



# Advisory Circular

AC 139-01(0)

AUGUST 2003

## REGULATION OF AERODROMES USED IN AIR TRANSPORT: AN OVERVIEW

---

### CONTENTS

1. References	2	8. Other aerodromes used in air transport operations	5
2. Purpose	2	9. CASA approved persons to conduct safety inspections	5
3. Status of this AC	2	10. Aerodrome standards	6
4. The aerodrome regulatory system as prescribed in CASR Part 139	2	11. Exemptions	6
5. Arrangements for existing licensed aerodromes	4	12. Non-precision approach (NPA) runways	7
6. Arrangements for existing unlicensed aerodromes that must be certificated under CASR Part 139	4	13. Aerodrome safety management system	8
7. Registered aerodromes	4	14. Aerodrome radio communication services	8
		15. Further information	9

---

*Advisory Circulars are intended to provide recommendations and guidance to illustrate a means but not necessarily the only means of complying with the Regulations, or to explain certain regulatory requirements by providing interpretative and explanatory material.*

*Where an AC is referred to in a 'Note' below the regulation, the AC remains as guidance material.*

*ACs should always be read in conjunction with the referenced regulations*

---

## **1. REFERENCES**

CASR Part 139, MOS-Part 139, CASR Part 121A (draft) and CASR Part 121B (draft).

## **2. PURPOSE**

The purpose of this AC is to provide an overview of the aerodrome regulatory system for aerodromes used in air transport operations. Australia has developed a multi-tier system for regulating aerodromes as prescribed in CASR Part 139. The new aerodrome regulatory system will affect all existing aerodromes in some way. The multi-tier system is in recognition of the fact that there is a great disparity among aerodromes, which have been established to serve a large continent with an uneven spread of population. The rules governing aerodromes serving major population centres are necessarily more complex than those governing aerodromes serving regional centres, which in turn will be more involved than those affecting aerodromes in the outback. This AC provides aerodrome operators and aircraft operators with an overview of the general obligations relating to aerodromes as encapsulated in the aerodrome regulatory system. Read the regulations for detailed requirements.

## **3. STATUS OF THIS AC**

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

## **4. THE AERODROME REGULATORY SYSTEM AS PRESCRIBED IN CASR PART 139**

### **4.1** The main changes brought about by CASR Part 139 are:

- (a) operators of aerodromes used by aircraft with more than 30 passenger seats conducting air transport operations will need to have an aerodrome certificate – this provision will now be applicable also to aerodromes currently used by aircraft with more than 30 passenger seats conducting charter operations, such as those used by mining companies;
- (b) operators of other aerodromes may also apply to have their aerodromes certificated;
- (c) operators of non-certificated aerodromes may apply to have their aerodromes registered by CASA;
- (d) certificated and registered aerodromes will have aerodrome operational information published in Aeronautical Information Publication- Enroute Supplement Australia (AIP-ERSA), changes of which can be notified through the NOTAM system;
- (e) operators of non-certificated and non-registered aerodromes (termed Other Aerodromes) may have to discharge certain regulatory functions if the aerodrome is used by aircraft with more than 9 passenger seats conducting air transport operations once a week or more;

- (f) for aerodromes not covered by CASR Part 139, responsibility to ensure that aerodromes meet minimum safety standards rests with aircraft operators who use those aerodromes. In Manual of Standards (MOS)-Part 139, a chapter has been devoted to standards for aerodromes used by aircraft not exceeding 5700kg. Aerodromes may still be audited by CASA through an audit of the airline or aircraft operator;
- (g) aerodrome standards are set out in the MOS-Part 139 which replaced the previous CASA aerodrome standards document named “Rules and Practices for Aerodromes (RPA)”. Standards for runway friction measurement and runway end safety areas have been changed to accord with ICAO standards. Aerodromes used in international operations have 5 years lead time to implement these new standards;
- (h) operators of certified aerodromes will need to adopt a safety management system (SMS) in the way the aerodrome is managed and operated. Operators of aerodromes used in international operations will be required to have the SMS in place by November 2005 and other aerodrome operators by January 2007;
- (i) circumstances under which the operator of an aerodrome may be required to provide aerodrome radio communication services or air traffic services; and
- (j) CASR Part 139 Subpart H specifies the criteria and standards for rescue and fire fighting services (RFFS) at an aerodrome.

