Australian Government
Civil Aviation Safety Authority

RPAS Platform – Operating Rules

CASA Digital Platform

February 2025

Acknowledgement of Country

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

Artwork: James Baban.

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This document contains guidance material intended to assist CASA officers, delegates and the aviation industry in understanding the operation of the aviation legislation. However, you should not rely on this document as a legal reference. Refer to the civil aviation legislation including the *Civil Aviation Act 1988* (Cth), its related regulations and any other legislative instruments—to ascertain the requirements of, and the obligations imposed by or under, the law.

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Contents

Glossary

Acronyms and abbreviations

Acronym / abbreviation	Descriptions
CASA	Civil Aviation Safety Authority
CDP	CASA Digital Platform / RPAS Platform
DSA	Drone Safety Application
UTM	Uncrewed Traffic Management
USS	UTM Services Supplier
UAA	User Accounts, Access and Disclaimer
ASD	Airspace Data
AD	Additional Data
HBY	Recreational user category
MICR	Under 250g model aircraft or micro-RPA operation user category
CEX	Commercial excluded operation user category
ReOC	Commercial included operation user category
AA	Airspace Authorisations

Definitions

Term	Definition
application	a service supplier software suite that delivers a service listed in section 1.2 of this document to end users or other systems. An application may also be an approved application.
approved application	an application approved by CASA to connect with the RPAS Platform and to access CASA Data. CASA lists Approved Applications on its website www.casa.gov.au/droneapp for the benefit of RPA Operators.
data provider	a Third Party that owns or controls a Data Source. Data providers include Geoscience Australia, AirServices Australia, Parks Australia and state/territory emergency services providers.
intersect	in regards to an OCV, means a condition where two or more 4D volumes (OCVs) coincide in space and time.
may	means the functionality is suggested by CASA but not mandatory.

Term	Definition
Operational Containment Volume (OCV),	means a 4D airspace volume represented as a single polygon with an associated altitude range and time range. The minimum area of the polygon must be a 1m radius around a point. This polygon should include the flight geography and the contingency volume.
shall	means a requirement which must be demonstrated during the approval process.
software provider	a provider of software and its personnel who design, distribute or operate a application and/or approved application.
software version	means the specific iteration of the relevant software application or system.

Reference material

Document type	Title
The rules: Civil Aviation Safety Regulations 1998 (CASR) Part 101 – Unmanned aircraft and rockets Part 101 (Unmanned Aircraft and Rockets) Manual of Standards 2019 CASA 55/20 – Operation of Certain Unmanned Aircraft Directions 2020	https://www.casa.gov.au/drones/documents-and-forms
RPAS Platform onboarding documents RPAS Platform Concept of Operations RPAS Platform – Example Test Procedure Part 1 RPAS Platform – Example Test Procedure Part 2 RPAS Platform Terms and Conditions RPAS Platform Application Form	https://www.casa.gov.au/drones/industry- initiatives/digital- platform

Revision history

Revisions to this procedure are recorded below in order of most recent first.

Version no	Date	Details
4.0	February 2025	• Introduction updated and expanded to include new sections 1.3 Compliance and 1.5 Glossary. • Section 4 reformatted and guidance rewritten for clarity. Renamed Airspace Awareness Service, 'Advise' and 'No Action/None' operating rule outcome descriptions updated, and a ruleset for Micro and under 250g RPAS rules has been added. • Section 4 subsections for rules on [HBY] and [ReOC] updated to divide rules for SUAs and advisories with 3 or more outcomes into separate rules with binary outcomes for clarity. • New rule [AA0001] requiring a provider of the AAA service to also provide Airspace Awareness. • New requirement (5.4.7) for rule [AA0050] to include an additional disclaimer to new users. • Change to [AA0052] which enables Remote Pilots to request AAA. • New point 6 within rule [AA0055] limiting the maximum duration of a AAAT authorisation to no longer than 180 minutes. No limit added on the number of authorisations. • Updated Attachment A related operation rules, notes, and changes to [AD0020], [ASD0050], [ASD0060] & [ASD0061] GCD buckets, and the link for [AD0010]. • Attachment A rule [ASD0035] includes a new validation for identifying non-controlled aerodromes. • Attachment F added with guidance on the AAA GCD Rollover or Replacement and attachment G added with guidance on the AAA checksum procedure.
3.2	April 2024	• Introduction of [UAA0045] mandating the version number of the product be available to view in the app. • [HBY0010] & [ReOC0020] amended to clarify how prohibited areas and MOAs are to be represented. [HBY0035] & [ReOC0030] amended and [HBY0036] & [ReOC0031] created due to changes in the no-fly zones of HLS. • [HBY0080] & [ReOC0050] (HLS with instrument approach) deleted. • Attachment C amended to include HLS no-fly zone. [ASD0055] authoritative data rule for Helicopter Landing Sites (HLS) with • instrument approaches has been deleted. Introduction of [ASD0061] identifying the authoritative source of GCDs other than controlled aerodrome GCDs. • Amended attachment C section C.2 to clarify existing requirements for approach and departure paths.
3.1	November 2023	• Formatting and document style changes including all section numbers. • [HBY0010] & [ReOC0020] amended to include military operating areas. • Added [ASD0021] to attachment A for Military Operating Areas Minor changes to Attachment C and inclusion of

Version no	Date	Details
		attachment D. Attachment D - AAA service user validation process added. • Attachment E - Fire Hazards and Incidents Authority Data source added.
3.0	June 2023	• Amendment to AD0060 Note • Section 11 amended, added new section 12 & 13
2.5b	August 2022	Table and text formatting Amendment to Attachment C.
2.5	May 2022	• Addition of rules [HBY0031], [AA0011], [AA0056] and [AA0057]. • Amendment to section 11.1 and rules [ReOC0025], [ReOC0026] and [AA0055]. • Amendments to Attachment A rules [ASD0025], [ASD0030], [ASD0035] and [AD0005]. • Amendment to whole of Attachment C.
2.4	September 2021	• Updated emergency services data feeds • Addition of airspace authorisations simulation flights
2.3	April 2021	Remove instrument conditions, amend multiple requirements in sections 11 & 12
2.2	April 2021	Final airspace authorisations instrument conditions
2.1	March 2021	Provisional airspace authorisations content for onboarding release
2.0	October 2020	Addition of airspace authorisations rules and data sources
1.5	September 2020	Updated emergency services data feeds
1.0	November 2019	Initial Issue

1. Introduction

1.1 Purpose

1.1.1 The purpose of this document is to define the requirements that services suppliers must meet to become an approved application and connect to the RPAS Platform, and to specify the service criteria that these applications must achieve and maintain to provide the services described herein.

