checkbox"/> Apply practical and up-to-date tools for managing safety on the airport.</li> <li><input type="checkbox"/> Implement safety standards in airport operations..</li> </ul>		
Prerequisites for taking this course	Title of Training Course (if applicable): Airside Operations - online training (ACI) <a href="https://aci.aero/global-training/programmes/airport-operations-diploma/airside-operations/">https://aci.aero/global-training/programmes/airport-operations-diploma/airside-operations/</a> <input type="checkbox"/> None <input type="checkbox"/> Indoctrination/Familiarization <input checked="" type="checkbox"/> Initial <input type="checkbox"/> On-Job-Training		
Training Type	<input type="checkbox"/> Indoctrination/Familiarization <input checked="" type="checkbox"/> Initial <input type="checkbox"/> On-Job-Training <input type="checkbox"/> Recurrent <input type="checkbox"/> Refresher <input type="checkbox"/> Specialized		
Course Content	Reference to the ICAO/Industry recognized training course(s):  Airside Safety and Operations (ACI) <a href="https://aci.aero/global-training/training-information/course-categories/safety/gsn-2-airside-safety-operations/">https://aci.aero/global-training/training-information/course-categories/safety/gsn-2-airside-safety-operations/</a>		
Training method/activities	<input type="checkbox"/> CBT/Online <input checked="" type="checkbox"/> Class room <input type="checkbox"/> Practical/Simulator <input type="checkbox"/> Practical (On-site) <input type="checkbox"/> Factory/Manufacturer		
Assessment	<input type="checkbox"/> Attendance only (If competency test / assessment is not required) <input checked="" type="checkbox"/> Minimum passing score: 80% (If competency test is required) <input type="checkbox"/> Satisfactory result in on-site assessment (If assessment is required)		

Title of Training Course	Runway Incursion Awareness and Prevention	Course Reference No.: 04	Version: 1/2020
Reference to AOPC Matrix Table: <b>A1-1, A1-2, A1-3, A1-4, A1-8</b>			
Course Goal (Purpose of the course)	<p>To raise awareness of the danger of runway incursions by sharing information of incidents (through case studies and facilitated discussion) and offering advice to operational personnel about how airport operators, airlines and air traffic service providers can prevent runway incursions.</p> <p>To raise awareness of this key topic and give participants practical ideas which they can implement at their own aerodrome to enhance safety.</p>		
Course Objective (Learning objectives)	<p>Upon successful completion of this course, participants will be able to:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> select terms and definitions associated with runway safety;</li> <li><input type="checkbox"/> risks to runway safety and factors that contribute to the rise in runway incursions;</li> <li><input type="checkbox"/> purpose and scope of ICAO Manual for Prevention of Runway Incursions (Doc 9870);</li> <li><input type="checkbox"/> purpose of runway incursion prevention programs and runway safety teams;</li> <li><input type="checkbox"/> common runway incursion scenarios;</li> <li><input type="checkbox"/> common factors that could contribute to a runway incursion;</li> <li><input type="checkbox"/> purpose and benefits of a standardized approach to runway incursion</li> <li><input type="checkbox"/> incident reporting and data collection;</li> <li><input type="checkbox"/> communication procedures to prevent runway incursions;</li> <li><input type="checkbox"/> procedures for runway safety teams;</li> <li><input type="checkbox"/> problems that contribute to the breakdown of communication;</li> <li><input type="checkbox"/> visual aids to help maintain situational awareness;</li> <li><input type="checkbox"/> best practices for taxi operations; and</li> <li><input type="checkbox"/> usefulness of Standard Operating Procedures (SOP).</li> </ul>		
Prerequisites for taking this course	<p>Title of Training Course (if applicable): N/A</p> <p><input type="checkbox"/> None      <input checked="" type="checkbox"/> Indoctrination/Familiarization      <input type="checkbox"/> Initial      <input type="checkbox"/> On-Job-Training</p>		
Training Type	<p><input type="checkbox"/> Indoctrination/Familiarization      <input checked="" type="checkbox"/> Initial      <input type="checkbox"/> On-Job-Training</p> <p><input type="checkbox"/> Recurrent      <input type="checkbox"/> Refresher      <input type="checkbox"/> Specialized</p>		
Course Content	<p>Reference to the ICAO/Industry recognized training course(s) (if available):</p> <p>Runway incursion awareness and prevention (ACI)  <a href="https://aci.aero/Global-Training/Training-Information/Course-Categories/Safety/Runway-Incursion-Awareness-and-Prevention/">https://aci.aero/Global-Training/Training-Information/Course-Categories/Safety/Runway-Incursion-Awareness-and-Prevention/</a></p>		
Training method/activities	<p><input type="checkbox"/> CBT/Online      <input checked="" type="checkbox"/> Classroom      <input type="checkbox"/> Practical/Simulator</p> <p><input type="checkbox"/> Practical (On-site)      <input type="checkbox"/> Factory/Manufacturer</p>		
Assessment	<p><input type="checkbox"/> Attendance only (If competency test / assessment is not required)</p> <p><input checked="" type="checkbox"/> Minimum passing score: 80% (If competency test is required)</p> <p><input type="checkbox"/> Satisfactory result in on-site assessment (If assessment is required)</p>		

