Australian Government
Civil Aviation Safety Authority

ANNEX B TO AC 101-06 V1.0

Broad area BVLOS operations

November 2026



Acknowledgement of Country

The Civil Aviation Safety Authority (CASA) respectfully acknowledges the Traditional Custodians of the lands on which our offices are located and their continuing connection to land, water and community, and pays respect to Elders past, present and emerging.

Artwork: James Baban.

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1 References

1.1 Acronyms

The acronyms and abbreviations used in this Annex are listed in the table below.

Table 1: Acronyms

Acronym	Abbreviation
ABS	Australian Bureau of Statistics
AGL	above ground level
ADS-B	Automatic Dependent Surveillance - Broadcast
BVLOS	beyond visual line of sight
CASA	Civil Aviation Safety Authority
CASR	*Civil Aviation Safety Regulations 1998*
ERP	emergency response plan
FTS	flight termination system
IREX	instrument rating examination
JARUS	Joint Authorities on Rulemaking for Unmanned Systems
wROC	remote operations centre
RPA	remotely piloted aircraft
RPAS	remotely piloted aircraft system
SORA	specific operations risk assessment
TMI	temporary management instruction
VFR	visual flight rules
VHF	very high frequency

1.2 Definitions

Terms that have specific meaning within this Annex are defined in the table below.

Table 2: Definitions

Term	Definition
active participant	A person who is participating directly in the activity to which the RPA is operated. Note: The scope of persons who may be an active participant is broader than the scope of persons 'directly associated with the operation of the RPA' under CASR 101.245 and may include persons such as performers and emergency services personnel
BVLOS feasibility assessment	The documented practices and procedures approved for the purpose of this Annex.
controlled environment	An area where no persons other than active participants and RPA crew are permitted and that has access control to prevent third party entry.
emergency services operation (for the purpose of this Annex)	An RPA operation conducted by an emergency services organisation, and for: • law enforcement purposes; or • the purpose of saving or protecting persons, property, or the environment. **Note:** This definition is only for the purpose of this Annex and does not relate to any other definition within the CASR 1998.
emergency services organisation	Any of the following: • the Australian Federal Police • the Australian Defence Force • the Australian Maritime Safety Authority • the Australian Border Force • a State or Territory police service • a State or Territory fire service • a State or Territory emergency service • a State or Territory parks, wildlife, or forestry service • a State or Territory surf lifesaving service
gross weight	Total weight of the RPA at take-off, including fuel, equipment, payloads (if any) and anything attached to the RPA.
maximum airspeed	Maximum possible commanded airspeed of the RPA. This is the highest speed the RPA is capable of under normal operation, as specified in official documentation such as the flight manual. It applies regardless of any software or operational limitations that may restrict the speed during actual use.
measurement point	any point on the actual or notional centreline of a runway between the 2 threshold centrepoints.
responsible person	a nominated individual who is an employee of the ReOC holder and who is responsible for the conduct of the BVLOS area feasibility assessments
RPA crew	Persons with duties essential to the control or navigation of the RPA.
sheltering	The use of a structure or barrier to physically segregate a person from an RPA.

1.3 References

Legislation

Legislation is available on the Federal Register of Legislation website https://www.legislation.gov.au/

Table 3: Legislation references

Document	Title
Part 101 of CASR	Unmanned aircraft and rockets
Part 101 MOS	Part 101 (Unmanned Aircraft and Rockets) Manual of Standards 2019
CASA EX63/26	Remotely Piloted Aircraft Operations Beyond Visual Line of Sight Exemption 2026

Other reference material

Table 4: Other reference material

Document type	Title
BVLOS application form	Beyond visual line-of-sight (BVLOS) application form
Checklist for SORA application	SORA for BVLOS application
JARUS Document Package JAR_doc_09	JARUS SORA Package
JARUS Document JAR-DEL-WG6-D.04	JARUS guidelines on Specific Operations Risk Assessment (SORA)
Annex B to JARUS document JAR-DEL-WG6-D.04	JARUS guidelines on Specific Operations Risk Assessment (SORA) – Annex B
JARUS document JAR-DEL-SRM-SORA-F-2.5	JARUS guidelines on SORA – Annex F: Theoretical Basis for Ground Risk Classification and Mitigation
Part 101 of CASR	Part 101 of the *Civil Aviation Safety Regulations 1998*
Part 101 MOS	Part 101 (Unmanned Aircraft and Rockets) Manual of Standards 2019
CASA 20/25	CASA 20/25 – Operation of Certain Unmanned Aircraft and Rockets – Directions Instrument 2025

2 Introduction

2.1 Purpose

This Annex sets out CASA's broad area BVLOS approval pathways for eligible remotely piloted aircraft system (RPAS) operations conducted under a ReOC. It explains the available pathways, the operational requirements that apply, the role of the responsible person in assessing individual operating areas, and the circumstances in which CASA may require further assessment or a separate approval.

The purpose of the broad area BVLOS process is to provide a structured and scalable approval framework that enables suitable BVLOS operations across multiple operating areas, while maintaining an acceptable level of aviation safety.

A ReOC holder who meets the applicable pathway requirements may be eligible for a broad area authorisation under regulations 101.029 or 101.030 of CASR. The authorisation may provide the approvals or exemptions required for the purposes of section 7(3)(a) of CASA 20/25 and regulations 101.073, 101.085, 101.095, 101.245 and 101.300 of CASR.

