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Manual on Certification of Aerodromes

Approved by the Secretary General
and published under his authority

First Edition — 2001

International Civil Aviation Organization

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Foreword

The purpose of this manual is to provide guidance to States in establishing their regulatory system for the certification of land aerodromes. The establishment of such a regulatory system is intended to ensure that the facilities, equipment and operational procedures at certified aerodromes are in compliance with the Standards and Recommended Practices specified in Volume I of Annex 14 to the Convention on International Civil Aviation, and to any national standards and practices in force. This manual also provides guidance on aerodrome certification procedures and on the subsequent compliance and enforcement of the aerodrome operator's obligations. Guidance material on the organizational aspects of the regulatory authority is also included.

It is recognized that a State may limit the certification requirement to the operation of certain aerodromes only, distinguishing between factors such as the maximum number of passenger seats in the aeroplanes served by the aerodrome or the maximum take-off weight of the aeroplanes; whether the operations are scheduled or unscheduled; and whether the aerodrome is open for use at night. Since the safety of operations at all aerodromes is the responsibility of the State, the State's regulations may also need to cover the operation of uncertified aerodromes. Such additional regulations are not covered in this manual; the practices of certain States in this respect are, however, briefly mentioned in the introductory note to model regulations 3B.1.1, 3B.1.2 and 3B.1.3 in Chapter 3.

The scope of this manual is confined to the safety, regularity and efficiency aspects of aerodrome facilities, services, equipment and operational procedures and

excludes the subjects of aviation security, air navigation services and other areas; these subjects are normally covered by separate regulations. The aerodrome certification regulations focus on the safety, regularity and efficiency of aircraft operations at aerodromes. This manual, therefore, excludes the aspects of aerodrome operations relating to the administration of aerodrome finances and the servicing of passengers and cargo.

It is recognized that it may not be feasible for a State with a limited number of aerodromes under its jurisdiction, or which lacks technical and financial resources, to establish a full organizational structure dealing with aerodrome certification, compliance and enforcement. A State in this position should not, however, diminish the stringency of its regulations in any way; it should consider entering into a cooperative arrangement with another State or participating in a suitable regional cooperation arrangement. The ICAO Regional Office accredited to the State may be of assistance in establishing such an arrangement under the Technical Cooperation Programme of ICAO.

In developing this manual, account was taken of the current aerodrome certification or licensing regulations and procedures of certain States. However, it is recognized that the changing aviation safety environment may necessitate revision of a State's regulations from time to time. It is intended that this manual be kept up to date. Future editions will most likely be improved on the basis of experience gained and of comments and suggestions received from the users of this manual. Readers are invited to give their views, comments and suggestions on this edition. These should be directed to the Secretary General of ICAO.

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Chapter 1

INTRODUCTION

1.1 GENERAL

1.1.1 Article 15 of the Convention on International Civil Aviation requires that all aerodromes open to public use under the jurisdiction of a Contracting State should provide uniform conditions for the aircraft of all other Contracting States. Furthermore, Articles 28 and 37 oblige each State to provide, in its territory, airports and other air navigation facilities and services in accordance with the Standards and Recommended Practices (SARPs) developed by ICAO. Volume I of Annex 14 to the Convention contains SARPs on the subject of aerodrome design and operation. Responsibility for ensuring safety, regularity and efficiency of aircraft operations at aerodromes under their respective jurisdictions rests with individual States. It is therefore essential that whenever the operation of airports is delegated to an operator, the State retain its overseeing responsibility and ensure that the operator complies with the relevant ICAO SARPs and/or applicable national regulations.

1.1.2 The most effective and transparent means of achieving these objectives are to:

- a) establish a separate safety oversight entity and a well-defined safety oversight mechanism, supported by appropriate legislation, to carry out the functions of certification and safety regulation of aerodromes;
- b) implement an aerodrome certification procedure whereby a State certifies an aerodrome through the approval/acceptance of the aerodrome manual submitted by the aerodrome operator.

1.2 NEED FOR CERTIFICATION

1.2.1 In order to discharge their overall responsibility under the Convention, States need to enact basic legislation that will provide for the development and promulgation of civil aviation regulations, including aerodrome regulations, consistent with their adoption of the Annexes. The

inclusion of a requirement for the certification of aerodromes in the aerodrome regulations of a State will ensure that aerodrome operators can meet their obligations in accordance with the terms and conditions of the aerodrome certificate. It will also vest the regulatory authority with the necessary powers to enforce compliance with the regulations. The need for such regulations is further underscored by the increasing trend towards privatization or corporatization of aerodromes and also the increasing trend towards the adoption by States of arrangements such as Build, Operate and Transfer (BOT); Build, Operate and Own (BOO) and other variants thereof for the development of new aerodromes and the expansion of existing ones.

1.2.2 Safety, regularity and efficiency of aircraft operations at aerodromes being of paramount importance, the requirement for aerodrome certification should apply equally to government departments operating State-owned aerodromes. Similarly, aerodromes operated by entities such as airport authorities or corporations owned totally or partially by a State and aerodromes owned and operated by provincial governments, cities and municipalities should not be exempt from aerodrome certification requirements.

1.2.3 While the overall responsibility for aerodrome safety continues to rest with States, it is recognized that ownership of aerodrome safety is increasingly being devolved by States to aerodrome operators. The adequacy of that ownership can be demonstrated through a robust safety management system (see definitions in 3A.2.1). However, the adoption of a safety management system does not obviate the need to comply with the SARPs contained in Annex 14, Volume I, and the applicable national regulations.

1.2.4 In order to provide guidance to States that have not yet introduced an aerodrome certification regulatory system, model regulations with introductory notes preceding each set of regulations are provided in Chapter 3 for adoption or adaptation, as appropriate, by States. Chapter 4 provides guidance material on the aerodrome certification procedure, and Chapter 5 covers the organizational aspects of the CAA for implementation of the regulatory system.

1.2.5 The scope of this manual is confined to the safety, regularity and efficiency aspects of aerodrome facilities, services, equipment and operational procedures. It does not cover such aspects as those relating to the aeronautical information system, aeronautical meteorology, the administration of aerodrome finances and the servicing of passengers and cargo. Air traffic services normally have their own regulatory framework, and therefore ATS regulations are not covered by this manual. However, since air traffic services are an integral part of an aerodrome's operation, their regulation should be coordinated with that of aerodromes and considered within the certification process. This can be achieved in a number of ways, with the aerodrome manual being employed as a link, as illustrated in Section 3C.3. Furthermore, since the appropriate authority for aviation security may be a different organization from that tasked with the certification of aerodromes, its

coverage in this manual is limited to areas affecting aircraft operational safety, such as boundary fencing and airside lighting.

1.2.6 In developing the material for this manual, particularly the model regulations and the organizational aspects of the regulatory authority, it was recognized that requirements may not be the same for all States. The structure of the model regulations as presented will permit their adaptation, as appropriate, to meet the specific requirements of aviation scenarios in individual States.

1.2.7 Throughout this manual, the term "State" refers to the basic authority which establishes a Civil Aviation Authority (CAA) which has a Director General of Civil Aviation (DGCA) with powers to exercise authority, under the laws of the State, over civil aviation matters.

Chapter 2

THE AERODROME CERTIFICATION REGULATORY SYSTEM

2.1 PREREQUISITES FOR THE INTRODUCTION OF THE REGULATORY SYSTEM

There are two prerequisites for the introduction of the aerodrome certification regulatory system. These are:

- a) the existence of provisions in the basic aviation laws of the State for the development and promulgation of aerodrome regulations; and
- b) the existence of an appropriate State entity vested with the necessary authority to ensure compliance with the regulations. This entity may be identified in different States by different names. For the purpose of this manual, this entity is hereinafter referred to as the Civil Aviation Authority (CAA).
- d) require the CAA, as the certification authority, to be satisfied that the holder of an aerodrome certificate is competent to ensure that the aerodrome, its associated airspace and the operating procedures are safe for use by aircraft;
- e) provide for the necessary coordination with other agencies and service providers, such as aeronautical information services, air traffic services, designated meteorological authorities, and security, to ensure safe aircraft operations;
- f) provide for the enforcement and imposition of sanctions for non-compliance with the regulations; and
- g) provide for authorized personnel to have right of access to such places as necessary to carry out safety audits, inspections and testing as provided for in the regulations.

2.2 BASIC AVIATION LAW

The basic aviation law of the State should, *inter alia*:

- a) authorize the establishment of the CAA, where appropriate, to be headed by a person whose title, for the purpose of this manual, is hereinafter referred to as the Director General of Civil Aviation (DGCA);
- b) provide for the adoption of aerodrome certification regulations, hereinafter referred to as regulations;
- c) entrust the DGCA with the duties and responsibilities to issue, review, transfer, refuse and cancel aerodrome certificates; develop, issue and amend Aerodrome Directives, Bulletins, Orders, etc., consistent with the regulations; and establish an entity to assist in carrying out the functions and responsibilities of the DGCA;

2.3 BASIC PRINCIPLES FOR AERODROME CERTIFICATION REGULATIONS

The regulations of a State should include provisions for:

- a) the mandatory certification of all or certain categories of aerodromes in accordance with criteria established by the State. A State may, for example, decide to exempt aerodromes used by aircraft with less than a defined number of passenger seats from certification requirements and may instead make other appropriate provisions in the regulations for ensuring the safety of operations at uncertified aerodromes, such as those relating to the movement area and visual aids;
- b) the certification procedure;

- c) the duties and responsibilities of aerodrome operators;
- d) safety audits, inspections and testing;
- e) the imposition of sanctions for contravention of, or failure to comply with, any of the provisions of the regulations; and
- f) the use of military aerodromes by civil aircraft.

2.4 IMPLEMENTATION OF THE REGULATIONS

The implementation of the aerodrome certification regulations will require the establishment of an adequately staffed and budgeted entity within the CAA. The national regulations of a State may require the payment of a suitable fee for the issuance, renewal or transfer of an aerodrome certificate.

Chapter 3

AERODROME CERTIFICATION MODEL REGULATIONS

3.1 INTRODUCTION

In this chapter, a set of model regulations covering the certification of aerodromes are provided to assist States in the development of their own national regulations on the subject. Introductory notes are given for Sections A to D of the model regulations.

3.2 AERODROME CERTIFICATION MODEL REGULATIONS

The aerodrome certification model regulations in this chapter are divided into five sections:

Section A — General

Section B — Aerodrome Certification

Section C — Aerodrome Manual

Section D — Obligations of the Aerodrome Operator

Section E — Exemptions.

SECTION A GENERAL

INTRODUCTORY NOTES

1. This section includes model regulations on application, definitions and aerodrome standards and practices.
2. These regulations are intended to apply to land aerodromes.
3. States may, as deemed appropriate, make provisions in their regulations for the use of military aerodromes by civil aircraft.
4. The terms in these regulations are intended to facilitate the application of the regulations.
5. Annex 14, Volume I, contains Standards and Recommended Practices (SARPs) for aerodrome design

and operation. Article 38 of the Convention requires Contracting States to notify ICAO of any differences between their national regulations and practices and the international Standards contained in the Annex and any amendments thereto. Contracting States are also invited to extend such notification to any differences from the Recommended Practices contained in the Annex and any amendments thereto. In addition to their obligation under Article 38 of the Convention, Annex 15 requires Contracting States to publish the differences between their national regulations and practices and the related ICAO Standards and Recommended Practices through the Aeronautical Information Service when the notification of such differences is important to the safety of air navigation.

MODEL REGULATIONS

3A.1 Application

Sections A to E inclusive apply to land aerodromes.

these regulations, including any amendments thereto accepted/approved by the CAA.

3A.2 Definitions

The terms described in this subsection have the following meanings whenever they appear in these regulations:

Aerodrome operator. In relation to a certificated aerodrome, means the aerodrome certificate holder.