1.1.2 This document should be read in conjunction with the following supporting documents:

- RPAS Platform - Declaration of Compliance
- RPAS Platform - Example Test Procedure
- RPAS Platform - Concept of Operations
- RPAS Platform - Terms and conditions for production environment

1.2 Overview

1.2.1 These rules establish the minimum content and functionality needed to connect to the RPAS Platform and provide the listed services, while further features and services are optional and remain at the discretion of the software developer as they develop their unique offerings.

1.2.2 Operating rules set out in this document are aligned with the four categories of drone operations in Australia as having defined operating requirements in the Civil Aviation Safety Regulations 1998:

- recreational - operators of drones (model aircraft) weighing more than 250g and up to 150kg flying for fun, educational, training or research purposes.
- under 250g – operators of drones (model aircraft or RPA) weighing less than 250g flying for fun, educational, training, research or commercial purposes.
- excluded RPA - operators flying drones (RPA) weighing more than 250g and up to 2 kg for commercial purposes, or flying drones weighing more than 250g and up to 150kg over their own land.
- ReOC - commercial drone (RPA) operations conducted by organisations who hold an operators certificate issued by CASA.

1.2.3 In the following operating rules, the terms **shall** and **may** have specific meaning as defined in the glossary.

1.2.4 Operating rules for the following services are included in this document:

Airspace awareness

This service enhances the situational awareness of model aircraft and RPA operators by delivering real-time, location-specific aeronautical information directly relevant to their specific operations and aligned with regulatory requirements. It provides data on temporary flight restrictions, no-fly zones, and other critical information, while highlighting applicable regulations based on the operator's intended flight parameters. This service enables operators to be aware of any legal obligations, restrictions, or necessary permissions required for their operation.

Automated Airspace Authorisation

This trial service provides automated airspace authorisations for remotely piloted aircraft operator's certificate (ReOC) holders, allowing them to fly within restricted areas and within the 3 nm (5.5 km) component of the no-fly zone of selected controlled aerodromes.

1.3 Prefixes

1.3.1 Each operating rule is assigned an identifier enclosed by brackets and comprised of a grouping prefix and a number. For example, [UAA0005], [HBY0025].

1.3.2 This document uses the following prefixes:

- UAA - User Accounts, Access and Disclaimer
- ASD - Airspace Data
- AD - Additional Data
- HBY – Recreational
- MICR - Under 250g or micro-RPA operation
- CEX - Commercial Excluded Operation
- ReOC - Commercial Included Operation
- AA - Airspace Authorisations

1.3.3 Additional prefixes may be added as needed. Rule numbers are deliberately incremented by 5 to support future rule insertion. Restatements and clarifications of rules are not given a new identifier.

1.4 Compliance

1.4.1 All applications providing services described in this document must complete the RPAS Platform - Terms and conditions for production environment agreement to gain access to the RPAS Platform production environment. The agreement outlines specific responsibilities for software providers and requires providers to warrant that their Software complies with the Operating Rules.

1.4.2 CASA reserves the right to amend these operating rules. To support compliance, CASA commits to providing software providers with at least two months' notice of any changes, ensuring adequate time for system updates. Change notices will be communicated in a clear and timely manner.

1.4.3 Software providers must declare and demonstrate that their application complies with all rules relevant to the services they offer to establish or maintain a connection to the RPAS Platform. Alternatively, they can propose an accepted alternative means of compliance, subject to CASA approval.

1.4.4 Declaration is achieved through the RPAS Platform - Declaration of Compliance document. This formal declaration confirms that a application aligns with all applicable standards and functional rules. The document, titled "Testing – RPAS Platform Declaration of Compliance," serves as evidence of alignment and must be submitted as per CASA's guidelines.

1.4.5 Initial and continued compliance with the operating rules must be demonstrated. An acceptable process to demonstrate compliance is defined in the RPAS Platform - Test Procedure which also aligned with the process conducted via the automated test suite.

1.4.6 The automated test suite is CASA's preferred method for demonstrating compliance with the RPAS Platform Operating Rules. This suite and the available test cases, developed using the open-source InterUSS Platform, is designed to align with the RPAS Platform - Test Procedure.

1.4.7 The test suite supports automated testing within the RPAS Platform's staging environment, enabling software providers to efficiently identify and resolve compliance issues before deploying updated applications to the production environment. By automating the testing process, software providers save significant time compared to manual testing methods, allowing for faster iteration and reduced delays in rolling out new software updates. This streamlined approach minimizes disruptions while ensuring compliance with the RPAS Platform Operating Rules.

1.4.8 Upon completion of the tests, CASA receives a detailed report including test configurations, target versions, and a record of any issues encountered. This report acts as a record of the applications ability to meet these operating rule requirements.

2. Required Content

The following requirements are mandatory and must be applied by all approved applications, regardless of the RPAS Platform functions and services being delivered.

2.1 Privacy Policy

2.1.1 [UAA0015] The application **shall** have a published privacy policy and abide by the Australian Privacy Principles.

2.2 Disclaimer

2.2.1 [UAA0020] The application **shall** include the following CASA-provided disclaimers:

Displayed to the user:

"The information provided is not for use in air navigation in Australia."

In Terms of Service:

"Airspace information related to Australia is not approved under Australian Civil Aviation Safety Regulation Part 175 (CASR Part 175), is advisory only, and is not to be used for the purpose of air navigation."

2.3 CASA Notifications

2.3.1 [UAA0030] The application **shall** display notifications provided by CASA for the applicable time range and filter by type of RPA operator.

