# Radio altimeter requirements due to 5G transmissions - (CD 2513AS)

# Overview

We are working with the aviation industry and the [Australian Communications and Media Authority](https://www.acma.gov.au/) (ACMA) to ensure flight safety during the expansion of the 5G network in Australia.

This includes steps to reduce potential interference from 5G to radio altimeters (radalts).

We are seeking feedback on amendments to four Manuals of Standards (MOS) that will ensure radalts operate reliably in the presence of radio frequency transmissions from 5G.

The amendments formalise requirements communicated to impacted aircraft operators over the past 12 months.

To enact these critical safety requirements,we have drafted changes to the MOS for:

* Part 91
* Part 121
* Part 133
* Part 135 of the Civil Aviation Safety Regulations 1998 (CASR).

**Aircraft operators affected**

The requirements apply to aircraft (aeroplanes and rotorcraft) that use the following **instrument approach procedures** which are reliant on radalts:

* Low-visibility approaches
* Required navigation performance – authorisation required (RNP-AR) operations.

From 1 April 2026 aircraft operators who use the above approaches must ensure their radalts meet the tolerance to radio frequency interference described in the following United States Federal Aviation Administration (FAA) airworthiness directives:

* [FAA Airworthiness Directive AD 2023-10-02](https://drs.faa.gov/browse/excelExternalWindow/FR-ADFRAWD-2023-11371-0000000000.0001?modalOpened=true) for aeroplanes
* [FAA Airworthiness Directive AD 2023-11-07](https://drs.faa.gov/browse/excelExternalWindow/FR-ADFRAWD-2023-13319-0000000000.0001) for rotorcraft

The amendments will also apply to:

* foreign air transport Air Operator’s Certificate (AOC) holders
* AOC holders with Australia New Zealand Aviation (ANZA) privileges.

**Background - impact of 5G on radalt frequency bands**

Radalts are critical for safe landings in low-visibility conditions. Studies show that 5G transmissions can interfere with radalt performance, and can cause:

* intermittent operation
* false data and indications
* system failure.

We have developed more information about the impact of 5G on radalts in our [Airworthiness Bulletin AWB 34-020 Issue 9](https://www.casa.gov.au/sites/default/files/2024-07/casa_awb_34-020_issue_9_-_potential_5g_interference_of_radio_altimeter_systems.pdf).

The ACMA currently has measures in place to reduce the risk, but these will **end on 31 March 2026**. As a result, we are making these amendments to ensure radalts continue to operate reliably in the presence of 5G transmissions.

Details of the conditions imposed by ACMA can be found in the Radiocommunications Assignment and Licensing Instruction ([RALI MS47](https://www.acma.gov.au/publications/2023-06/instruction/rali-ms47-licensing-and-coordination-procedures-area-wide-licences-awl-3400-4000-mhz-band)).

## **Further information**

You can find more information about 5G and aviation safety at the following:

* [Get fitted to protect against 5G by 31 March 2026](https://www.casa.gov.au/about-us/news-media-releases-and-speeches/get-fitted-protect-against-5g-31-march-2026) - provides instructions and steps for aircraft operators to take
* [Airworthiness Bulletin AWB 34-020](https://www.casa.gov.au/aircraft/airworthiness/airworthiness-bulletins/potential-5g-interference-radio-altimeter-systems) - provides further information including a request for pilots to report any suspected cases of radalts being affected by radio frequency interference
* FAA airworthiness directives available at the [FAA Dynamic Regulatory System](https://drs.faa.gov/browse/ADFRAWD/doctypeDetails).

# Why your views matter

Your feedback will help us make sure 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%20Flight%20Training%20and%20Flight%20Tests%20for%20Grant%20of%20Certain%20Endorsements%20(Sling%2C%20Winching%20and%20Rappelling%2C%20Firefighting)%20Approval%20(CD%202304FS).) 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 2513AS, which provides background on the proposed amendments
* Consultation draft - Parts 91, 121, 133 and 135 Manuals of Standards Amendment Instrument 2025
* Consultation draft - CASA 34/25 — Foreign Registered Aircraft in Australian Territory (Radio Altimeters) Direction 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.