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

Apron. A defined area, on a land aerodrome, intended to accommodate aircraft for purposes of loading or unloading of passengers, mail or cargo, fuelling, parking or maintenance.

Aerodrome certificate. The certificate to operate an aerodrome issued by the appropriate authority under Section B of these regulations subsequent to the acceptance/approval of the aerodrome manual.

Certified aerodrome. An aerodrome whose operator has been granted an aerodrome certificate.

Aerodrome facilities and equipment. Facilities and equipment, inside or outside the boundaries of an aerodrome, that are constructed or installed and maintained for the arrival, departure and surface movement of aircraft.

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

Aerodrome manual. The manual that forms part of the application for an aerodrome certificate pursuant to

Marker. An object displayed above ground level in order to indicate an obstacle or delineate a boundary.

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

Maximum carrying capacity. In relation to an aircraft, means the maximum passenger-seating capacity, or the

maximum payload, permitted under the aircraft's certificate of type approval.

Maximum passenger-seating capacity. In relation to an aircraft, means the maximum number of seats for passengers permitted under the aircraft's certificate of type approval.

Movement area. That part of the aerodrome to be used for the take-off, landing and taxiing of aircraft, consisting of the manoeuvring area and the apron(s).

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

Obstacle free zone (OFZ). The airspace above the inner approach surface, inner transitional surfaces, and balked landing surface and that portion of the strip bounded by these surfaces, which is not penetrated by any fixed obstacle other than a low-mass and frangibly mounted one required for air navigation purposes.

Obstacle limitation surfaces. A series of surfaces that define the volume of airspace at and around an aerodrome to be kept free of obstacles in order to permit the intended aeroplane operations to be conducted safely and to prevent the aerodrome from becoming unusable by the growth of obstacles around the aerodrome.

Runway strip. A defined area including the runway and stopway, if provided, intended:

- a) to reduce the risk of damage to aircraft running off a runway; and
- b) to protect aircraft flying over it during take-off or landing operations.

Safety management system. A system for the management of safety at aerodromes including the organizational structure, responsibilities, procedures, processes and provisions for the implementation of aerodrome safety policies by an aerodrome operator, which provides for the control of safety at, and the safe use of, the aerodrome.

Taxiway strip. An area including a taxiway intended to protect an aircraft operating on a taxiway and to reduce the risk of damage to an aircraft accidentally running off the taxiway.

Unserviceable area. A part of the movement area that is unfit and unavailable for use by aircraft.

Work area. A part of an aerodrome in which maintenance or construction works are in progress.

3A.3 Standards and practices

Any reference in these regulations to aerodrome standards and practices is a reference to the Standards and Recommended Practices (SARPs) in the latest version of Volume I to Annex 14 to the Convention on International Civil Aviation, and the national regulations and practices as amended from time to time.

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SECTION B AERODROME CERTIFICATION

INTRODUCTORY NOTES

1. This section includes model regulations covering the requirement for aerodrome certification; application for issuance of an aerodrome certificate; grant of the certificate; endorsement of conditions in the certificate; duration of the certificate; surrender of the certificate; transfer of the certificate; grant of an interim certificate and amendment of the certificate.

2. The specifications in ICAO Annex 14, Volume I, unless otherwise indicated in a particular context, apply to all aerodromes open to public use in accordance with the provisions of Article 15 of the Convention on International Civil Aviation (reference Annex 14, Volume I, Chapter 1, 1.2.2). The responsibility to ensure safety and order at all aerodromes open to public use under their jurisdiction rests with States. While the requirement for certification may not be applied by a State to all aerodromes under its jurisdiction, aerodromes used for international operations should not be exempted from the requirement. To this end, States need to establish appropriate criteria.

3. In one State, the use of a “licensed” aerodrome is mandatory for any operation involving: aircraft with a maximum take-off weight (MTOW) greater than 2 370 kg conducting public transport of passengers, aircraft with an MTOW less than 2 370 kg conducting public transport of passengers at night, scheduled public transport of passengers or public transport of passengers which begins and ends at the same aerodrome, flying training and flight testing.

4. A second State requires an aerodrome operator to have an airport certificate if scheduled passenger-carrying operations are conducted at that aerodrome by an air carrier using aircraft with more than 30 passenger seats. If unscheduled passenger-carrying operations are conducted at an aerodrome by an air carrier using aircraft with more than 30 passenger seats, the aerodrome operator must have a “limited airport operating certificate”. Commuter and on-demand operations may only be conducted at aerodromes adequate for those operations (including specified lighting for night operations).

5. A third State requires “licensing” of aerodromes used for “regular public transport operations” if the maximum passenger-carrying capacity of the aircraft employed in the operations exceeds 30 seats. Special reporting requirements are specified for unlicensed aerodromes;

certain specified elements, such as the movement area and visual aids, must meet the standards specified for licensed aerodromes, and the aircraft conducting regular public transport operations should not have more than 30 passenger seats. While in the case of licensed aerodromes the responsibility for assessing the adequacy of the aerodrome is that of the aerodrome operator, at unlicensed aerodromes, this responsibility is given to the aircraft operator.

6. The regulations of a fourth State do not relate the aerodrome certification requirement to the passenger-carrying capacity of the aircraft served by it. An aerodrome is considered to be an “airport” when the aerodrome operator has applied for and has been issued with an aerodrome certificate covering the operation of that airport. An aerodrome may simply be “registered” if the operator provides certain limited information. Registered aerodrome information is published only after an inspection of the aerodrome has determined that all conditions of registration have been met which, inter alia, includes compliance with the specified requirements related to marking, lighting, equipping and operation of aerodromes.

7. Model regulation 3B.1.1 requires certification of aerodromes in accordance with a State’s national requirements. A State may, however, decide to limit the requirement as determined appropriate, taking into account the safety environment at the aerodromes under its jurisdiction. Model regulations 3B.1.2 and 3B.1.3 have been included as options which may either be adopted as such or suitably adapted as appropriate. If limitations on certification requirements are specified, then the State’s regulations must include additional provisions to ensure safety and order at the aerodromes not requiring certification. Uncertified aerodromes are not covered by the model regulations in this manual.

8. There should be a requirement for the intending aerodrome operator to submit the application for an aerodrome certificate in a form set out by the CAA. Included in Appendix 2 is a sample of the application form used by one State while Appendix 4 contains a sample of the aerodrome certificate used by another State. Since the aerodrome manual is an integral part of an aerodrome certificate, its preparation and submission at the time of application for the grant of a certificate should be specified as an essential requirement.

9. Before granting an aerodrome certificate, the CAA must be satisfied that the aerodrome manual accurately describes the facilities, services and equipment at the aerodrome and that it contains all the details and information as set out in Section C of these regulations. The CAA should also be satisfied that the aerodrome facilities and equipment conform to the standards and practices specified in regulation 3A.3. The CAA must satisfy itself overall that the aerodrome will offer a safe environment for the operation of the aircraft it is intended for and that the aerodrome operator has the necessary competence and experience to operate and maintain the aerodrome properly.

10. If there are deviations from the standards and practices specified in regulation 3A.3, the CAA may, after conducting aeronautical studies to ensure safety (if and where permitted by the standards and practices), decide to grant a certificate subject to certain conditions and procedures to be complied with by the aerodrome operator. Some guidance material on aeronautical studies is included in Appendix 3.

11. The validity of an aerodrome certificate may be open-ended or of limited duration. One State has specified a five-year duration for a certificate; another has specified a three-year duration, while certain States have not specified any fixed duration. With an adequate reporting and inspection system in place, an open-ended certificate may be appropriate. The model regulations include both options.

12. An aerodrome operator may voluntarily choose to surrender the aerodrome certificate. There should however be a provision for adequate notice to be given to the CAA for the processing of the request and the cancelling of the certificate. Upon cancellation of the certificate, the aerodrome may have to be closed for operations until another operator is granted a certificate to operate the aerodrome; alternatively, the aerodrome may remain open to public use as an uncertified aerodrome, for which appropriate provisions will need to be included by the State in its regulations.

13. Transfer of an aerodrome certificate from one operator to another may be agreed upon and effected by the CAA. The CAA must be satisfied that the proposed transferee will be able to properly operate and maintain the aerodrome.

14. It may be necessary, pending completion of the process involved in the grant or transfer of an aerodrome certificate, to issue an interim aerodrome certificate to the applicant or to the proposed transferee. The CAA must however be satisfied that this would be in the public interest, that an aerodrome certificate would be issued at the completion of the process involved and that this action would not be detrimental to aviation safety.

15. An amendment to an aerodrome certificate may be required if there is a change in the ownership or management structure, a change in the use, operation or boundaries of the aerodrome or if the aerodrome operator requests an amendment.

MODEL REGULATIONS

3B.1 Requirement for an aerodrome certificate

3B.1.1 The operator of an aerodrome intended for public use shall, in accordance with the national requirements, be in possession of an aerodrome certificate.

3B.1.2 An aerodrome certificate is required if the maximum passenger-seating capacity of the aircraft employed in the operations exceeds seats.

Note.— Alternatively, an aerodrome certificate may be required if the maximum take-off mass of the aircraft exceeds 2 730 kg or if the aerodrome is intended for use at night.

3B.1.3 The operator of an aerodrome for which an aerodrome certificate is not required may nevertheless apply for an aerodrome certificate, for which a fee may be charged.

3B.2 Application for an aerodrome certificate

An applicant for an aerodrome certificate shall submit to the CAA for approval an application in the form prescribed by the CAA. The application shall include the aerodrome manual for the aerodrome.

3B.3 Grant of an aerodrome certificate

3B.3.1 Subject to the provisions in regulations 3B.3.2 and 3B.3.3, the CAA may approve the application and accept/approve the aerodrome manual submitted under regulation 3B.2 and grant an aerodrome certificate to the applicant.

3B.3.2 Before granting an aerodrome certificate, the CAA must be satisfied that:

- a) the applicant and his/her staff have the necessary competence and experience to operate and maintain the aerodrome properly;
- b) the aerodrome manual prepared for the applicant's aerodrome and submitted with the application contains all the relevant information;
- c) the aerodrome facilities, services and equipment are in accordance with the standards and practices specified by the State;
- d) the aerodrome operating procedures make satisfactory provision for the safety of aircraft; and
- e) an acceptable safety management system is in place at the aerodrome.

3B.3.3 The CAA may refuse to grant an aerodrome certificate to an applicant. In such cases, the CAA must notify the applicant, in writing, of its reasons no later than days after making that decision.

3B.4 Endorsement of conditions on an aerodrome certificate

After successful completion of the processing of the application and the inspection of the aerodrome, the CAA, when granting the aerodrome certificate, will endorse the conditions for the type of use of the aerodrome and other details as shown in Appendix 4.

3B.5 Duration of an aerodrome certificate

An aerodrome certificate shall remain in force until it is suspended or cancelled or, alternatively, an aerodrome certificate shall be valid for years or until it is suspended or cancelled, whichever is earlier.

3B.6 Surrender of an aerodrome certificate

3B.6.1 An aerodrome certificate holder must give the CAA not less than days' written notice of the date on

which the certificate is to be surrendered in order that suitable promulgation action can be taken.

3B.6.2 The CAA will cancel the certificate on the date specified in the notice.

3B.7 Transfer of an aerodrome certificate

3B.7.1 The CAA may give its consent to and issue an instrument of transfer of an aerodrome certificate to a transferee when:

- a) the current holder of the aerodrome certificate notifies the CAA, in writing, at least days before ceasing to operate the aerodrome, that the current holder will cease to operate the aerodrome as of the date specified in the notice;
- b) the current holder of the aerodrome certificate notifies the CAA, in writing, of the name of the transferee;
- c) the transferee applies to the CAA, in writing, within days before the current holder of the aerodrome certificate ceases to operate the aerodrome for the aerodrome certificate to be transferred to the transferee; and
- d) the requirements set out in regulation 3B.3.2 are met in respect of the transferee.