ReOC holders who are granted broad area approvals are responsible for self-assessing the residual air and ground risk, and identifying and implementing appropriate risk mitigations, for operational areas within the approved broad area.

To support the application of this guidance, Appendix A contains sample practices and procedures, Appendix B outlines the recommended skills of a responsible person and Appendix C provides a sample operational record template.

2.2 Background

Industry demand for beyond visual line-of-sight (BVLOS) RPA operations continues to grow, with operators seeking approvals that support larger operating areas, repeatable operations and more scalable service delivery.

CASA established the Broad Area BVLOS approval pathways as a trial to test whether defined operating envelopes, standardised risk controls and operator-led area feasibility assessments could support safe and more efficient BVLOS approvals. The trial was developed using the SORA methodology, which CASA has identified as a suitable framework for assessing complex RPA operations.

The trial demonstrated that broad area approvals can provide a practical and structured pathway for operators whose proposed operations fall within predefined risk envelopes supported by standardised mitigations and operational limitations, while maintaining an acceptable level of aviation safety. It also confirmed that, where appropriate controls are in place, operators can be authorised to assess and approve individual operating areas within a CASA-approved envelope, reducing the need for CASA to assess each location individually.

As a result of the trial outcomes, CASA has established broad area BVLOS approvals as an ongoing process. The pathways are intended to support eligible ReOC holders to conduct BVLOS operations across multiple operating areas, provided each area meets the applicable pathway criteria, operational requirements and approval conditions.

The broad area BVLOS process is intended to reduce regulatory burden for suitable operations, improve consistency in assessment outcomes, and provide industry with clearer expectations about the types of BVLOS operations that may be approved. CASA will continue to monitor the effectiveness of the process and may update the pathways, requirements or approval conditions where necessary to maintain safety and respond to industry, operational and technological developments.

BVLOS RPA operations that do not meet the requirements or conditions of a predefined pathway may still be considered by CASA. Depending on the nature of the operation, CASA may assess the proposal under a bespoke broad area pathway or through the standard BVLOS approval process, under which the specific operational area proposed for the BVLOS operation is assessed and approved by CASA.

The broad area BVLOS approval pathways are not intended for model aircraft operations or RPA operations that are not conducted under the authority of a ReOC, including excluded RPA and micro RPA operations.

3 Broad Area BVLOS Pathways

This Annex outlines 4 pathways for a broad area BVLOS approval. Applicants for broad area BVLOS approvals should ensure their proposed operations fall within the limitations and criteria for their selected pathway.

The number following each pathway letter, for example, A1, B2 or C0, indicates the minimum number of ground risk mitigations required.

3.1 Pathway A

Pathway A is available where the RPA's characteristics meet the following criteria:

- less than 1 m in maximum characteristic dimension
- less than 25 m/s maximum airspeed.

An RPA that CASA has determined has an equivalent ground risk profile, such as through a demonstrated reduction in critical area, may also be operated under this pathway. CASA will publish a list of eligible RPA on its website[1].

3.1.1 Pathway A0 – Lightly populated environment

BVLOS RPA operations may be approved where the RPA is operated in an environment that resembles up to and including a lightly populated environment (<50 ppl/km2). Ground risk mitigations are optional.

> **Note:** There is no weight limit for operations under this pathway.

3.1.2 Pathway A1 – Sparsely populated environment

BVLOS RPA operations may be approved where all the following apply:

a. The RPA is operated in an environment that resembles up to and including a sparsely populated environment (<500 ppl/km2).

b. The operator employ's one of the following ground risk mitigation options when operating in areas that have a population density >50 ppl/km2:

   i. **Option 1** – Reduction of people at risk:

      A. The operational area contains suitable structures that would prevent the RPA from penetrating them, and it is reasonable to expect that more than 90% of non-active participants would be inside a suitable structure during the operation.

   ii. **Option 2** – Reduction of impact dynamics:

      A. A parachute recovery system (PRS) is fitted. The PRS must be listed on CASA's RPAS compliance webpage as accepted for M2 at medium or high robustness and used in accordance with any associated limitations.

c. If option 1 is used, the RPA must have a gross weight of less than 25 kg.

[1] Remotely piloted aircraft systems compliance | Civil Aviation Safety Authority

3.1.3 Pathway A2 – Suburban environment

BVLOS RPA operations may be approved where all of the following apply:

a. The RPA is operated in an environment that resembles up to and including a suburban environment that has a quantitative population value of <5,000 ppl/km2.

b. The RPA has a gross weight of less than 25 kg.

c. The operator employ's both of the following ground risk mitigations when operating in areas that have a population density >500 ppl/km2:

   i. The operational area contains suitable structures that would prevent the RPA from penetrating them, and it is reasonable to expect that more than 90% of non-active participants would be inside a suitable structure during the operation.

   ii. A parachute recovery system (PRS) is fitted. The PRS must be listed on CASA's RPAS compliance webpage as accepted for M2 at medium or high robustness and used in accordance with any associated limitations.

3.2 Pathway B

Pathway B is available where the RPA's characteristics meet the following criteria:

- between 1 and 3 m in maximum characteristic dimension
- less than 35 m/s maximum airspeed.

Alternatively, an RPA that CASA has determined has an equivalent ground risk profile, such as through a demonstrated reduction in critical area, may also be operated under this pathway. CASA will publish a list of eligible RPA on its website[2].

