# Proposed amendments to Part 139H MOS – Aerodrome Rescue and Fire Fighting Services - (CD 2501AS)

# Overview

We would like your feedback on proposed amendments to the Manual of Standards (MOS) for Subpart 139.H of the *Civil Aviation Safety Regulations 1998* (CASR) – Aerodrome Rescue and Fire Fighting Services. The changes are intended to address overly prescriptive requirements, improve efficiency, enable use of new technologies and increase compliance with the International Civil Aviation Organization requirements.

There are 7 proposed amendments to Part 139H MOS. Of these, 4 are to incorporate existing legislative exemptions into the MOS. The exemptions must be re-issued every 3 years.

They cover the following policy topics:

* the colour of fire vehicles
* allowing reserve supplies of complementary agent and expellant gas cylinders to be 100% instead of 200%, excluding category 1 and 2 aerodromes that have replaced up to 100% of water with complementary agent
* allowing remote termination of fire alarms subject to monitoring by an approved Automatic Fire Alarm Service provider (AFASP)
* allowing the housing of inshore rescue boats to be more performance-based.

The other 3 proposed changes are intended to enable use of new technologies and align with international requirements. They cover the following policy topics:

* adding Performance Level C foam as an extinguishing agent
* allowing up to 100% of water to be replaced by a complementary agent for category 1 and 2 aerodromes for foam substitution meeting performance level A
* allowing use of technology-based solutions, such as runway view cameras, to assist in the observation of aircraft approaches and departures.

**Background/ previous consultations**

CASA is conducting a holistic review of the Aerodrome Rescue and Fire Fighting Services (ARFFS) standards under the development of a new Part 176 of CASR. This includes ongoing work with a Part 176 Technical Working Group (TWG), established under the Aviation Safety Advisory Panel (ASAP).

In July 2023, CASA sought feedback on [Proposed changes to aerodrome rescue and firefighting services legislation (creation of new Part 176 of CASR) - (PP 2101AS)](https://consultation.casa.gov.au/regulatory-program/pp-2101as/).

Of the 7 proposals in this Part 139H MOS consultation, 5 received support under the PP 2101AS consultation. They were in relation to:

* fire vehicle colour
* reserve supplies of complementary agent and expellant gas cylinders
* visual surveillance technology
* remote fire alarm termination
* housing of inshore rescue boats.

# Why your views matter

Your feedback will help us make sure the proposed requirements are suitable, the final legislation is clear and it will work as intended.

Please submit your comments using the survey link on this page.

If you are unable to provide feedback via the survey link, please email [regulatoryconsultation@casa.gov.au](mailto:regulatoryconsultation@casa.gov.au?subject=Consultation%20on%20Proposed%20amendments%20to%20Subpart%20139H%20MOS%20–%20Aerodrome%20Rescue%20and%20Fire%20Fighting%20Services%20-%20(CD%202501AS)) for advice.

## **Documents for review**

All documents related to this consultation are attached in the ‘Related’ section at the bottom of the overview page. They are:

* Summary of proposed change on CD 2501AS, which provides background on the proposed standards
* Consultation draft - Part 139H Manual of Standards Amendment Instrument 2025
* MS Word copy of online consultation for ease of distribution and feedback within your organisation.

# **What happens next**

At the end of the response period, we will:

* review all comments received
* make responses publicly available on the consultation hub (unless you request your submission remain confidential)
* publish a Summary of Consultation which summarises the feedback received and outlines any intended changes and next steps.

All comments received on the proposed legislation will be considered. Relevant feedback that improves upon the proposed instrument will be incorporated into the final instrument.