3B.7.2 If the CAA does not consent to the transfer of an aerodrome certificate, it shall notify the transferee, in writing, of its reasons no later than days after making that decision.

3B.8 Interim aerodrome certificate

3B.8.1 The CAA may issue an interim aerodrome certificate to the applicant referred to in regulation 3B.2 or the proposed transferee of an aerodrome certificate referred to in regulation 3B.7.1 authorizing the applicant or transferee to operate an aerodrome if the CAA is satisfied that:

- a) an aerodrome certificate in respect of the aerodrome will be issued to the applicant or transferred to the transferee as soon as the application procedure for the grant or transfer of an aerodrome certificate has been completed; and

- b) the grant of the interim certificate is in the public interest and is not detrimental to aviation safety.

3B.8.2 An interim aerodrome certificate issued pursuant to regulation 3B.8.1 shall expire on:

- a) the date on which the aerodrome certificate is issued or transferred; or
- b) the expiry date specified in the interim aerodrome certificate;

whichever is earlier.

3B.8.3 These regulations apply to an interim aerodrome certificate in the same manner as they apply to an aerodrome certificate.

3B.9 Amendment of an aerodrome certificate

The CAA may, provided that the requirements of regulations 3B.3.2, 3C.5, and 3C.6 have been met, amend an aerodrome certificate when:

- a) there is a change in the ownership or management of the aerodrome;
- b) there is a change in the use or operation of the aerodrome;
- c) there is a change in the boundaries of the aerodrome; or
- d) the holder of the aerodrome certificate requests an amendment.

SECTION C AERODROME MANUAL

INTRODUCTORY NOTES

1. **Purpose and scope of the aerodrome manual.** *The aerodrome manual is a fundamental requirement of the certification process. It contains all the pertinent information concerning the aerodrome site, facilities, services, equipment, operating procedures, organization and management including the safety management system. The information presented in the aerodrome manual should demonstrate that the aerodrome conforms to the certification standards and practices and that there are no apparent shortcomings which would adversely affect the safety of aircraft operations. The manual is a reference document and provides a checklist of aerodrome certification standards to be maintained and the level of airside services at the aerodrome. Information provided in the aerodrome manual will enable the CAA to assess the suitability of the aerodrome for the aircraft operations proposed and to judge an applicant's fitness to hold a certificate. It is a basic reference guide for conducting site inspections for granting an aerodrome certificate and for subsequent safety inspections. The aerodrome manual is a reference document agreed between the aerodrome operator and the CAA with respect to the standards,*

conditions and the level of service to be maintained at the aerodrome.

2. **Structure and contents of the aerodrome manual.** *For the purpose of uniformity and to facilitate the CAA's review and acceptance/approval of the aerodrome manual, the regulations should set out the structure and content of the aerodrome manual. Examples of the particulars to be included in the aerodrome manual as schedules of the aerodrome certification regulations are given in Appendix 1 to this manual. The applicant for an aerodrome certificate is entirely responsible for the accuracy of the information provided in the aerodrome manual.*

3. **The aerodrome manual — a living document.** *The aerodrome manual is subject to amendment in order to ensure that it provides current and accurate information. The aerodrome certificate holder should therefore be made responsible for the amendment of the manual and for notifying the CAA of any such amendments. The content of an aerodrome manual should be treated with due respect to the confidentiality requirements of individual States.*

MODEL REGULATIONS

3C.1 Preparation of the aerodrome manual

3C.1.1 The operator of a certified aerodrome must have a manual, to be known as the aerodrome manual, for the aerodrome.

3C.1.2 The aerodrome manual shall:

- a) be typewritten or printed, and signed by the aerodrome operator;
- b) be in a format that is easy to revise;
- c) have a system for recording the currency of pages and amendments thereto, including a page for logging revisions; and
- d) be organized in a manner that will facilitate the preparation, review and acceptance/approval process.

3C.2 Location of the aerodrome manual

3C.2.1 The aerodrome operator must provide the CAA with a complete and current copy of the aerodrome manual.

3C.2.2 The aerodrome operator must keep at least one complete and current copy of the aerodrome manual at the aerodrome and one copy at the operator's principal place of business if other than the aerodrome.

3C.2.3 The aerodrome operator must make the copy referred to in regulation 3C.2.2 available for inspection by authorized CAA personnel.

3C.3 Information to be included in the aerodrome manual

3C.3.1 The operator of a certified aerodrome must include the following particulars in an aerodrome manual,

to the extent that they are applicable to the aerodrome, under the following parts:

Part 1. General information set out in Part 1 of the schedule of these regulations (see Appendix 1) on the purpose and scope of the aerodrome manual; the legal requirement for an aerodrome certificate and an aerodrome manual as prescribed in the national regulations; conditions for use of the aerodrome; the aeronautical information services available and the procedures for their promulgation; the system for recording aircraft movements and the obligations of the aerodrome operator as specified in Section D of these regulations.

Part 2. Particulars of the aerodrome site as set out in Part 2 of the schedule of these regulations.

Part 3. Particulars of the aerodrome required to be reported to the aeronautical information service as set out in Part 3 of the schedule of these regulations.

Part 4. The aerodrome operating procedures and safety measures as set out in Part 4 of the schedule of these regulations. This may include references to air traffic procedures such as those relevant to low-visibility operations. Air traffic management procedures are normally published in the air traffic services manual with a cross-reference to the aerodrome manual.

Part 5. Details of the aerodrome administration and the safety management system as set out in Part 5 of the schedule of these regulations.

3C.3.2 If, under regulation 3E.1.1, the CAA exempts the aerodrome operator from complying with any requirement set out in regulation 3B.3.2, the aerodrome manual must show the identifying number given to that

exemption by the CAA and the date the exemption came into effect and any conditions or procedures subject to which the exemption was granted.

3C.3.3 If a particular is not included in the aerodrome manual because it is not applicable to the aerodrome, the aerodrome operator must state in the manual the reason for non-applicability of the particular.

3C.4 Amendment of the aerodrome manual

3C.4.1 The operator of a certified aerodrome must alter or amend the aerodrome manual, whenever necessary, in order to maintain the accuracy of the information in the manual.

3C.4.2 To maintain the accuracy of the aerodrome manual, the CAA may issue a written directive to an aerodrome operator requiring the operator to alter or amend the manual in accordance with that directive.

3C.5 Notification of changes to the aerodrome manual

An aerodrome operator must notify the CAA, as soon as practicable, of any changes that the operator wishes to make to the aerodrome manual.

3C.6 CAA acceptance/approval of the aerodrome manual

The CAA shall accept/approve the aerodrome manual and any amendments thereto, provided these meet the requirements of the preceding regulations in this section.

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SECTION D OBLIGATIONS OF THE AERODROME OPERATOR

INTRODUCTORY NOTE

The grant of an aerodrome certificate obliges the aerodrome operator to ensure the safety, regularity and efficiency of operations at the aerodrome, to allow CAA-authorized personnel access to the aerodrome to carry out safety audits, inspections and testing and to be responsible for notifying and reporting as prescribed.

MODEL REGULATIONS

3D.1 Compliance with standards and practices

The aerodrome operator shall comply with the standards and practices specified in regulation 3A.3 and with any conditions endorsed in the certificate pursuant to regulations 3B.4 and 3E.1.1.

3D.2 Competence of operational and maintenance personnel

3D.2.1 The aerodrome operator shall employ an adequate number of qualified and skilled personnel to perform all critical activities for aerodrome operation and maintenance.

3D.2.2 If the CAA or any other competent authority of the government requires competency certification for the personnel referred to in regulation 3D.2.1, the aerodrome operator shall employ only those persons possessing such certificates.

3D.2.3 The aerodrome operator shall implement a programme to upgrade the competency of the personnel referred to in regulation 3D.2.1.

3D.3 Aerodrome operation and maintenance

3D.3.1 Subject to any directives that the CAA may issue, the aerodrome operator shall operate and maintain the aerodrome in accordance with the procedures set out in the aerodrome manual.

3D.3.2 To ensure the safety of aircraft, the CAA may give written directives to an aerodrome operator to alter the procedures set out in the aerodrome manual.

3D.3.3 The aerodrome operator should ensure proper and efficient maintenance of the aerodrome facilities.

3D.3.4 The aerodrome certificate holder shall coordinate with the ATS provider in order to be satisfied that appropriate air traffic services are available to ensure the safety of aircraft in the airspace associated with the aerodrome. The coordination shall cover other areas related to safety such as aeronautical information service, air traffic services, designated meteorological authorities, and security.

3D.4 Aerodrome operator's safety management system

3D.4.1 The aerodrome operator shall establish a safety management system for the aerodrome describing the structure of the organization and the duties, powers and responsibilities of the officials in the organizational structure, with a view to ensuring that operations are carried out in a demonstrably controlled way and are improved where necessary.

3D.4.2 The aerodrome operator shall oblige all users of the aerodrome, including fixed-base operators, ground-handling agencies and other organizations that perform activities independently at the aerodrome in relation to flight or aircraft handling, to comply with the requirements laid down by the aerodrome operator with regard to safety at the aerodrome. The aerodrome operator shall monitor such compliance.

3D.4.3 The aerodrome operator shall require all users of the aerodrome, including fixed-base operators, ground-handling agencies and other organizations referred to in regulation 3D.4.2, to cooperate in the programme to

promote safety at, and the safe use of, the aerodrome by immediately informing it of any accidents, incidents, defects and faults which have a bearing on safety.

3D.5 Aerodrome operator's internal safety audits and safety reporting

3D.5.1 The aerodrome operator shall arrange for an audit of the safety management system, including an inspection of the aerodrome facilities and equipment. The audit shall cover the aerodrome operator's own functions. The aerodrome operator shall also arrange for an external audit and inspection programme for evaluating other users, including fixed-base operators, ground handling agencies and other organizations working at the aerodrome as referred to in regulation 3D.4.2.

3D.5.2 The audits referred to in regulation 3D.5.1 shall be carried out every months, or less, as agreed with the CAA.

3D.5.3 The aerodrome operator shall ensure that the audit reports, including the report on the aerodrome facilities, services and equipment, are prepared by suitably qualified safety experts.

3D.5.4 The aerodrome operator shall retain a copy of the report(s) referred to in regulation 3D.5.3 for a period to be agreed with the CAA. The CAA may request a copy of the report(s) for its review and reference.

3D.5.5 The report(s) referred to in regulation 3D.5.3 must be prepared and signed by the persons who carried out the audits and inspections.

3D.6 Access to the aerodrome

3D.6.1 Personnel so authorized by the CAA may inspect and carry out tests on the aerodrome facilities, services and equipment, inspect the aerodrome operator's documents and records and verify the aerodrome operator's safety management system before the aerodrome certificate is granted or renewed and, subsequently, at any other time, for the purpose of ensuring safety at the aerodrome.

3D.6.2 An aerodrome operator shall, at the request of the person referred to in regulation 3D.6.1, allow access to any part of the aerodrome or any aerodrome facility, including equipment, records, documents and operator personnel, for the purpose referred to in regulation 3D.6.1.

3D.6.3 The aerodrome operator shall cooperate in conducting the activities referred to in 3D.6.1.

3D.7 Notifying and reporting

3D.7.1 An aerodrome operator shall adhere to the requirement to notify and report to the CAA, air traffic control and pilots within the specified time limits required by these regulations.