Title of Training Course	Aerodrome Inspection	Course Reference No.: 05	Version: 1/2020
	Reference to AOPC Matrix Table: <b>A1-3, A1-4, A1-8</b>		
Course Goal (Purpose of the course)	This course provides a competency-based training on aerodrome safety inspection for aviation authorities and airport operators. Trainees will learn how to carry out aerodrome inspection in accordance with ICAO SARPs (Standards and Recommended Practices) and relevant national standards through classroom interaction training, field practices and exercises at airside areas.		
Course Objective (Learning objectives)	<p>Upon successful completion of this course, participants will be able to:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Employ standard communication phraseology required for safely conducting aerodrome inspection</li> <li><input type="checkbox"/> Conduct an Aerodrome Surface Inspection</li> <li><input type="checkbox"/> Conduct an inspection of Visual aids and navigational aids (NAVAIDs)</li> <li><input type="checkbox"/> Verify airside access and movement in airside areas</li> <li><input type="checkbox"/> Conduct an inspection for the application of safety measures in airside operations</li> <li><input type="checkbox"/> Verify the application of Notice to Airmen (NOTAMS)</li> <li><input type="checkbox"/> Inspect the presence of wildlife</li> <li><input type="checkbox"/> Conduct an inspection of Aerodrome Rescue and Fire Fighting Services (ARFFS)</li> <li><input type="checkbox"/> Conduct an inspection of a Safety Management System (SMS)</li> </ul>		
Prerequisites for taking this course	<p>Title of Training Course (if applicable): N/A</p> <p><input type="checkbox"/> None      <input checked="" type="checkbox"/> Indoctrination/Familiarization      <input type="checkbox"/> Initial      <input type="checkbox"/> On-Job-Training</p>		
Training Type	<p><input type="checkbox"/> Indoctrination/Familiarization      <input checked="" type="checkbox"/> Initial      <input type="checkbox"/> On-Job-Training</p> <p><input type="checkbox"/> Recurrent      <input type="checkbox"/> Refresher      <input type="checkbox"/> Specialized</p>		
Course Content	<p>Reference to the ICAO/Industry recognized training course(s) (if available):</p> <p>1) Aerodrome Inspection (IAAA); or <a href="https://academy.airport.kr:844/academy/pagework_02104.html">https://academy.airport.kr:844/academy/pagework_02104.html</a></p> <p>2) GSN 6: Aerodrome Auditing and Compliance (ACI) <a href="https://aci.aero/global-training/training-information/course-categories/safety/gsn-6-aerodrome-auditing-and-compliance/">https://aci.aero/global-training/training-information/course-categories/safety/gsn-6-aerodrome-auditing-and-compliance/</a></p>		
Training method/activities	<p><input type="checkbox"/> CBT/Online      <input checked="" type="checkbox"/> Classroom      <input type="checkbox"/> Practical/Simulator</p> <p><input checked="" type="checkbox"/> Practical (On-site)      <input type="checkbox"/> Factory/Manufacturer</p>		
Assessment	<p><input type="checkbox"/> Attendance only (If competency test / assessment is not required)</p> <p><input checked="" type="checkbox"/> Minimum passing score: 80% (If competency test is required)</p> <p><input type="checkbox"/> Satisfactory result in on-site assessment (If assessment is required)</p>		

Title of Training Course	Aerodrome Safeguarding	Course Reference No.: 06	Version: 1/2020
	Reference to AOPC Matrix Table: A1-3		
Course Goal (Purpose of the course)	All aerodromes have to ensure that the environment both on and off the airport are maintained in a safe condition for aircraft operations. The aerodrome safeguarding course is designed to introduce participants to the different forms that safeguarding takes and how to develop procedures in order to implement effective controls.		
Course Objective (Learning objectives)	Upon successful completion of this course, participants will be able to: <ul style="list-style-type: none"> <li><input type="checkbox"/> Explain the importance of safeguarding in today's aviation environment</li> <li><input type="checkbox"/> Understand the elements of aerodrome safeguarding</li> <li><input type="checkbox"/> Explain how aerodrome safeguarding procedures may be developed</li> <li><input type="checkbox"/> Describe the legal aspects of the safeguarding process</li> <li><input type="checkbox"/> Apply the knowledge on aerodrome safeguarding at their own</li> </ul>		
Prerequisites for taking this course	Title of Training Course (if applicable): N/A <input type="checkbox"/> None <input checked="" type="checkbox"/> Indoctrination/Familiarization <input type="checkbox"/> Initial <input type="checkbox"/> On-Job-Training		
Training Type	<input type="checkbox"/> Indoctrination/Familiarization <input checked="" type="checkbox"/> Initial <input type="checkbox"/> On-Job-Training <input type="checkbox"/> Recurrent <input type="checkbox"/> Refresher <input type="checkbox"/> Specialized		
Course Content	Reference to the ICAO/Industry recognized training course(s) (if available):  Aerodrome Safeguarding and OLS (ACI) <a href="https://aci.aero/global-training/training-information/course-categories/safety/aerodrome-safeguarding/">https://aci.aero/global-training/training-information/course-categories/safety/aerodrome-safeguarding/</a>		
Training method/activities	<input type="checkbox"/> CBT/Online <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Practical/Simulator <input type="checkbox"/> Practical (On-site) <input type="checkbox"/> Factory/Manufacturer		
Assessment	<input type="checkbox"/> Attendance only (If competency test / assessment is not required) <input checked="" type="checkbox"/> Minimum passing score: 80% (If competency test is required) <input type="checkbox"/> Satisfactory result in on-site assessment (If assessment is required)		