## **Post-implementation review**

CASA will monitor and review the new rules on an ongoing basis. It will be important for pilots to report any incidents of radalt anomalies, especially those suspected to be caused by radio frequency interference.

# 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**

[This section is at the bottom of the front page and contains all the links to other sites and documents related to this consultation]

**Related Documents**

List of documents attached to the consultation

* Summary of proposed change on CD 2513AS, which provides background on the proposed standards
* Consultation draft - Parts 91, 121, 133 and 135 Manuals of Standards Amendment Instrument 2025
* Consultation draft - CASA 34/25 — Foreign Registered Aircraft in Australian Territory (Radio Altimeters) Direction 2025
* MS Word copy of online consultation - Radio altimeter requirements due to 5G transmissions - (CD 2513AS)

# Audience & Interest groups

**Audience**

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| * Aerodrome owner/operator |
| * Aircraft operators |
| * Airworthiness organisations |
| * Manufacturers |
| * Pilots |
| * Foreign registered aircraft operators |
| * Licensed aircraft maintenance engineers (LAME) |
| * Air transport operations – rotorcraft (Part 133) |

**Interest**

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| * Airworthiness / maintenance |
| * Human factors |
| * Safety management systems |
| * Operational standards |
| * Aircraft certification and design |
| * Equipment standards |

# Page 1. About this consultation

This consultation asks for your feedback on Proposed amendments to the Parts 91, 121, 133 and 135 Manuals of Standards – Requirements for radio altimeters due to 5G transmissions - (CD 2513AS).

The survey has been designed to give you the option to provide feedback on all or any of the policy topics applicable to you.

We will ask you for:

* **personal information**, such as your name, any organisation you represent, and your email address
* **your consent to publish your submission**
* **your responses to the proposed changes in the regulations**
* **demographic information to help us understand your interest in the regulations**
* **any comments you may want to provide**

Our [website](https://www.casa.gov.au/rules/changing-rules/consultation-industry-and-public) contains more information on making a submission and what we do with your feedback.

# Page 2. 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 all that apply*

Aircraft manufacturer

Aircraft owner/operator

Air Operator’s Certificate (AOC) holder

Airworthiness organisation

Pilot

Licensed aircraft maintenance engineer (LAME)

Other

Please specify ‘Other’ if selected.

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# Page 3. 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 or
* **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 5. Amendments to the Part 91, Part 121 and Part 135 Manuals of Standards

**Proposed amendments**

The proposed amendment will affect the following Manuals of Standards:

* Part 91 (General Operating and Flight Rules) Manual of Standards 2020
* Part 121 (Australian Air Transport Operations—Larger Aeroplanes) Manual of Standards 2020
* Part 135 (Australian Air Transport Operations—Smaller Aeroplanes) Manual of Standards 2020.

We are proposing the addition of a requirement to the above Manuals of Standards, which will require a radio altimeter fitted to an aeroplane used for the conduct of:

* low-visibility approaches
* Required Navigation Performance Authorization Required (RNP AR) instrument approach operations

to be compliant with the tolerance to radio frequency interference specified in [FAA Airworthiness Directive AD 2023-10-02](https://drs.faa.gov/browse/excelExternalWindow/FR-ADFRAWD-2023-11371-0000000000.0001).

The requirement will apply from 1 April 2026.

**Policy Aim**

The aim is to ensure radio altimeters operate reliably in the presence of 5G transmissions once the protective measures currently in place are removed.

**Link:** Consultation draft - Parts 91, 121, 133 and 135 Manuals of Standards Amendment Instrument 2025

**FACT BANK -** Requirements relating to equipment

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| *Content:*  CASR 91.810, 121.460, 135.370 - Requirements relating to equipment   * + - 1. The Part 91, Part 121, and Part 135 Manuals of Standards may prescribe requirements relating to:  1. the fitment and non‑fitment of equipment to an aircraft; and 2. the carrying of equipment on an aircraft; and 3. equipment that is fitted to, or carried on, an aircraft.    * + 1. A person contravenes this subregulation if: 4. the person is subject to a requirement mentioned in subregulation (1); and 5. the requirement is not met.    * + 1. A person commits an offence of strict liability if the person contravenes subregulation (2).   Penalty: 50 penalty units. |

Do you agree the proposed amendment sufficiently clarifies its intent?