3D.7.2 *Notification of inaccuracies in aeronautical information service (AIS) publications.* An aerodrome operator shall review all Aeronautical Information Publications (AIPs), AIP Supplements, AIP Amendments, Notices to Airmen (NOTAMs), Pre-flight Information Bulletins and Aeronautical Information Circulars issued by AIS on receipt thereof and immediately after such reviews shall notify AIS of any inaccurate information contained therein that pertains to the aerodrome.

3D.7.3 *Notification of changes to the aerodrome facilities, equipment and level of service planned in advance.* An aerodrome operator shall notify AIS and the CAA, in writing, at least days before effecting any change to the aerodrome facility or equipment or the level of service at the aerodrome that has been planned in advance and which is likely to affect the accuracy of the information contained in any AIS publication referred to in regulation 3D.7.2.

3D.7.4 *Issues requiring immediate notification.* Subject to the requirements of regulation 3D.7.5, an aerodrome operator shall give AIS and shall arrange for air traffic control and the flight operations unit to receive immediate notice detailing any of the following circumstances of which the operator has knowledge:

a) obstacles, obstructions and hazards:

- 1) any projections by an object through an obstacle limitation surface relating to the aerodrome; and
- 2) the existence of any obstruction or hazardous condition affecting aviation safety at or near the aerodrome;

b) level of service:

reduction in the level of service at the aerodrome as set out in any of the AIS publications referred to in regulation 3D.7.2;

c) movement area:

closure of any part of the movement area of the aerodrome; and

- d) any other condition that could affect aviation safety at the aerodrome and against which precautions are warranted.

3D.7.5 *Immediate notification to pilots.* When it is not feasible for an aerodrome operator to arrange for the air traffic control and the flight operations unit to receive notice of a circumstance referred to in 3D.7.4 in accordance with that regulation, the operator must give immediate notice direct to the pilots who may be affected by that circumstance.

3D.8 Special inspections

An aerodrome operator shall inspect an aerodrome, as circumstances require, to ensure aviation safety:

- a) as soon as practicable after any aircraft accident or incident within the meaning of these terms as defined in Annex 13 to the Convention on International Civil Aviation;
- b) during any period of construction or repair of the aerodrome facilities or equipment that is critical to the safety of aircraft operation; and

- c) at any other time when there are conditions at the aerodrome that could affect aviation safety.

3D.9 Removal of obstructions from the aerodrome surface

An aerodrome operator shall remove from the aerodrome surface any vehicle or other obstruction that is likely to be hazardous.

3D.10 Warning notices

When low flying aircraft, at or near an aerodrome, or taxiing aircraft are likely to be hazardous to people or vehicular traffic, the aerodrome operator shall:

- a) post hazard warning notices on any public way that is adjacent to the manoeuvring area; or
- b) if such a public way is not controlled by the aerodrome operator, inform the authority responsible for posting the notices on the public way that there is a hazard.

**SECTION E
EXEMPTIONS**

MODEL REGULATIONS

3E.1.1 The CAA may exempt, in writing, an aerodrome operator from complying with specific provisions of these regulations.

3E.1.2 Before the CAA decides to exempt the aerodrome operator, the CAA must take into account all safety-related aspects.

3E.1.3 An exemption is subject to the aerodrome operator complying with the conditions and procedures specified by the CAA in the aerodrome certificate as being necessary in the interest of safety.

3E.1.4 When an aerodrome does not meet the requirement of a standard or practice specified in regulation 3A.3, the CAA may determine, after carrying out aeronautical studies, only if and where permitted by the standards and practices, the conditions and procedures that are necessary to ensure a level of safety equivalent to that established by the relevant standard or practice.

3E.1.5 Deviation from a standard or practice and the conditions and procedures referred to in regulation 3B.4 shall be set out in an endorsement on the aerodrome certificate.

Chapter 4

AERODROME CERTIFICATION PROCEDURES

4.1 INTRODUCTION

4.1.1 The aerodrome certification procedures should ensure full compliance with and have as a control the aerodrome certification regulations promulgated by the State. The procedures suggested in this chapter are in conformity with the model regulations of Chapter 3 and, just as the model regulations can be adapted to suit the scenario in individual States, the procedures suggested in this chapter can also be suitably adapted.

4.1.2 Adherence to national regulations and standard procedures will ensure that aerodrome certificates are issued, refused, transferred or surrendered in a consistent manner nationally. The use of a common legal format will also facilitate effective and consistent compliance with and enforcement of the regulations.

4.1.3 The procedures in this chapter refer to the controlling model regulations in Chapter 3, and the typical CAA staff requirement for implementing each procedure is indicated.

4.1.4 States not having a fully-staffed entity within their CAA responsible for implementing the procedures may opt to enlist outside assistance to perform some of the technical services required, e.g. assessment of aerodrome facilities and equipment. Such persons will be deemed to be CAA staff authorized to inspect the facilities and equipment and conduct tests, etc.

4.2 CERTIFICATION PROCESS

The aerodrome certification process will comprise:

- a) dealing with the expression of interest by an intending applicant for the aerodrome certificate;
- b) assessing the formal application, including evaluation of the aerodrome manual;
- c) assessing the aerodrome facilities and equipment;

- d) issuing or refusing an aerodrome certificate; and
- e) promulgating the certified status of an aerodrome and the required details in the AIP.

4.3 DEALING WITH THE EXPRESSION OF INTEREST

4.3.1 Aerodromes that are required to be certified in accordance with national regulations must be in possession of an aerodrome certificate before commencing operations. If the aerodrome certification regulations have not yet been established, a suitable transition should be agreed to between the CAA and the current aerodrome operator. Dealing with the expression of interest should include a flight operations assessment by the CAA and/or the relevant authorities to ensure that the operation of an aerodrome at the location specified in the application will not endanger the safety of aircraft operations. If the result of this assessment is negative, then there is no need to proceed any further, and the applicant should be advised accordingly by invoking model regulation 3B.3.3 at this initial stage.

4.3.2 The flight operations assessment should take into consideration the proximity of the aerodrome to other aerodromes and landing sites, including military aerodromes; obstacles and terrain; any excessive operational restriction requirements; any existing restrictions and controlled airspace; and any existing instrument procedures.

4.3.3 There may be other State legislation or regulations covering subjects such as environmental protection, which may require the approval of a competent authority from those areas of expertise. The processing of the expression of interest should also include referrals to those competent State entities for their clearance with the necessary documentation, e.g. an environmental impact study carried out by the applicant.

4.3.4 Should the results of the above assessment be positive, the CAA should advise the applicant in writing to:

- a) submit a formal application for an aerodrome certificate in accordance with the requirements of regulation 3B.2. The CAA should provide the applicant with the prescribed application form, a copy of the aerodrome certification regulations, including its schedule(s), and any other relevant circular or publication that the CAA may have issued, including the national standards for aerodromes; and
- b) obtain copies of other relevant publications issued by ICAO and State entities other than the CAA.

Note.— The applicant may be asked to cover the cost of the forms and publications.

4.3.5 In the letter to the applicant, the contact person in the CAA should be indicated.

CAA staff requirement

4.3.6 The CAA staff requirement for carrying out the activities described in 4.3.1 to 4.3.5 may include, but not be limited to, aerodrome inspectors, airspace policy specialists, rescue and fire-fighting inspectors and visual aids specialists.

4.4 ASSESSMENT OF A FORMAL APPLICATION FOR AN AERODROME CERTIFICATE

4.4.1 Model regulation 3B.3.2 specifies the responsibilities of the CAA before it can grant an aerodrome certificate. It specifies the requirements for aerodrome certification and the need for operational safety considerations. The CAA must be satisfied that the aerodrome operator has the necessary competence and experience to comply with the relevant regulatory provisions, orders and directives of the CAA.

4.4.2 To ensure uniformity, the CAA may prescribe a standard application form for an aerodrome certificate.

Note.— A sample application form based upon the form used in one State is given in Appendix 2 for guidance purposes.

4.4.3 The assessment by the CAA of the formal application should include the following:

- a) a flight operations assessment if that was not carried out during the time of dealing with the

expression of interest. This assessment should also include an aeronautical study pursuant to model regulation 3E.1.4 if there is a deviation from a standard or a practice;

- b) an assessment of the aerodrome manual submitted by the applicant to determine whether:
 - 1) the manual complies with the requirements of the regulations in Section C and the schedule of these regulations (see Appendix 1). All verifications that can be completed or initiated in the office should be carried out, including the aerodrome data to be published by the aeronautical information service, and the adequacy of the aerodrome operating procedures; and
 - 2) the management system, including the safety management system, indicates that the applicant will be able to operate and maintain the aerodrome properly; and
- c) a site visit as detailed in 4.4.4.

4.4.4 A site visit should be undertaken for the purpose of assessing the aerodrome facilities, services and equipment to verify and ensure that they comply with the specified standards and practices. This should include:

- a) on-site verification of aerodrome data; and
- b) the checking of aerodrome facilities and equipment, which should include:
 - 1) dimensions and surface conditions of:
 - runway(s);
 - runway shoulders;
 - runway strip(s);
 - runway end safety areas;
 - stopway(s) and clearways;
 - taxiway(s);
 - taxiway shoulders;
 - taxiway strips; and
 - aprons;
 - 2) the presence of obstacles in obstacle limitation surfaces at and in the vicinity of the aerodrome;
 - 3) the following aeronautical ground lights, including their flight check records:
 - runway and taxiway lighting;

- approach lights;
 - PAPI/APAPI or T-VASIS/AT-VASIS;
 - apron floodlighting;
 - obstacle lighting;
 - pilot-activated lighting, if applicable; and
 - visual docking guidance systems;
- 4) standby power;
 - 5) wind direction indicator(s);
 - 6) illumination of the wind direction indicator(s);
 - 7) aerodrome markings and markers;
 - 8) signs in the movement areas;
 - 9) tie-down points for aircraft;
 - 10) ground earthing points;
 - 11) rescue and fire-fighting equipment and installations;
 - 12) aerodrome maintenance equipment, particularly for the airside facilities maintenance including runway surface friction measurement;
 - 13) runway sweepers and snow removal equipment;
 - 14) disabled aircraft removal equipment;
 - 15) wildlife management procedures and equipment;
 - 16) two-way radios installed in vehicles for use by the aerodrome operator in the movement area;
 - 17) the presence of lights that may endanger the safety of aircraft; and
 - 18) fuelling facilities.

CAA staff requirement

4.4.5 The CAA staff requirement for carrying out the assessment of the formal application for an aerodrome certificate may include aerodrome inspectors, airspace policy specialists, rescue and fire-fighting inspectors and visual aids specialists.

4.5 THE GRANT OR REFUSAL OF A CERTIFICATE

4.5.1 The regulations in 3B.3 of the model regulations require the CAA to notify its decision to issue or refuse to issue a certificate. The regulations in 3B.4 of the model regulations allow the CAA to endorse conditions, in the interest of safety, on an aerodrome certificate being issued.

4.5.2 Based on the results of the assessment of the formal application for a certificate, the CAA should notify the applicant whether the application was successful or unsuccessful. If the application was unsuccessful, the applicant should be advised of the additional steps that need to be taken by the applicant prior to certification. For example, the aerodrome manual may need to be amended to incorporate any changes to the aerodrome facilities and equipment that may be required in order to comply with the standards and practices specified in the regulations.

4.5.3 If the application was successful, the aerodrome certificate, incorporating conditions pursuant to model regulations 3B.4 or 3E.1.4, as applicable, shall be granted to the applicant after an identifying number has been allocated.

Note.— Appendix 4 contains a sample aerodrome certificate issued by one State.

