



Australian Government

Civil Aviation Safety Authority

Instrument number CASA EX64/24

I, STEVEN JAMES CAMPBELL, Executive Manager, National Operations & Standards, a delegate of CASA, make this instrument under regulations 11.160 and 11.205 of the *Civil Aviation Safety Regulations 1998*.

[Signed S. Campbell]

Steven Campbell

Executive Manager, National Operations & Standards

21 October 2024

CASA EX64/24 – Indoor Operation of RPA Near People and BVLOS – Training and Use – Renewal Exemption Instrument 2024

1 Name of instrument

This instrument is *CASA EX64/24 – Indoor Operation of RPA Near People and BVLOS – Training and Use – Renewal Exemption Instrument 2024*.

2 Duration

This instrument:

- (a) commences on the day after it is registered; and
- (b) is repealed at the end of 30 September 2025.

Note The instrument is still in a training and trial phase and, depending on progress, may be further renewed before or after 30 September 2025.

3 Definitions, etc.

- (1) In this instrument, unless the contrary intention appears:

BVLOS: see subsection (2).

CASR means the *Civil Aviation Safety Regulations 1998*.

documented practices and procedures has the meaning given by the Part 101 Manual of Standards.

Note Documented practices and procedures must be approved by CASA. If a further change is required after such an approval has been given, the documented practices and procedures must be reapproved if they are to comply with the definition.

emergency service operation has the meaning given by the CASR Dictionary.

emergency service RPA operation, or ***ESRO***, means an operation by a police force or service involving an RPA that is for:

- (a) law enforcement purposes using the RPA; or
- (b) the purpose of saving or protecting persons or property using the RPA.

emergency service RPA operator means an RPA operator that is a police force or service which may lawfully conduct an ESRO.

ESRO: see the definition of **emergency service RPA operation**.

internal operation means the operation of an RPA within a building, a structure, a naturally occurring space, or another space created by human effort (the **internal place**) and within 30 m of a person, whether or not it is physically impossible for the RPA to escape and fly away from the internal place if the RPA is no longer under the control of the remote pilot operating the RPA. An internal operation includes a **transit operation**.

internal place has the same meaning as in the definition of **internal operation**.

police force or service means a police force or a police service, for the Commonwealth, a State or a Territory, that is:

- (a) established by or under an Act of the Commonwealth Parliament, the State Parliament or the Territory Legislative Assembly; and
- (b) the holder of remotely piloted aircraft operator certificate under Part 101 of CASR.

police officer means a sworn member of a police force or service.

relevant operation means the use of an RPA in an internal operation for the purpose of an ESRO.

relevant RPA, or **RPA**, means a micro RPA, or a very small RPA whose gross weight does not exceed 1 050 g.

remote pilot means a police officer, or other person employed or authorised by an ESRO, who:

- (a) is:
 - (i) the holder of a remote pilot licence; or
 - (ii) a person who is taken to hold a remote pilot licence under subregulation 202.461(3) of CASR; and
- (b) is the pilot in control of a relevant RPA; and
- (c) is acting at the direction of their RPA operator in a relevant operation; and
- (d) has such other qualifications and experience relevant to internal operations as must be specified in the documented practice and procedures of the police force or service.

RPA operator means a police force or service, or an emergency service RPA operator, that is the holder of a ReOC.

Note But see the exclusions under subsection 4(3).

shield means a solid physical barrier (other than a moving vehicle) that:

- (a) lies between a person and a relevant RPA in flight or in the hover under this instrument; and
- (b) is not moving or flexing in any direction; and
- (c) is of such dimensions, structure, strength and substance as to prevent:
 - (i) the RPA from impacting any person; and
 - (ii) any debris resulting from an impact of the RPA with the barrier from impacting any person; and
- (d) is not likely to lose any of the characteristics mentioned in paragraphs (a) to (c) during the course of an RPA operation.

Note The shield must be appropriate to withstand the particular impact of the RPA that is being operated in the relevant operation.

shielded operation means a relevant operation in which no unshielded persons are involved.

transit operation means the operation of a relevant RPA, in the open air, solely for the purpose of the RPA:

- (a) approaching and entering an internal place from a predetermined point; or
- (b) departing from the internal place to a predetermined point.

unshielded person means a person who is not protected by a shield from impact by an RPA in a relevant operation.

