



PROTOCOL

(OPS.09) CAO 48.1 appendices 1-6 and approved non- compliance assessments

July 2025



Acknowledgement of Country

The Civil Aviation Safety Authority (CASA) respectfully acknowledges the Traditional Custodians of the lands on which our offices are located and the places to which we travel for work. We also acknowledge the Traditional Custodians' continuing connection to land, water and community. We pay our respects to Elders, past and present.

Inside front cover artwork: James Baban.

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1. Purpose

This protocol is for the assessment of an air operator certificate (AOC) holder's compliance with the fatigue risk management requirements under Civil Aviation Order (CAO) 48.1 Instrument 2019. This protocol is for the assessment of an initial AOC application or a variation to an existing AOC – which is a significant change under regulation 119.020 of the *Civil Aviation Safety Regulations 1998* (CASR). This protocol is also for the initial approval or renewal of a limited or minor non-compliance with the requirements of a provision of CAO 48.1 – Approval of non-compliance ('minor variation') under subsection 5A of CAO 48.1.

This protocol enables standardisation of the assessment process.

2. Concept and philosophy

The International Civil Aviation Organization (ICAO) has established 4 basic principles which should underpin fatigue management regulations:

1. the need for adequate sleep and the impact of extended time awake
2. the impact of sleep loss and recovery
3. daily rhythms in the ability to perform work driven by the brain's circadian clock
4. the influence of workload.

These 4 basic principles are reflected in CAO 48.1, which provides a comprehensive regulatory framework for the management of fatigue risk and underscores that fatigue management is a shared responsibility between flight crew members, operators and CASA.

CAO 48.1 provides operators with the choice of 3 broad approaches to fatigue management:

1. **Basic** (Appendix 1 of CAO 48.1), which sets prescriptive flight and duty time limitations without the need for enhanced risk management processes; however, these limitations are relatively restrictive.
2. **Enhanced fatigue management** (Appendices 2 to 6 of CAO 48.1), which allows greater flexibility with less restrictive flight and duty time limitations. This approach requires operators to implement risk management processes, continuous monitoring processes and a training program for FCMs.
 - While most AOC holders will be able to conduct their operations within Appendices 2 to 6, CASA recognises that there is a substantial diversity in operations being conducted across Australia. To support AOC holders with operational characteristics that fall slightly outside Appendices 2 to 6, but are not of the complexity to warrant an FRMS, CASA will consider requests from operators for 'minor variations' (subsection 5A of CAO 48.1) from the prescriptive rules in a narrow range of circumstances.
3. **Fatigue risk management system (FRMS)** (Appendix 7 of CAO 48.1), which is the most comprehensive fatigue risk management approach. This is a data-driven means of continuously monitoring and managing fatigue-related safety risks, based upon scientific principles and knowledge together with operational experience, that aims to ensure relevant personnel are performing at adequate levels of alertness.

This protocol does not cover fatigue risk management systems under Appendix 7 of CAO 48.1.

3. Process

3.1 Appendices 1 to 6

All administration tasks should follow standard regulatory service administration procedures (as applicable), in addition to the following:

- a. For an initial issue or significant change, operators will submit the following application form (as applicable):

- i. Air Operator's Certificate / Associated Approvals form (CASA-04-5515)
- ii. Aerial Work Operations form (CASA-04-5505)
- iii. Flight Training Operator Certificate application form (CASA-04-5389).
- b. Regservices will create a case in EAP to be assigned to a CASA inspector as either the project manager or the assessor, depending on the application.
- c. Regservices and the inspector should confirm that an EAP stop alert is not active.
- d. All associated CASA staff must be knowledgeable of, and competent with, Principle (OPS.09), which provides details for the assessment of fatigue management requirements for flight crew members.
- e. The relevant sections (determined by scope) of Worksheet (OPS.09) must be completed by the CASA inspector and saved as a PDF document in RMS, including:
 - i. the assessment summary
 - ii. the inspector recommendation.
- f. The inspector must complete the relevant section on the approval data sheet and provide the revision details for the exposition or operations manual.
- g. The inspector must complete EAP in accordance with the EAP OAS Case Management - Regulatory Oversight Division (ROD) handbook (CASA-03-5501).

3.2 Minor Variations

All administration tasks should follow standard regulatory service administration procedures (as applicable), in addition to the following:

- a. Pre-application meeting between the operator and CASA.

Note: If the operator has already applied, CASA will arrange this meeting before initiating the assessment.