Title of Training Course	Adverse Weather and Low Visibility Operations	Course Reference No.: 07	Version: 1/2020
Reference to AOPC Matrix Table: <b>A1-3, A1-8</b>			
Course Goal (Purpose of the course)	Through practical planning exercises and real-life examples, this one-of-a-kind course reviews operational obstacles due to weather and the solutions to address them. Explore planning tools and procedures that will help your airport respond to rare disturbances. Learn how to prepare your resources, equipment and staff to establish a proactive culture across your operations and organization.		
Course Objective (Learning objectives)	<p>Upon successful completion of this course, participants will be able to:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Understand how adverse weather conditions produce complications</li> <li><input type="checkbox"/> Build response and action plans that address the risks your airport faces</li> <li><input type="checkbox"/> Minimize the impact of disruption and quickly return to normal operations</li> <li><input type="checkbox"/> Strengthen cooperation between departments and operations to become more efficient in planning and response</li> <li><input type="checkbox"/> Improve the allocation of resources, equipment and staff</li> </ul>		
Prerequisites for taking this course	<p>Title of Training Course (if applicable): N/A</p> <p><input type="checkbox"/> None      <input checked="" type="checkbox"/> Indoctrination/Familiarization      <input type="checkbox"/> Initial      <input type="checkbox"/> On-Job-Training</p>		
Training Type	<p><input type="checkbox"/> Indoctrination/Familiarization      <input checked="" type="checkbox"/> Initial      <input type="checkbox"/> On-Job-Training</p> <p><input type="checkbox"/> Recurrent      <input type="checkbox"/> Refresher      <input type="checkbox"/> Specialized</p>		
Course Content	<p>Reference to the ICAO/Industry recognized training course(s) (if available):</p> <p>Airport Extreme Weather Operations and Planning (IATA) <a href="https://www.iata.org/en/training/courses/airport-operations-weather/262/en/">https://www.iata.org/en/training/courses/airport-operations-weather/262/en/</a></p>		
Training method/activities	<p><input type="checkbox"/> CBT/Online      <input checked="" type="checkbox"/> Classroom      <input type="checkbox"/> Practical/Simulator</p> <p><input type="checkbox"/> Practical (On-site)      <input type="checkbox"/> Factory/Manufacturer</p>		
Assessment	<p><input type="checkbox"/> Attendance only (If competency test / assessment is not required)</p> <p><input checked="" type="checkbox"/> Minimum passing score: 80% (If competency test is required)</p> <p><input type="checkbox"/> Satisfactory result in on-site assessment (If assessment is required)</p>		

Title of Training Course	Emergency Planning and Response	Course Reference No.: 08	Version: 1/2020
Reference to AOPC Matrix Table: <b>A1-4, A1-7, A1-8</b>			
Course Goal (Purpose of the course)	This course investigates the importance of planning for emergency situations and of properly managing activities in crisis situations. It introduces the international requirements of an Emergency Plan, discusses how to manage the press and media in crucial situations, as well as focusing on business continuity and the return to normal operations after a crisis. The support provided to victims and the need to rebuild confidence after an incident are also discussed. Current topics on aviation terrorism are included. Case studies provide key insights into the current world climate.		
Course Objective (Learning objectives)	Upon successful completion of this course, participants will be able to: <input type="checkbox"/> Explain the key role of emergency planning. <input type="checkbox"/> Describe best practices in crisis management. <input type="checkbox"/> Apply relevant tools and advice to implement emergency plans and procedures.		
Prerequisites for taking this course	Title of Training Course (if applicable): N/A <input type="checkbox"/> None <input checked="" type="checkbox"/> Indoctrination/Familiarization <input type="checkbox"/> Initial <input type="checkbox"/> On-Job-Training		
Training Type	<input type="checkbox"/> Indoctrination/Familiarization <input checked="" type="checkbox"/> Initial <input type="checkbox"/> On-Job-Training <input type="checkbox"/> Recurrent <input type="checkbox"/> Refresher <input type="checkbox"/> Specialized		
Course Content	Reference to the ICAO/Industry recognized training course(s) (if available):  GSN 3: Emergency Planning and Crisis Management (ACI) <a href="https://aci.aero/global-training/training-information/course-categories/safety/gsn-3-emergency-planning-crisis-management/">https://aci.aero/global-training/training-information/course-categories/safety/gsn-3-emergency-planning-crisis-management/</a>		
Training method/activities	<input type="checkbox"/> CBT/Online <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Practical/Simulator <input type="checkbox"/> Practical (On-site) <input type="checkbox"/> Factory/Manufacturer		
Assessment	<input type="checkbox"/> Attendance only (If competency test / assessment is not required) <input checked="" type="checkbox"/> Minimum passing score: 80% (If competency test is required) <input type="checkbox"/> Satisfactory result in on-site assessment (If assessment is required)		