# Give Us Your Views

[Appears on the overview page at the bottom]

Online Survey

[This link is on the front page of the survey and takes you to the survey questions]

**Related**

**Documents**

List of documents attached to the consultation

* Summary of proposed change on CD 2401AS
* Draft instrument - MOS Part 139H Amendment Instrument 2025
* MS Word copy of consultation on - Proposed amendments to Subpart 139H MOS – Aerodrome Rescue and Fire Fighting Services - (CD 2501AS)

# Audience & Interest groups

**Audience**

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| * Air operators |
| * Air traffic controller(s) |
| * Foreign operator |
| * Air traffic service provider |
| * Certified aerodrome owner/operator |
| * Emergency services personnel |
| * Firefighting personnel |
| * Aerodrome Rescue & Fire Fighting Service (ARFFS) providers |

**Interest**

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| * Airspace and infrastructure |
| * Emergencies and incident reporting |
| * Aerodromes |
| * Aerodrome rescue & fire fighting |

# Page. Consultation contents

This consultation asks for your feedback on proposed amendments to the Part 139H MOS – Aerodrome Rescue and Fire Fighting Services - (CD 2501AS).

The survey has been designed to give you the option to provide feedback on the survey in its entirety or to provide feedback on the policy topics applicable to you.

When you have completed the sections on which you wish to provide feedback, select the **‘Finish’** button at the bottom right of this page.

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| Page | Table of contents |
| 1 | Personal information (required) |
| 2 | Consent to publish submission (required) |
| 3 | Policy topic – fire vehicle colour |
| 4 | Policy topic – fire extinguishing agent performance criteria |
| 5 | Policy topic – FSCC vision and alarm requirements |
| 6 | Policy topic – inshore rescue boats |
| 7 | General comments |

# Page 1. Personal information

## First name

*(Required)*

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## Last name

*(Required)*

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## Email address

*If you enter your email address, you will automatically receive an acknowledgement email when you submit your response.*

Email

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## Do your views officially represent those of an organisation?

## *(Required)*

*Please select only one item*

Yes, I am authorised to submit feedback on behalf of an organisation

No, these are my personal views.

If yes, please specify the name of your organisation.

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Which of the following best describes the group you represent?

*Please select only one item*

☐ ARFFS provider

☐ Certified aerodrome operator

☐ ARFFS personnel

☐ ARFFS vehicle / equipment provider

☐ Air traffic controller

Other

Please specify ‘Other’ if selected.

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# Page 2. Consent to publish submission

To provide transparency and promote debate, we intend to publish all responses to this consultation. This may include both detailed responses/submissions in full and aggregated data drawn from the responses received.

Where you consent to publication, we will include:

* **your last name** if the submission is made by you as an individual
* **the name of the organisation** on whose behalf the submission has been made
* **your responses** and comments

We **will not** include any other personal or demographic information in a published response

Do you give permission for your response to be published?

*(Required)*

*Please select only one item*

Yes - I give permission for my response/submission to be published.

No - I would like my response/submission to remain confidential but understand that de-identified aggregate data may be published.

I am a CASA officer.

Information about how we consult and how to make a confidential submission is available on our [website](https://www.casa.gov.au/rules/changing-rules/consultation-industry-and-public).

# Page 3. Policy topic – fire vehicle colour

**Proposed Policy – single conspicuous colour**

Fire fighting vehicles must be predominantly a single conspicuous colour.

**Policy Aim**

Remove the prescriptive requirement for fire vehicles to be ‘signal red’ and align with Annex 14 to the Chicago convention - Volume I - aerodrome design and operations. This also allows for fire vehicles to have contrasting stripes which are currently in use overseas for airport fire services.

**Question:** Do you agree with removing the requirement for fire trucks to be signal red only and for them to predominantly be a single conspicuous colour?

**FACT BANK** – Paragraph 4.1.1.7

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| Paragraph 4.1.1.7  *substitute*  4.1.1.7 Fire fighting vehicles must be of a single conspicuous colour, or at least predominantly of that colour. |

*Radio buttons*

Agree

Agree, with changes (please provide suggested changes below)

Disagree (please explain why and provide any alternative suggestions below)

Undecided / Not my area of expertise

Comment

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# Page 4. Policy topic – fire extinguishing agent performance criteria

**Proposed Policy 1 – level C foam**

Add performance level C foam to the table of extinguishing agents.