- (2) In this instrument, an RPA is operated **beyond visual line of sight (BVLOS)** of the person operating the RPA if it is not operated within the visual line of sight of the person.
- (3) In this instrument, unless the contrary intention appears, terms and expressions that are not otherwise defined in this section, have the same meaning as they have in or under the *Civil Aviation Act 1988* and its regulations.

4 Application and non-application

- (1) This instrument applies, according to its terms, to each of the following for a relevant operation:
 - (a) an RPA operator;
 - (b) the RPA operator's remote pilot.
- (2) This instrument applies to training for an emergency service RPA operation as if the training were an emergency service RPA operation.
- (3) Despite any other provision of this instrument, until the end of 30 September 2025, this instrument only applies to an emergency service RPA operation if:
 - (a) the RPA operator is a police force or service; and
 - (b) the remote pilot is a sworn police officer of the RPA operator.

Note The instrument is still in a training and trial phase and, depending on progress, may be extended to other relevant emergency organisations before or after 30 September 2025.

5 Exemptions

- (1) When conducting a relevant operation, an RPA operator and the remote pilot are each exempted from compliance with the following provisions of Part 101 of CASR, as applicable:
 - (a) regulation 101.073 (for BVLOS);
 - (b) regulation 101.095 (for weather, and day only, limitations);
 - (c) regulation 101.245 (for operations near people);
 - (d) regulation 101.280 (for operations over a populous area);
 - (e) paragraph 101.300(4)(b) (for certain remote pilot licence conditions);
 - (f) subregulation 101.300(6), but only in respect of paragraph 101.300(4)(b) (concerning offences).
- (2) Each exemption of an RPA operator and their remote pilot under subsection (1) is subject to each condition mentioned in Schedule 1.

Schedule 1 Conditions

1 General

To have the benefit of an exemption under this instrument, it is a condition that each requirement mentioned in this Schedule must be complied with for the relevant operation.

2 Risk assessment

- 2.1 Before a relevant operation is conducted, a risk assessment must be carried out in accordance with the RPA operator's documented practices and procedures.
- 2.2 The risk assessment must take into account all factors that may cause the relevant RPA to impact on a person or property, including:
 - (a) the causes and consequences of possible RPA mode interruption, malfunction or failure; and
 - (b) the possibility that an RPA speed increase may be required in accordance with paragraph 4.5(b).
- 2.3 A relevant operation must not commence unless:
 - (a) the risk of serious injury to a person is assessed as being so low that there is minimal probability of it occurring; and
 - (b) the risk of damage to any property is assessed as being as low as reasonably practicable in the circumstances.

3 RPA not for use of force

The RPA must not be used by a remote pilot as a use of force.

4 RPA flight near a person

- 4.1 The RPA may be operated within 30 m of a person provided that the RPA:
 - (a) comes no closer than 1 m from the person; and
 - (b) is operated at the slowest practicable speed, including use of the hover, that is consistent with achieving a successful outcome to the operation; and
 - (c) only moves in a direction where the remote pilot has visibility of the area in the direction of travel, whether that visibility is obtained through the remote pilot's own eyes, the use of an observer, or the use of live electronic images available to the remote pilot; and

Note Natural visibility may require, for example, adequate artificial illumination or suitable atmospheric conditions. Visibility in the form of live electronic images may include, for example, CCTV in the internal place or clear thermal or infrared images from the RPA.

 - (d) does not exceed the speed limitations or height restrictions specified in this clause; and
 - (e) for an operation involving an unshielded person — has no exposed rotating parts that could lacerate human skin upon impact.

Note For an ESRO that is a **shielded operation** there are no requirements that the RPA have no exposed rotating parts that could lacerate human skin upon impact. However, CASA strongly recommends that, as far as practicable, for **all** ERSOs, the RPA have no exposed rotating parts that could lacerate human skin upon impact.
- 4.2 Without affecting the requirements of subclause 4.4, before a relevant operation commences, the RPA flight controller must be set:
 - (a) to limit the maximum speed of the RPA to 5 m/sec; and
 - (b) in such a manner that only an intentional and deliberate overriding action by the remote pilot could cause that maximum speed to be exceeded.

Note For example, such an action may be activation of a mode change switch. To avoid doubt, subclause 4.2 applies even in the event of a failure of the RPA’s GNSS positioning system.