Title of Training Course	Aerodrome Accident and Incident Investigation	Course Reference No.: 09	Version: 1/2020
Reference to AOPC Matrix Table: <b>A1-8</b>			
Course Goal (Purpose of the course)	This course will introduce industry best practices for Accident and Incident Investigation at airports. Key concepts and issues such as the impact of human factors on increasing incidents and accidents in aviation. Through this course, participants will become able to establish mitigation measures at their own airports to reduce incidents and accidents.		
Course Objective (Learning objectives)	<p>Upon successful completion of this course, participants will be able to:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Describe the type of incidents and accidents that can happen at airports.</li> <li><input type="checkbox"/> Conduct formal investigations to reduce and prevent accidents at their airport.</li> <li><input type="checkbox"/> Apply personal experience to further determine how best to prevent accidents and incidents at their airport.</li> </ul>		
Prerequisites for taking this course	<p>Title of Training Course (if applicable): N/A</p> <p><input type="checkbox"/> None      <input checked="" type="checkbox"/> Indoctrination/Familiarization      <input type="checkbox"/> Initial      <input type="checkbox"/> On-Job-Training</p>		
Training Type	<p><input type="checkbox"/> Indoctrination/Familiarization      <input checked="" type="checkbox"/> Initial      <input type="checkbox"/> On-Job-Training</p> <p><input type="checkbox"/> Recurrent      <input type="checkbox"/> Refresher      <input type="checkbox"/> Specialized</p>		
Course Content	<p>Reference to the ICAO/Industry recognized training course(s) (if available):</p> <ol style="list-style-type: none"> <li>1) Accident and Incident Investigation (ACI); or <a href="https://aci.aero/global-training/training-information/course-categories/safety/accident-and-incident-investigation/">https://aci.aero/global-training/training-information/course-categories/safety/accident-and-incident-investigation/</a></li> <li>2) Aircraft Accident Investigation Techniques (SAA); or <a href="https://saa.caas.gov.sg/course-details?courseTitle=aircraft-accident-investigation-techniques&amp;courseId=1000467">https://saa.caas.gov.sg/course-details?courseTitle=aircraft-accident-investigation-techniques&amp;courseId=1000467</a></li> <li>3) Aircraft Accident Investigation Management (SAA); or <a href="https://saa.caas.gov.sg/course-details?courseTitle=aircraft-accident-investigation-management&amp;courseId=1000468">https://saa.caas.gov.sg/course-details?courseTitle=aircraft-accident-investigation-management&amp;courseId=1000468</a></li> <li>4) Incident Investigation: Effective Safety Risk Management (SAA) <a href="https://saa.caas.gov.sg/course-details?courseTitle=incident-investigation-effective-safety-risk-management&amp;courseId=1000665">https://saa.caas.gov.sg/course-details?courseTitle=incident-investigation-effective-safety-risk-management&amp;courseId=1000665</a></li> </ol>		
Training method/activities	<p><input type="checkbox"/> CBT/Online      <input checked="" type="checkbox"/> Class room      <input type="checkbox"/> Practical/Simulator</p> <p><input type="checkbox"/> Practical (On-site)      <input type="checkbox"/> Factory/Manufacturer</p>		
Assessment	<p><input type="checkbox"/> Attendance only (If competency test / assessment is not required)</p> <p><input checked="" type="checkbox"/> Minimum passing score: 80% (If competency test is required)</p> <p><input type="checkbox"/> Satisfactory result in on-site assessment (If assessment is required)</p>		

Title of Training Course	Runway Safety Management	Course Reference No.: 10	Version: 1/2020
Course Goal (Purpose of the course)	Reference to AOPC Matrix Table: <b>A1-8</b>		
Course Objective (Learning objectives)	<p>Runway Safety is a significant challenge and top priority for airport operations. This training program deals with Runway Safety Management designed for airport operators.</p> <p>The content of this course is distilled from a wide range of guidance material from Civil Aviation Authorities, operational safety procedures from airports, guidance from ICAO and best practices from other international aviation organizations dealing with runway safety.</p> <p>Upon successful completion of this course, participants will be able to:</p> <ul style="list-style-type: none"> <li>▫ Understand the importance of runway safety at an aerodrome</li> <li>▫ Describe the key steps required to establish a runway safety team</li> <li>▫ Explain major industry best practices with regards to runway Planning and Design from a safety perspective</li> <li>▫ Describe the major requirements of runway inspections and reporting</li> <li>▫ Explain key Low Visibility Procedures required to ensure the safe operation of aircraft during low visibility conditions including the protection of Navigational Aids (NAVAIDs)</li> <li>▫ Understand the key elements of airside operations and how they impact on runway safety</li> <li>▫ Describe the key elements of runway maintenance</li> <li>▫ Explain how to manage temporary restrictions and how to disseminate this information to stakeholders</li> <li>▫ Describe the major safety measures with regards to construction associated with the operational areas of the aerodrome</li> </ul>		
Prerequisites for taking this course	<p>Title of Training Course (if applicable): N/A</p> <p><input type="checkbox"/> None      <input checked="" type="checkbox"/> Indoctrination/Familiarization      <input type="checkbox"/> Initial      <input type="checkbox"/> On-Job-Training</p>		
Training Type	<p><input type="checkbox"/> Indoctrination/Familiarization      <input checked="" type="checkbox"/> Initial      <input type="checkbox"/> On-Job-Training</p> <p><input type="checkbox"/> Recurrent      <input type="checkbox"/> Refresher      <input type="checkbox"/> Specialized</p>		
Course Content	<p>Reference to the ICAO/Industry recognized training course(s) (if available):</p> <p>Runway Safety Management (ACI) <a href="https://www.olc.aero/product/runway-safety-management/">https://www.olc.aero/product/runway-safety-management/</a></p>		
Training method/activities	<p><input checked="" type="checkbox"/> CBT/Online      <input type="checkbox"/> Classroom      <input type="checkbox"/> Practical/Simulator</p> <p><input type="checkbox"/> Practical (On-site)      <input type="checkbox"/> Factory/Manufacturer</p>		
Assessment	<p><input type="checkbox"/> Attendance only (If competency test / assessment is not required)</p> <p><input checked="" type="checkbox"/> Minimum passing score: 80% (If competency test is required)</p> <p><input type="checkbox"/> Satisfactory result in on-site assessment (If assessment is required)</p>		