**4.2** CASR Part 139 also introduced a number of changes on the way certified aerodromes are to be managed and operated. These include:

- (a) **Cancellation of annual safety inspection report.** There will be no requirement to submit to CASA annually an aerodrome safety inspection report. Instead, the technical inspection requirements have been expanded to cover some of the matters previously addressed by the annual safety inspection report. The technical inspection reports are meant to demonstrate that the aerodrome operator has arranged his or her own periodic audits of the aerodrome by qualified persons and has taken appropriate remedial actions to arrest deterioration of the aerodrome. The technical inspection reports must be kept for at least 3 years and are subject to CASA audit.
- (b) **Management of the Aerodrome Manual.** The Aerodrome Manual will need to set out the aerodrome administration structure and clearly nominate a person who will be responsible for ensuring that aerodrome manual information, including all changes, are accurate and brought to the attention of relevant persons.
- (c) **Training of key aerodrome personnel.** CASR Part 139 now requires certified aerodrome operators to be able to demonstrate that key aerodrome personnel, viz. reporting officers and works safety officers, are trained to perform their functions. This requirement is also applicable to registered aerodromes and other aerodromes subject to CASR Part 139.

**4.3 Approved Persons.** For registered aerodromes and other aerodromes which are subject to CASR Part 139, a quality assurance scheme has been introduced which requires these aerodromes to be inspected by a person approved by CASA. This scheme allows CASA to check that persons originating and verifying important aerodrome operational information are able to perform that function and their continued approval will be subject to periodic CASA audit.

## **5. ARRANGEMENTS FOR EXISTING LICENSED AERODROMES**

**5.1** Under the transitional provisions, existing aerodrome licences will be valid for a period of 3 years from the date of gazettal of CASR Part 139 unless they are replaced earlier by an aerodrome certificate issued under CASR Part 139. Moving from the licensing system to the new certification system is a simple process, but it is not automatic.

**5.2** A new certificate will be issued when the Aerodrome Manual has been updated in accordance with CASR Part 139, including a new section on aerodrome administration.

**5.3** The new aerodrome certificates will be issued by the Manager, Aerodrome Compliance. As each Aerodrome Inspector has to look after a substantial number of aerodromes, and to allow a smooth transition, it will be necessary for the processing of new certificates to be staggered. Aerodrome Inspectors will ascertain from licensed aerodrome operators whether they wish to become a certificated aerodrome, and if so, to propose a time frame for submission of the updated Aerodrome Manual. The co-operation of all licensed aerodrome operators is requested, to achieve an orderly transition.

**5.4** CASA will not charge for services provided in relation to the issue of the new aerodrome certificates to existing aerodrome licence holders.

## **6. ARRANGEMENTS FOR EXISTING UNLICENSED AERODROMES THAT MUST BE CERTIFICATED UNDER CASR PART 139**

**6.1** Under CASR 139.040, existing unlicensed aerodromes used in charter operations by aircraft with more than 30 passenger seats must be certificated. There are only a small number of aerodromes in this category. It is hoped that the Part 139 Notice of Proposed Rule making (NPRM) process and the associated wide publicity has alerted operators of these aerodromes to the need to prepare their aerodromes for certification.

**6.2** To allow orderly and proper processing of the applications for certificates and not to disrupt on-going aircraft operations, CASA will exercise the exemption provision under CASR Part 139 for this category of aerodrome. Aerodrome operators will, on application, be granted an exemption from the regulatory requirements of having an aerodrome certificate and an aerodrome manual, whilst the application is being processed, for a period of not more than 12 months.

## **7. REGISTERED AERODROMES**

**7.1** This option is provided for unlicensed aerodromes used by aircraft with not more than 30 passenger seats, to join the regulated aerodrome system. It is less complicated than the certification process as there is no mandatory requirement to have an aerodrome manual. Where practicable, operators of registered aerodromes are encouraged to document procedures. The aim of the registration scheme is to raise the safety status of unlicensed aerodromes. This scheme is predicated on the aerodrome operator meeting a number of registration conditions.

**7.2** When an aerodrome is registered, it signifies that the aerodrome has been checked and verified by a qualified person approved by CASA. The aerodrome operational information published in AIP-ERSA should therefore be accurate and can be used by aircraft operators and pilots with confidence. In addition, there should be a trained person called a “reporting officer” who will monitor the on-going serviceability of the aerodrome, such that, if there are any changes to the aerodrome conditions which can affect aircraft operations, the matter will be notified through the NOTAM system.

**7.3** Application for registration of an aerodrome must be accompanied by a safety inspection report of the aerodrome carried out by a person approved by CASA. Refer to Advisory Circular 139-03(0) “*Application for approval to conduct aerodrome safety inspections of registered and certain other aerodromes*”.

**7.4** Registered aerodromes used by aircraft with more than 9 passenger seats will also be required to be inspected and reported on by a qualified person approved by CASA, on an annual basis.

**7.5** CASA does not have a scheduled audit program for registered aerodromes, but these aerodromes are still subject to CASA audit and registration may be cancelled if the conditions for registration are not met. A CASA audit can be initiated as a result of pilot advice, or as a part of the audit of the approved person who has verified the aerodrome, or as a part of the audit of an airline that operates into the aerodrome.

