

Explanatory Statement

Civil Aviation Safety Regulations 1998

Part 101 Manual of Standards (Miscellaneous Amendments) Instrument 2019 (No. 1)

Purpose

The *Part 101 (Unmanned Aircraft and Rockets) Manual of Standards 2019* (the **principal MOS**) was the first issue of a MOS in relation to unmanned aircraft and rockets (including kites, fireworks, unmanned tethered and free balloons).

The principal MOS prescribed matters in relation to the safety of remotely piloted aircraft (**RPA**), including training and competency standards for remote pilot licences (**RePL**), and certain kinds of operations near aerodromes and beyond visual line of sight (**VLOS**).

The principal MOS formally commenced on registration on 9 April 2019 and most of its provisions took effect on that date. However, to allow a lead-in period for industry preparation, various other provisions in relation to training courses and certain operations were delayed to take effect on 10 April 2020 (and 10 October 2020 in relation to requirements for RePL training course instructors).

The *Manual of Standards (Miscellaneous Amendments) Instrument 2019 (No. 1)*. (the **MOS amendment**) is a small set of amendments designed to improve, simplify and correct the principal MOS in anticipation of 10 April 2020.

Legislation — the Act

Under subsection 98 (1) of the *Civil Aviation Act 1988* (the **Act**), the Governor-General may, among other things, make regulations prescribing matters required, permitted, necessary or convenient for the Act and in the interests of the safety of air navigation. Part 101 of the *Civil Aviation Safety Regulations 1998* (**CASR**) deals with the operation of unmanned aircraft, rockets and fireworks.

Legislation — Part 101 of CASR

Under regulation 101.028, CASA may issue a MOS prescribing matters required or permitted by the Regulations to be prescribed, or necessary or convenient to be prescribed for carrying out or giving effect to Part 101. This power is complemented by other provisions in Part 101 which empower CASA to prescribe specific matters in the MOS.

Background

Much of the principal MOS has been in operation for almost 9 months and the necessity for some small corrections and revisions of it has come to light in anticipation of its broader taking of effect on 10 April 2020.

The MOS amendment

The MOS amendment is described in detail in Appendix 1.

Incorporation by reference

The MOS amendment does not introduce any new applied, adopted or incorporated documents.

Legislation Act 2003 (the LA)

Under paragraph 98 (5A) (a) of the Act, regulations made “for” that same provision may empower CASA to issue instruments in relation to matters affecting the safe navigation and operation of aircraft.

Under subsection 98 (5AA) of the Act, an instrument (like a MOS) issued under paragraph 98 (5A) (a) is taken to be a legislative instrument if it is expressed to apply in relation to a class of persons or aircraft or aeronautical products.

The MOS is an instrument empowered by regulation 101.028 of CASR made by the amendment regulations “for subsection 98 (5A) of the Act”.

The standards set by the MOS apply, not to a particular remote pilot or a particular RPA but to the class of such pilots and aircraft. The MOS is, therefore, by virtue of subsection 98 (5AA), a legislative instrument and subject to registration, and tabling and disallowance in the Parliament, under sections 15G, and 38 and 42, of the LA.

Consultation

The MOS amendment is regarded as being of a minor or machinery nature only. For this reason, under paragraph 11.275 (1) (d) of CASR, the Director of Aviation Safety has formally determined that the MOS amendment is of a minor or machinery nature that does not substantially alter existing arrangements under the principal MOS (CASA 106/16 – Determination – for proposed *Part 101 Manual of Standards (Miscellaneous Amendments) Instrument 2019 (No. 1)*). A copy of the Determination, and a statement of the reasons for it, are published on the CASA website. For ease of reference, the reasons are also summarised in Appendix 2.

In these circumstance, for section 17 of the LA, CASA is satisfied that further consultation is not appropriate.

Office of Best Practice Regulation (OBPR)

A Regulation Impact Statement (RIS) is not required because the MOS amendment is covered by a standing agreement between CASA and OBPR under which a RIS is not required for MOS amendments (OBPR id: 14507).