3.2.1 Pathway B0 – Scarcely populated environment

BVLOS RPA operations may be approved where the RPA is operated in an environment that resembles up to and including a scarcely populated environment (<5 ppl/km2). Ground risk mitigations are optional.

> **Note:** There is no weight limit for operations under this pathway.

3.2.2 Pathway B1 – Lightly populated environment

BVLOS RPA operations may be approved where all of the following apply:

a. The RPA is operated in an environment that resembles a lightly populated environment (< 50 ppl/km2).

b. The operator employ's one of the following ground risk mitigation options when operating in areas that have a population density >5 ppl/km2:

   i. **Option 1** – Reduction of people at risk:

      A. The operational area contains suitable structures that would prevent the RPA from penetrating them, and it is reasonable to expect that more than 90% of non-active participants would be inside a suitable structure during the operation.

   ii. **Option 2** – Reduction of impact dynamics:

[2] Remotely piloted aircraft systems compliance | Civil Aviation Safety Authority

A. A parachute recovery system (PRS) is fitted. The PRS must be listed on CASA's RPAS compliance webpage as accepted for M2 at medium or high robustness and used in accordance with any associated limitations.

c. If option 1 is used, the RPA must have a gross weight of less than 25 kg.

3.2.3 Pathway B2 – Sparsely populated environment

BVLOS RPA operations may be approved where all of the following apply:

a. The RPA is operated in an environment that resembles up to and including a sparsely populated environment that has a quantitative population value of < 500 ppl/km2.

b. The RPA has a gross weight of less than 25 kg.

c. The operator employs both of the following ground risk mitigations when operating in areas that have a population density >50 ppl/km2:

i. The operational area contains suitable structures that would prevent the RPA from penetrating them, and it is reasonable to expect that more than 90% of non-active participants would be inside a suitable structure during the operation.

ii. A parachute recovery system (PRS) is fitted. The PRS must be listed on CASA's RPAS compliance webpage as accepted for M2 at medium or high robustness and used in accordance with any associated limitations.

3.3 Pathway C

Pathway B is available where the RPA's characteristics meet the following criteria:

- between 3 and 8 m in maximum characteristic dimension
- less than 75 m/s maximum airspeed.

Alternatively, an RPA that CASA has determined has an equivalent ground risk profile, such as through a demonstrated reduction in critical area, may also be operated under this pathway. CASA will publish a list of eligible RPA on its website[3].

3.3.1 Pathway C0 – Isolated environment

BVLOS RPA operations may be approved where the RPA is operated in an environment that resembles an isolated environment (<0.5 ppl/km2).

Note: There is no weight limit for operations under this pathway.

3.3.2 Pathway C1 – Scarcely populated environment

BVLOS RPA operations may be approved where all of the following apply:

a. The RPA is operated in an environment that resembles up to and including a scarcely populated environment (< 5 ppl/km2).

b. The operator employ's one of the following ground risk mitigation options when operating in areas that have a population density >0.5 ppl/km2:

i. **Option 1** – Reduction of people at risk:

[3] Remotely piloted aircraft systems compliance | Civil Aviation Safety Authority

A. The operational area contains suitable structures that would prevent the RPA from penetrating them, and it is reasonable to expect that more than 90% of non-active participants would be inside a suitable structure during the operation.

ii. **Option 2** – Reduction of impact dynamics:

A. A parachute recovery system (PRS) is fitted. The PRS must be listed on CASA's RPAS compliance webpage as accepted for M2 at medium or high robustness and used in accordance with any associated limitations.

c. If option 1 is used, the RPA must have a gross weight of less than 25 kg.

3.3.3 Pathway C2 – lightly populated environment

BVLOS RPA operations may be approved where all of the following apply:

a. The RPA is operated in an environment that resembles up to and including a lightly populated environment that has a quantitative population value of < 50 ppl/km2.

b. The RPA has a gross weight of less than 25 kg.

c. The operator employ's both of the following ground risk mitigations when operating in areas that have a population density >5 ppl/km2:

i. The operational area contains suitable structures that would prevent the RPA from penetrating them, and it is reasonable to expect that more than 90% of non-active participants would be inside a suitable structure during the operation.

ii. A parachute recovery system (PRS) is fitted. The PRS must be listed on CASA's RPAS compliance webpage as accepted for M2 at medium or high robustness and used in accordance with any associated limitations.

3.4 Pathway D (operations outside prescribed pathways)

RPAS operations that do not fall within a predefined pathway may be considered under Pathway D where the applicant provides a safety case that supports the proposed authorisation.

Operators who have been assessed and approved for operations above SAIL II[4] may apply through this pathway.

Requests to vary airspace requirements will require careful consideration and may depend on broader changes to the airspace framework, such as ADS-B carriage requirements, etc. Until other supporting measures are in place, there may be limited scope to accept variations while maintaining an equivalent level of safety and meeting CASA's obligations for the safety of air navigation.

