



Australian Government  
Civil Aviation Safety Authority

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**SUMMARY OF PROPOSED CHANGE**

**Proposed amendments to  
Part 139 MOS – ACN/PCN to  
ACR/PCR Transition**

**Project number:** AS 20/02

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# Introduction

The transition from Aircraft Classification Number and Pavement Classification Number to Aircraft Classification Rating and Pavement Classification Rating was born from an urgent need to substitute the former conservative empirical methods of classification with a more accurate and predictive model for an optimised usage of airport pavements.

To facilitate the global introduction of the new pavement classification rating (PCR) system, the International Civil Aviation Organization (ICAO) released amendments to Annex 14 to the Convention on International Civil Aviation (the Chicago Convention) - Volume 1.

Annex 14 to the Chicago Convention — Aerodromes, Volume I — Aerodrome Design and Operations, specifies that the bearing strength of a pavement intended for aircraft of a mass equal to, or greater than 5700 kg should be made available using /pavement classification rating (PCR) method.

This summary of proposed change (SPC) identifies the changes being incorporated into the Manual of Standards Part 139 to enable Australian aerodromes to meet the requirements of the changes to the process for assessing and publishing pavement strength.

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**Acknowledgement of Country**

The Civil Aviation Safety Authority (CASA) respectfully acknowledges the Traditional Custodians of the lands on which our offices are located and their continuing connection to land, water and community, and pays respect to Elders past, present and emerging.

Artwork: James Baban.

# 1 Reference material

## 1.1 Acronyms

The acronyms and abbreviations used in this SPC are listed in the table below.

**Table 1: Acronyms**

Acronym	Description
AC	advisory circular
ACN	aircraft classification number
ACR	aircraft classification rating
AIP	Aeronautical Information Publication
CASA	Civil Aviation Safety Authority
CASR	<i>Civil Aviation Safety Regulations 1998</i>
ERSA	En-route Supplement Australia
NRSG	National Runway Safety Group
PCN	pavement classification number
PCR	pavement classification rating
PCRTWG	PCR Transition Working Group

## 1.2 Definitions

Terms that have specific meaning within this SPC are defined in the table below. Where definitions from the civil aviation legislation have been reproduced for ease of reference, these are identified by 'grey shading'. Should there be a discrepancy between a definition given in this SPC and the civil aviation legislation, the definition in the legislation prevails.

**Table 2: Definitions**

term	Definition
aircraft classification number	means a number expressing the relative effect of an aircraft on a pavement for a specified standard subgrade category.
aircraft classification rating	is the number that expresses the relative effect of an aircraft on a pavement for the specified standard subgrade strength of the pavement.
pavement	means a surface that is constructed from a combination of a sub-base, a base course, and a surface course, placed on a subgrade to support the traffic load and distribute it to the subgrade.
	<b>Note:</b> A subgrade is a prepared foundation or the natural surface on which the pavement is constructed.

term	Definition
pavement classification number	means a number expressing the bearing strength of a pavement for unrestricted operations by aircraft with aircraft classification number (ACN) less than or equal to the PCN.
pavement classification rating	is the number that expresses the bearing strength of a pavement for unrestricted operations.

## 1.3 References

### Legislation

Legislation is available on the Federal Register of Legislation website <https://www.legislation.gov.au/>

**Table 3: Legislation references**

Document	Title
Part 139 of CASR	Part 139—Aerodromes
MOS Part 139	Manual of Standards Part 139 (Aerodromes) 2019

### International Civil Aviation Organization documents

International Civil Aviation Organization (ICAO) documents are available for purchase from <http://store1.icao.int/>

Many ICAO documents are also available for reading, but not purchase or downloading, from the ICAO eLibrary (<https://elibrary.icao.int/home>).

**Table 4: ICAO references**

Document	Title
ICAO Annex 14 Volume 1	Aerodromes - Aerodrome Design and Operations
DOC 9157	Part 3 - Pavements

### Advisory material

CASA's advisory materials are available at <https://www.casa.gov.au/publications-and-resources/guidance-materials>

**Table 5: Advisory material references**

Document	Title
AC 139.C-07	Strength rating of aerodrome pavements

## 2 Purpose and scope of the proposed amendments

Annex 14 Volume 1 - Aerodromes (Standards and Recommended Practices) and Doc 9157, Part 3 - Pavements were amended in Amendment 15 (applicable date 28 November 2024) to reflect the latest processes for the assessment of pavement strength ratings on aerodromes.

As a result, various areas of the MOS Part 139 require amendment and updating to reflect the changes to the documents identified above.