Statement of Compatibility with Human Rights

The Statement of Compatibility with Human Rights at Appendix 3 has been prepared in accordance with Part 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011*. The legislative instrument indirectly engages some of the applicable rights and freedoms but, in the context of aviation safety, does so in a reasonable, necessary and proportionate way to ensure safety and is, therefore, compatible with human rights, as it does not improperly infringe any human rights.

Commencement and making

The MOS amendment has been made by the Director of Aviation Safety, on behalf of CASA, in accordance with subsection 73 (2) of the Act. The MOS amendment commences on the day it is registered on the Federal Register of Legislation. However, provisions modified by the MOS amendment take effect in accordance with the commencement provision, in the principal MOS (section 1.03).

Details of the *Part 101 Manual of Standards (Miscellaneous Amendments) Instrument 2019 (No. 1)*

Section 1 Name of instrument

Under this section, the instrument is named as the *Part 101 Manual of Standards (Miscellaneous Amendments) Instrument 2019 (No. 1)*.

Section 2 Commencement

Under this section, the instrument commences on the day it is registered.

Section 3 Amendment of the Part 101 Manual of Standards

Under this section, Schedule 1 amends the *Part 101 (Unmanned Aircraft and Rockets) Manual of Standards Instrument 2019*.

Schedule 1 Amendments

Schedule 1 comprises 44 items as follows:

[1] Subsection 1.04 (2), definition of documented practices and procedures, the Note

The Note refers the reader to the definitions in subsection 1.04 (3) and explains that an operator is required to have documented practices and procedures considered suitable by CASA.

[2] Subsection 1.04 (2), paragraph (b) of the definition of examiner, for a medium or large RPA

Corrects a typographical error.

[3] Paragraph 2.05 (4) (a)

This amendment ensures that when the Common units have already been part of the aeronautical knowledge units required for an initial issue RePL, they do not have to be repeated for RePL upgrades.

[4] Paragraph 2.06 (6) (a)

This amendment ensures that when the Common units have already been part of the practical competency units required for an initial issue RePL, they do not have to be repeated for RePL upgrades.

[5] Section 2.07

This amendment is consequential on item [3] and clarifies that the aeronautical knowledge examination standards under the Division apply for an initial issue RePL.

[6] Subsection 2.10 (1), the Note

This amendment ensures that an examination score that is not a whole number is rounded up or down, as applicable, to determine if the applicant has passed the exam. This amendment also amends the Note to be consistent with the standard.

[7] Subsection 2.15 (2)

This amendment reduces from 6 to 4 the number of unique question sets that a RePL training organisation must have in order to administer the aeronautical examination (thus, in effect, reducing the overall number of questions required from 480 to 320).

[8] Section 2.17, the heading

Corrects a typographical error.

[9] Subsection 2.18 (1)

This amendment is consequential on item [4] and clarifies that the assessment of practical competencies under the Division applies for an initial issue RePL, some of which may not be applicable to *upgrading* an RePL.

[10] Division 2.5, before section 2.19

This amendment provides that the standards in Division 2.5 are for a RePL training course to upgrade a RePL.

[11] Subsection 2.20 (4)

Subsection 2.20 (4) was expressed to be “despite” paragraph 2.30 (2) (a) but the provisions do not conflict with each other and this amendment clarifies that.

[12] Subsection 2.21 (2)

This amendment provides that the aeronautical knowledge component of the RePL training course must require an applicant to complete training and pass an examination in all of the units of knowledge required for upgrading a small RPA RePL to that for a small RPA of a different category. However, some units are excluded from that requirement, namely:

- the Common units — provided the applicant has already successfully completed the Common units to obtain an initial RePL; or provided the applicant was issued with an initial RePL at least 3 years before 10 April 2020 and was an involved RPA participant; and
- any units which the holder passed not more than 3 years before applying for the RePL; or not more than 5 years before applying for the RePL, if the person was also an involved RPA participant. An involved RPA participant is defined in subsection 2.21 (7).