3.5 Operational requirements applicable to all pathways

The following requirements apply to all pathways and are reflected in the sample procedures as considerations and planning requirements:

- The planned operational volume – including the contingency volume and ground risk buffer is:
  - outside 5 NM from the measurement point of a controlled aerodrome (including Military)
  - below 400 ft AGL when operating within controlled airspace

[4] SAIL II determination is taken from AC101-06 AusSORA assessment methodology

  - outside of the no-fly zone of a non-controlled aerodrome, including helicopter landing sites (HLS), except:
    - » where the operator has coordinated with the relevant aerodrome representative and other airspace users to ensure that a relevant event will not occur during the BVLOS operation
    - » the RPA is equipped with an ADS-B IN receiver, or, there is a ground-based ADS-B receiver located at the launch site, or within a suitable distance to detect aircraft within 10 NM of the operational area with limited terrain masking and the operator has access to a live feed from the receiver with minimal delay
    - » an anti-collision high intensity strobe, such as a white or red strobe (anti-collision beacon) is attached to the RPA. Except for take-off and landing, the strobe must be operational for the entirety of the BVLOS flight and must project or emit light above the horizontal plane of the RPA
    - » aeronautical radio broadcasts are made prior to launch and as appropriate to meet air risk mitigation requirements.
  - only within areas up to the maximum population environment
  - outside of restricted airspace, unless the controlling authority has given permission in accordance with regulation 101.065 of CASR.
- The operator's documented practices and procedures include the BVLOS area feasibility assessment process (refer Appendix A of this Annex).
- When conducting operations during the day:
  - the maximum operating height is 400 ft (120 m) AGL, unless:
    - » the RPA is operated over, or within 1 km, of the excavated area of an active mining operation (such as a mining pit), up to 1000 ft above the height of the natural surface of the earth at the edge of the excavated area (such as the edge of the pit) closest to the RPA whilst in flight
    - » a dedicated ADS-B receiver is located at the launch site, or within a suitable distance to detect aircraft within 10 NM of the operational area, with limited terrain masking, and the operator has access to a live feed from the receiver with minimal delay
    - » the operational area is located within the area defined by geospatial file "Broad Area BVLOS up to 1000 ft AGL - conditional area (26 Oct 2026).kmz".
  - the operational volume must remain outside of the area extending 1 NM either side of the centreline of a published VFR route and 300 ft below the minimum route altitude
  - the RPA must remain below 300 ft AGL when within a designated danger area used for flying training activities.[5]
- When conducting operations at night[6], the maximum operating altitude with an RPA equipped with an ADS-B OUT transponder is 500 ft below the lower limit of overlying controlled airspace[7]. If the RPAS is not equipped with an ADS-B OUT transponder, the maximum altitude is the lowest safe altitude[8] (LSALT) for the area of operation with respect to the location of the RPA in flight.
- When operating at night above 400 ft AGL, maintain a lateral buffer of at least 1 NM from the boundary of controlled airspace.
- Airspace within 10 NM radius of the RPA 's position must be continuously monitored for ADS-B traffic.

[5] Flying training includes crewed aircraft flying training with civil and military aircraft.

[6] Night has the same meaning given in the CASR Dictionary.

[7] Controlled airspace refers to Class A, C, D and E airspace.

[8] Section 4 of AIP GEN 3.3 sets out the requirements for calculating lowest safe altitude (LSALT).

- Aeronautical VHF radio broadcasts must be conducted as appropriate to meet air risk mitigation requirements and radio equipment must be capable of supporting the communication requirements identified within the air risk assessment.
- The RPA must have a technical means of ending the flight before it enters the ground risk buffer. This may include an automatic or remote pilot-initiated motor cut-off, automated logic that deflects flight control surfaces to induce a stall, or an immediate 'land now' function that safely lands the RPA without delay.
- A geofence system is active during all BVLOS operations that is configured to contain the operation within the flight geography, i.e. the geofence would stop the RPA entering the contingency volume.
- If a contingency volume is not used, the RPAS must have a flight termination system that automatically terminates the flight no later than when the RPA enters the ground risk buffer.
- The minimum ground risk buffer must use a maximum height-to-horizontal-distance ratio of 1:1. For example, at 400 ft (120 m) AGL, the minimum horizontal buffer is 400 ft (120 m).
- The forecast visibility within the planned operational area is either <600 m or, >5,000 m.
- The forecast cloud base, when >4 octas, within the planned flight area is at least 1,000 ft AGL. This limitation does not apply where the prevailing visibility prevents VFR aircraft from operating within the planned flight area.
- In the event of an emergency services operation when the RPA is operated by an emergency services organisation, the visibility and minimum cloud base limitations do not apply
- The operator must maintain records as prescribed in the instrument of approval.
- The remote pilot must hold a pass in the IREX or BVLOS OCTA, unless they are operating under pathways A0, B0 and C0 and utilising a supervising remote pilot under the provisions of CASA EX 63/26.
- The operator must report to CASA any instance where the RPA operates outside of the flight geography, the actions taken and if the flight termination system (FTS) was activated. If the FTS was activated, also record whether the FTS functioned correctly and the location of the impact site relative to the planned operational volume. Reporting timeframes will be prescribed within the instrument of approval.

3.6 RPA characteristic dimension calculation

The maximum RPA characteristic dimension should be calculated as follows:

- wingspan for fixed-wing RPA
- blade diameter for rotorcraft RPA
- maximum distance between blade tips for multirotor RPA.

An RPA may be assigned[9] to a lower intrinsic ground risk class column where it meets the criteria specified in AC 101-06. This may allow an RPA to operate under a pathway even if it exceeds the maximum characteristics, subject to any applicable conditions or limitations.