4.5.4 If after being advised of the additional steps that must be taken to rectify the shortcomings referred to in 4.5.2, the aerodrome operator is still not able to satisfy the requirements of the regulations, the CAA may refuse to grant a certificate. The refusal may be based on one or more of the following determinations, for which details should be given:

- a) the inspection of aerodrome facilities and equipment revealed that they do not make satisfactory provision for the safety of aircraft operations;
- b) the assessment of the aerodrome operating procedures revealed that they do not make satisfactory provision for the safety of aircraft operations;
- c) the assessment of the aerodrome manual revealed that it does not contain the particulars set out in model regulation 3C.3.1 and the associated schedule of the regulations; and
- d) the assessment of the above facts and other factors (to be listed) revealed that the applicant will not be able to properly operate and maintain the aerodrome as required by model regulation 3B.3.2 a).

If the basic legislation provides for a review process, the applicant's attention may be drawn to that fact in the letter of refusal.

CAA staff requirement

4.5.5 The CAA staff requirement for carrying out the activities described in 4.5.1 to 4.5.4 may include:

- a) appropriate CAA management staff, i.e. the manager or director of the standards entity, or similar, or the Director General of the CAA; and
- b) aerodrome inspectors.

Costs

4.5.6 A State may require the applicant to bear the costs of aerodrome certification.

4.6 PROMULGATION IN THE AIP OF THE CERTIFIED STATUS AND DETAILS OF THE AERODROME

Upon satisfactory completion of the certification process, information about the aerodrome should be provided to the aeronautical information service for publication.

4.7 TRANSFER OF AN AERODROME CERTIFICATE

4.7.1 Transfer of an aerodrome certificate may be required in accordance with the applicable national regulations when the ownership and the operation of the aerodrome are transferred from one operator to another. Establishment of a standard procedure will ensure that the aerodrome certificates are transferred correctly and consistently using a common legal format nationally.

4.7.2 The reasons for a transfer may include the sale or transfer of the responsibility to operate the aerodrome from a government department to a government-constituted aerodrome entity, such as an airport authority or a provincial or municipal administration, or as a result of privatization or corporatization. The ownership and the operational responsibility may also change from one private entity to another.

4.7.3 Model regulation 3B.7.1 specifies, *inter alia*, the requirement for the CAA's consent for the transfer of an aerodrome certificate and for the powers to transfer a certificate to be vested in the CAA. Consent to transfer will be given by the CAA only if it is satisfied that the proposed transferee will be able to operate and maintain the aerodrome properly and that no significant variation will occur in the day-to-day operations of the aerodrome. This implies that the aerodrome facilities, services and equipment should remain substantially unaltered; key aerodrome operational and maintenance personnel should remain in position or be replaced with staff of equivalent qualifications, experience or skill level; the safety management system should remain effective and, finally, the aerodrome manual procedures should remain substantially unaltered.

4.7.4 Consent to the proposed transfer may be refused if the CAA is not satisfied that the proposed transferee will be able to operate and maintain the aerodrome properly or if significant changes to the operational aspects of the aerodrome will result or will be made by the transferee (e.g. reduction in runway, taxiway or apron facilities; changes in the conditions of the existing certificate unacceptable to the CAA; inadequacy or inappropriateness of the new staffing arrangements or significant revisions to the aerodrome manual).

4.7.5 If the CAA decides to deny consent, it should advise the transferee, in writing, within the period specified in model regulation 3B.7.2 stating the reasons for denial.

CAA staff requirement

4.7.6 The CAA staff requirement for carrying out the transfer of an aerodrome certificate may include:

- a) appropriate CAA management staff, e.g. the manager or director of the office responsible for dealing with the subject of aerodrome certification; and
- b) aerodrome inspectors.

4.8 SURRENDER OF AN AERODROME CERTIFICATE

4.8.1 Model regulations 3B.6.1 and 3B.6.2 provide for the cancellation of an aerodrome certificate if an aerodrome operator voluntarily gives notice in writing to the CAA.

4.8.2 Upon receipt of the notice, the CAA should:

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- a) verify the credentials of the operator requesting cancellation as the certificate holder; appropriate closed markings, unserviceability markers and such other visual aids as necessary.
- b) verify that the notification received from the aerodrome operator meets the requirements of regulations 3B.6.1 and 3B.6.2; and
- 4.8.3 If the application for cancellation of the certificate is found to be in order, a competent official of the CAA should issue a letter cancelling the certificate effective from the date specified in the notice given by the certificate holder.
- c) check that the information provided by the aerodrome operator includes the following:
- 4.8.4 If the aerodrome is to remain open for use as an uncertified aerodrome, the CAA should ensure that the safety requirements at such aerodromes are met.
- 1) if the aerodrome is to remain open, an appropriate NOTAM has been promulgated to advise the change of status; and
- 4.8.5 The aeronautical information service should be advised to take appropriate action regarding the uncertified status of the aerodrome or the closure of the aerodrome, as the case may be, in accordance with Annex 15 to the Convention on International Civil Aviation.
- 2) if the aerodrome is to be closed to all traffic, sufficient safety measures have been taken by the aerodrome operator, such as the removal of wind socks and markings, the provision of
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Chapter 5

REGULATORY AUTHORITY

5.1 ORGANIZATION

5.1.1 In all States it will be necessary to establish an entity within the CAA responsible for ensuring that the requirements set forth in Sections 1.2 and 1.3 of Annex 14, Volume I, are met. The organizational structure and staffing of such an entity, hereinafter referred to as the Directorate of Aerodromes Standards and Safety (DASS), will vary depending upon the level of aviation activity in the State.

5.1.2 The primary responsibility of the DASS should be to ensure that:

- a) the aerodromes under the jurisdiction of the State offer a safe operational environment in accordance with the Convention on International Civil Aviation; and
- b) the State's obligation under Article 38 of the Convention to notify ICAO of differences between its national regulations and practices and the International Standards contained in Annex 14, Volume I, is met. It is also recommended that differences between the Recommended Practices contained in the Annex and the State's national regulations and practices be notified to ICAO.

5.1.3 A typical organizational structure of a DASS is given in Appendix 5. The Directorate may have two divisions, one dealing with aerodrome standards and the other with aerodrome safety. The Aerodrome Standards Division may consist of two sections, one dealing with aerodrome design and the other with engineering specifications. The Aerodrome Safety Division may have three sections, the first dealing with aerodrome certification, the second dealing with compliance and enforcement and the third being the technical library, which may also be made responsible for the collection and recording of aerodrome safety data.

5.1.4 Depending upon the level of aviation activity in the State, the number of aerodromes and the volume of work in the DASS, the functions of the sections under each

division may be combined and even the functions of the two divisions may be combined.

5.1.5 In States with a large number of aerodromes under their jurisdiction, there may be a need to establish regional aerodrome offices with appropriate delegation of functions and authority.

5.1.6 The aerodrome certification and subsequent safety inspection tasks require input from the aerodrome engineering and flight operations inspection staff of the CAA. The DASS should therefore function in close cooperation with the Flight Operations Division of the CAA. The functions of the DASS described in 5.2 include those relating to aerodrome certification and safety inspection to be performed by the Flight Operations Division.

5.2 FUNCTIONS AND RESPONSIBILITIES OF THE DASS

5.2.1 Aerodrome certification

These tasks and responsibilities include:

- a) receiving, recording, reviewing and processing, in cooperation with the Flight Operations Division of the CAA, the expressions of interest received from an intending applicant for an aerodrome certificate;
- b) receiving, recording, reviewing and processing, in cooperation with the Flight Operations Division of the CAA, the formal application for an aerodrome certificate, including the initial inspection covering the review of the aerodrome manual, on-site verification, inspection and testing of aerodrome particulars, facilities and equipment, including aeronautical studies, if and where permitted by the standards and practices, as described in 4.4.3 and 4.4.4;
- c) grant or refusal of an aerodrome certificate;

- d) estimating, recording and collecting the cost of the services from applicants (if applicable under the regulations);
- e) receiving, recording, reviewing and processing applications for the transfer of an aerodrome certificate;
- f) grant or refusal of the transfer of an aerodrome certificate;
- g) receiving, recording, reviewing and processing applications for the surrender of an aerodrome certificate;
- h) cancelling or suspending an aerodrome certificate;
- i) grant of an interim aerodrome certificate; and
- j) reviewing the factors requiring the amendment of an aerodrome certificate and issuing the required amendments.

5.2.2 Notifications to AIS and other organizations

These tasks and responsibilities include:

- a) notifying AIS of the certified status of an aerodrome and providing the particulars of the aerodrome described in Part 3 of Appendix 1 to this manual for promulgation by the AIS;
- b) reviewing any amendments to aerodrome manuals and notifying AIS of the changes to be made in the AIS publications;
- c) coordinating with AIS in the review of any notification received from an aerodrome operator for promulgation by AIS, such as notification of: inaccuracies in AIS publications; changes in aerodrome facilities, equipment and level of services planned in advance; obstacles, obstructions and hazards; closure of any part of the manoeuvring area; immediate reduction in the level of service at the aerodrome and any other conditions that could affect the safety at or near the aerodrome and warrant precautions to be taken; and
- d) coordinating with other agencies and service providers such as aeronautical information service, air traffic services, designated meteorological authorities, and security.

5.2.3 Safety audits

5.2.3.1 These tasks and responsibilities include:

- a) periodic or special on-site audits of the aerodrome safety management system including verification of the aerodrome, and data published in the AIP and inspection of the aerodrome facilities, equipment and operating procedures; and
- b) review of the aerodrome operator's daily audits and special safety audit reports and actions thereon.

Note.— An aerodrome audit programme should operate on the principle that the aerodrome certificate holder's internal audit programme is of primary importance and that the CAA's audits are conducted to review and evaluate that programme and, in addition, to independently check and verify the particulars of the aerodrome notified in the AIP, as well as the aerodrome operating procedures, safety measures, facilities and equipment.

5.2.3.2 Periodic inspections are therefore required to ensure that aerodrome certificate holders meet their obligations under the terms of the certificate, as set out in Section D of the model regulations, and the requirements of the accepted/approved aerodrome manual.

5.2.3.3 The frequency of such inspections may correspond to the class of the aerodrome as categorized by the State. For example, one State requires its aerodromes, which are categorized as large, medium and small certified hub aerodromes, to be inspected annually, reducing the frequency to once in eighteen months in the case of non-hub aerodromes. For its "limited certified" aerodromes, the recommended frequency is once in twenty-four months, which can be reduced to once in thirty-six months if circumstances so require.

5.2.3.4 The tasks and responsibilities associated with periodic inspections are described in 5.5.4. These tasks may be carried out in the following phases:

- a) *Pre-inspection briefing* with aerodrome management, including coordination with air traffic control tower personnel.
- b) *Administrative inspection* of the aerodrome safety management system, including such items as snow and ice control plans (if applicable); current NOTAMs; medical and RFF training records; aviation fuel suppliers' safety records; fuelling agents' certificates and fire safety training records;

- documentation of the annual review of the aerodrome emergency plan, including full-scale emergency exercises, and the aerodrome operator's records of the safety audits of fixed-base operators, ground handling agents and other agencies engaged in airside activities.
- c) *Movement area inspection* including the inspection and checking of runways and taxiways in order to ascertain the condition of pavements, markings, lighting, signs, shoulders, strips and runway end safety areas; checking for potentially hazardous conditions if construction work is in progress, such as excavations, trenches, stockpiled material, inadequate construction area markings, construction equipment in the movement area and inadequate marking and lighting of temporary thresholds; checking ground vehicle operations in the movement area to verify that only authorized vehicles have access to the area and that the required procedures are being followed, the vehicles are properly marked and the drivers know and use the proper communication terminology; checking that the public is protected against unauthorized entry to the movement area and against jet or propeller blast; checking for wildlife hazards and wildlife attractants; and checking landing direction indicators and wind direction indicators.
 - d) *Rescue and fire-fighting* including the checking of training records; random testing of the knowledge of firefighters; checking that the equipment is in position, is functional and meets the category requirements; conducting a time response drill; checking the alarm system; checking and examining proximity suits, other protective clothing and fire-fighting and rescue tools and supplies in the inventory.
 - e) *Fuel facilities* including the examination of the inspection records by qualified and authorized personnel, particularly checking that the aerodrome fire-fighting standards are adequately covered in the inspection checklist, and spot checking, including fuel sampling, for compliance with the applicable requirements.
 - f) *Night inspections* including the evaluation and checking for compliance with the standards related to runway, taxiway and apron lighting and signage; pavement markings; aerodrome beacons; wind direction indicator lighting; obstacle lighting and the marking and lighting of construction areas.