Title of Training Course	Aerodrome Pavement Maintenance	Course Reference No.: 11	Version: 1/2020
Reference to AOPC Matrix Table: <b>A1-1, A1-2</b>			
Course Goal (Purpose of the course)	This course will provide information needed to establish an effective aerodrome pavement management and maintenance program. This course will help trainees to understand the performance of pavements, how to evaluate them, the characteristics of a good pavement management and maintenance program, and current repair techniques used in the industry. This course will help airport officers make informed decisions about the maintenance of aerodrome pavements and address special considerations such as minimizing impacts on users, maximizing airport safety, and adapting to their local operating environments.		
Course Objective (Learning objectives)	<p>Upon successful completion of this course, participants will be able to:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Evaluation of pavements and identification of types of distress</li> <li><input type="checkbox"/> Techniques for repairing Hot-Mix Asphalt and Portland Cement Concrete pavements</li> <li><input type="checkbox"/> Pavement management and maintenance programs</li> <li><input type="checkbox"/> Aerodrome pavement maintenance - case studies</li> <li><input type="checkbox"/> Conduct an Aerodrome Surface Inspection</li> </ul>		
Prerequisites for taking this course	<p>Title of Training Course (if applicable): N/A</p> <p><input type="checkbox"/> None      <input checked="" type="checkbox"/> Indoctrination/Familiarization      <input type="checkbox"/> Initial      <input type="checkbox"/> On-Job-Training</p>		
Training Type	<p><input type="checkbox"/> Indoctrination/Familiarization      <input checked="" type="checkbox"/> Initial      <input type="checkbox"/> On-Job-Training</p> <p><input type="checkbox"/> Recurrent      <input type="checkbox"/> Refresher      <input type="checkbox"/> Specialized</p>		
Course Content	<p>Reference to the ICAO/Industry recognized training course(s) (if available):</p> <p>UC Berkeley, ITS-SAA Airport Maintenance (SAA) <a href="https://saa.caas.gov.sg/">https://saa.caas.gov.sg/</a></p>		
Training method/activities	<p><input type="checkbox"/> CBT/Online      <input checked="" type="checkbox"/> Class room      <input type="checkbox"/> Practical/Simulator</p> <p><input checked="" type="checkbox"/> Practical (On-site)      <input type="checkbox"/> Factory/Manufacturer</p>		
Assessment	<p><input type="checkbox"/> Attendance only (If competency test / assessment is not required)</p> <p><input checked="" type="checkbox"/> Minimum passing score: 80% (If competency test is required)</p> <p><input type="checkbox"/> Satisfactory result in on-site assessment (If assessment is required)</p>		

Title of Training Course	Radiotelephone Phraseology	Course Reference No.: 12	Version: 1/2020
	Reference to AOPC Matrix Table: <b>A1-1, A1-2, A1-5, A1-6</b>		
Course Goal (Purpose of the course)	Radiotelephone training. ICAO standard phraseologies are developed to provide efficient, clear, concise, and unambiguous communications. Constant attention should be given to the correct use of ICAO phraseologies in all instances in which they are applicable.		
Course Objective (Learning objectives)	Upon successful completion of this course, participants will be able to: <input type="checkbox"/> Employ standard phraseology; <input type="checkbox"/> Understand the need to use clear, concise communications;		
Prerequisites for taking this course	Title of Training Course (if applicable): N/A <input type="checkbox"/> None <input checked="" type="checkbox"/> Indoctrination/Familiarization <input type="checkbox"/> Initial <input type="checkbox"/> On-Job-Training		
Training Type	<input type="checkbox"/> Indoctrination/Familiarization <input checked="" type="checkbox"/> Initial <input type="checkbox"/> On-Job-Training <input type="checkbox"/> Recurrent <input type="checkbox"/> Refresher <input type="checkbox"/> Specialized		
Course Content	Reference to the ICAO/Industry recognized training course(s) (if available): Note: The following training courses include Radiotelephone Phraseology 1) Refer to PANS-Aerodromes – Framework for an Airside Vehicle Driver Training Programme 2) Aerodrome Inspection Course (Course reference no.: 05)		
Training method/activities	<input type="checkbox"/> CBT/Online <input checked="" type="checkbox"/> Class room <input type="checkbox"/> Practical/Simulator <input type="checkbox"/> Practical (On-site) <input type="checkbox"/> Factory/Manufacturer		
Assessment	<input type="checkbox"/> Attendance only (If competency test / assessment is not required) <input checked="" type="checkbox"/> Minimum passing score: 80% (If competency test is required) <input type="checkbox"/> Satisfactory result in on-site assessment (If assessment is required)		