**7.6** Although the registration scheme is aimed at existing unlicensed aerodromes, it is also available to existing licensed aerodromes that do not require certification. However, preference is for upgrading rather than downgrading. In this case, the application for registration is to be treated in the same manner as that for an unlicensed aerodrome.

## **8. OTHER AERODROMES USED IN AIR TRANSPORT OPERATIONS**

**8.1** CASR Part 139 requires the operator of a non-certificated and non-registered aerodrome, used by aircraft with more than 9 passenger seats conducting air transport operations at least once a week, to have a trained reporting officer to monitor aerodrome serviceability and notify aircraft operators of any changed conditions that may affect aircraft operations.

**8.2** In addition, the operator of such an aerodrome must arrange, on an annual basis, a CASA approved person to conduct a safety inspection of the aerodrome and submit the inspection report to CASA.

## **9. CASA APPROVED PERSONS TO CONDUCT SAFETY INSPECTIONS**

**9.1** CASR Part 139 empowers CASA to issue approval to persons to conduct safety inspections of aerodromes in the “registered” and “other” categories. The aim of this scheme is to allow CASA to regulate persons providing the aerodrome inspection service. This is an aviation safety related service as the end result of the service is direct input of aerodrome operational information used in aircraft operations.

**9.2** It is expected that this approval scheme will take 3 years to set up. In the interim, CASA will accept safety inspection reports prepared by a person meeting the qualifications of the previous Part 1 of Schedule 11 of the Civil Aviation Regulations 1988.

**9.3** Guidelines on how to become an approved person are given in Advisory Circular AC 139-03(0) “*Application for approval to conduct aerodrome safety inspections of registered and certain other aerodromes*”.

## **10. AERODROME STANDARDS**

**10.1** In general, the physical standards for movement area facilities, as specified in MOS-Part 139, are the same for the category of aircraft using the facilities, irrespective of the status of the aerodrome, be they certified, registered or other.

**10.2** The applicability of operating standards as applied to certified, registered and other aerodromes will vary, as the management and operational effort involved has to be commensurate with the level of aircraft activities and the size and complexity of the aerodrome.

**10.3** Chapter 13 of MOS-Part 139 sets out the aerodrome standards for aerodromes used by aircraft of not more than 5700 kg engaged in air transport operations operating under CASR Part 121B. Such an aerodrome may be certified, registered or be used by aircraft with more than 9 passenger seats once or more per week, in which case the operator of the aerodrome will have to comply with the relevant regulatory requirements. If an aerodrome is not one of the above, then CASR Part 139 does not apply to that aerodrome. However, the aerodrome operators still have a duty of care in carrying out any aerodrome functions that they have agreed to do for the aircraft operator.

## **11. EXEMPTIONS**

**11.1** An aerodrome facility which does not meet current standards may have been exempted where:

- (a) it was an existing facility and the standard change does not warrant immediate rectification of the facility – ‘grandfather provision’;
- (b) full compliance is impracticable, but intent of standard has been addressed by an acceptable means;
- (c) full compliance is impracticable, but the risk is mitigated by the introduction of certain aerodrome or aircraft operational procedures; and
- (d) the risk was considered by CASA to be low due to the low level of aircraft activity at the time.

**11.2** CASR Part 139 empowers CASA to grant exemptions where a regulatory or standard requirement cannot be met. Under the transition provision, existing exemptions granted under the *Civil Aviation Regulations 1988* (CAR 1988) will be deemed to be exemptions granted under CASR Part 139 and no action is required. However, this transition provision does not cover exemptions granted against standards contained in the RPA. A new exemption issued under CASR Part 139 will be required to cover those cases. Aerodrome operators are advised to liaise with their CASA Aerodrome Inspectors for re-issue of these exemptions.

**11.3** CASA exemptions are time limited and subject to review. MOS-Part 139 requires aerodrome operators to demonstrate that efforts are being made to bring non-standard aerodrome facilities up to standard. Efforts made should be reasonable, commensurate with the degree and nature of usage of the facility and the risk that the non-standard facility poses to the safety of aircraft operations.

**11.4** MOS-Part 139 requires non standard facilities at a certified aerodrome to be identified and recorded in the Aerodrome Manual, together with the date or period when those facilities were first introduced or last upgraded. The aerodrome operator will also require to provide an indication on how each non standard facility will be made to comply with the standard, including, where possible, a plan or timescale.

## **12. NON-PRECISION APPROACH (NPA) RUNWAYS**

**12.1** A non-precision approach (NPA) runway is, by definition, a runway that is served by visual aids and a non-visual aid providing at least directional guidance adequate for a straight-in approach.

**12.2** In the past, instrument procedure designers would design, for a runway which has been provided with appropriately sited navigation aids, and was meeting the NPA standard, a runway aligned approach, complemented with a landing minima which is normally lower than the circling minima. Also, approach procedures using ground based navigation aids, to a non NPA runway were normally set at an angle to the runway, such that the pilot has to conduct a circling approach before landing, and a circling minima was specified.