- g) *Post inspection briefing* with the aerodrome management, including the determination of appropriate enforcement action for non-compliance with the regulations.

5.2.4 Other safety functions

These tasks and responsibilities may include:

- a) a first-hand evaluation of full-scale airport emergency exercises to identify problems and deficiencies;
- b) the provision of guidance at the design and construction stages of aerodrome projects, particularly complex projects or where there is significant work that may impact compliance with the regulations;
- c) final inspection of completed projects involving complex or significant work to identify problems or deficiencies that need to be corrected in order to comply with the requirements of the regulations;
- d) the organization of, and participation in, aerodrome safety seminars and other training programmes to promote a safety culture.

5.2.5 Compliance and enforcement

5.2.5.1 It is the responsibility of aerodrome operators to comply with the requirements of the aerodrome certification regulations. Aviation safety at aerodromes depends primarily on voluntary adherence to these requirements by the aerodrome operators. Promoting compliance with the regulations through education, training and counselling is therefore of primary importance, and only when these efforts have failed should formal enforcement action be taken. Sanctions can be administrative or legal depending on the severity of the violation of the regulations and its impact on aviation safety. It is recognized that States may have their own policies for enforcement of their regulations.

5.2.5.2 Administrative action in the form of a warning letter or correction letter may be considered appropriate when legal action is deemed unnecessary. Administrative enforcement action is intended to bring the violation to the attention of the aerodrome operator, to document corrective action and to require future compliance. Such actions are warranted when the violation does not result in a significant unsafe condition, is not caused by incompetence or lack of required qualifications on the part of the aerodrome operator, is not deliberately caused, the attitude of the

operator is constructive and positive towards compliance with the regulations and there is no history of such a violation by the operator.

5.2.5.3 Formal legal enforcement action may be warranted to prevent future violations of the regulations. Such action may include the issuance of cease-and-desist orders and injunctions and the imposition of sanctions after the act to deter violations. Such sanctions may include revocation, suspension or amendment of the certificate. Legal enforcement actions are pursuant to appropriate statutory provisions in the civil aviation legislation of a State.

5.2.5.4 In determining the appropriate type and measure of sanction to be applied, the factors to be considered may include the nature of the violation, whether it was deliberate or inadvertently caused; the potential or actual hazard to aviation safety created by the violation; the aerodrome operator's level of responsibility; records of previous violations; the operator's attitude toward the violation, including whether the operator voluntarily disclosed the violation and whether action was taken to correct it; the impact of the proposed sanction on the violator and its value as a deterrent to other operators in similar situations.

5.2.5.5 Certificate-related legal sanctions can have a significant impact on air services and may also have other repercussions. Since the public interest and aviation safety are the principal objectives of aerodrome certification regulations, recourse to the imposition of sanctions may be warranted only after all other means of resolving safety violations have failed to ensure compliance.

5.2.5.6 Suspension of an aerodrome certificate may be considered if:

- a) the aerodrome operator's safety management system is found to be inadequate;
- b) it is in the interest of operational safety;
- c) all other means for timely correction of the unsafe condition or ensuring safe aircraft operations have not yielded the required results;
- d) the technical proficiency or qualifications of the aerodrome operator to perform the duties to meet the critical safety requirements in accordance with the regulations are found inadequate;
- e) the operator resists or is unwilling to take action to correct or mitigate the condition affecting aviation safety; or
- f) the operator wilfully fails to perform an already agreed upon corrective action and suspension of the certificate is the last resort to avoid unsafe operations in the aerodrome movement area.

5.2.5.7 Revocation of an aerodrome certificate may be warranted if the aerodrome operator:

- a) is incapable or unwilling to carry out corrective action or has committed/repeated serious violations;
- b) has demonstrated a lack of responsibility, such as deliberate and flagrant acts of non-compliance or falsification of records jeopardizing aviation safety; or
- c) has made it convincingly clear that the continued operation of the aerodrome will be detrimental to the public interest.

5.2.6 Aerodrome standards

These general tasks and responsibilities may include the following:

- a) reviewing ICAO State letters on the subject of aerodromes, preparing responses thereto and taking action thereon;
- b) developing and continuing to review the national standards and practices for aerodrome design, operation and maintenance, and engineering specifications;
- c) developing and issuing orders, rules, advisory circulars and guidance material relating to aerodrome standards and practices;
- d) reviewing plans and designs for new aerodromes or the further development of, or modification to, existing aerodromes, submitted to the CAA for approval, to ensure that the requirements of the ICAO SARPs and the State's national regulations are complied with; and
- e) advising the aerodrome inspectors, as required, on aerodrome standards and practices.

5.3 TECHNICAL LIBRARY AND RECORDS

5.3.1 To enable DASS personnel to keep abreast of the subject of aerodrome design, specifications, operation

and maintenance, it is essential to establish a properly organized and administered technical library. The library should contain all documents issued by ICAO relating to the design, operation and maintenance of aerodrome facilities and equipment, and all national standards, rules, orders, advisory circulars and guidance material. Additionally, the standards and other relevant documentation issued by other States which are commonly used as reference material, and important textbooks and magazines on the subject should also be kept in the technical library. It is important that the documents in the library be promptly amended to keep them current.

5.3.2 DASS will need to maintain files for each aerodrome in the State including certified aerodromes. The file for each certified aerodrome should contain records from the expression of interest stage to the issuance or refusal of the certificate, and the file should remain open thereafter for further documentation and correspondence on the subject. Additionally, an aerodrome certificate register should be maintained for each aerodrome as well as a reference log of the date of issue of important letters, forms and certificate numbers.

5.3.3 Close liaison should be maintained with the Accident Investigation and Prevention Unit of the State to obtain data on aircraft accidents and incidents at or near aerodromes for use by DASS staff in their continuing work.

5.4 STAFFING

The structure and level of staffing of the DASS will depend on the volume of work to be handled. The DASS should be headed by a qualified and experienced person. The Aerodrome Standards Division should be staffed with qualified civil engineers and electrical engineers with experience in aerodrome design, construction or maintenance. The Aerodrome Safety Division should be staffed with aerodrome inspectors. The detailed qualification requirements, duties and responsibilities of aerodrome inspectors are given in 5.5.

5.5 QUALIFICATIONS, DUTIES AND RESPONSIBILITIES OF AERODROME INSPECTORS

5.5.1 Aerodrome inspectors may be engineers (civil or electrical) with adequate experience in aerodrome planning, operation or maintenance and should possess a sound knowledge of Annex 14, Volume I, all relevant

manuals published by ICAO, and the State's national standards and practices. Flight training, airport management experience and knowledge of modern safety management systems are desirable qualifications.

5.5.2 The CAA may also consider hiring persons with other qualifications, experience and knowledge suitable for carrying out the duties of aerodrome inspector, subject to any conditions that the CAA may have regarding the person's qualifications, experience and knowledge. Such persons may have airport management, flight operations or air traffic control backgrounds. Training in the appropriate elements of aerodrome engineering relevant to aerodrome inspection should be an essential requirement.

5.5.3 Aerodrome inspectors will report to the head of the DASS through the Head of the Aerodrome Safety Division and will be responsible for carrying out the functions described in 5.2.1 to 5.2.5. Adequate on-the-job training should be provided before entrusting the whole spectrum of aerodrome inspection duties to an inspector.

5.5.4 The typical duties of an aerodrome inspector should include but not be limited to:

- a) verification of the aerodrome data in the aerodrome manual including details of:
 - 1) the location of the aerodrome;
 - 2) the name and address of the aerodrome operator;
 - 3) the movement area;
 - 4) the runway declared distances available;
 - 5) aeronautical ground lighting;
 - 6) ground services; and
 - 7) notices of special conditions and procedures, if any;
- b) on-site verification and audits of aerodrome operating procedures including:
 - 1) the overall aerodrome safety management system;
 - 2) the aerodrome emergency plan and periodic aerodrome emergency exercises;
 - 3) rescue and fire-fighting;

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- 4) inspection and maintenance of aeronautical ground lighting;
 - 5) promulgation of changes to published aerodrome information;
 - 6) the prevention of unauthorized entry to the aerodrome, particularly the movement area and protection of the public against jet or propeller blast;
 - 7) the operator's daily inspection of the aerodrome;
 - 8) the planning and carrying out of aerodrome construction and maintenance work including compliance with construction safety requirements;
 - 9) apron management and parking control;
 - 10) the control of vehicles operating on or in the vicinity of the movement area;
 - 11) wildlife hazard management;
 - 12) the monitoring of obstacle limitation surfaces and notification;
 - 13) the removal of disabled aircraft;
 - 14) hazardous materials, including aviation fuel;
 - 15) the protection of radar and navigational aids; and
 - 16) low-visibility operations;
- c) on-site checking and testing of aerodrome facilities and equipment including:
- 1) the dimensions and surface conditions of runways, taxiways, stopways, runway end safety areas, runway and taxiway strips, shoulders and aprons;
 - 2) aeronautical ground lighting systems including flight check records;
- 3) standby power;
 - 4) landing direction indicators and wind direction indicators, aerodrome markings and markers;
 - 5) guidance signs and warning signs in the movement area;
 - 6) aerodrome maintenance equipment;
 - 7) disabled aircraft removal plan;
 - 8) wildlife control equipment;
 - 9) the presence of obstacles in obstacle limitation surfaces;
 - 10) runway visual range measuring equipment;
 - 11) the presence of dangerous lights;
 - 12) rescue and fire-fighting equipment;
 - 13) fuelling facilities; and
 - 14) runway surface friction measuring equipment;
- d) flying assessments and aeronautical studies at aerodromes:
- in cooperation with the Flight Operations Unit of the CAA and other specialists as required, organize flying assessments at aerodromes and conduct aeronautical studies, if and where permitted by the standards and practices;
- e) general duties:
- all other functions relating to the certification of aerodromes including receiving and processing of expressions of interest and applications for aerodrome certificates; processing requests for the amendment, transfer or surrender of certificates or requests for interim certificates; reporting to AIS; initiating NOTAMs and determining appropriate enforcement action in the event of non-compliance with the regulations.
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Appendix 1

SCHEDULE OF THE AERODROME CERTIFICATION REGULATIONS — PARTICULARS TO BE INCLUDED IN AN AERODROME MANUAL

PART 1

GENERAL

General information, including the following:

- a) purpose and scope of the aerodrome manual;
- b) the legal requirement for an aerodrome certificate and an aerodrome manual as prescribed in the national regulations;
- c) conditions for use of the aerodrome — a statement to indicate that the aerodrome shall at all times, when it is available for the take-off and landing of aircraft, be so available to all persons on equal terms and conditions;
- d) the available aeronautical information system and procedures for its promulgation;
- e) the system for recording aircraft movements; and
- f) obligations of the aerodrome operator.