**Policy Aim**

Alignment with Annex 14 to the Chicago convention - Volume I - aerodrome design and operations to allow use of performance level C foam.

**Question 1:** Do you agree with adding performance level C foam to the table of extinguishing agents?

**FACT BANK** –Paragraph 7.1.1.1 - Table

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| Paragraph 7.1.1.1, the Table  *substitute*   | **MINIMUM USABLE AMOUNTS OF EXTINGUISHING AGENTS** | | | | | | | | | --- | --- | --- | --- | --- | --- | --- | --- | | **Aerodrome Category** | **Foam Meeting Performance Level A** | | **Foam Meeting Performance Level B** | | **Foam Meeting Performance Level C** | | **Complementary Agent** | |  | **Discharge rate foam solution** | | **Discharge rate foam solution** | | **Discharge rate foam solution** | | **Dry chemical powder** | |  | Water  litres | Discharge rate  l/m | Water  litres | Discharge rate  l/m | Water  litres | Discharge rate  l/m | DCP  kg | | 1 | 350 | 350 | 230 | 230 | 160 | 160 | 45 | | 2 | 1 000 | 800 | 670 | 550 | 460 | 360 | 90 | | 3 | 1 800 | 1 300 | 1 200 | 900 | 820 | 630 | 135 | | 4 | 3 600 | 2 600 | 2 400 | 1 800 | 1 700 | 1 100 | 135 | | 5 | 8 100 | 4 500 | 5 400 | 3 000 | 3 900 | 2 200 | 180 | | 6 | 11 800 | 6 000 | 7 900 | 4 000 | 5 800 | 2 900 | 225 | | 7 | 18 200 | 7 900 | 12 100 | 5 300 | 8 800 | 3 800 | 225 | | 8 | 27 300 | 10 800 | 18 200 | 7 200 | 12 800 | 5 100 | 450 | | 9 | 36 400 | 13 500 | 24 300 | 9 000 | 17 100 | 6 300 | 450 | | 10 | 48 200 | 16 600 | 32 300 | 11 200 | 22 800 | 7 900 | 450 | |

*Radio buttons*

Agree

Agree, with changes (please provide suggested changes below)

Disagree (please explain why and provide any alternative suggestions below)

Undecided / Not my area of expertise

Comment

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**Proposed Policy 2 – conditional replacements and substitutions**

Allow the replacement of water by a complementary agent for aerodrome **categories 1 and 2**for foam substitution meeting **performance level A.**

**Policy Aim**

Maintain consistency with Annex 14 to the Chicago convention - Volume I - aerodrome design and operations and **remove**:

* the ability to replace water with a complementary agent for **category 3 to 10** aerodromes
* substitution of water for foam meeting **performance level B**.

**Question 2:** Do you agree with only allowing the replacement of water by a complementary agent for aerodrome categories 1 and 2 and only allowing for foam substitution meeting performance level A?

**FACT BANK –** Paragraph 7.1.1.6 and 7.1.2.1

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| Paragraph 7.1.1.6  substitute  7.1.1.6 For aerodrome categories 1 and 2:  (a) for up to 100% of water, a complementary agent may be substituted; and  (b) for the purpose of such substitution, 1kg of foam-compatible DCP (the foam), equals 1 litre of water for production of foam meeting performance level A.  7.1.1.7 For any aerodrome category after any permitted substitution of complementary agent for water, the substitution ratios must be carefully checked to ensure that foam meets the required performance level. Paragraph 7.1.2.1  repeal and substitute  7.1.2.1 RESERVED |

*Radio buttons*

Agree

Agree, with changes (please provide suggested changes below)

Disagree (please explain why and provide any alternative suggestions below)

Undecided / Not my area of expertise

Comment

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**Proposed Policy 3 – limited reserve supply**

Allow a reserve supply of complementary agent and expellant gas cylinders equivalent to only 100% of the quantities of those agents.

