



Australian Government

Civil Aviation Safety Authority

Notice of Final Change (NFC)

**(Including Consolidated Summary of Responses and
Disposition of Comments to NPC 139/04)**

Amendments to Manual of Standards (MOS) Part 139 – Aerodromes

Chapter 1 – Introduction, and Chapter 9 – Visual Aids Provided by Aerodrome Lighting

Readers should note that this Notice of Final Change (NFC) contains the consolidated summary of responses, CASA's comments and disposition of comments to Notice of Proposed Change (NPC) 139/04. The NFC also outlines CASA's agreed policy and intended legislative changes and finalises the public consultation process in respect of the NPC.

Issued as part of the process of public consultation
by CASA's Standards Development Branch

Document NFC 139/04 – April 2010

Foreword

On 3 January 2008 the Civil Aviation Safety Authority (CASA) released for public comment Notice of Proposed Change – *NPC 139/04* titled *Proposed Amendment to Manual of Standards (MOS) Part 139 – Aerodromes*. This NPC was issued as part of the post implementation review of Civil Aviation Safety Regulation 1998 (CASR) Part 139. The Australian Airports Association (AAA) recommended reviewing the associated Manual of Standards (MOS) Part 139, and that the first priority for review was the aerodrome lighting standards set out in Chapter 9. In mid 2006 AAA provided its review of Chapter 9. CASA responded to the comments and agreed areas of change were subsequently established.

The NPC proposed changes to various standards in Chapter 9 of MOS Part 139. It also proposed a change to the definition of *visibility* in Chapter 1 to align it with the current International Civil Aviation Organization (ICAO) definition.

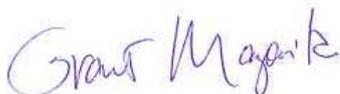
The period for public comment on the proposals contained in the NPC closed on 6 March 2008.

At the closing date CASA received twelve (12) external responses to the NPC. In addition, one late response, and two informal verbal responses were received. As the verbal responses were non-controversial, and related to either existing typographical errors that had not previously been noted, or re-arranging existing standards to make reading and understanding improvements without changing the substance of the standards, the verbal responses were taken into account in arriving at the final proposed amendment.

This Notice of Final Change (NFC):

- provides the background to the consultation undertaken;
- provides the objectives and options proposed;
- discusses the submissions made in response to NPC 139/04;
- provides a consolidated summary of CASA's responses and disposition actions;
- discusses the impact and gives an explanation of the changes; and
- provides the final changes to MOS Part 139.

I would like to thank everyone who has taken the time to respond to NPC 139/04. The final changes will reflect the content of comments received, as considered appropriate.



Grant Mazowita for Peter Boyd
Executive Manager
Standards Development and Future Technology

29 April 2010

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Acronyms

AAA	Australian Airports Association
AFRU	Aerodrome Frequency Response Unit
AIP-ENR	Aeronautical Information Publication – ENROUTE
ATC	air traffic control
ATS	air traffic services
CAA	Civil Aviation Authority
CASA	Civil Aviation Safety Authority
CASR	Civil Aviation Safety Regulation 1998
cd	candela
ERSA	En Route Supplement Australia
FAA	Federal Aviation Administration (of the United States of America)
ICAO	International Civil Aviation Organization
IWDI	illuminated wind direction indicator
MOR	meteorological optical range
MOS	Manual of Standards
MRA	Mutual Recognition Arrangements
NATA	National Association of Testing Authorities
NFC	Notice of Final Change
NOTAM	Notice to Airmen
NPC	Notice of Proposed Change
NVG	night vision goggles
OBPR	Office of Best Practice Regulation
OLS	obstacle limitation surface
PAL	pilot activated lighting
RGL	runway guard light
RVR	runway visual range
SARPs	ICAO Standards and Recommended Practices
SOR	Summary of Responses
VFR	visual flight rules
WDI	wind direction indicator
WAAS	Wide Area Augmentation System

Final Changes Made

1. Background

1.1 On 3 January 2008, a Notice of Proposed Change (NPC 139/04) containing a package of proposed changes to MOS Part 139 was formally released for public comment.

1.2 The objective of the NPC was primarily to seek comments on proposed new and revised standards for *Visual Aids Provided by Aerodrome Lighting*, as published in Chapter 9 of MOS Part 139, and to rectify and clarify several editorial errors throughout Chapter 9.