PART 2

PARTICULARS OF THE AERODROME SITE

General information, including the following:

- a) a plan of the aerodrome showing the main aerodrome facilities for the operation of the aerodrome including, particularly, the location of each wind direction indicator;
- b) a plan of the aerodrome showing the aerodrome boundaries;

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

PART 3

PARTICULARS OF THE AERODROME REQUIRED TO BE REPORTED TO THE AERONAUTICAL INFORMATION SERVICE (AIS)

3.1 GENERAL INFORMATION

- a) the name of the aerodrome;
- b) the location of the aerodrome;
- c) the geographical coordinates of the aerodrome reference point determined in terms of the World Geodetic System — 1984 (WGS-84) reference datum;
- d) the aerodrome elevation and geoid undulation;
- e) the elevation of each threshold and geoid undulation, the elevation of the runway end and any significant high and low points along the runway, and the highest elevation of the touchdown zone of a precision approach runway;

- f) the aerodrome reference temperature;
- g) details of the aerodrome beacon; and
- h) the name of the aerodrome operator and the address and telephone numbers at which the aerodrome operator may be contacted at all times.

3.2 AERODROME DIMENSIONS AND RELATED INFORMATION

General information, including the following:

- a) runway — true bearing, designation number, length, width, displaced threshold location, slope, surface type, type of runway and, for a precision approach runway, the existence of an obstacle free zone;
- b) length, width and surface type of strip, runway end safety areas, stopways;
- c) length, width and surface type of taxiways;
- d) apron surface type and aircraft stands;
- e) clearway length and ground profile;
- f) visual aids for approach procedures, *viz.* approach lighting type and visual approach slope indicator system (PAPI/APAPI and T-VASIS/AT-VASIS); marking and lighting of runways, taxiways, and aprons; other visual guidance and control aids on taxiways (including runway holding positions, intermediate holding positions and stop bars) and aprons, location and type of visual docking guidance system; availability of standby power for lighting;
- g) the location and radio frequency of VOR aerodrome checkpoints;
- h) the location and designation of standard taxi routes;
- i) the geographical coordinates of each threshold;
- j) the geographical coordinates of appropriate taxiway centre line points;
- k) the geographical coordinates of each aircraft stand;
- l) the geographical coordinates and the top elevation of significant obstacles in the approach and take-off

areas, in the circling area and in the vicinity of the aerodrome. (This information may best be shown in the form of charts such as those required for the preparation of aeronautical information publications, as specified in Annexes 4 and 15 to the Convention);

- m) pavement surface type and bearing strength using the Aircraft Classification Number — Pavement Classification Number (ACN-PCN) method;
- n) one or more pre-flight altimeter check locations established on an apron and their elevation;
- o) declared distances: take-off run available (TORA), take-off distance available (TODA), accelerate-stop distance available (ASDA), landing distance available (LDA);
- p) disabled aircraft removal plan: the telephone/telex/facsimile numbers and e-mail address of the aerodrome coordinator for the removal of a disabled aircraft on or adjacent to the movement area, information on the capability to remove a disabled aircraft, expressed in terms of the largest type of aircraft which the aerodrome is equipped to remove; and
- q) rescue and fire-fighting: the level of protection provided, expressed in terms of the category of the rescue and fire-fighting services, which should be in accordance with the longest aeroplane normally using the aerodrome and the type and amounts of extinguishing agents normally available at the aerodrome.

Note.— The accuracy of the information in Part 3 is critical to aircraft safety. Information requiring engineering survey and assessment should be gathered or verified by qualified technical persons.

PART 4

PARTICULARS OF THE AERODROME OPERATING PROCEDURES AND SAFETY MEASURES

4.1 AERODROME REPORTING

Particulars of the procedures for reporting any changes to the aerodrome information set out in the AIP and procedures for requesting the issue of NOTAMs, including the following:

- a) arrangements for reporting any changes to the CAA and recording the reporting of changes during and outside the normal hours of aerodrome operations;
- b) the names and roles of persons responsible for notifying the changes, and their telephone numbers during and outside the normal hours of aerodrome operations; and
- c) the address and telephone numbers, as provided by the CAA, of the place where changes are to be reported to the CAA.
- d) a list of organizations, agencies and persons of authority, both on- and off-airport, for site roles; their telephone and facsimile numbers, e-mail and SITA addresses and the radio frequencies of their offices;
- e) the establishment of an aerodrome emergency committee to organize training and other preparations for dealing with emergencies; and
- f) the appointment of an on-scene commander for the overall emergency operation.

4.2 ACCESS TO THE AERODROME MOVEMENT AREA

Particulars of the procedures that have been developed and are to be followed in coordination with the agency responsible for preventing unlawful interference in civil aviation at the aerodrome and for preventing unauthorized entry of persons, vehicles, equipment, animals or other things into the *movement area*, including the following:

- a) the role of the aerodrome operator, the aircraft operator, aerodrome fixed-base operators, the aerodrome security entity, the CAA and other government departments, as applicable; and
- b) the names and roles of the personnel responsible for controlling access to the aerodrome, and the telephone numbers for contacting them during and after working hours.

4.3 AERODROME EMERGENCY PLAN

Particulars of the aerodrome emergency plan, including the following:

- a) plans for dealing with emergencies occurring at the aerodrome or in its vicinity, including the malfunction of aircraft in flight; structural fires; sabotage, including bomb threats (aircraft or structure); unlawful seizure of aircraft; and incidents on the airport covering “during the emergency” and “after the emergency” considerations;
- b) details of tests for aerodrome facilities and equipment to be used in emergencies, including the frequency of those tests;
- c) details of exercises to test emergency plans, including the frequency of those exercises;

4.4 RESCUE AND FIRE-FIGHTING

Particulars of the facilities, equipment, personnel and procedures for meeting the rescue and fire-fighting requirements, including the names and roles of the persons responsible for dealing with the rescue and fire-fighting services at the aerodrome.

Note.— This subject should also be covered in appropriate detail in the aerodrome emergency plan.

4.5 INSPECTION OF THE AERODROME MOVEMENT AREA AND OBSTACLE LIMITATION SURFACE BY THE AERODROME OPERATOR

Particulars of the procedures for the inspection of the aerodrome movement area and obstacle limitation surfaces, including the following:

- a) arrangements for carrying out inspections, including runway friction and water-depth measurements on runways and taxiways, during and outside the normal hours of aerodrome operations;
- b) arrangements and means of communicating with air traffic control during an inspection;
- c) arrangements for keeping an inspection logbook, and the location of the logbook;
- d) details of inspection intervals and times;
- e) inspection checklist;
- f) arrangements for reporting the results of inspections and for taking prompt follow-up actions to ensure correction of unsafe conditions; and

- g) the names and roles of persons responsible for carrying out inspections, and their telephone numbers during and after working hours.

4.6 VISUAL AIDS AND AERODROME ELECTRICAL SYSTEMS

Particulars of the procedures for the inspection and maintenance of aeronautical lights (including obstacle lighting), signs, markers and aerodrome electrical systems, including the following:

- a) arrangements for carrying out inspections during and outside the normal hours of aerodrome operation, and the checklist for such inspections;
- b) arrangements for recording the result of inspections and for taking follow-up action to correct deficiencies;
- c) arrangements for carrying out routine maintenance and emergency maintenance;
- d) arrangements for secondary power supplies, if any, and, if applicable, the particulars of any other method of dealing with partial or total system failure; and
- e) the names and roles of the persons responsible for the inspection and maintenance of the lighting, and the telephone numbers for contacting those persons during and after working hours.

4.7 MAINTENANCE OF THE MOVEMENT AREA

Particulars of the facilities and procedures for the maintenance of the movement area, including:

- a) arrangements for maintaining the paved areas;
- b) arrangements for maintaining the unpaved runways and taxiways;
- c) arrangements for maintaining the runway and taxiway strips; and
- d) arrangements for the maintenance of aerodrome drainage.

4.8 AERODROME WORKS — SAFETY

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

- a) arrangements for communicating with air traffic control during the progress of such work;
- b) the names, telephone numbers and roles of the persons and organizations responsible for planning and carrying out the work, and arrangements for contacting those persons and organizations at all times;
- c) the names and telephone numbers, during and after working hours, of the aerodrome fixed-base operators, ground handling agents and aircraft operators who are to be notified of the work;
- d) a distribution list for work plans, if required.

4.9 APRON MANAGEMENT

Particulars of the apron management procedures, including the following:

- a) arrangements between air traffic control and the apron management unit;
- b) arrangements for allocating aircraft parking positions;
- c) arrangements for initiating engine start and ensuring clearance of aircraft push-back;
- d) marshalling service; and
- e) leader (van) service.

4.10 APRON SAFETY MANAGEMENT

Procedures to ensure apron safety, including:

- a) protection from jet blasts;
- b) enforcement of safety precautions during aircraft refuelling operations;

- c) apron sweeping;
- d) apron cleaning;
- e) arrangements for reporting incidents and accidents on an apron; and
- f) arrangements for auditing the safety compliance of all personnel working on the apron.

4.11 AIRSIDE VEHICLE CONTROL

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

- a) details of the applicable traffic rules (including speed limits and the means of enforcing the rules); and
- b) the method of issuing driving permits for operating vehicles in the movement area.

4.12 WILDLIFE HAZARD MANAGEMENT

Particulars of the procedures to deal with the danger posed to aircraft operations by the presence of birds or mammals in the aerodrome flight pattern or movement area, including the following:

- a) arrangements for assessing wildlife hazards;
- b) arrangements for implementing wildlife control programmes; and
- c) the names and roles of the persons responsible for dealing with wildlife hazards, and their telephone numbers during and after working hours.

4.13 OBSTACLE CONTROL

Particulars setting out the procedures for:

- a) monitoring the obstacle limitation surfaces and Type A Chart for obstacles in the take-off surface;
- b) controlling obstacles within the authority of the operator;

- c) monitoring the height of buildings or structures within the boundaries of the obstacle limitation surfaces;
- d) controlling new developments in the vicinity of aerodromes; and
- e) notifying the CAA of the nature and location of obstacles and any subsequent addition or removal of obstacles for action as necessary, including amendment of the AIS publications.

4.14 REMOVAL OF DISABLED AIRCRAFT

Particulars of the procedures for removing a disabled aircraft on or adjacent to the movement area, including the following:

- a) the roles of the aerodrome operator and the holder of the aircraft certificate of registration;
- b) arrangements for notifying the holder of the certificate of registration;
- c) arrangements for liaising with the air traffic control unit;
- d) arrangements for obtaining equipment and personnel to remove the disabled aircraft; and
- e) the names, role and telephone numbers of persons responsible for arranging for the removal of disabled aircraft.

4.15 HANDLING OF HAZARDOUS MATERIALS

Particulars of the procedures for the safe handling and storage of hazardous materials on the aerodrome, including the following:

- a) arrangements for special areas on the aerodrome to be set up for the storage of inflammable liquids (including aviation fuels) and any other hazardous materials; and
- b) the method to be followed for the delivery, storage, dispensing and handling of hazardous materials.

Note.— Hazardous materials include inflammable liquids and solids, corrosive liquids, compressed gases and magnetized or radioactive materials. Arrangements for dealing with the accidental spillage of hazardous materials should be included in the aerodrome emergency plan.

4.16 LOW-VISIBILITY OPERATIONS

Particulars of procedures to be introduced for low-visibility operations, including the measurement and reporting of runway visual range as and when required, and the names and telephone numbers, during and after working hours, of the persons responsible for measuring the runway visual range.

4.17 PROTECTION OF SITES FOR RADAR AND NAVIGATIONAL AIDS

Particulars of the procedures for the protection of sites for radar and radio navigational aids located on the aerodrome to ensure that their performance will not be degraded, including the following:

- a) arrangements for the control of activities in the vicinity of radar and nav aids installations;
- b) arrangements for ground maintenance in the vicinity of these installations; and
- c) arrangements for the supply and installation of signs warning of hazardous microwave radiation.