Title of Training Course	Removal of Contaminants from Aerodrome Pavements	Course Reference No.: 13	Version: 1/2020
Reference to AOPC Matrix Table: <b>A1-2 and A1-8</b>			
Course Goal (Purpose of the course)	To provide participants with Knowledge, Skills and Attitudes to enable them effectively and efficiently monitor and remove contaminants (e.g. rubber deposits, ice, snow, etc. as per local climate conditions) on aerodrome pavements and apply appropriate removal methodology to obtain the required friction level.		
Course Objective (Learning objectives)	<p>Upon successful completion of the course, the participants will be able to:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Identify causes of reduction in friction value of runway surface and its effect on aircraft movement on active runway</li> <li><input type="checkbox"/> Appreciate importance of maintaining requisite friction value on runways</li> <li><input type="checkbox"/> Measure runway friction value</li> <li><input type="checkbox"/> Identify the low-friction areas</li> <li><input type="checkbox"/> Apply appropriate contaminant removal methods considering the pavements surface material and extent of deposits</li> </ul>		
Prerequisites for taking this course	<p>Title of Training Course (if applicable): N/A</p> <p><input type="checkbox"/> None      <input checked="" type="checkbox"/> Indoctrination/Familiarization      <input type="checkbox"/> Initial      <input type="checkbox"/> On-Job-Training</p>		
Training Type	<p><input type="checkbox"/> Indoctrination/Familiarization      <input checked="" type="checkbox"/> Initial      <input checked="" type="checkbox"/> On-Job-Training</p> <p><input type="checkbox"/> Recurrent      <input type="checkbox"/> Refresher      <input type="checkbox"/> Specialized</p>		
Course Content	<p>Reference to the ICAO/Industry recognized training course(s) (if available):</p> <p>1) Airport Runway Snow Removing Operations Management (Capital Airport Management Academy, China); or (<a href="https://www.icao.int/training/Pages/training-catalogue-details.aspx?catid=446&amp;language=0&amp;region=&amp;ITP=0">https://www.icao.int/training/Pages/training-catalogue-details.aspx?catid=446&amp;language=0&amp;region=&amp;ITP=0</a>)</p> <p>2) Runway Rubber Removal (IAA) (<a href="https://www.icao.int/training/Pages/training-catalogue-details.aspx?catid=383&amp;language=0&amp;region=&amp;ITP=0">https://www.icao.int/training/Pages/training-catalogue-details.aspx?catid=383&amp;language=0&amp;region=&amp;ITP=0</a>)</p>		
Training method/activities	<p><input type="checkbox"/> CBT/Online      -      <input checked="" type="checkbox"/> Class room      <input type="checkbox"/> Practical/Simulator</p> <p><input checked="" type="checkbox"/> Practical (On-site)      <input checked="" type="checkbox"/> Factory/Manufacturer      -</p>		
Assessment	<p><input type="checkbox"/> Attendance only (If competency test / assessment is not required)</p> <p><input checked="" type="checkbox"/> Minimum passing score: 80% (If competency test is required)</p> <p><input type="checkbox"/> Satisfactory result in on-site assessment (If assessment is required)</p>		

Title of Training Course	Maintenance of Markings, Signs and Markers	Course Reference No.: 14	Version: 1/2020
Reference to AOPC Matrix Table: <b>A1-2</b>			
Course Goal (Purpose of the course)	The course enables the participants to interpret and implement the certification specifications related to Runways, Taxiways, Aprons and adjacent areas markings and signs, e.g. for planning purposes and future maintenance. Based on best practices, the participants will become knowledgeable about the configuration, dimensioning and design of these infrastructural elements and will learn how to fulfill relevant requirements.		
Course Objective (Learning objectives)	Upon successful completion of this course, participants will be able to verify and maintain: <input type="checkbox"/> Markings <input type="checkbox"/> Signs <input type="checkbox"/> Markers		
Prerequisites for taking this course	Title of Training Course (if applicable): N/A <input type="checkbox"/> None <input checked="" type="checkbox"/> Indoctrination/Familiarization <input type="checkbox"/> Initial <input type="checkbox"/> On-Job-Training		
Training Type	<input type="checkbox"/> Indoctrination/Familiarization <input checked="" type="checkbox"/> Initial <input checked="" type="checkbox"/> On-Job-Training <input type="checkbox"/> Recurrent <input type="checkbox"/> Refresher <input type="checkbox"/> Specialized		
Course Content	Reference to the ICAO/Industry recognized training course(s) (if available):  1) Airfield Pavement Markings (IAA); and <a href="https://www.icao.int/training/Pages/training-catalogue-details.aspx?catid=382&amp;language=0&amp;region=&amp;ITP=0">https://www.icao.int/training/Pages/training-catalogue-details.aspx?catid=382&amp;language=0&amp;region=&amp;ITP=0</a> 2) Airfield Signs (IAA) <a href="https://www.icao.int/training/Pages/training-catalogue-details.aspx?catid=2426&amp;language=0&amp;region=&amp;ITP=0">https://www.icao.int/training/Pages/training-catalogue-details.aspx?catid=2426&amp;language=0&amp;region=&amp;ITP=0</a>		
Training method/activities	<input type="checkbox"/> CBT/Online <input checked="" type="checkbox"/> Class room <input type="checkbox"/> Practical/Simulator <input checked="" type="checkbox"/> Practical (On-site) <input type="checkbox"/> Factory/Manufacturer		
Assessment	<input type="checkbox"/> Attendance only (If competency test / assessment is not required) <input checked="" type="checkbox"/> Minimum passing score: 80% (If competency test is required) <input type="checkbox"/> Satisfactory result in on-site assessment (If assessment is required)		