2.4 Reporting Unsafe Drone Operations

2.4.1 [UAA0040] The application **shall** include a reference to CASA's *Report Unsafe Drone Operations* webpage: (https://www.casa.gov.au/about-us/contact-us)

2.5 Production Version

2.5.1 [UAA0045] The application **shall** indicate the software version to the user.

3. Authoritative Data

3.1 Data Sources

3.1.1 Some operating rules require an underlying data source. The operating rules identify the authoritative data that **shall** be used by compliant implementations.

3.1.2 Some data sources are provided through the RPAS Platform via API. Other data is to be directly sourced from the data custodian.

3.1.3 There are two categories of data: airspace data and additional data. For each category, the data type, the authoritative source, the minimum refresh rate and the associated operating rule/s are provided in **Attachment A**.

3.1.4 In some cases, data must be retrieved with authentication by a central service.

3.2 Airspace Data

3.2.1 Authoritative airspace data is identified in **Attachment A**.

3.2.2 Airspace data originates from Airservices Australia (ASA). Software Providers will need to source this data directly from Airservices Australia. There is a cost for accessing this data.

4. Airspace Awareness Service

4.1 Overview

4.1.1 This service enhances the situational awareness of model aircraft and RPA operators by delivering real-time, location-specific aeronautical information directly relevant to the user's specific operations and aligned with regulatory requirements. It provides data on temporary flight restrictions, no-fly zones, and other critical information, while highlighting applicable regulations based on the operator's intended flight parameters. This service enables operators to be aware of any legal obligations, restrictions, or necessary permissions required for their operation.

4.1.2 The operating rules for the Airspace Awareness service are aligned with four categories of drone operations in Australia (listed in section 1.2.4).

4.2 Required Content

4.2.1 The following general rules **shall** be implemented for the Airspace Awareness service:

[UAA0015], [UAA0020], [UAA0030], [UAA0040], and [UAA0045].

4.2.2 The Airspace Awareness Service **shall** include operating rules for the following categories:

[HBY], [CEX], and [ReOC].

4.2.3 The operating rules for [MICR] **may** be included for the Airspace Awareness service.

4.3 Operating Rule Structure

4.3.1 Subsections are provided in the operating rules for each of the four categories of RPAS operations: recreational, under 250g, excluded RPA, and ReOC. Each section contains a table with the operating rules unique to that operation type and links to CASA guidance material which can be referenced when generating acceptable operator guidance.

4.3.2 The operating rules include 3 ways in which a rule can be applied (outcomes):

Block: this implies that the intended flight should be not allowed, for a variety of potential reasons (e.g. altitude exceeds limit, flight in restricted airspace). In the context of a user planning a flight, Block indicates the flight plan cannot be accepted; if simply viewing information, the user should be informed of applicable rules.

Advise: this implies that information should be highlighted to the user which possibly represents a restriction on the intended flight. In the context of a user planning a flight, Advise indicates the flight plan can be accepted.

No Action/None: this applies to rules with which the operator must comply independent of the application. For example, a Software Provider cannot practically know if a flight is over people. The operator is required to comply with the rule, but no specific requirement is levied on the Software Provider to assist the operator. This also applies to rules where the outcome of the rule is none, such as where an Advisory has a 'None' flag for the relevant user. In the context of a user planning a flight, No Action/None indicates the flight plan can be accepted.

4.3.3 The operating rules for the Airspace Awareness Service are provided in the following format:

		Example
Rule ID	The rule reference	[HBY0010]
Precondition (IF * ,)	Where there is a precondition (IF*), the precondition for the rule will be detailed here. Where the precondition is not met (IF*=false), the rule will be N/A	Application has access to [ASD0001], else rule [HBY0010] is N/A
Applicability (when)	Scenario when the rule is applicable will be described here	Restricted area status is active, and OCV intersects restricted area
Outcome (The application shall)	The way the rule shall be applied will be described here (see 4.3.3).	Block
Data Source	The authoritative data source for the relevant information required to determine when the Precondition and the Applicability is true.	[ASD0001] [ASD0015] [ASD0005] [ASD0010]
Acceptable Operator Guidance	An example of information that may be provided to the operator. See the links to recommended guidance material for more user relevant information.	You must not operate your drone within an active restricted area or temporary restricted area.

4.4 Recreational (Model Aircraft) Rules

4.4.1 Recommended guidance material:

- CASA's Drone rules webpage on the Know Your Drone website at: https://www.casa.gov.au/knowyourdrone/drone-rules
- Advisory Circular (AC) 101-03 v2.0 - Flying a model aircraft or drone for recreation or education, at: https://www.casa.gov.au/drones/drone-rules/drone-safety-rules#Relatedrulesandpublications

4.4.2 Recreational flyers operate under model aircraft operating rules. The following rules capture those requirements:

4.4.3 Above 400ft AGL

Rule ID	[HBY0005]
Precondition	-
Applicability	OCV altitude range greater than 400ft AGL.
Outcome	Block
Data Source	N/A

Acceptable Operator Guidance	You must not fly your drone higher than 400 ft above the ground.

4.4.4 Active State Special Use Airspace (SUA)

Rule ID	[HBY0010]
Precondition	If SUA status is known (e.g. a NOTAM activated area and a NAIPS subscription is available)/Application has access to [ASD0001], else rule [HBY0010] is N/A.
Applicability	OCV intersects active prohibited, restricted or military operating area, including temporary restricted or temporary prohibited area.
Outcome	Block
Data Source	[ASD0001] [ASD0015] [ASD0005] [ASD0010]
Acceptable Operator Guidance	You must not operate your drone in prohibited, restricted or military operating areas, including temporary restricted or prohibited areas.

4.4.5 Unknown State SUA (Prohibited/RA3)

Rule ID	[HBY0011]
Precondition	SUA status is not known (e.g. a NOTAM activated area and a NAIPS subscription is not available)/Application does not have access to [ASD0001], else rule [HBY0011] is N/A.
Applicability	OCV intersects prohibited area or RA3 restricted area, including temporary prohibited area or RA3 restricted area.
Outcome	Block
Data Source	[ASD0015] [ASD0005] [ASD0010]
Acceptable Operator Guidance	You must not operate your drone in a prohibited area or restricted area with conditional status RA3, including temporary restricted or prohibited areas.