[13] Subsection 2.21 (5)

This amendment provides that the practical competency component of the RePL training course must require an applicant to complete training and be assessed as competent in all of the units of practical competency required for upgrading a small RPA RePL to that for a small RPA of a different category. However, some units are excluded from that requirement, namely:

- the Common units — provided the applicant had already successfully completed the Common units to obtain an initial RePL; or provided the applicant was issued with an initial RePL at least 3 years before 10 April 2020 and was an involved participant; and
- any units which the holder passed not more than 3 years before applying for the RePL; or not more than 5 years before applying for the RePL, if the person was also an involved RPA participant.

[14] Subsection 2.23 (2)

This amendment has the same effect as item [12] except it applies for upgrading a small RPA RePL to include a medium or large RPA in the same category.

[15] Subsection 2.23 (5)

This amendment has the same effect as item [13] except it applies for upgrading a small RPA RePL to include a medium or large RPA in the same category.

[16] Subsection 2.25 (2), including the Notes

This amendment has the same effect as items [12] and [14] except it applies for upgrading a medium or large RPA to include another medium or large RPA of a different category.

[17] Subsection 2.25 (5), including the Note

This amendment has the same effect as items [13] and [15] except it applies for upgrading a medium or large RPA to include another medium or large RPA of a different category.

[18] Subparagraph 2.30 (2) (c) (iv), the Note

Corrects a typographical error.

[19] Section 4.02, definition of defined unmanned aircraft

This amendment has the effect of removing micro RPA from the definition of *defined unmanned aircraft* as the standards now directly address micro RPA operations near a controlled aerodrome (see item [20]). Thus, a *defined unmanned aircraft* means an unmanned aircraft operated in accordance with an approval of an approved area under regulation 101.030 of CASR; or in accordance with a permission mentioned in regulation 101.075 that permits operation of the aircraft within the no-fly zone of a controlled aerodrome.

[20] Section 4.03

This amendment permits micro RPA and model aircraft under 250 g to operate within 3 NM of a controlled aerodrome provided they are outside the approach and departure paths. Thus, a person must not conduct RPA operations or fly an RPA in the no-fly zone of a controlled aerodrome. However, exceptions are also provided for tethered operations and indoors operations. Also, a person may fly a micro RPA in the no-fly zone of a controlled aerodrome if the aircraft does not enter an approach and departure path.

A person must not fly a model aircraft that has a gross weight of more than 250 g in the no-fly zone of a controlled aerodrome. However, a person may fly a model aircraft that has a gross weight of no more than 250 g in the no-fly zone of a controlled aerodrome if the aircraft does not enter a relevant approach and departure path.

Finally, a person may fly a *defined unmanned aircraft* (see [19]) in the no-fly zone of a controlled aerodrome.

The effect of the amendment is to make it clear that a micro RPA and a model aircraft weighing less than 250 g cannot operate within the approach and departure paths of a controlled aerodrome although such aircraft may fly within 3 NM of a controlled aerodrome. The other elements of the provision are a recasting of the existing provision.

[21] Section 5.01

This amendment amends the applicability of Chapter 5 which deals with RPA operations BVLOS. The amendment makes it clear that only approved certified RPA operators may operate BVLOS (that is under an extended visual line of sight or *EVLOS* operation approval).

[22] Section 5.02

This amendment provides, in effect, that in approved areas, relevant conditions on the approval may substitute for the EVLOS standards.

[23] Sub-subparagraph 5.06 (c) (i) (B)

This amendment adds CASA to the list of entities that may carry out a mandated EVLOS proficiency check on a remote pilot before the pilot conducts an EVLOS operation.

[24] Subsection 5.15 (1)

This amendment allows for an appropriately qualified visual observer to carry out radiocommunication functions during an EVLOS operation.

[25] After subsection 5.15 (1)

This amendment makes it clear that even though a visual observer is assigned to radio duties, it is the remote pilot for the EVLOS operation who is responsible for ensuring that the aircraft is not operated hazardously.