[9] CASA will publish a list of eligible RPA.

4 Application requirements - overview

4.1 A0, B0 and C0 pathways

Applicants only applying for pathways A0, B0 or C0 are required to nominate a responsible person. However, CASA will not require the nominated individual to undergo an assessment. Operators must ensure they comply with the requirements within the approval and adopt the sample procedures without amendment.

For all other pathways, CASA will require the nominated individual to undergo an assessment.

4.2 Responsible person

4.2.1 Nomination of responsible person

Each ReOC holder must nominate a 'responsible person'. A ReOC holder may nominate an additional responsible person. In this Annex, a 'responsible person' means a nominated individual who is an employee of the ReOC holder and who is responsible for the conduct of the BVLOS area feasibility assessments.

A responsible person can only be nominated to perform the role for a single (one) ReOC. CASA will interview the nominated person to ensure their suitability to conduct BVLOS area feasibility assessments.

The term 'responsible person' may be replaced with an alternative position title in the ReOCs documented practices and procedures. The responsible person may hold other roles within the organisation as well, such as, Chief Remote Pilot and Maintenance controller, however, all associated responsibilities and requirements must remain in accordance with the conditions set out in this Annex.

4.2.2 CASA assessment of suitability of the responsible person

CASA will assess the responsible person to determine their suitability to conduct BVLOS area feasibility assessments.

The assessment will include a scenario-based activity focused on the duties and responsibilities outlined in this Annex. The individual will be provided with a scenario involving a specific requested area of operation. In addition, they must nominate a second area and develop a scenario of their own, aligned with the requested pathway.

For both scenarios, the individual will be required to conduct a BVLOS area feasibility assessment and present the relevant supporting documentation. Further guidance will be provided to the nominated individual during the application process.

A further interview is not required where the nominee previously performed the responsible person role for another ReOC holder and ceased that role within the preceding six months.

This Annex also includes recommended skills that a person in the role of responsible person should hold.

4.2.3 Replacing a responsible person

If the responsible person(s) role becomes vacant after a broad area authorisation is granted, the ReOC holder must notify CASA within 21 days. The ReOC holder should also nominate a replacement, whose suitability to conduct BVLOS area feasibility assessments will be assessed by CASA. Until CASA approves a new nominated responsible person:

- the operator may conduct BVLOS operations only in areas that had already been assessed and approved by the former responsible person
- no new BVLOS area feasibility assessments may be undertaken.

4.3 Documented practices and procedures assessment

4.3.1 All pathways

All applicants must incorporate CASA's BVLOS Area Feasibility Assessment procedures (Appendix A of this Annex), unchanged in intent, into their documented practices and procedures. An applicant may digitise these procedures, provided they reflect the same process as the published version.

The documented practices and procedures must identify the relevant organisational roles and include the duties and responsibilities of the responsible person set out below. The organisational chart must also be updated accordingly.

Responsible person - duties and responsibilities:

- Carry out BVLOS area feasibility assessments for each proposed operational area.
- Ensure the appropriate contingency volume and ground risk buffers are applied to operational areas.
- Verify that each operational area complies with the instrument's conditions and with the organisation's documented practices and procedures.
- Document each BVLOS area feasibility assessment conducted and the outcome.
- Engage with relevant airspace users and create stakeholder engagement plans.
- Review each operational area at least every 12 months to ensure the initial assessment remains valid.

4.3.2 Additional requirements for Pathway D

Applicants seeking approval under Pathway D must provide procedures that address any aspects of the proposed operation that differ from the predefined pathways. This may include additional procedures for assessing specific ground or air risks, or amendments to the procedures in Appendix A.

4.3.3 Parachute recovery system procedures

If a parachute recovery system (PRS) is used to meet a pathway requirement, the operator's documented practices and procedures must address, at a minimum:

- activation and emergency procedures
- wind limits and parachute drift allowances
- the minimum safe deployment height
- pre-flight inspection and serviceability checks
- system installation, maintenance and operational limitations.

4.4 Estimate of fees

The CASA assessment fee estimate for Broad Area BVLOS approval applications includes:

- review of an applicant's documented practices and procedures
- interview of the responsible person
- administration to issue the authorisation.

The base assessment timeframe is estimated to be 12 hours.

Note: First-time BVLOS applicants may require additional assessment time. Applicants should anticipate an estimate above 12 hours where additional assessment items are required.

4.5 Applying for approval

4.5.1 Application form and documentation

Applicants may apply to CASA by submitting a completed application form with supporting documentation to rpas.pac@casa.gov.au.

The supporting documentation must include the applicant's documented practices and procedures, incorporating the BVLOS area feasibility assessment process in Appendix A and any amendments required to establish the responsible person role.

4.5.2 Application from applicants not previously approved for BVLOS operations

Applicants that have not previously applied to CASA for approval of a BVLOS operation must also submit the BVLOS application form, the checklist to support SORA and any required supporting documentation.

Note: Applicants not previously assessed and approved by CASA to conduct BVLOS operations, are encouraged to develop and refine their operational procedures by operating within the general approval for pathways A0, B0 and C0.

4.5.3 Payment of fees

Applicants must pay the estimated fees before CASA commences the assessment.