- 4.3 For an ESRO that is a shielded operation, the speed limitation of the RPA is 5 m/sec, with a height restriction of 3 m.

Note But paragraphs 4.1(a), (b) and (c) still apply to a shielded operation.

- 4.4 For an ESRO involving any unshielded person, the speed limitations and the height restrictions for this clause are set out in Table 4.4.

Table 4.4 — For unshielded persons

Item		Less than 30 m but not less than 5 m	Less than 5 m but not less than 1 m
1	Speed	Up to 3 m/sec	Up to 1.5 m/sec
2	Increased speed	Up to 5 m/sec	The speed may not be increased
3	Height	Up to 5 m	Up to 3 m

- 4.5 For subclause 4.4, when operating an RPA within the distance from a person mentioned in a column of Table 4.4:
- (a) the speed of the RPA must not exceed the speed mentioned in item 1 of the column; and
 - (b) the speed of the RPA may be increased up to the applicable increased speed mentioned in item 2 of the column — but only if the risk assessment has covered the safety implications of the increased speed; and
 - (c) the height of the RPA above the ground or floor of the internal place must not exceed the applicable height mentioned in item 3 of the column.
- 4.6 There must be no continuous overflight of any person or moving vehicle.

5 Transit operations

For a transit operation, the RPA must not be flown at a height greater than the height of the tallest structure within 150 m horizontally of the RPA.

6 Practices and procedures

- 6.1 The RPA operator’s documented practices and procedures must include the following:
- (a) a schedule of the RPA to be used for relevant operations, which includes details of the following:
 - (i) the make and model of each RPA;
 - (ii) the configuration of each RPA;
 - (iii) confirmation of the gross weight of each RPA;
 - (iv) the failsafe method by which, when required, no exposed rotating parts of the RPA that could lacerate human skin upon impact;
 - (b) if RPA speed and height restrictions are used to meet the requirements under clause 4 — instructions for the remote pilot and any other operating crew to ensure compliance with the requirements;
 - (c) details of how a shield is assessed as fit for purpose in a proposed relevant operation;

- (d) both:
 - (i) details of how the remote pilot will monitor the control link integrity for the RPA; and
 - (ii) the procedures for loss of link;
 - (e) procedures for the training and testing of relevant individuals in relation to conducting a relevant operation;
 - (f) procedures for making and retaining records of the matters mentioned in paragraph (e);
 - (g) how, for all for relevant operations, risk assessments are to be conducted, documented, made available to relevant individuals, and retained;
 - (h) abnormal operating procedures related to internal operations;
 - (i) a copy of this exemption instrument.
- 6.2 A relevant operation must be conducted in accordance with the RPA operator's documented practices and procedures.
- 6.3 In the event of conflict or inconsistency between anything in this instrument and the documented practices and procedures, this instrument prevails.

7 Data collection and reporting to CASA

- 7.1 This clause applies to the Commissioner and the chief executive officer (however described) of each RPA operator that takes the benefit of this instrument for a relevant operation (the *relevant officers*).
- Note* But see the exclusions under subclause 4.3.
- 7.2 Each relevant officer must collect and provide to CASA, before the end of each month for the duration of this instrument, de-identified details of their relevant operations, including the following:
- (a) a description of the relevant internal place;
 - (b) whether a transit operation was involved and to what effect;
 - (c) what minimum distance from a person was involved;
 - (d) the RPA used in the operation;
 - (e) whether during the operation any relevant RPA collided with any of the following, and if so, with what consequences:
 - (i) a person;
 - (ii) a shield;
 - (iii) a part of the internal place;
 - (f) whether, and with what consequences, during the internal operation, any such collision caused the relevant RPA, or material from the RPA or from the shield or from the internal place, to cause injury to any person inside or outside the place, or caused damage to any property inside or outside the place;
 - (g) whether, and with what consequences, abnormal operating procedures were used.
- 7.3 Without affecting subclauses 7.1 and 7.2, if an RPA impacts a person or damages any property during a relevant operation, the details of the operation as listed in subclause 7.1 must be provided to CASA within 72 hours of completion of the operation.

8 CASA observers

A police force or service that has used, or that intends to use, this instrument must make arrangements, on written request by an Executive Manager of CASA, for a CASA officer to observe a relevant operation at CASA's expense.