[26] and [27] Subsection 9.03 (3) and subsection 9.03 (4)

These amendments ensure that subsection 9.03 (3) is not subject to subsection 9.03 (4), but that the reverse is the case, namely, subsection 9.03 (4) is subject to subsection 9.03 (3).

[28] After subparagraph 10.07 (1) (c) (ii)

This amendment has the effect of placing a certified RPA operator's obligation to record the maximum and the minimum gross weight of the RPA for operations in the maintenance part of the RPAS technical log rather than among the information relating to continuing airworthiness.

[29] Subparagraph 10.07 (1) (d) (ii)

This amendment make it clear information relating to continuing airworthiness of RPA is to be recorded only for larger RPA whose gross weight is more than 25 kg.

[30] Subparagraphs 10.07 (1) (d) (iii) and (iv)

This amendment is consequential on [28] by removing references to weights.

[31] After subparagraph 10.12 (2) (a) (ii)

This amendment relocates to a more appropriate section of the RPA technical log the requirement that some excluded RPA operators must record the maximum and the minimum gross weight of the RPA for operations.

[32] Chapter 11

Under subregulation 101.372 (1) of CASR, before the first operation of an excluded RPA, the operator must notify CASA of the operation. This amendment inserts a new section 11.01 to provide the form and manner for excluded RPA operators to so notify CASA. The notification must be made through the CASA online notification system

and must contain the operator's name, trading name, address and a description of the kind of excluded RPA that are the subject of the notification.

This amendment also inserts a new section 11.02 to prescribe that changes in such notified information that must also be notified to CASA.

[33]-[38] Amendments to Schedule 4

Under section 2.10, in an aeronautical knowledge examination, there must be at least 80 multichoice questions spread across topics which are allocated a priority category A, B or C. The priority category determines the minimum number of examination questions required for topics allocated to that category. These amendments assign a more appropriate priority category to some of the aeronautical knowledge topics within the aeronautical knowledge units required to qualify for a RePL. These reassignments will also ensure that whole numbers of questions are required for certain units.

[39] and [40] Schedule 4, Appendix 5, Unit 12, item 3, paragraph (e) and Schedule 4, Appendix 5, Unit 12, item 6

These amendments relocate from item 6 to item 3 certain aerodynamics topics for powered-lift RPA which are more appropriately given a B priority. This will allow a more effective spread of examination question numbers. Item 6 is then reserved as a place holder.

[41] Schedule 4, Appendix 5, Unit 12, item 7, column 3, Priority

This amendment inserts a relevant examination question priority code.

[42] Schedule 6, Appendix 4, subclause 1.1

This amendment corrects a reference to an aircraft category.

[43] Schedule 6, Appendix 4, after subclause 1.4

This amendment has the effect of exempting an RPA in a flight test from having to demonstrate a run-on landing for which the RPA is not designed.

[44] Schedule 6, the respective Appendices 1 to 4, the respective clauses 3, Practical flight standards tables, the respective columns 1, Unit code

This amendment inserts item numbering in Schedule 6 for ease of reading the Schedule.

Summary of reasons for CASA 106/16 — Determination — for proposed *Part 101 Manual of Standards (Miscellaneous Amendments) Instrument 2019 (No. 1)*

The proposed MOS amendment is considered to be of a minor or machinery nature for the following reasons:

Why the proposed MOS amendment is of a minor or machinery nature

The proposed MOS amendment is considered to be of a minor or machinery nature for the following reasons:

- the amendments generally clarify the policy intent in the original MOS, without affecting the substance of the amended standards (items 1, 3-6, 9, 10, 19-22, 26, 27 and 33-40 and 43)
- 2 amendments reduce regulatory burdens on RPA operators who conduct training, but do not affect the level of aviation safety achieved by the original standards (items 4 and 7)
- some amendments reduce regulatory burdens on RPA operators generally, but do not affect the level of aviation safety achieved by the original standards (items 24, 25, 28 and 30-31)
- some amendments reduce regulatory burdens on applicants for a remote pilot licence, but do not affect the level of aviation safety achieved by the original standards (items 12-17)
- 1 amendment will ensure simpler administration of the standards (item 23)
- some amendments are corrections to small typographical and other errors in the original MOS and have no effect on the meaning or operation of the standards (items 2, 8, 11, 18, 29, 41-42 and 44)
- 1 amendment reflects changes to the regulations made by the *Civil Aviation Safety Amendment (Remotely Piloted Aircraft and Model Aircraft—Registration and Accreditation) Regulations 2019*, for which consultation was conducted previously (item 32).