4.6 Current applications with CASA

If a BVLOS application is already under assessment (or awaiting allocation) with CASA when this Annex is published, operators may email rpas.pac@casa.gov.au with completed forms and documentation, and request a variation:

4.6.1 Paid applications in queue

CASA will vary the application without affecting the queue position.

4.6.2 Applications with an assigned inspector

Applicants may vary an application that is with an assigned inspector to a broad-area BVLOS approval. This may result in a change of the overall assessment time and estimated fees.

CASA will provide a revised fee estimate after receiving the variation request and all required supporting evidence and documentation.

4.7 Renewal of existing authorisations

Existing Broad Area BVLOS authorisation holders must apply for renewal before their current authorisation expires. If the Responsible Person remains unchanged, CASA will generally not require a further interview.

All applicants seeking renewal must provide evidence of a non-significant change to their operations manual that reflects the updated sample procedures in Appendix A to this Annex. This requirement applies whether or not additional pathways are requested.

The renewed authorisation will retain all pathways previously approved under TMI 2025-03. Applicants may also request additional pathways from Pathways A to C as part of their renewal application.

4.8 Pathway D applications

Before submitting a Pathway D application, applicants must arrange a pre-application meeting with CASA to discuss the proposed concept of operations.

The meeting request must be supported by a safety case that clearly describes:

- the proposed operation
- any departure from the standard Broad Area BVLOS framework
- the controls proposed to manage the risks arising from that departure.

CASA will consider this information carefully before determining whether the application is viable and can be accepted for assessment.

4.9 Validity

An authorisation will be issued until the expiry date as requested by the applicant. If no expiry date is requested, the authorisation will generally expire on the same date as the operator's ReOC.

5 Assessment steps

5.1 Initial application

5.1.1 Assessment phase

Documented practices and procedures assessment.

SORA validation, including:

> **Note:** The BVLOS area feasibility assessment procedure in Appendix A must be incorporated into the operator's documented practices and procedures.

- Emergency Response Plan assessment
- Operational Safety Objectives compliance assessment
- Tactical Mitigation Performance Requirements assessment
- Interview (responsible person)

5.1.2 Operational check (Conditional for Pathway D applicants only)

> **Note:** CASA may require an on-site operational check for a Pathway D application where necessary to validate the proposed operation.

a. Assess and authorise a training area

b. On-site operational check

5.1.3 Close-out phase

a. Finalise outstanding assessment items

b. Issue the authorisation

5.2 Change of responsible person

Where a holder nominates a new responsible person, CASA will assess the individual's suitability to conduct BVLOS area feasibility assessments. This will ordinarily include completion of the responsible person interview. A change of responsible person does not require CASA to reassess the operator's documented practices and procedures or reissue the authorisation.

A further interview is not required where the nominee previously performed the responsible person role for another ReOC holder and ceased that role within the preceding 6 months.

5.3 Renewal

Where no changes to the authorisation are requested, CASA may review whether there have been any changes to the risk profile of the intended operations and consider any other relevant information.

Following this review, CASA may:

- reissue the authorisation

- request further information or evidence

  or

- decline to recommend that the authorisation be reissued.

6 Approvals outside of defined Broad Area BVLOS pathways

Applications for BVLOS RPA operations that do not meet the requirements or conditions outlined in any pathway in this Annex will be processed in accordance with existing policy. For clarity, this Annex is not the only pathway for obtaining a BVLOS approval. Applicants will need to submit an application using the form and checklist – refer to Beyond visual line-of-sight operations | Civil Aviation Safety Authority.

6.1 Remote Operations Centre (ROC)

The pathways in this Annex may apply to operations conducted using a ROC. A ROC is subject to an additional, separate assessment by CASA unless it has been previously approved.

Where an operator intends to include the use of a ROC as part of a BVLOS application under this Annex, CASA will assess this aspect independently of the pathway assessment.

6.2 Operations of more than one RPA at a time

The pathways in this Annex may also apply to operations involving the operation of more than one RPA at a time by a remote pilot. Such operations are subject to an additional, separate assessment by CASA unless it has been previously approved.

Where an operator intends to include operation of more than one RPA at a time as part of a BVLOS application under this Annex, CASA will assess this aspect independently of the pathway assessment.

6.3 Operations over or near people

Operations in which the RPA is operated within 30 m in any direction of a non-active participant, or below the minimum safe deployment height of a required parachute recovery system, are outside the scope of this Annex and will be assessed under existing policy.

7 Data collection and reporting requirements

All operators approved in accordance with this TMI will be issued an instrument that, among other things, may require the operator to provide data to CASA to support the assessment of the adequacy and effectiveness of the controls set out in this Annex.

Information requested by CASA may include, but is not limited to:

- the type and model of the RPAS operated
- whether the RPA exited the approved flight geography
- whether the RPA collided with a person, shelter, or object, including the location of any impact site
- the consequences of any collision, including whether abnormal operating procedures were initiated
- whether a flight termination system was activated, and the outcome of its activation
- a report identifying operational sites authorised by the responsible person.

CASA may use this data to inform future policy and assess whether the safety objectives continue to be achieved.

Approval instruments will require operators to retain collected data for a period of 7 years and provided to CASA upon request or as prescribed within the instrument of approval.

In the event of an RPA operating outside of the established flight geography, the operator must provide data on the relevant flight to CASA (by email rpas.reporting@casa.gov.au) within 7 days of completion of the operation.