1.3 The NPC specifically proposed changes to MOS Part 139, as follows:

- Chapter 1, Section 1.2 – Definitions. The existing obsolete ICAO definition of *visibility* (V) is to be deleted and replaced with the current ICAO definition;
- Chapter 9, Section 9.1 – General:
 - Clarify CASA’s use of the term ‘upgrade of a facility’ as a trigger for the requirement to bring non-compliant installations into compliance with the standards;
 - Clarify the intent and acceptable means of achieving acceptable power switch-over times;
 - Clarify what are deemed to be ‘portable lights’, and when they are suitable for use;
 - Change the existing standard relating to the monitoring of aerodrome lighting to be presented to air traffic services (ATS);
 - Clarify acceptable methods of obtaining evidence that light fittings comply with the relevant standards; and
 - Formalise the requirement for retaining documents used to support the commissioning of aerodrome lighting;
- Chapter 9, Section 9.3 – Pilot Activated Lighting System. Add intensity stage settings that were previously omitted;
- Chapter 9, Section 9.4 – Obstacle Lighting:
 - Add specific standards that are suitable for obstacle lighting of wind turbines and wind farms; and
 - Correct and clarify a figure illustrating the lighting of tall obstacles;
- Chapter 9, Section 9.6 – Illuminated Wind Direction Indicator. Add a new performance based standard to the existing equipment based standards;
- Chapter 9, Section 9.9 – Visual Approach Slope Indicator Systems. Correct errors in one of the figures;
- Chapter 9, Section 9.10 – Runway Lighting. Delete the alternative standard threshold and runway end light patterns. Added the specific requirement for runway centreline lights to support aircraft take-offs. Change a runway visual range (RVR) value to make it the same as the ICAO Annex 14 value;

- Chapter 9, Section 9.13 – Taxiway Lighting:
 - Specify taxiway light requirements in terms of RVR, as is done in ICAO Annex 14, instead of the current method based on the precision approach category of associated runways;
 - Revise the runway guard light standards to reflect the passing of the implementation date of runway guard lights as a new system to Australia, and extend their applicability to help prevent runway incursions;
 - Change the applicability standards for stop bars to more closely align with the ICAO Annex 14 Standards and Recommended Practices (SARPs); and
 - Clarify the applicability of retro reflective taxiway markers to more closely align with the ICAO Annex 14 SARPs;
- Chapter 9, Section 9.14 – Isocandela diagrams for Taxiway Lights. Change the titles of the figures to reflect the change from approach category based standards to RVR based standards, and correct some typographical errors;
- Chapter 9, Section 9.15 – Illustrations of Taxiway Lighting. Add some additional detail to the figures to illustrate typical examples of taxiway light layout;
- Chapter 9, Section 9.16 – Apron Floodlighting. Clarify the intent of the existing standards;
- Chapter 9, Section 9.17 – Visual Docking Guidance Systems. Minor change of wording to improve readability;
- Chapter 9, Section 9.19 – Other Lights on an Aerodrome. Minor change of words to bring into compliance with MOS Part 139 use of standard words and expressions;
- Chapter 9, Section 9.20 – Monitoring, Maintenance and Serviceability of Aerodrome Lighting. Minor changes to improve presentation, and specifically include mention of movement area guidance signs, which were previously inadvertently not mentioned; and
- Chapter 9, Section 9.21 – Lighting in the Vicinity of Aerodromes. Add a reference to a relevant Australian Standard, clarify the purpose of the Section in the MOS, and change the wording of the quoted Head of Power to quote the most recent version.

1.4 The NPC also sought comments on less significant changes brought about as a result of feedback received from industry and within CASA on the need for clarification, correction of editorial errors, omissions and suggestions on how to improve the presentation of the standards in MOS Part 139.

2. Purpose

2.1 The purpose of this NFC is to provide details of comments received on the NPC, to provide CASA's response to those comments, and to list the final changes to be made to MOS Part 139 resulting from the NPC consultation process.

3. Analysis of Comments

3.1 At the closing date for comments CASA received twelve (12) external and one internal submission to the NPC. In addition, one late response was received, and two informal verbal responses were also received. The breakdown of submissions was as follows:

- five from aerodrome operators;
- one from an airport consultant;
- two from airport lighting equipment suppliers;
- one from an interested private individual;
- one from an aviation business owner;
- one from an ATS provider;
- one from an aviation business owner, who complained about CASA’s position on Wide Area Augmentation System (WAAS), but offered no comment on the contents of the NPC; and
- one internal comment requested change to aerodrome lighting standards to provide for night vision goggle (NVG) operators. Aerodrome operators are required to provide aerodrome lighting in accordance with MOS Part 139 if operations are to be conducted at the aerodrome at night or during periods of low visibility. Special arrangements may be made at the aerodrome to provide for periods when NVG operators use the aerodrome. This was not one of the specific proposed changes to MOS Part 139.

3.2 Of the eleven submissions considered, most gave specific comment on only some of the proposed changes, with ‘no comment’ on the other proposed changes.

3.3 The informal verbal responses related to either typographical errors that had not previously been noted, or re-arranging existing standards to make reading and understanding improvements without changing the substance of the standards.

3.4 The proposed changes were published under the 15 separate items identified in paragraph 1.3, each of which could be separately responded to on the electronic response form. As there were 15 separate proposed changes identified and 11 respondents provided submissions the total number of responses received were 165. The disposition of the 15 proposals is summarised as follows:

Disposition of Responses	No. of Responses
Acceptable without change	33
Acceptable but would be improved if changed	15
Not acceptable but would be acceptable if changed	7
Not acceptable under any circumstances	2
Not stated	108
	Total = 165

Analysis of comments on proposed changes to other aerodrome standards

3.5 The proposed changes to Sections 9.9, 9.14, 9.15, 9.17, 9.19, and 9.20 only received ‘acceptable without change’ or ‘no comment’ responses.