- b. For an initial issue, change or renewal, the operator will submit the *Fatigue - limited or minor non-compliance (minor variation) application form* (CASA-04-4594) and associated supporting documentation.
- c. Regservices will create a case in EAP to be assigned to a CASA inspector as either the project manager or the assessor, depending on the application.
- d. All associated CASA staff must be knowledgeable of, and competent with, Principle (OPS.09), which provides details for the assessment of a minor variation.
- e. The relevant sections (determined by scope) of Worksheet (OPS.09) must be completed by the CASA inspector and saved as a PDF document in RMS, including the assessment summary.
- f. The recommendation is via a Standard Form Recommendation (SFR).
- g. The inspector must complete EAP in accordance with the EAP OAS Case Management - Regulatory Oversight Division (ROD) handbook (CASA-03-5501).
- h. If the application is successful, the Manager Human Performance will issue a fatigue non-compliance instrument of approval to the operator.

4. List of supplements

Only the following supplements may be used in support of this protocol. The most recently approved versions will be found on the CASA intranet website. Approved forms are located on CASA's external website.

- [Principle \(OPS.09\) CAO 48.1 Appendices 1-6 Assessment](#)
- [Worksheet \(OPS.09\) CAO 48.1 Appendices 1-6 Assessment](#)

- [Minor Variations Policy - CAO 48.1 Instrument 2019](#)
- Principle (OPS.09) CAO 48.1 Minor Variation Assessment - Reserved
- Worksheet (OPS.09) CAO 48.1 Minor Variation Assessment - Reserved

5. Scope

This protocol is for the assessment of operations conducted under Appendices 1 to 6, including an initial AOC application or variation to an existing AOC holder, and the initial approval or renewal of a limited or minor non-compliance with the requirements of a provision of CAO 48.1.

No specific approval is granted for operators wishing to be compliant with CAO 48.1 Instrument 2019 Appendices 1 to 6; however, section 28 (1)(b)(vi) of the *Civil Aviation Act 1988* states that the delegate must be satisfied that *'the organisation has suitable procedures and practices to ensure that...operations can be conducted...safely'*. As such, CASA must be satisfied that each AOC holder, Part 141 certificate holder or Part 138 certificate holder has complied with at least one appendix that is appropriate for their operations.

The initial approval or renewal of a minor variation requires a specific instrument of approval that specifies the relevant provision in CAO 48.1, description of the minor variation, applicable operational matters, risk mitigation provisions, and conditions.

This protocol does not cover the assessment of operations under Appendix 7 of CAO 48.1 (FRMS). Additional information on FRMS is available in the Fatigue Risk Management System Handbook (CASA-03-0016).

6. Competency requirements

To conduct the assessment of Appendices 1 to 6, inspectors must have successfully completed the foundation training and advanced regulatory assessment training programs. Inspectors must hold the appropriate qualifications for the assessment of their specific areas. Additionally, for the assessment of a minor variation application, a qualified CASA fatigue specialist must be engaged to conduct a fatigue risk assessment of the operator's requested minor variation and proposed risk mitigations.

7. Associated legislation

Table 1. Legislation associated with this protocol

Document	Title
CAO 48.1	Civil Aviation Order 48.1 Instrument 2019
Part 91 of CASR	General operating and flight rules
Part 119 of CASR	Australian air transport operators - certification and management
Part 138 of CASR	Aerial work operations
Part 141 of CASR	Recreational, private and commercial pilot flight training, other than certain integrated training courses

8. Guidance references

Table 2. Guidance material relevant to this protocol

Document	Title
CAAP 48-01	Fatigue management for flight crew members
CASA-04-5445	Fatigue training syllabus recommendations
Plain English Guide	Civil Aviation Order 48.1 Fatigue Management Plain English Guide
Sample Manuals	Sample Operations Manual Supplements
CASA-04-5265	Minor Variations Policy - CAO 48.1 Instrument 2019

9. ICAO references

Table 3. ICAO references applicable to this protocol

Document	Title
Annex 6, Part I	Operation of Aircraft - International Commercial Air Transport - Aeroplanes
Annex 6, Part III	Operation of Aircraft - International Operations - Helicopters
Doc 9966	Manual for the Oversight of Fatigue Management Approaches
Doc 9966 Supplement	Fatigue Management Guide for Airline Operators
Doc 9966 Supplement	Fatigue Management Guide for Helicopter Operators

10. Revision history

Amendments/revisions of this protocol are recorded below in order of most recent first.

Table 4. Revision history table

Version No.	Date	Parts/Sections	Details
1.0	July 2025	All	First release