Appendix A
BVLOS area feasibility assessment (sample)

A.1 Operational footprint requirements

A.1.1 Operational footprint

The operational footprint is made up of the flight geography, contingency volume and ground risk buffer. The responsible person must ensure the operational footprint complies with the following:

- Greater than 5 NM of the measurement point of a controlled aerodrome, including military controlled aerodromes.
- Outside of the no-fly zone of a non-controlled aerodrome, except where the operator has coordinated with the aerodrome operator and/or other airspace users to ensure deconfliction with other airspace users during the BVLOS operation. i.e. there is no relevant event occurring or scheduled to occur during planned BVLOS operations.
- Not within 1 NM horizontally and 300 ft vertically of any published VFR route.
- Below 300 ft AGL when within a designated danger area for the purpose of flying training activities.
- In areas less than the prescribed maximum population environment.
- Areas where there is an increased population at certain times above the maximum are identified and mitigated. (this can include areas such as beaches and sporting fields where they are identified and mitigated through dynamic assessments prior to the RPA flight)
- Daytime operations above 400 ft AGL must remain within the Broad Area BVLOS conditional area and over, or within 1 km of, the excavated area of an active mining operation, such as a mining pit. The RPA must not exceed 1,000 ft above the natural surface of the earth at the edge of the excavated area closest to the RPA whilst in flight.
- Below 400 ft AGL when operating within controlled airspace.

A.1.2 Contingency volume

The responsible person is required to determine the contingency volume applicable for each RPA they wish to operate. For these procedures, a figure of 15 seconds is used at the maximum possible commanded airspeed of the RPA to determine the value of the contingency volume; this includes the detection of the RPA entering the contingency volume, total flight error and execution of a contingency manoeuvre. There are three methods available to be used as follows.

- Method 1 – prescribed CV distance:
  - Column 1 RPA – 375 m
  - Column 2 RPA – 525 m
  - Column 3 RPA - 1,125 m
- Method 2 – Calculating the CV distance:
  - Distance travelled in 15 s at maximum commandable speed of the RPA.
- Method 3 - No CV:

– The remote pilot must ensure the RPA is configured to automatically terminate the flight upon entering the ground risk buffer.

A.1.3 Ground risk buffer

The horizontal ground risk buffer (GRB) must be at least equal to the maximum planned height of the operational volume. For example, operations at 400 ft AGL require a horizontal GRB of at least 400 ft (approximately 120 m). Consider the characteristics of the RPA and any fitted equipment, such as a parachute recovery system (PRS), to determine whether a larger buffer is needed to contain the aircraft within the outer GRB boundary following a failure.

For operations over, or within 1 km of, the excavated area of an active mining operation, the horizontal ground risk buffer must be at least equal to the maximum planned height of the RPA above the natural surface of the earth at the edge of the excavated area closest to the RPA whilst in flight.

A.1.4 Ground risk assessment

The ground risk assessment must consider all areas within the operational volume. This includes the flight geography, contingency volume and ground risk buffer. The maximum population density must be determined across all areas using a 1 km × 1 km grid resolution. The calculation should identify the grid cell with the highest population count within the operational volume. Table 1 describes and defines the types of operational environments.

1. Population assessment:
    a. Identify the population count (people/km2) within the operational volume and ensure it is below the approved quantitative figure. For example, 500 people for sparsely populated environment.
    b. Use imagery or onsite assessments to determine if the quantitative figure is equivalent or less than the respective qualitative descriptor.
    c. Identify areas within the operational volume where it could be likely there would be a higher population density at some point in time during planned operations. This may include schools, sporting ovals, stadiums, markets, mine site shift changeover periods, etc.
    d. Adjust the operational volume to avoid these areas or identify no flying periods during the times where it is reasonable to expect the population density is higher than the quantitative assessment. For example, lunch time in industrial areas would likely increase the number of exposed individuals.
2. Flight planning considerations to minimise overflight of populated areas:
    a. Plan operations to minimise sustained overflight of populous areas where this is not necessary to achieve the operational objectives. For RPA with a gross weight greater than 25 kg, avoid overflight of populated areas or dwellings where this can be achieved without significantly affecting the operational objectives.

Table 1: Qualitative descriptors

Qualitative descriptors	Area description
Lightly populated environment	Areas of small farms and residential areas with very large lot sizes (approximately 4 acres or larger).
Sparsely populated environment	Areas of homes and small businesses, with large lot sizes (approximately 1 acre or larger).
Suburban environment	Areas of single-family homes on small lots, with multi-story buildings of no more than 3 levels. Low rise industrial areas.

3. Assessment of sheltering within operational volume:

a. Determine whether there are structures within the operational volume that would not prevent the RPA from causing harm if individuals were inside them, such as tents in camping grounds or market stalls. Adjust the operational volume to avoid these areas.

b. Identify any area where it is reasonable to assume that majority of non-active participants would not be within suitable structures during the BVLOS operations. Adjust the operational volume to avoid these areas or identify no flying periods during the times where it is reasonable to expect majority of non-active participants would not be within a structure. For example, school pickup time, weekend sport events, community fairs etc.

4. Assessment of PRS:

   a. A PRS used to meet a pathway requirement must be listed by CASA as an accepted system and used in accordance with any associated conditions or limitations.