4.4.6 Unknown State SUA (MOU/RA1 or 2)

Rule ID	[HBY0012]
Precondition	SUA status is not known (e.g. a NOTAM activated area and a NAIPS subscription is not available)/Application does not have access to [ASD0001], else rule [HBY0012] is N/A.
Applicability	OCV intersects a military operating area, RA1 or RA2 restricted area, including a temporary restricted area.
Outcome	Advise
Data Source	[ASD0015] [ASD0005] [ASD0010]

Acceptable Operator Guidance	You must not operate your drone in military operating areas, restricted areas with conditional status RA1 and RA2, including a temporary restricted area.

4.4.7 Emergency Operations Area

Rule ID	[HBY0015]
Precondition	-
Applicability	OCV intersects a known public safety event or emergency operation.
Outcome	Block
Data Source	[AD0005]
Acceptable Operator Guidance	You must not fly your drone over or near an area affecting public safety or where emergency operations are underway (without prior approval). This could include situations such as a car crash, police operations, a fire and associated firefighting efforts, and search and rescue operations.

4.4.8 3nm No-fly Zone of a Controlled Aerodrome

Rule ID	[HBY0030]
Precondition	-
Applicability	OCV intersects the 3nm no-fly zone of a controlled aerodrome.
Outcome	Block
Data Source	[ASD0025] [ASD0030]
Acceptable Operator Guidance	You generally must keep your drone at least 3 NM (the no-fly zone) away from controlled aerodromes (those with a control tower).

4.4.9 Approach and Departure Paths of a Controlled Aerodrome

Rule ID	[HBY0031]
Precondition	-
Applicability	OCV intersects the approach and departure path component of the no-fly zone of a controlled aerodrome.
Outcome	Block
Data Source	[ASD0030]

Acceptable Operator Guidance	You must not operate your drone within the ‘no flying’ areas of the approach and departure paths of a controlled aerodrome (usually those with a control tower).

4.4.10 No-fly Zone of Non-controlled Aerodrome

Rule ID	[HBY0035]
Precondition	-
Applicability	OCV intersects the 3nm or approach and departure path component of the no-fly zone of a non-controlled aerodrome.
Outcome	Advise
Data Source	[ASD0035] [ASD0030]
Acceptable Operator Guidance	You may fly within 3 NM of a non-controlled aerodrome only if crewed aircraft are not operating to or from the aerodrome. If you become aware of manned aircraft operating to or from the aerodrome, you must manoeuvre away from the aircraft and land as soon as safely possible. You may not operate your drone within the airfield boundary (*without approval).

4.4.11 No-fly Zone of a helicopter landing site (HLS)

Rule ID	[HBY0036]
Precondition	-
Applicability	OCV intersects the 0.75nm no-fly zone of a helicopter landing site (HLS).
Outcome	Advise
Data Source	[ASD0035] [ASD0030]
Acceptable Operator Guidance	You may fly within 0.75 NM of a helicopter landing site (HLS) only if manned aircraft are not operating to or from the HLS. If you become aware of manned aircraft operating to or from the HLS, you must manoeuvre away from the aircraft and land as soon as safely possible. You may not operate your drone within the HLS boundary (*without approval).

4.4.12 Danger Area

Rule ID	[HBY0040]
Precondition	-
Applicability	OCV intersects a danger area.

Outcome	Advise
Data Source	[ASD0020]
Acceptable Operator Guidance	You may operate within a danger area if it is safe to do so. Note: Application should display ACTIVITY text provided for the danger area

4.4.13 High Voltage Electricity Transmission Lines

Rule ID	[HBY0045]
Precondition	-
Applicability	OCV intersects a high voltage electricity transmission line.
Outcome	Advise
Data Source	[AD0010]
Acceptable Operator Guidance	You may operate near high voltage electricity transmission lines if it is safe to do so.

4.4.14 Outside Daylight Hours

Rule ID	[HBY0050]
Precondition	-
Applicability	OCV time range starts or extends outside daylight hours.
Outcome	Block
Data Source	Known sunrise and sunset calculation
Acceptable Operator Guidance	You must not fly outside daylight hours.

4.4.15 CASA Advisory (None)

Rule ID	[HBY0070]
Precondition	-
Applicability	OCV intersects a CASA Advisory where “None” is designated for this type of operator.
Outcome	None
Data Source	[ASD0050]
Acceptable Operator Guidance	Nothing displayed. Note: The application shall not display the text within the message field to the user.

4.4.16 CASA Advisory (Advise)

Rule ID	[HBY0071]
Precondition	-
Applicability	OCV intersects a CASA Advisory where “Advise” is designated for this type of operator.
Outcome	Advise
Data Source	[ASD0050]
Acceptable Operator Guidance	This operation is within an active CASA Advisory. Note: The application shall display the text within the message field.

4.4.17 CASA Advisory (Block)

Rule ID	[HBY0072]
Precondition	-
Applicability	OCV intersects a CASA Advisory where “Block” is designated for this type of operator.
Outcome	Block
Data Source	[ASD0050]
Acceptable Operator Guidance	This operation is within an active CASA Advisory. Note: The application **shall** display the text within the message field.

4.4.18 Marine Park

Rule ID	[HBY0075]
Precondition	-
Applicability	OCV intersects a marine park.
Outcome	Block
Data Source	[AD0015]
Acceptable Operator Guidance	You should not operate below 500ft AGL over a Marine Park.

4.5 Under 250g Operations Rules

4.5.1 Recommended guidance material:

- CASA’s Drone rules webpage on the Know Your Drone website at:

https://www.casa.gov.au/knowyourdrone/drone-rules

- CASA's website at:

  https://www.casa.gov.au/drones/rules/sub2kg

- Micro and Excluded Category RPA Plain English Guide available at:

  https://www.casa.gov.au/drones/drone-rules/drone-safety-rules#Relatedrulesandpublications

4.5.2 The RPAS Platform doesn't have a flag for the [MICR] user rules. All advisories, notifications or other data sets which flag the [CEX] user rules **shall** also be applicable to [MICR] users rules.