Title of Training Course	Managing Works in Progress	Course Reference No.: 15	Version: 1/2020
	Reference to AOPC Matrix Table: <b>A1-4, A1-7, A1-8</b>		
Course Goal (Purpose of the course)	<p>All aerodromes have to manage works in progress at some point, whether as a result of new developments or maintenance. It is therefore vital that staffs involved are able to manage the construction in a safe manner, enabling aircraft operation to continue, whilst at the same time allowing the works to carry on.</p> <p>This course provides detailed information on how to plan aerodrome works, ensuring the necessary documentation is produced in accordance with the Airport's Safety Management System, how the works are controlled on a day to day basis and how to bring new developments into operational status.</p>		
Course Objective (Learning objectives)	<p>Upon successful completion of this course, participants will be able to:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Effectively manage works, Risk Assessments and Compliance Statements, ensuring compliance with National and International Standards</li> <li><input type="checkbox"/> Explain how to effectively manage contractors to ensure safe operations</li> <li><input type="checkbox"/> Offer examples for managing works in the form of Case Studies as part of the learning experience</li> <li><input type="checkbox"/> Explain the need for effective and safe "Management of Change" in the Aerodrome works process</li> </ul>		
Prerequisites for taking this course	<p>Title of Training Course (if applicable): Managing Operations During Construction online course (ACI) <a href="https://www.olc.aero/product/managing-operations-during-construction/">https://www.olc.aero/product/managing-operations-during-construction/</a></p> <p><input type="checkbox"/> None    <input checked="" type="checkbox"/> Indoctrination/Familiarization    <input type="checkbox"/> Initial    <input type="checkbox"/> On-Job-Training</p>		
Training Type	<p><input type="checkbox"/> Indoctrination/Familiarization    <input type="checkbox"/> Initial    <input checked="" type="checkbox"/> On-Job-Training</p> <p><input type="checkbox"/> Recurrent    <input type="checkbox"/> Refresher    <input checked="" type="checkbox"/> Specialized</p>		
Course Content	<p>Reference to the ICAO/Industry recognized training course(s) (if available):</p> <p>Airport Safety Course - Managing Aerodrome Works (ACI) <a href="https://aci.aero/global-training/training-information/course-categories/safety/managing-aerodrome-works/">https://aci.aero/global-training/training-information/course-categories/safety/managing-aerodrome-works/</a></p>		
Training method/activities	<p><input type="checkbox"/> CBT/Online    <input checked="" type="checkbox"/> Class room    <input type="checkbox"/> Practical/Simulator</p> <p><input checked="" type="checkbox"/> Practical (On-site)    <input type="checkbox"/> Factory/Manufacturer</p>		
Assessment	<p><input type="checkbox"/> Attendance only (If competency test / assessment is not required)</p> <p><input checked="" type="checkbox"/> Minimum passing score: 80% (If competency test is required)</p> <p><input checked="" type="checkbox"/> Satisfactory result in on-site assessment (If assessment is required)</p>		

Title of Training Course	Escort and Follow-me Operations	Course Reference No.: 16	Version: 1/2020
	Reference to AOPC Matrix Table: <b>A1-8</b>		
Course Goal (Purpose of the course)	This course explains why Escort and Follow-Me Operations are required on a daily basis at airports and provides the theoretical knowledge required to undertake them.		
Course Objective (Learning objectives)	<p>Upon successful completion of this course, participants will be able to:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Understand how Escort &amp; Follow-Me operations help to facilitate secure, safe and efficient airside operations.</li> <li><input type="checkbox"/> Recognize the similarities and differences that exist between Escort and Follow-Me operations.</li> <li><input type="checkbox"/> Explain the role and responsibilities of the driver in performing Escort and Follow-Me operations.</li> <li><input type="checkbox"/> Describe the key steps involved in conducting successful escort and follow-me operations.</li> <li><input type="checkbox"/> Understanding the procedures that must be followed when conducting Escort and Follow-Me operations.</li> <li><input type="checkbox"/> Understand the training that should be undertaken to ensure driver competence to conduct Escort and Follow-Me operations.</li> </ul>		
Prerequisites for taking this course	<p>Title of Training Course (if applicable): N/A</p> <p><input type="checkbox"/> None      <input checked="" type="checkbox"/> Indoctrination/Familiarization      <input type="checkbox"/> Initial      <input type="checkbox"/> On-Job-Training</p>		
Training Type	<p><input type="checkbox"/> Indoctrination/Familiarization      <input checked="" type="checkbox"/> Initial      <input type="checkbox"/> On-Job-Training</p> <p><input type="checkbox"/> Recurrent      <input type="checkbox"/> Refresher      <input type="checkbox"/> Specialized</p>		
Course Content	<p>Reference to the ICAO/Industry recognized training course(s) (if available):</p> <p>Escort and follow-me online course (ACI) <a href="https://www.olc.aero/product/escort-and-follow-me-operations/">https://www.olc.aero/product/escort-and-follow-me-operations/</a></p>		
Training method/activities	<p><input checked="" type="checkbox"/> CBT/Online      <input type="checkbox"/> Class room      <input type="checkbox"/> Practical/Simulator</p> <p><input type="checkbox"/> Practical (On-site)      <input type="checkbox"/> Factory/Manufacturer</p>		
Assessment	<p><input type="checkbox"/> Attendance only (If competency test / assessment is not required)</p> <p><input checked="" type="checkbox"/> Minimum passing score: 80% (If competency test is required)</p> <p><input type="checkbox"/> Satisfactory result in on-site assessment (If assessment is required)</p>		