A.1.5 Air risk assessment

1. Identify areas where it is possible other airspace users may be present during the planned operations. These include:

   a. Low level aerial work activities such as agricultural spraying, power-line inspections, sling operations.

   b. Hang-gliders (including powered)

   c. Paragliders (including powered)

   d. Gyroplanes

   e. Parachutists

   f. Model aircraft fields

   g. Other low level aircraft operations

Note:

Some sport or recreation aircraft, like those listed above, are legally permitted to fly below 500 ft AGL. These aircraft are seldom equipped with ADS-B and, in some circumstances, are not required to carry or use a VHF aviation radio when operating below 5,000 ft AMSL in Class G airspace. When planning operations, it is important to consider the surrounding airspace and identify other potential low-level airspace users. Aviation maps and charts are useful references for spotting areas of likely low-level activity. Additionally, consulting with relevant sport aviation bodies and local clubs can help identify typical low-level flight patterns and assist in mitigating residual airspace risks. Examples of these aviation bodies include:

- Sport Aviation Federation of Australia (https://safa.asn.au/local-clubs/)
- Australian Sport Rotorcraft Association (https://www.asra.org.au/)
- Australian Parachute Federation (https://www.apf.com.au/dropzone-locator/dropzone-locator)
- Recreational Aviation Australia (https://raaus.com.au/)
- Gliding Australia (https://glidingaustralia.org/)

2. Review all NOTAMs applicable to the area of operation, notably, this includes FIR NOTAMs.

3. Consider military Low Jet Route (LJR) activity, as described in ERSA, including relevant NOTAMs identifying the routes and duration of operations.

4. Consider the potential for low-level emergency service aircraft activity, such as aeromedical, law enforcement etc, in all operational areas. These aircraft may operate intermittently and with little or no notice. As part of the air risk assessment, engage with relevant emergency service operators and

develop appropriate site-specific procedures to manage potential conflicts. Account for the possibility that law enforcement aircraft may not transmit ADS-B signals during some operations

5. Review relevant AIP information to identify areas of military aircraft activity. In danger areas designated for military flying, consider the potential for intermittent activity with little or no notice. When planning operations within these areas, consider engaging with the relevant authority to determine whether a deconfliction plan is required. For operations within active military restricted airspace, obtain permission from the controlling authority before commencing operations.
6. For operations within the no-fly zone of a non-controlled aerodrome, including a helicopter landing site, consult with relevant stakeholders and establish an agreed deconfliction plan with airspace users or the aerodrome operator. The plan must ensure that no relevant event is planned or likely to occur during the BVLOS operations:
    a. Consider level of activity at the aerodrome
    b. Arrival and dep procedures
    c. Common flying routes.
7. Common operators any other relevant airspace movements or users. For night operations, identify the lowest safe altitude (LSALT) within the operational area. If the RPAS is equipped with ADS-B, determine the maximum operating altitude by reference to the lower limit of any overlying controlled airspace. In all cases, apply a lateral buffer of at least 1 NM from the boundary of controlled airspace adjacent to the operational area.
8. Implement additional controls to mitigate the risks to other airspace users. This may include:
    a. radio broadcasts at certain intervals
    b. operational restrictions during certain periods of activity
    c. stakeholder engagement plan
    d. ADS-B OUT transponder
    e. any other appropriate control measures.
9. Record keeping:
    a. A copy of the BVLOS area authorisation form must be kept with the operational release for at least 7 years after the day of the operation.

A.1.6 Authorisation form

BVLOS area authorisation form	
Location / area identifier	
kml / shapefile reference	
Applicable pathway	
RPA (make/model)	
Contingency volume dimension	
Maximum population (Quantitative, actual highest population count of 1km x 1km grid resolution)	
Qualitative population descriptor	

BVLOS area authorisation form	
Ground risk operational restrictions	
Airspace operational restrictions	
Map of operational volume:	
Responsible Person Authorisation: *I confirm that the operational volume identified complies with all requirements within the instrument of approval and the BVLOS area feasibility assessment procedures.*	
Name:	
Signature:	
Date:	

Form 1: Authorisation form

Appendix B
Responsible person skills guide

Table 2: Responsible person skills guide

Category	Skills
Area Assessment	• Assess the feasibility of BVLOS areas using maps, imagery, and tools. • Ability to perform population assessments quantitatively and qualitatively. • Ability to calculate contingency volumes and ground risk buffers. • Create accurate overlays to be displayed on the ground control station.
Technical Knowledge	• Understand RPAS characteristics and typical flight behaviour. • Ability to ensure safety critical equipment meets the requirements (e.g. ASTM 3322 compliant parachute recovery system).
Regulatory Knowledge & Compliance	• Understand and interpret aviation legislation. • Interpret aeronautical information publications. • Understand and apply conditions of an instrument of approval.
Communication & Liaison	• Ability to identify and engage with aerodrome operators and airspace stakeholders. • Create and implement a stakeholder engagement plan.
Decision-Making	• Adjust operational areas based on ground and air risk considerations. • Determine no-fly zones or time-based exclusions. • Ability to determine areas that would not be feasible for BVLOS operations under the specified pathways.
Record-Keeping and oversight	• Complete and retain authorisation forms. • Recognise changes in air or ground risk within pre-authorised areas.

Appendix C
Operational area record template (sample)

ReOC Name: **ReOC Number:**

Table 3: operational area record template

Operational area name/ID	Date authorised	Flights in last month	Total accumulated flights	RPA used (make/model)