4.5.3 Operating rules for Under 250g operations are the same as Recreational with the exception of rule [HBY0030], and the addition of rule [MICR0025]. The rule IDs for these operations are identical to Recreational but use the prefix [MICR]. Operating rule [MICR0025] and [MICR0030] **shall** be applied as follows:

4.5.4 3nm No-fly Zone of a Controlled Aerodrome (<150ft AGL)

Rule ID	[MICR0025]
Precondition	-
Applicability	OCV intersects the 3nm no-fly zone component of a controlled aerodrome, and the upper altitude range is less than 150ft AGL.
Outcome	Advise
Data Source	[ASD0025] [ASD0030]
Acceptable Operator Guidance	You may operate your drone as long as the flight remains below 150ft AGL. Be advised this location is within 3 NM (the no-fly zone) of a controlled aerodrome (those with an active control tower). Crewed aircraft may also operate in this area and it is the drone operator's responsibility to avoid them.

4.5.5 3nm No-fly Zone of a Controlled Aerodrome (=>150ft AGL)

Rule ID	[MICR0030]
Precondition	-
Applicability	OCV intersects the 3nm no-fly zone of a controlled aerodrome, and the upper altitude range is equal to, or greater than 150ft AGL.
Outcome	Block
Data Source	[ASD0025] [ASD0030]
Acceptable Operator Guidance	You must not operate your drone above 149ft AGL within 3 NM (the no-fly zone) of a controlled aerodrome (those with an active control tower).

4.6 Excluded RPA Operations Rules

4.6.1 Guidance material:

- CASA's website at:

  https://www.casa.gov.au/drones/rules/sub2kg

- Micro and Excluded Category RPA Plain English Guide available at:

  https://www.casa.gov.au/drones/drone-rules/drone-safety-rules#Relatedrulesandpublications

4.6.2 Operating rules for Commercial Excluded Operations are the same as Recreational. The rule IDs for these operations are identical to Recreational but use the prefix [CEX].

4.7 ReOC Operations Rules

4.7.1 Recommended guidance material:

- CASA's drone rules website at:

  https://www.casa.gov.au/drones/drone-rules

- Advisory Circular (AC) 101-01 - Remotely piloted aircraft systems - licensing and operations

  https://www.casa.gov.au/rules/regulatory-framework/casr/part-101-casr-unmanned-aircraft-and-rockets#Guidancematerial

- CASA's Flight approvals and permissions website at:

  https://www.casa.gov.au/drones/flight-authorisations/flight-approvals-and-permissions#Therequirements

- CASA's flying near emergencies and wildlife website at:

  https://www.casa.gov.au/drones/drone-rules/flying-near-emergencies-and-wildlife#Flyingnearemergencies

4.7.2 The ReOC operates under a certificate provided by CASA and therefore can operate outside the Standard Operating Conditions, thus these rules err on the side of Advise rather than Block. Where applicable, Software Providers may create specific rules based on a ReOC authorisation in addition to the required rules below:

4.7.3 Above 400ft AGL

Rule ID	[ReOC0005]
Precondition	-
Applicability	OCV altitude range greater than 400ft AGL.
Outcome	Advise
Data Source	N/A
Acceptable Operator Guidance	You must not fly your drone higher than 400 ft above the ground without an approval from CASA.

4.7.4 Emergency Operations Area

Rule ID	[ReOC0010]
Precondition	-

Applicability	OCV intersects a known public safety event or emergency operation.
Outcome	Block
Data Source	[AD0005]
Acceptable Operator Guidance	You must not fly your drone over or near an area affecting public safety or where emergency operations are underway, without approval from the incident commander. This could include situations such as a car crash, police operations, a fire and associated firefighting efforts, and search and rescue operations.

4.7.5 Outside Daylight Hours

Rule ID	[ReOC0015]
Precondition	-
Applicability	OCV time range starts or extends outside daylight hours.
Outcome	Advise
Data Source	Known sunrise and sunset calculation
Acceptable Operator Guidance	You must not fly outside daylight hours, unless the RPA operation is conducted in accordance with all condition listed in CASA Instrument 01/17. https://www.legislation.gov.au/F2017N00016/latest/text

4.7.6 Active State Special Use Airspace (SUA)

Rule ID	[ReOC0020]
Precondition	SUA status is known (e.g. a NOTAM activated area and a NAIPS subscription is not available)/Application has access to [ASD0001], else rule [HBY0011] is N/A.
Applicability	OCV intersects an active prohibited, restricted or military operating area, including temporary restricted or temporary prohibited area.
Outcome	Advise
Data Source	[ASD0001] [ASD0015] [ASD0005] [ASD0010]
Acceptable Operator Guidance	You must not operate your drone in prohibited, restricted or military operating areas without the authorisation of the controlling authority. Note: It is recommended to point to the AirServices Restricted Area Briefing webpage at: https://www.airservicesaustralia.com/naips/Fua

4.7.7 Unknown State SUA (Prohibited area)

Rule ID	[ReOC0021]
Precondition	SUA status is not known (e.g. a NOTAM activated area and a NAIPS subscription is not available)/Application does not have access to [ASD0001], else rule [HBY0011] is N/A.
Applicability	OCV intersects a prohibited area, including temporary prohibited area.
Outcome	Block
Data Source	[ASD0015] [ASD0005] [ASD0010]
Acceptable Operator Guidance	You must not operate your drone in a prohibited area, including a temporary prohibited. Note: It is recommended to point to the AirServices Restricted Area Briefing webpage at: https://www.airservicesaustralia.com/naip s/Fua

4.7.8 Unknown State SUA (MOU/Restricted area)

Rule ID	[ReOC0022]
Precondition	SUA status is not known (e.g. a NOTAM activated area and a NAIPS subscription is not available)/Application does not have access to [ASD0001], else rule [HBY0011] is N/A.
Applicability	OCV intersects a restricted or military operating area, including temporary restricted area.
Outcome	Advise
Data Source	[ASD0015] [ASD0005] [ASD0010]
Acceptable Operator Guidance	You must not operate your drone in a restricted or military operating area without the authorisation of the controlling authority. Note: It is recommended to point to the AirServices Restricted Area Briefing webpage at: https://www.airservicesaustralia.com/naip s/Fua

4.7.9 3nm No-fly Zone of a Controlled Aerodromes

Rule ID	[ReOC0025]
Precondition	-
Applicability	OCV intersects the 3nm no-fly zone of a controlled aerodrome.
Outcome	Advise
Data Source	[ASD0025] [ASD0030]

Acceptable Operator Guidance	You must keep your drone at least 3 NM away from controlled aerodromes (those with a control tower) unless you have a CASA approval.