Note 1.— In writing the procedures for each category, clear and precise information should be included on:

- *when, or in what circumstances, an operating procedure is to be activated;*
- *how an operating procedure is to be activated;*
- *actions to be taken;*
- *the persons who are to carry out the actions; and*
- *the equipment necessary for carrying out the actions, and access to such equipment.*

Note 2.— If any of the procedures specified above are not relevant or applicable, the reason should be given.

PART 5

AERODROME ADMINISTRATION AND SAFETY MANAGEMENT SYSTEM

Aerodrome administration

Particulars of the aerodrome administration, including the following:

- a) an aerodrome organizational chart showing the names and positions of key personnel, including their responsibilities;
- b) the name, position and telephone number of the person who has overall responsibility for aerodrome safety; and
- c) airport committees.

Safety management system (SMS)

Particulars of the safety management system established for ensuring compliance with all safety requirements and achieving continuous improvement in safety performance, the essential features being:

- a) the safety policy, insofar as applicable, on the safety management process and its relation to the operational and maintenance process;
- b) the structure or organization of the SMS, including staffing and the assignment of individual and group responsibilities for safety issues;
- c) SMS strategy and planning, such as setting safety performance targets, allocating priorities for implementing safety initiatives and providing a framework for controlling the risks to as low a level as is reasonably practicable keeping always in view the requirements of the Standards and Recommended Practices in Volume I of Annex 14 to the Convention on International Civil Aviation, and the national regulations, standards, rules or orders;
- d) SMS implementation, including facilities, methods and procedures for the effective communication of safety messages and the enforcement of safety requirements;
- e) a system for the implementation of, and action on, critical safety areas which require a higher level of safety management integrity (safety measures programme);

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- f) measures for safety promotion and accident prevention and a system for risk control involving analysis and handling of accidents, incidents, complaints, defects, faults, discrepancies and failures, and continuing safety monitoring;
 - g) the internal safety audit and review system detailing the systems and programmes for quality control of safety;
 - h) the system for documenting all safety-related airport facilities as well as airport operational and maintenance records, including information on the design and construction of aircraft pavements and aerodrome lighting. The system should enable easy retrieval of records including charts;
 - i) staff training and competency, including the review and evaluation of the adequacy of training provided to staff on safety-related duties and of the certification system for testing their competency; and
 - j) the incorporation and enforcement of safety-related clauses in the contracts for construction work at the aerodrome.
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Appendix 2

SAMPLE APPLICATION FORM FOR AN AERODROME CERTIFICATE*

Application for an Aerodrome Licence

1. Particulars of the Applicant

Full Name:
Address:
 Postal Code:
Position:
Phone: Facsimile:

2. Particulars of the Aerodrome Site

Aerodrome Name:
Real Property Description:
or	
Geographical Coordinates of the ARP:
or	
Bearing and Distance from Nearest Town or Populous Area:

3. Is the Applicant the Owner of the Aerodrome Site?

Yes <input type="checkbox"/>	No <input type="checkbox"/>
If No, provide:	
a) Details of Rights Held in Relation to the Site; and	
b) Name and address of the owner of the site and written evidence to show that permission has been obtained for the site to be used by the applicant as an aerodrome.	

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4. Indicate the Largest Type of Aircraft Expected to Use the Aerodrome

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.....
.....

5. Is the Aerodrome to be Used for Regular Public Transport Operations?

Yes <input type="checkbox"/>	No <input type="checkbox"/>
------------------------------	-----------------------------

6. Details to be Shown on the Aerodrome Licence

Aerodrome Name:
Aerodrome Operator:

<p>[On behalf of the aerodrome operator shown above*], I hereby apply for a licence to operate the aerodrome.</p> <p>*Delete if not applicable.</p> <p style="text-align: right;">Signed:</p> <p>My authority to act on behalf of the applicant is:</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>Name of person making the declaration:</p> <p style="text-align: right;">Date:/...../.....</p>
--

Information:

1. Two copies of the aerodrome manual, prepared in accordance with the regulations and commensurate with the aircraft activities expected at the aerodrome, are required as part of the application.
2. The application should be submitted to the nearest CASA Office.
3. A quote will be provided for the cost of processing this application. CASA will take no action to assess this application until payment is received.
4. Documentary evidence in support of all matters in this application may be requested.

Appendix 3

AERONAUTICAL STUDIES

PURPOSE

An aeronautical study is conducted to assess the impact of deviations from the aerodrome standards specified in Volume I to Annex 14 to the Convention on International Civil Aviation, and the national regulations, to present alternative means of ensuring the safety of aircraft operations, to estimate the effectiveness of each alternative and to recommend procedures to compensate for the deviation.

APPLICABILITY

An aeronautical study may be carried out when aerodrome standards cannot be met as a result of development. Such a study is most frequently undertaken during the planning of a new airport or during the certification of an existing aerodrome.

Note.— Aeronautical studies may not be conducted in cases of deviations from the standards, if not specifically recommended in Annex 14, Volume I.

DEFINITION

An aeronautical study is a study of an aeronautical problem to identify possible solutions and select a solution that is acceptable without degrading safety.

TECHNICAL ANALYSIS

Technical analysis will provide justification for a deviation on the grounds that an equivalent level of safety can be

attained by other means. It is generally applicable in situations where the cost of correcting a problem that violates a standard is excessive but where the unsafe effects of the problem can be overcome by some procedural means which offers both practical and reasonable solutions.

In conducting a technical analysis, inspectors will draw upon their practical experience and specialized knowledge. They may also consult other specialists in relevant areas. When considering alternative procedures in the deviation approval process, it is essential to bear in mind the safety objective of the aerodrome certification regulations and the applicable standards so that the intent of the regulations is not circumvented.

APPROVAL OF DEVIATIONS

In some instances, the only reasonable means of providing an equivalent level of safety is to adopt suitable procedures and to require, as a condition of certification, that cautionary advice be published in the appropriate AIS publications.

The determination to require caution will be primarily dependent on two considerations:

- a) a pilot's need to be made aware of potentially hazardous conditions; and
- b) the responsibility of the CAA to publish deviations from standards that would otherwise be assumed under certificate status.

Appendix 4

SAMPLE AERODROME CERTIFICATE*

CIVIL AVIATION AIRPORT CERTIFICATE

CERTIFICATE NO.

NAME OF AIRPORT

LATITUDE/LONGITUDE

This airport certificate is issued by the Minister pursuant to Part III of the *Canadian Aviation Regulations* under authority of the *Aeronautics Act* and authorizes the operator named in the approved Airport Operations Manual to operate this airport.

The Minister may suspend or cancel this airport certificate at any time where the airport operator fails to comply with the provisions set forth in the Act, the Regulations or for other grounds as set out in the Act.

This certificate is subject to any conditions established by the Minister pursuant to Section 302.03(3) of the Regulations and set out in the approved Airport Operations Manual.

This airport certificate is not transferable and shall remain in effect until transferred, suspended or cancelled.

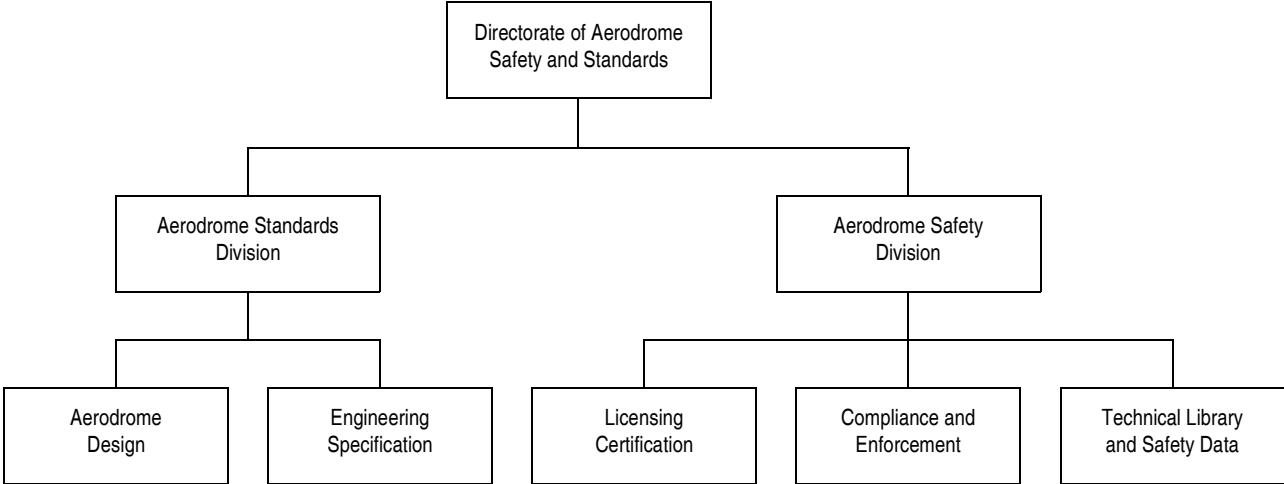
MINISTER OF TRANSPORT

CERTIFICATE DATE OF ISSUE

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Appendix 5

ORGANIZATIONAL STRUCTURE OF A TYPICAL AERODROME SAFETY AND STANDARDS DIRECTORATE



Appendix 6

REFERENCES

ICAO PUBLICATIONS

Convention on International Civil Aviation (Doc 7300)

Annex 3 — *Meteorological Service for International Air Navigation*

Annex 4 — *Aeronautical Charts*

Annex 11 — *Air Traffic Services*

Annex 14 — *Aerodromes*
Volume I — *Aerodrome Design and Operations*

Annex 15 — *Aeronautical Information Services*

Annex 16 — *Environmental Protection*
Volume I — *Aircraft Noise*

Annex 17 — *Security*

Airport Services Manual (Doc 9137)

- Part 1.— *Rescue and Fire Fighting*
- Part 2.— *Pavement Surface Conditions*
- Part 3.— *Bird Control and Reduction*
- Part 5.— *Removal of Disabled Aircraft*
- Part 6.— *Control of Obstacles*
- Part 7.— *Airport Emergency Planning*
- Part 8.— *Airport Operational Services*
- Part 9.— *Airport Maintenance Practices*

Manual of Surface Movement Guidance and Control Systems (SMGCS) (Doc 9476)

Aerodrome Design Manual (Doc 9157)

- Part 1.— *Runways*
- Part 2.— *Taxiways, Aprons and Holding Bays*
- Part 3.— *Pavements*
- Part 4.— *Visual Aids*

Airport Planning Manual (Doc 9184)

- Part 1.— *Master Planning*
- Part 2.— *Land Use and Environmental Control*

World Geodetic System — 1984 (WGS-84) Manual
(Doc 9674)

OTHER PUBLICATIONS

Civil Aviation Authority Australia, *Applying for an Aerodrome Licence*, (CAAP 89B-1 (0))

Civil Aviation Authority Australia, *Safety Regulations of Aerodromes Used in Regular Public Transport: an Overview* (CAAP 89-1 (0))

Civil Aviation Authority, UK, *Licensing of Aerodromes*, Oct. 1990

Civil Aviation Department, Hong Kong, *Aerodrome Licensing Requirement Document*

Civil Aviation Safety Authority, Australia, *Manual of Aerodrome Procedures*

Commonwealth of Australia, *Civil Aviation Regulations*, 1988 — Amendment No 1 — December 1998, Part IX A — *Aerodromes*, Reproduced by Civil Aviation Authority Australia

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Transport Canada, Aviation, *Procedures for the Certification of Aerodromes as Airports*, Second Edition, March 1991

U.S. Department of Transportation, Federal Aviation Administration, *Airport Certification Program Handbook*, October 7, 1994

U.S. Department of Transportation, Federal Aviation Administration, *Federal Aviation Regulations — Part 139 — Certification and Operations: Land Airport Serving Certain Air Carriers*, November 1996

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