**12.3** With the introduction of the global positioning system (GPS), it is now generally possible for approaches to be designed such that they are aligned with the runway. In general, a straight-in approach is many times safer than a circling approach, particularly at night (24 times according to an ICAO study). Accordingly, procedure designers will, as far as possible, be designing runway aligned approaches.

**12.4** As all approach procedures will more likely be runway aligned, it may be difficult to distinguish a NPA runway. In general, a runway can only be a NPA runway if it meets all the NPA requirements. To make it easier to identify a NPA runway, the following convention has been developed.

***“Where a runway meets all the criteria of a NPA runway, the procedure designer will prefix the approach with the runway designation, followed by the particular navigation aid, e.g. RWY 36 GPS, RWY 33 VOR or VOR/DME, and a landing minima will be prescribed.”***

**12.5** Where all the requirements for a NPA runway are not met, the aerodrome may be provided with a straight-in approach but only to the circling minima. In this case, there will be no runway designator and the approach chart will only indicate the approach direction is based on a particular navigation aid, e.g. GPS-N (N for North) or non-directional beacon (NDB).

**12.6** For a runway designation to be designated as a NPA runway, that approach runway end must be in compliance with relevant aerodrome standards. The applicable standards include runway strip width, approach obstacle limitation surface (OLS), wind direction indicator (WDI) at the threshold or an approved source of surface wind information and runway light spacing.

**12.7** When an aerodrome is provided with an instrument approach, there is a need to ensure that the published approach procedures will not be compromised by new obstacles. Where appropriate, the procedure designer will provide aerodrome operators with a topographical map showing the designed approach and circling areas and the limiting height of objects. The map should also include information on significant obstacles considered in the procedure design. Aerodrome operators will need to monitor and report to the procedure designer, based on information provided, any new obstacle that is likely to affect the published procedures.

**12.8** CASR Part 139 prescribes that only aerodromes that are certified or registered can have NPA runways. This is in recognition of the fact that changing aerodrome conditions can affect aircraft safety, particularly for aircraft conducting instrument approach procedures. Under the regulatory system, only operators of certificated and registered aerodromes are required to have a system of checking aerodrome serviceability and reporting matters affecting aircraft operations through the NOTAM system.

### **13. AERODROME SAFETY MANAGEMENT SYSTEM**

**13.1** CASR Part 139 requires operators of certificated aerodromes to have in place an aerodrome safety management system (SMS) by a specified date – November 2005 for aerodromes used in international operations and January 2007 for others.

**13.2** CASA will issue guidelines on SMS from time to time. Currently there are no mandatory standards on the SMS, but aerodrome operators would be expected to be able to demonstrate, through documentation and procedures, that the elements of the SMS have been incorporated in the management and operation of their aerodromes.

### **14. AERODROME RADIO COMMUNICATION SERVICES**

**14.1** CASR Part 139 empowers CASA to direct aerodrome operators to provide certain aircraft movement statistics. This information is necessary to decide whether or not a particular type of aerodrome radio communication service should be provided at an aerodrome.

**14.2** The availability of aerodrome movement statistics will assist CASA to have an aeronautical study undertaken to determine whether an air traffic service (ATS), or an aerodrome radio communication service, is required. The process for determining whether an ATS or aerodrome radio communication service is necessary is set out in CASR Part 71 – Airspace, which is under development at this time. The draft regulations have been posted on the CASA website and include trigger points for an aeronautical study.

**14.3** The trigger points are based on aircraft movement rates at the aerodrome and the type of aircraft operations involved, i.e. IFR or VFR. If the trigger points are exceeded, an aeronautical study will be undertaken to determine whether an ATS or a radio communication service should be provided at the aerodrome.

**14.4** CASA will request an aerodrome operator to provide statistics for an aerodrome to determine whether the aircraft movement rate at the aerodrome is close to, or exceeds, one of the specified trigger points. At many aerodromes, there is no formal arrangement to record aircraft movements, so the collection of aircraft movement statistics would require a dedicated effort. CASA is appreciative of the difficulty this imposes and would not be demanding the highest level of accuracy. For the purpose of deciding whether an aeronautical study should be undertaken, quantitative data which reasonably represents the actual state of aerodrome usage would normally suffice.

**14.5** CASR Part 139 currently specifies the following aerodrome radio communication services:

- (a) frequency confirmation system (beep back);
- (b) air/ground radio service.

## **15. FURTHER INFORMATION**

**15.1** This overview is aimed at addressing general issues likely to be encountered by aerodrome operators as CASR Part 139 is implemented. Please refer to your CASA Aerodrome Inspector for specific individual aerodrome matters not covered by this AC.

---

Bill McIntyre  
Executive Manager  
Aviation Safety Standards