4.7.10 Approach and Departure Paths of a Controlled Aerodrome

Rule ID	[ReOC0026]
Precondition	-
Applicability	OCV intersects the approach and departure path component of the no-fly zone of a controlled aerodrome.
Outcome	Advise
Data Source	[ASD0030]
Acceptable Operator Guidance	You must not operate your drone within the 'no flying' areas of the approach and departure paths of a controlled aerodrome (usually those with a control tower) unless you have a CASA approval.

4.7.11 No-fly Zone of Non-controlled Aerodrome

Rule ID	[ReOC0030]
Precondition	-
Applicability	OCV intersects the 3nm no-fly zone or approach and departure path component of the no-fly zone of a non-controlled aerodrome.
Outcome	Advise
Data Source	[ASD0035] [ASD0030]
Acceptable Operator Guidance	You may fly within 3 NM of a non-controlled aerodrome only if crewed aircraft are not operating to or from the aerodrome. If you become aware of manned aircraft operating to or from the aerodrome, you must manoeuvre away from the aircraft and land as soon as safely possible. You may not operate your drone within the airfield boundary (*without approval).

4.7.12 No-fly Zone of a helicopter landing site (HLS)

Rule ID	[ReOC0031]
Precondition	-
Applicability	OCV intersects the 0.75nm no-fly zone of a helicopter landing site (HLS).

Outcome	Advise
Data Source	[ASD0035] [ASD0030]
Acceptable Operator Guidance	You may fly within 0.75 NM of a helicopter landing site (HLS) only if manned aircraft are not operating to or from the HLS. If you become aware of manned aircraft operating to or from the HLS, you must manoeuvre away from the aircraft and land as soon as safely possible. You may not operate your drone within the HLS boundary (*without approval).

4.7.13 Marine Park

Rule ID	[ReOC0035]
Precondition	-
Applicability	OCV intersects a marine park.
Outcome	Advise
Data Source	[AD0015]
Acceptable Operator Guidance	You must not operate below 500ft AGL over a Marine Park.

4.7.14 Danger Area

Rule ID	[ReOC0040]
Precondition	-
Applicability	OCV within or overlapping a danger area.
Outcome	Advise
Data Source	[ASD0020]
Acceptable Operator Guidance	You may operate within a danger area if it is safe to do so. Note: Application should display ACTIVITY text provided for the danger area

4.7.15 CASA Advisory (None)

Rule ID	[ReOC0045]
Precondition	-
Applicability	OCV intersects a CASA Advisory where “None” is designated for this type of operator.
Outcome	None

Data Source	[ASD0050]
Acceptable Operator Guidance	Nothing displayed. Note: The application shall not display the text within the message field.

4.7.16 CASA Advisory (Advise)

Rule ID	[ReOC0046]
Precondition	-
Applicability	OCV intersects a CASA Advisory where “Advise” is designated for this type of operator.
Outcome	Advise
Data Source	[ASD0050]
Acceptable Operator Guidance	This operation is within an active CASA Advisory. Note: The application shall display the text within the message field.

4.7.17 CASA Advisory (Block)

Rule ID	[ReOC0047]
Precondition	-
Applicability	OCV intersects a CASA Advisory where “Block” is designated for this type of operator.
Outcome	Block
Data Source	[ASD0050]
Acceptable Operator Guidance	This operation is within an active CASA Advisory. Note: The application shall display the text within the message field.

4.7.18 High Voltage Electricity Transmission Lines

Rule ID	[ReOC0055]
Precondition	-
Applicability	OCV intersects a high voltage electricity transmission line.
Outcome	Advise
Data Source	[AD0010]
Acceptable Operator Guidance	You may operate near high voltage electricity transmission lines if it is safe to do so

5. Automated Airspace Authorisation (AAA) Service

5.1 Overview

5.1.1 The following sections describe the two types of authorisations available via the Automated Airspace Authorisation (AAA) trial and defines the non-functional and functional requirements that an application must demonstrate to be onboarded as an approved application to issue airspace authorisations through the RPAS Platform.

5.1.2 Third-party applications must demonstrate compliance with the RPAS Platform operating rules and complete a checkout, as per section 1.3.6, before they will be verified by CASA to provide this functionality.

5.1.3 Third-party approved application which are verified by CASA to provide this functionality may, at their discretion, provide controlled aerodrome authorisations, restricted area authorisations, or both.

5.1.4 Authorisation requests which comply with the appropriate GCD for that location and that meet the airspace authorisation operating rules are notified to the RPAS Platform via the RPAS Platform Third-party (3P) API. GCD files are available for download via the RPAS platform [AD0025] to the software providers of approved applications.

5.1.5 The Automated Airspace Authorisations service will follow a crawl, walk, run approach – with the rules expected to evolve as this function matures. The trial for controlled aerodrome authorisations is provided at ten controlled aerodromes and the restricted area authorisations is provided for R405A/B. Chief Remote Pilots (CRPs) of current ReOC holders may opt in to take part. This initial trial of airspace authorisations is not intended for the general public (recreational RPAS operators). CASA expects compliance requirements to be modified or added over time, which may include increased information security requirements such as ISO27001 compliance.

5.2 Controlled Aerodrome Authorisations

5.2.1 Regulation 101.072 of CASR provides that the Part 101 MOS may prescribe requirements relating to the operation of unmanned aircraft in controlled airspace. Chapter 4 of the Part 101 MOS prescribes requirements relating to the operation in controlled airspace, below 400 FT AGL, of an unmanned aircraft. Attachment C defines how these requirements are to be implemented by a third-party application developer.