**Policy Aim**

Amend the MOS Part 139H reserve requirement of complementary agent and expellant gas cylinders to 100%, excluding category 1 and 2 aerodromes that have replaced up to 100% of water with complementary agent) (it is currently equivalent to 200% of the quantities of those agents). Amending this reserve requirement to 100% would align Australia with the reserve requirements in Annex 14 to the Chicago convention - Volume I - aerodrome design and operations.

**Question 3:** Do you agree to allowing a reserve supply of complementary agent and expellant gas cylinders equivalent to only 100% of the quantities of those agents?

**FACT BANK –** Paragraph 7.1.3.1

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| **Paragraph 7.1.3.1**  repeal and substitute  7.1.3.1 A reserve supply of foam concentrate, complementary agent, and propellant gas cylinders (***fire fighting agents***) must be maintained on an aerodrome to replenish the quantities of those agents prescribed for the aerodrome category as mentioned in the Table in paragraph 7.1.1.1.  7.1.3.1A For paragraph 7.1.3.1, the reserve supply must be as follows:  (a) for foam concentrate — equivalent to 200% of the quantity of that agent prescribed for the aerodrome category as mentioned in the Table in paragraph 7.1.1.1;  (b) subject to paragraph (c), complementary agent, with its associated propellent gas cylinders — equivalent to 100% of the quantity of those agents prescribed for the aerodrome category as mentioned in the Table in paragraph 7.1.1.1; and  (c) for aerodrome categories 1 and 2 that have substituted up to 100 per cent of the water with complementary agent — equivalent to 200% of the quantity of complementary agent, with its associated propellent gas cylinders, prescribed for the aerodrome category as mentioned in the Table in paragraph 7.1.1.1.  7.1.3.1B Foam concentrate carried on fire fighting vehicles, in excess of that prescribed for the aerodrome category as mentioned in the Table in paragraph 7.1.1.1, may contribute to meeting the reserve supply percentages mentioned in subparagraph 7.1.3.1A(a).  7.1.3.1C If a delay greater than 7 days is reasonably anticipated in replenishing any fire fighting agent up to its required level of reserve supply, the reserve supply must be increased by such reasonable percentage as mitigates against the aviation safety risks of the delay. |

*Radio buttons*

Agree

Agree, with changes (please provide suggested changes below)

Disagree (please explain why and provide any alternative suggestions below)

Undecided / Not my area of expertise

Comment

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# Page 5. Policy topic – FSCC vision and alarm requirements

**Proposed Policy 1 – conditional use of visual surveillance system (VSS)**

Allow Fire Station Communication Centres (FSCCs) to use a VSS to enhance or provide a complete view of runways and 'short final' approaches. This will be subject to rescue and fire fighting (RFF) response times being met and CASA approval.

**Policy Aim**

Remove the prescriptive “clear vision” requirement for runways and approaches from a physical “cabin” to have vision provided to the FSCC by either direct out-of-window observations or through a VSS terminating in the FSCC.

**Question 1:** Do you agree with allowing FSCCs to use a VSS to enhance or provide a complete view of runways and 'short final' approaches, subject to RFF response times being met and CASA approval?

**FACT BANK –** Paragraph 22.1.2.1

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| Paragraph 22.1.2.1  repeal and substitute  22.1.2.1 Subject to paragraph 22.1.2.1A, a new or existing FSCC must provide clear vision of the runway and ‘short final’ approaches from:  (a) direct out-of-the-window observations (which may require appropriate elevation of the FSCC or part of it): or  (b) a visual surveillance system (***VSS***) terminating in the FSCC which provides indirect observations, provided the observations and ARFFS response times are at least as effective as would be achieved under paragraph (a).  After paragraph 22.1.2.1  insert  22.1.2.1A For paragraph 22.1.2.1(b), a VSS:  (a) must be approved in writing by CASA; and  (b) must not be established or used until approved in writing by CASA. |

*Radio buttons*

Agree

Agree, with changes (please provide suggested changes below)

Disagree (please explain why and provide any alternative suggestions below)

Undecided / Not my area of expertise

Comment

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**Proposed Policy 2 – alternate to FSCC control of fire alarms**

Utilise existing technologies to allow aerodrome fire alarms to terminate and be monitored remotely, instead of at the FSCC.