Statement of Compatibility with Human Rights

*Prepared in accordance with Part 3 of the
Human Rights (Parliamentary Scrutiny) Act 2011*

Part 101 Manual of Standards (Miscellaneous Amendments) Instrument 2019 (No. 1)

Overview of the legislative instrument

The *Part 101 (Unmanned Aircraft and Rockets) Manual of Standards 2019* (the **principal MOS**) was the first issue of a MOS in relation to unmanned aircraft and rockets (including kites, fireworks, unmanned tethered and free balloons).

The principal MOS prescribed matters in relation to the safety of remotely piloted aircraft (**RPA**), including training and competency standards for remote pilot licences (**RePL**), and certain kinds of operations near aerodromes and beyond visual line of sight).

The principal MOS formally commenced on registration on 9 April 2019 and most of its provisions took effect on that date. However, to allow lead-in period for industry preparation, various other provisions in relation to training course and certain operations were delayed to take effect on 10 April 2020 (and 10 October 2020 in relation to requirements for RePL training course instructors).

The *Manual of Standards (Miscellaneous Amendments) Instrument 2019 (No. 1)*. (the **MOS amendment**) is a small set of amendments designed to improve, simplify and correct the principal MOS in anticipation of 10 April 2020.

The principal MOS was accompanied by an Explanatory Statement with a Statement of Compatibility with Human Rights. There are 44 amendments in the MOS amendment and they impinge on various aspects of the principal MOS, including with modifications to better reflect original intent. However, with the exception of amendment number 32, none of the amendments increase a burden or obligation on any person, and many of the amendments have the effect of somewhat relieving or lessening a burden or obligation.

Amendment number 32 has the effect that operators of all excluded RPA, not just very small RPA, must comply with CASA notification requirements. However, the data to be reported to CASA is limited to the operator's name, trading name, address and a description of the kind of excluded RPA being operated, its use is protected by the *Privacy Act 1988*. The proportionality factors mentioned below under *Privacy* equally apply.

Human rights implications

The MOS may engage the right to life under Article 6 of the *International Covenant on Civil and Political Rights* (the **ICCPR**). This engagement is in the context of CASA's statutory purpose.

The aim of CASA and its regulatory framework, including Part 101 of the *Civil Aviation Safety Regulations 1998* (**CASR**) and its related MOS, is to uphold aviation

safety by prescribing the conduct of individuals and organisations involved in civil aviation operations, including RPA. It is, therefore, a threshold requirement for all CASA legislative instruments that they preserve, promote and enhance aviation safety.

Insofar as the principal MOS and its amendments are crafted and intended, as far as practicable, to promote and enhance aviation safety standards in the use of RPA, they promote the right to life under Article 6 of the ICCPR by legislating for safer training and operating conditions that will minimise the risk of accidents and prevent accidental death. For Article 7 of the *International Covenant on Economic, Social and Cultural Rights* (the *ICESCR*), by requiring levels of training to fly an RPA or assist in its operation, the principal MOS and its amendments also promote the right to safe and healthy working conditions for personnel associated with commercial or excluded RPA operations.

Privacy

The right to the protections against arbitrary and unlawful interferences with privacy, contained in Article 17 of the ICCPR, provides that no-one shall be subjected to arbitrary or unlawful interference with his or her privacy, nor to unlawful attacks on their honour and reputation. The right to privacy may be engaged when personal information is collected, used and stored.