5.2.2 The Airspace Authorisations function allows RPA operators to submit a request to operate within 3 NM of a controlled aerodrome using a third-party application. Requests that meet pre-determined criteria may be granted through the third-party application.

5.2.3 The primary method to assess whether an RPA airspace authorisation can be granted within 3nm of a controlled aerodrome is known as the Grid Cell Definition (GCD). GCDs are maps of airspace which, in the case of requests within 3 NM of a controlled aerodrome, indicate areas and heights that RPA operations can operate based on local terrain, infrastructure and anticipated air traffic volumes. GCDs are similar to the FAA's Facility Maps which indicate maximum operation heights as a grid of cells.

5.3 Restricted Area Authorisations

5.3.1 Regulation 101.065 of CASR allows operation in a prohibited area, or in a restricted area, only with the permission of, and in accordance with any conditions imposed by, the authority controlling the area.

5.3.2 The Airspace Authorisations function allows RPA operators to submit a request to operate within a restricted area using a third-party application. Requests that meet pre- determined criteria may be granted through the third-party application.

5.3.3 As described in 5.2.3, the primary method to assess whether an RPA airspace authorisation can be granted within a restricted area is though the GCD. In the case of requests within a restricted area, the GCD indicate areas and heights that RPA operations can be conducted based on anticipated air traffic volumes and the procedures used by the controlling authority to assess requests for access.

5.4 Required Content

5.4.1 [AA0001] An application that provides the Airspace Authorisation service **shall** also provide the Airspace Awareness service (see section 4).

5.4.2 [AA0051] The application **shall** display the following authorisation text to the user after the airspace authorisation has been confirmed with a digital response from the CASA RPAS Platform API. Text enclosed by brackets [ ] indicates dynamic content corresponding to the declaration API schema.

The operator must ensure the RPA operation is conducted in accordance with the conditions specified in the CASA Instrument that is in force at the time of the authorised operation, available at Automated airspace authorisations trial | Civil Aviation Safety Authority (casa.gov.au) (https://www.casa.gov.au/drones/industry-initiatives/automated-airspace-authorisations-trial).

For the purposes of the CASA Instrument that is in force at the time of the authorised operation, this airspace authorisation [***id***] is issued to ReOC [***operator_number***] on [***create_date/time***].

The operator is authorised to fly the remotely piloted aircraft [***uas_serial_number***] in the operating area in the approved area.

The operator is authorised to operate the RPA in the operating area in the approved area on [***start_time – displayed as the start date in local time***] from [***start_time – displayed as the start time in local time***] until [***start_time + duration – displayed as the end time in local time***].

5.4.3 [AA0051] The application **shall** include a graphical depiction of the approved operating area including height limitation/s that is clearly labelled as ‘Operating Area’. Where the original request falls partly outside the GCD area, this must be displayed either as an area trimmed to the GCD or clearly indicate that the authorisation applies only to the portion of the operation within the GCD area.

5.4.4 [AA0052] The application **shall** include the following declaration:

> "I confirm that I am authorised to make this application as either the Chief Remote Pilot or a Remote Pilot for this ReOC."
>
> "I acknowledge that I must not submit an airspace authorisation application for an RPA with a maximum take-off weight of 25 kg or more."
>
> "I declare that all statements in this application are true and correct in every particular and that I have read and understood all provisions of the Civil Aviation Safety Regulations 1998 which are relevant to this application."

5.4.5 [AA0050] The application **shall** display the following text when a user requests access to the Airspace Authorisation functionality:

> “Thank you for agreeing to participate in a trial enabling [insert name of Third Party Application] (“the app”) to process requests to operate RPAS in CASA approved areas (airspace authorisation requests). During the trial, you will be able to submit airspace authorisation requests through the app. When you do, CASA will need to share some of your personal information with [insert name of Third Party Application provider] (“us” or “we”) and Airservices Australia so your identity can be verified. This information will include the aviation reference number (ARN) and remotely piloted operator certificate (ReOC) number CASA has issued you.
>
> Neither we nor Airservices Australia will use this information for any other purpose. We will protect

your personal information in accordance with our privacy policy [insert link to app developer privacy policy]. For information about how Airservices Australia may handle your personal information, refer to its privacy policy.

Please click the boxes below to indicate your consent to your personal information being used in this way. Without this consent, we will be unable to process any airspace authorisation request you may make.

- ☐ I consent to CASA sharing my ARN, ReOC number and other relevant personal information with you and Airservices Australia for the purpose of verifying my identity during the trial.
- ☐ If I have opted-in to the trial on behalf of an organisation I work for, I confirm I am authorised by the organisation to provide its ARN, ReOC number and other company identifiers for that purpose during the trial."

5.4.6 [AA0050] The application **shall** only grant access to airspace authorisation functionality after the Chief Remote Pilot has been verified by CASA according to the method specified by CASA in Attachment D.

5.4.7 [AA0050] The application **shall** display the following text when a user requests access to the Airspace Authorisation functionality:

"Important: Airspace authorisations are valid only at controlled aerodromes with an active control tower at the time of operation. If the aerodrome is non-controlled—meaning the control tower is not operational during the requested operation—the authorisation is not valid."