3.6 The proposed changes to Sections 9.3, 9.4, and 9.21 received one ‘acceptable but would be improved if changed’ response each.

3.7 All other proposed changes received some ‘not acceptable but would be acceptable if changed’ or ‘not acceptable under any circumstances’ responses.

3.8 All valid comments dealing with editorial errors, omissions and inconsistencies in terminology used within the standards document have been accepted and the necessary corrections made.

3.9 The list of respondents who consented to the publication of their names is as follows:

John McGhie – representing Queensland Government Air Wing
 Anthony Conte – representing Sydney Airport Corporation Ltd
 John Hunter – representing Queensland Airport Consultants Pty Ltd
 Sarah Renner – representing Melbourne Airport

3.10 Four respondents did not indicate if they did or did not consent to the publication of their names. CASA has decided in their case not to publish their names.

3.11 Table of comments against ‘**Proposed Changes**’

Proposed Changes	Acceptable without change	Acceptable but can be improved	Not acceptable but would be if changes were made	Not acceptable under any circumstances
Chapter 1, Section 1.2	1	3	nil	nil
Chapter 9, Section 9.1	1	5	2	nil
Chapter 9, Section 9.3	2	1	nil	nil
Chapter 9, Section 9.4	2	1	nil	nil
Chapter 9, Section 9.6	1	nil	2	1
Chapter 9, Section 9.9	2	nil	nil	nil
Chapter 9, Section 9.10	3	2	nil	nil

Proposed Changes	Acceptable without change	Acceptable but can be improved	Not acceptable but would be if changes were made	Not acceptable under any circumstances
Chapter 9, Section 9.13	2	2	2	1
Chapter 9, Section 9.14	3	nil	nil	nil
Chapter 9, Section 9.15	3	nil	nil	nil
Chapter 9, Section 9.16	3	nil	1	nil
Chapter 9, Section 9.17	2	nil	nil	nil
Chapter 9, Section 9.19	3	nil	nil	nil
Chapter 9, Section 9.20	3	nil	nil	nil
Chapter 9, Section 9.21	2	1	nil	nil
Totals	33	9	11	2

4. Conclusion and Impact of Changes

4.1 All of the comments received have been evaluated by CASA. A list of the comments received together with the CASA response and disposition actions are provided in Annex A to this NFC. Where appropriate, comments have been accepted by CASA.

Impact of MOS Part 139 Changes

4.2 There will be minimal impact on the aviation industry as a result of the proposed amendments. Some new standards will be introduced, but the cost of implementing them will not be significantly different to implementing the standards in force before these amendments.

4.3 Office of Best Practice Regulation (OBPR) assessed the proposed amendments and advised that the proposal was likely to have a low impact on business, and impose no or low compliance costs. Therefore, no further analysis (in the form of a Business Cost Calculator Report or Regulation Impact Statement) was required (OBPR ref: 9391).

4.4 Changes which are of an editorial nature, provide clarification or correct current omissions will not result in additional requirements being imposed.

4.5 See **Annex B** to this NFC for the final changes to Manual of Standards Part 139 – Aerodromes, Chapter 1 and Chapter 9.

5. Implementation and Review

5.1 The amendments to MOS Part 139 will be made under CASR 139.015 and will be approved by the Director of Aviation Safety. The amendments will be effective the day after the instrument is registered with the Federal Register of Legislative Instruments (FRLI). The instrument will then be posted to the casa website at: http://casa.gov.au/scripts/nc.dll?WCMS:STANDARD::pc=PC_93555.

Future change proposals

5.2 It is expected that the standards contained in MOS Part 139 will change from time to time to meet identified safety needs, technological changes, and changes in international standards and practices. Therefore, MOS Part 139 must be maintained to accurately reflect these changes and will be subject to ongoing monitoring, review and, as necessary, amendment.

5.3 Anyone may submit proposals/suggestions to change a MOS. See http://rrp.casa.gov.au/moreinfo/suggest_rule.asp for guidance on how to submit proposals or suggestions for change.

5.4 Suggestions or proposals to change MOS Part 139 may be submitted to CASA by either:

- **emailing** direct to Frank Leonardi, Project Leader, Airways and Aerodromes at npc139_04@casa.gov.au;
- **faxing** the suggestion/proposal to freefax 1800 653 897; or
- **mailing** the suggestion or proposal to: Frank Leonardi, Project Leader, Airways and Aerodromes, Reply Paid 2005, CANBERRA ACT 2601.

Note: People submitting a suggestion or proposal may discuss their suggestions/proposals with a CASA standards/technical specialist prior to submitting their proposal, by calling 1800 687 342 or 131 757 and asking for the appropriate technical area or specialist.

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Disposition of Comments to NPC 139/04)

Amendments to Manual of Standards (MOS) Part 139 – Aerodromes

Document NFC 139/04

Copies of this Notice of Final Change 139/04 can be obtained by one of the following means from:

Standards Documentation Coordinator

Post (no stamp required) Reply Paid 2005

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Additional information is available from:

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