Yes

No

Comments.

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# Page 6. Amendment to the Part 133 Manual of Standards

**Proposed amendment**

The proposed amendment will affect the Part 133 Manual of Standards (Australian air transport operations—rotorcraft).

We are proposing the addition of a requirement to the above Manual of Standards, which will require a radio altimeter fitted to a rotorcraft used for the conduct of:

* low-visibility approaches
* Required Navigation Performance Authorization Required (RNP AR) instrument approach operations

to be compliant with the tolerance to radio frequency interference specified in [FAA Airworthiness Directive AD 2023-11-07](https://drs.faa.gov/browse/excelExternalWindow/FR-ADFRAWD-2023-13319-0000000000.0001).

The requirement will apply from 1 April 2026.

**Policy Aim**

The aim is to ensure radio altimeters operate reliably in the presence of 5G transmissions once the protective measures currently in place are removed.

**Link:** Consultation draft - Parts 91, 121, 133 and 135 Manuals of Standards Amendment Instrument 2025

**FACT BANK -** Requirements relating to equipment

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| *Content:*  CASR 133.360 - Requirements relating to equipment   * + - 1. The Part 133 Manual of Standards may prescribe requirements relating to:  1. the fitment and non‑fitment of equipment to an aircraft; and 2. the carrying of equipment on an aircraft; and 3. equipment that is fitted to, or carried on, an aircraft.    * + 1. A person contravenes this subregulation if: 4. the person is subject to a requirement mentioned in subregulation (1); and 5. the requirement is not met.    * + 1. A person commits an offence of strict liability if the person contravenes subregulation (2).   Penalty: 50 penalty units. |

Do you agree the proposed amendment sufficiently clarifies its intent?

Yes

No

Comments.

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# Page 7. Direction under CASR Subpart 11.G

**Proposed amendment**

We are proposing to issue a direction under regulation 11.245 of the *Civil Aviation Safety Regulations 1998 (CASR)*, which will apply to foreign air transport operators and air operator’s certificate (AOC) holders with Australia New Zealand Aviation (ANZA) privileges.

The direction will require AOC holders to ensure that a radio altimeter fitted to an aeroplane or rotorcraft used for the conduct of:

* low-visibility approaches
* Required Navigation Performance Authorization Required (RNP AR) instrument approach operations

is compliant with the tolerance to radio frequency interference specified in [FAA Airworthiness Directive AD 2023-10-02](https://drs.faa.gov/browse/excelExternalWindow/FR-ADFRAWD-2023-11371-0000000000.0001) or [AD 2023-11-07](https://drs.faa.gov/browse/excelExternalWindow/FR-ADFRAWD-2023-13319-0000000000.0001).

The requirement will apply from 1 April 2026.

**Policy Aim**

The aim is to ensure radio altimeters operate reliably in the presence of 5G transmissions once the protective measures currently in place are removed.

**Link:** Consultation draft - CASA 34/25 — Foreign Registered Aircraft in Australian Territory (Radio Altimeters) Direction 2025

**FACT BANK –** CASA directions

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| *Content:*  CASR 11.245 - CASA may issue directions   1. For subsection 98(5A) of the Act, CASA may, by instrument, issue a direction about any matter affecting: 2. the safe navigation and operation of aircraft; or 3. the maintenance of aircraft; or 4. (c) the airworthiness of, or design standards for, aircraft.   Note 1: For the application of the *Legislation Act 2003* to an instrument containing a direction under this regulation, see subsections 98(5AA), (5AB), (5B) and (5BA) of the Act.  Note 2: See also Part 39 in relation to CASA’s powers to issue airworthiness directives.   1. However, CASA may issue such a direction: 2. only if CASA is satisfied that it is necessary to do so in the interests of the safety of air navigation; and 3. only if the direction is not inconsistent with the Act; and 4. only for the purposes of CASA’s functions.   Note: CASA’s functions are set out in section 9 of the Act. |

Do you agree the proposed amendment sufficiently clarifies its intent?

Yes

No

Comments

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# Page 8. General comments

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

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

Comments

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