Title of Training Course	Airfield Lighting including PAPI/VASIS Maintenance	Course Reference No.: 17	Version: 1/2020
	Reference to AOPC Matrix Table: <b>A1-2</b>		
Course Goal (Purpose of the course)	This course provides trainees an overview of Airport Electrical & Mechanical Installations and their maintenance		
Course Objective (Learning objectives)	<p>Upon successful completion of this course, participants will be able to:</p> <ul style="list-style-type: none"> <li>▫ Provide participants knowledge skill &amp; attitude (KSAs) about Aeronautical Grounds Aids, Serviceability and Maintenance Standards at their airports and to maintain the desired serviceability levels during day-to-day operation and during changes in infrastructures and procedures.</li> <li>▫ Maintain the Airfield Lighting Systems as per ICAO Standards.</li> </ul>		
Prerequisites for taking this course	<p>Title of Training Course (if applicable): N/A</p> <p><input type="checkbox"/> None      <input checked="" type="checkbox"/> Indoctrination/Familiarization      <input type="checkbox"/> Initial      <input type="checkbox"/> On-Job-Training</p>		
Training Type	<p><input type="checkbox"/> Indoctrination/Familiarization      <input checked="" type="checkbox"/> Initial      <input type="checkbox"/> On-Job-Training</p> <p><input type="checkbox"/> Recurrent      <input type="checkbox"/> Refresher      <input type="checkbox"/> Specialized</p>		
Course Content	<p>Reference to the ICAO/Industry recognized training course(s) (if available):</p> <p>1) Aeronautical Ground Aids, Serviceability standards and maintenance (IAA); or <a href="https://www.aai.aero/sites/default/files/CALENDAR%20%20ENGLISH.pdf">https://www.aai.aero/sites/default/files/CALENDAR%20%20ENGLISH.pdf</a></p> <p>2) Maintenance of Airfield Lighting System (GMR Aviation Academy, India) <a href="https://gmractionacademy.org/maintainance-of-airfield-lighting-system.aspx">https://gmractionacademy.org/maintainance-of-airfield-lighting-system.aspx</a></p>		
Training method/activities	<p><input type="checkbox"/> CBT/Online      <input checked="" type="checkbox"/> Class room      <input type="checkbox"/> Practical/Simulator</p> <p><input checked="" type="checkbox"/> Practical (On-site)      <input type="checkbox"/> Factory/Manufacturer</p>		
Assessment	<p><input type="checkbox"/> Attendance only (If competency test / assessment is not required)</p> <p><input checked="" type="checkbox"/> Minimum passing score: 80% (If competency test is required)</p> <p><input checked="" type="checkbox"/> Satisfactory result in on-site assessment (If assessment is required)</p>		

Title of Training Course	Maintenance of Unpaved Surfaces	Course Reference No.: 18	Version: 1/2020
	Reference to AOPC Matrix Table: <b>A1-2</b>		
Course Goal (Purpose of the course)	This course provides trainees the knowledge in maintenance of aerodrome unpaved surfaces.		
Course Objective (Learning objectives)	Upon successful completion of this course, participants will be able to: <ul style="list-style-type: none"> <li>▫ Gain a comprehensive knowledge in aerodrome unpaved surfaces including drainage in compliance with ICAO Annex 14.</li> </ul>		
Prerequisites for taking this course	Title of Training Course (if applicable): N/A <input type="checkbox"/> None <input checked="" type="checkbox"/> Indoctrination/Familiarization <input type="checkbox"/> Initial <input type="checkbox"/> On-Job-Training		
Training Type	<input type="checkbox"/> Indoctrination/Familiarization <input checked="" type="checkbox"/> Initial <input checked="" type="checkbox"/> On-Job-Training <input type="checkbox"/> Recurrent <input type="checkbox"/> Refresher <input type="checkbox"/> Specialized		
Course Content	Reference to the ICAO/Industry recognized training course(s) (if available):  Landscaping (GMR Aviation Academy, India) <a href="https://gmractionacademy.org/landscaping.aspx">https://gmractionacademy.org/landscaping.aspx</a>		
Training method/activities	<input type="checkbox"/> CBT/Online <input checked="" type="checkbox"/> Class room <input type="checkbox"/> Practical/Simulator <input checked="" type="checkbox"/> Practical (On-site) <input type="checkbox"/> Factory/Manufacturer		
Assessment	<input type="checkbox"/> Attendance only (If competency test / assessment is not required) <input checked="" type="checkbox"/> Minimum passing score: 80% (If competency test is required) <input checked="" type="checkbox"/> Satisfactory result in on-site assessment (If assessment is required)		