**Policy Aim**

Provide flexibility for aerodromes to streamline infrastructure and communications requirements by enabling an aerodrome operator to make alternate fire alarm termination and monitoring arrangements using existing alarm technologies.

**Question 2:** Do you agree with allowing aerodrome fire alarms to terminate and be monitored remotely through the use of appropriate existing technologies, subject to the conditions mentioned in paragraph 22.1.2.3A of the proposed policy?

**FACT BANK –** Paragraph 22.1.2.3

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| Paragraph 22.1.2.3  substitute  22.1.2.3 Subject to paragraph 22.1.2.3A, aerodrome fire alarms must terminate at the relevant ARFFS FSCC.  22.1.2.3A An aerodrome fire alarm (the ***alarm***) may terminate other than at the relevant ARFFS FSCC but only if:  (a) the other termination, and the relevant procedures for it, are the subject of a written agreement between the aerodrome operator and the relevant ARFFS provider; and  (b) at the other termination, the alarm is constantly monitored, or monitored at least to the same degree, and for the same hours, as it would otherwise have been monitored at the relevant ARFFS FSCC; and  (c) the monitoring mentioned in paragraph (b) must be carried out by an AFASP, that is, an automatic fire alarm service provider approved by an official agency of a State or Territory government; and  (d) at the other termination, an activated alarm is immediately notified by the AFASP:  (i) during the hours of ARFFS operation — to a responsible individual employed by the ARFFS provider; or  (ii) outside the hours of ARFFS operation — to the nearest State or Territory emergency service; and  (e) the time taken to respond to the alarm is not materially different from the time it would otherwise take had the alarm terminated at the relevant ARFFS FSCC. |

*Radio buttons*

Agree

Agree, with changes (please provide suggested changes below)

Disagree (please explain why and provide any alternative suggestions below)

Undecided / Not my area of expertise

Comment

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# Page 6. Policy topic – inshore rescue boats

**Proposed Policy - housing**

Allow inshore rescue boats not to be housed under cover subject to consideration given to manufacturer operating and maintenance recommendations, local environmental conditions, national/local regulatory requirements, vessel location and response requirements.

**Policy Aim**

Requiring inshore rescue boats to be housed under cover is not directly linked to operational performance of the rescue boats. Removing this requirement would enable the Aerodrome Rescue and Fire Fighting Service provider to determine the housing of difficult terrain vessels.

**Question:** Do you agree with allowing inshore rescue boats to not be housed under cover subject to the conditions mentioned in the proposed policy?

**FACT BANK –** Paragraph 22.1.7.1

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| Paragraph 22.1.7.1  omit  If provided, inshore rescue boats must be housed under cover, and  insert  If provided, inshore rescue boats must be:  (a) housed, berthed, stored or otherwise located in accordance with paragraph 22.1.7.1A; and  (b) …  After paragraph 22.1.7.1  insert  22.1.7.1A For paragraph 22.1.7.1 (a), the relevant ARFFS must ensure that the inshore rescue boats are housed, berthed, stored or otherwise located in accordance with each of the following that is applicable:  (a) the boat manufacturer’s operating and maintenance recommendations;  (b) the local environmental conditions;  (c) the boat’s actual location at any particular time;  (d) the applicable, or anticipated, rescue requirements;  (e) the applicable national, State, Territory and local government regulatory requirements. |

*Radio buttons*

Agree

Agree, with changes (please provide suggested changes below)

Disagree (please explain why and provide any alternative suggestions below)

Undecided / Not my area of expertise

Comment

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# Page 7. General comments

Do you have any additional comments about the proposed policies? This should not include points you have already raised.

Please include any **impact** this change may have on you or your operation in your comments.

Comments

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