The amendments allow Australia to continue to meet its obligation of compliance with Annex 14 Volume 1 - Aerodromes (Standards and Recommended Practices). Key change proposals

## 3 MOS Part 139 - Aerodromes

### 3.1 Key change proposals

#### 3.1.1 Key change 1

Deletion of Definitions for ACN and PCN from Chapter 3.

These deletions will make way for the insertion of the aircraft classification rating (ACR) and pavement classification rating (PCR) definitions.

#### 3.1.2 Key change 2

Insertion of Definitions for ACR and PCR into Chapter 3.

This insertion will provide the applicable detail from Annex 14 Volume 1.

#### 3.1.3 Key change 3

Insertion of key detail into Chapter 5 associated with the requirements for determination and reporting of the detail to Airservices AIS.

This detail will provide guidance to the aerodromes on their evaluation and reporting/publishing requirements for PCR.

#### 3.1.4 Key change 4

Amendment to section 6.10 Note. Omission of ACN-PCN and insertion of ACR-PCR.

This Omission of ACN-PCN and insertion of ACR-PCR will provide the current abbreviation in support of the changes.

## 3.2 Transitional arrangements

### 3.2.1 Key change 1

Add a requirement that certified aerodromes have until 26 November 2025 to complete transition to the new pavement classification rating system.

This transitional arrangement has allowed for a 12 month period, beyond the applicable date of 28 November 2024, that allows for aerodromes to complete their requirements in an effective and efficient manner.



## 4 Previous consultations

The nature and extent of the various changes required, and their effective implementation was initially discussed with industry, through the National Runway Safety Group (NRSNG), during the NRSNG meetings in May and October 2024 (both in Brisbane). The NRSNG members discussed the need for effective management of the transition and elected to establish a subgroup to the NRSNG to assist this purpose.

The PCR Transition Working Group (PCRTWG) was created to assist with policy development and communication to the broader aviation industry. The PCRTWG membership involved in the development of this policy proposal included air transport aircraft operators, aerodrome operators, pilot and airport associations, aerodrome consultants, Airservices Australia, Department of Defence and CASA.

In addition, communication and consultation has occurred via the Australian Airports Association to their membership base through their weekly newsletter.

Feedback on the informal consultation within the PCRTWG did raise some concerns with the financial capability of the aerodromes to be able to implement the new arrangements. However, information was provided that identifies a simplified 'usage method' for the assessment that has a minor cost impact on those aerodromes choosing not to use the more detailed 'technical method' for the rating.

In mid-2024 the transition process and its impacts were discussed at length during the PCRTWG meetings, with only some minor concerns being raised. To assist the aerodromes with the transition, it was agreed during the first PCRTWG meeting on 5 June 2024 to publish a 12-month extension from ICAO's applicability date of 28 November 2024.

The NRSNG PCRTWG met 3 times in mid to late 2024 to settle the final policy position for all certified aerodromes. The working group endorses the policy being presented in this consultation.

In addition, the draft amendments to the MOS Part 139 have been distributed to all members of the PCRTWG, with only some minor communications concerned being raised. These have been considered in the consultation draft.

## 5 Impact on industry

CASA considers these amendments will have a positive effect on industry by providing a current methodology for the rating of aerodrome pavements that complies with the global approach and also provides additional pavement management tools for those aerodromes that elect to utilise the technical method for the assessment of their pavements.

There is some financial impact on aerodromes. This varies depending upon the methodology employed by the pavement engineers, consultants and contractors that provide the assessment and subsequent PCR value to be published.

### 5.1 Safety risk analysis

CASA conducted a safety risk analysis during development of the proposed amendments. The amendments are not expected to adversely effect on safety.

To provide sufficient time for aerodrome operators to transition and publish the details in AIP ERSA, a 12-month staged transition and implementation approach has been adopted, for deployment between 28 November 2024 and 26 November 2025.

The 12-month transition period will allow earlier implementation if an aerodrome operator is ready to adopt the new pavement classification reporting format.

### 5.2 Impact analysis

The proposed amendments will be submitted to the Office of Impact Analysis (OIA) for assessment. However, CASA expects that the proposed amendments will have machinery impacts only and that no further analysis in the form of an Impact Analysis (IA) will be required.

## 6 Submitting your view and what next

We would like to hear your views on the amendments we have proposed. Please review the proposals and provide your feedback and any additional concerns not covered in this SPC.

Your feedback will make a valuable contribution to CASA's policy decision-making process and help to fully inform CASA of the perceived impacts (positive and negative) on the aviation community regarding the proposal.

CASA will consider all comments received as part of this consultation process and incorporate changes as appropriate. Comments on this consultation should be submitted through the online response (CASA Consultation Hub) form by close of business 24 April 2025.