Under Chapter 10, Division 10.2, of the principal MOS, certified RPA operators (that is, particular commercial operators) are required to keep for 3 to 7 years a range of records in relation to RPA operations, for example, operational and maintenance records and logs, and training course and competency records on individual trainees.

Under Chapter 10, Division 10.3, persons operating small or medium RPA in operations over their own land, that, but for the fact that the operation *is* over their own land and in standard operating conditions, would otherwise require commercial certification, are required to keep, for 3 to 7 years, a range of records in relation to the RPA operations, for example, operational and maintenance records and logs.

These 2 record-keeping obligations are essential in the interests of aviation safety to ensure that an evidentiary trail is made and preserved by operators to demonstrate that the safety standards required to be observed for these kinds of RPA operations have been complied with.

Under Chapter 10, Division 10.4, operators of small and medium excluded RPA must supply CASA with initial identification and operational information before operations commence and they must update that information every 3 years.

These 2 notification obligations are essential in the interests of aviation safety to ensure that an evidentiary trail is made and preserved by operators to demonstrate that the safety standards required to be observed for these kinds of RPA operations have been complied with.

Under regulations 101.371 and 101.372 of CASR, as amended by amendment number 46 in Schedule 2 of the *Civil Aviation Safety Amendment (Remotely Piloted Aircraft and Model Aircraft—Registration and Accreditation) Regulations 2019*, operators and pilots who engage in excluded RPA operations, must notify CASA of their identity and intent to engage in these operations. Certain excluded RPA operators under Chapter 10, Division 10.4, and all excluded operators under Chapter 11, must notify CASA of changes in identification or operational information

they have supplied to CASA, and must, every 3 years, update the identification and operational information they had submitted to CASA.

These notification requirements are necessary to ensure that the nature of operations that have not obtained a prior certification from CASA can be identified in the interests of aviation safety and for the purposes of audit, surveillance and investigation, including in the event of an incident or an accident.

Under Chapter 10, Division 10.4, certified RPA operators must notify CASA of changes to the information that was presented to CASA for the purposes of the operator becoming certified.

This notification requirement is necessary to ensure that the safety basis on which commercial certification was initially granted is preserved over time.

The protections afforded by the *Privacy Act 1988* continue to apply to all of the records and notifications required under the provisions of the MOS.

To the extent that the provisions under Chapters 10 and 11 of the MOS limit the rights protected under Article 17 of the ICCPR, the limitations are necessary to protect aviation safety. This is particularly the case in relation to commercial and semi-commercial RPA operations because of the rapidly growing use of RPA and the aviation dangers these operations and their prolific expansion may create for other aircraft and for people and property on the ground. Thus, the limitations imposed on the Article 17 rights are reasonable and proportionate to ensure the proper administration and enforcement of Australia's aviation safety system.

The right to work

The MOS may engage the right to work that is protected under Article 6 (1) of the ICESCR. This right includes the right of everyone to the opportunity to gain their living by work which they freely choose or accept.

The right to work may be engaged by the requirements in Chapter 2 prescribing for RPL training organisations the content and administration of RPL training courses, and the requirements to be satisfied before a person may be an RPL training course instructor.

However, in the interests of aviation safety, it is necessary that persons to be issued with RePLs be trained to the highest reasonable standard of competency and proficiency, and that their instructors are sufficiently qualified and experienced to achieve this outcome.

Therefore, in the circumstances, the requirements themselves are a reasonable, necessary and proportionate requirement under aviation safety law to ensure the integrity of the aviation safety system. The right of relevant persons to the opportunity to gain their living by work is recognised, however, that right would be lost if the person fails to obtain the qualifications necessary to carry out their aviation safety responsibilities. Accordingly, any potential limitation on the right to work is itself necessary, reasonable and proportionate in achieving the aim of protecting and improving aviation safety.

Conclusion

This legislative instrument is compatible with human rights and, to the extent that it may limit human rights, those limitations are reasonable, necessary and proportionate to ensure the safety of aviation operations and to promote the integrity of the aviation safety system.