5.5 Functional Rules

<table>
<tr><th>Rule ID</th><th>Requirement</th></tr>
<tr><td>[AA0005]</td><td>The third-party Application shall conform with the mandatory elements of the RPAS Platform 3P API.</td></tr>
<tr><td>[AA0006]</td><td>The third-party Application may use the RPAS Platform 3P API to submit simulated flights for the purpose of third-party Application testing. Where used, the third-party Application shall confirm with those elements of the RPAS Platform 3P API.</td></tr>
<tr><td>[AA0010]</td><td>The third-party Application shall identify to the user areas where GCD cells apply.</td></tr>
<tr><td>[AA0011]</td><td>The third-party Application shall capture the following data from the user and provide it with the RPAS Operation request:
1. Phone number: (pilot_phone_number)
2. ARN: (pilot_license_number)
3. ReOC number: (operator_number)
4. RPA serial number: (uas_serial_numbers)
5. RPA Type: (uas_type)
6. Flight profile: (uas_profile)
Note: The third-party Application shall display the RPA Type options from the left column and convert to the corresponding right column (uas_type) for submission to the platform which utilises the ASTM standard format.
<table>
<tr><th>RPA Type:</th><th>(uas_type)</th></tr>
<tr><td>Fixed Wing</td><td>Aeroplane</td></tr>
<tr><td>Helicopter</td><td>Helicopter</td></tr>
<tr><td>Multirotor</td><td>Helicopter</td></tr>
<tr><td>Powered Lift</td><td>HybridLift</td></tr>
<tr><td>Airship</td><td>Airship</td></tr>
<tr><td>Fixed Wing</td><td>Aeroplane</td></tr>
</table>
Note: The Third-Party Application shall display the following flight profile options for (uas_profile).
<table>
<tr><th>(uas_profile)</th></tr>
<tr><td>Automated (Grid)</td></tr>
<tr><td>Automated (Waypoint)</td></tr>
<tr><td>Manual</td></tr>
</table></td></tr>
<tr><td>[AA0015]</td><td>The third-party Application shall only submit RPAS Operation requests that fall completely within GCD areas. The third-party Application shall trim a request that partly falls outside the GCD area, and submit the portion to the RPAS Platform that is completely within the GCD area.</td></tr>
</table>

Rule ID	Requirement
[AA0020]	The third-party Application **shall** record and make viewable to the user their successful requests for an RPAS Operation for a period of at least 30 days from the planned start date of an operation.
[AA0025]	The third-party Application **shall** provide the ability for the user to cancel an RPAS Operation request. "Cancel" indicates that the operation is no longer planned.
[AA0030]	The third-party Application **shall** provide the ability for the user to close an RPAS Operation request. "Close" indicates the operation is complete before the submitted RPAS Operation end time.
[AA0035]	The Thirty Party Application **shall** manage RPAS Operation requests as a service to operators. The third-party Application **shall** manage users using individual accounts (requiring a login) and reasonably secure identification mechanisms (e.g. usernames and passwords)
[AA0040]	The third-party Application **shall** follow industry best practices for app releases including HTTPS encryption for all API calls. Note: apps in the PlayStore and AppStore are vetted via the PlayStore and AppStore launch process
[AA0045]	The third-party Application **shall** make reasonable efforts to notify the user in the event that an authorised RPAS Operation is no longer valid. The third-party Application **shall** cancel Approved RPAS Operation if no longer valid.
[AA0050]	Airspace authorisations **shall** only be available to verified Chief Remote Pilots of a valid ReOC holder. The ReOC number (Operator_number) **shall** be validated by RegEx [0-9]{4} The ARN (pilot_license_number) **shall** be validated by RegEx [0-9]{4,7} Note: There is currently no query to CASA's licencing system.
[AA0051]	The third-party Application **shall** display "conditions of approval" to the user when an RPAS Operation request has been confirmed with a digital response from the CASA RPAS Platform API
[AA0052]	The third-party Application **shall** display a declaration for the user to accept when submitting an RPAS Operation request

5.6 Performance Rules

Rule ID	Requirement	Data Source	Application	Assumption
[AA0055]	The third-party Application can automatically approve an RPAS operation request if the following criteria are met: 1. Maximum height of the RPAS operation must be less than or equal to the height of the relevant GCD cells (relevant cells are all those which are intersected by the RPAS operation request) 2. Where the airport flag of all relevant GCD cells are "true" 3. Where the tower is active (in airspaces which transition from uncontrolled to controlled in tower hours, as defined in ERSA) 4. The following operating rules do not block flight: (AA0056, ReOC0045) 5. Data is successfully transferred to the RPAS platform (confirmed by a digital response from the CASA RPAS API) with the detail as defined in AA0011. 6. Maximum duration of the RPAS operation is no longer than 180 minutes (This is not a limit on the number of authorisations possible).	[AD0025]	If any approval criteria failed BLOCK	The third-party Application should only allow for one serial number per flight request. The third-party Application will not submit RPAS operation requests to the RPAS Platform which do not pass the Airspace Awareness flight operation rules. Aerodromes selected in initial trial phases will not require Rule 3. Third-party applications must also demonstrate compliance with [ReOC0026].
[AA0056]	You must not operate your drone within the ‘no flying’ areas of the approach and departure paths of a controlled aerodrome with an active GCD.	[ASD0030]	Block Note: Method for generating approach and departure path geometries defined in Attachment C	

Rule ID	Requirement	Data Source	Application	Assumption
[AA0057]	You must notify the applicant that the RPA be registered with CASA and the serial number used is the manufacturers serial number for the RPA or, where there is no manufacturer serial number, the registration mark provided by CASA at the time of registration.		Advise	
[AA0060]	The Third Party Application **shall** only submit RPAS operation requests which start up to 30 days after the date of submission.		BLOCK if start time in past BLOCK if start time > 30 days from submission date	
[AA0065]	The Third Party Application **shall** only submit RPAS operation requests which are wholly within daylight hours.		BLOCK if any portion of the operation falls outside of civil twilight	

Attachment A - Authoritative Data

A.1 Airspace Data

Data Type & ID	Authoritative Source	Refresh Rate (Minimum)	When applied	Notes	Related Operating Rules
[ASD0005] Restricted Airspace	Airservices Australia Product Group B Dataset 14 – PRD (Prohibited Restricted Danger Areas)	When updated by data provider (currently bi-annually)	AIRAC effective date	If NAIPS subscription or ERSA is not available, all restrictions should be considered 24H restrictions. It is allowed for this airspace to be filtered 500ft and below. Airspaces with a lower value of NOTAM or Surface level must be included.	[HBY0010] [HBY0011] [HBY0012] [MICR0010] [MICR0011] [MICR0012] [CEX0010] [CEX0011] [CEX0012] [ReOC0020] [ReOC0021] [ReOC0022]
[ASD0010] Temporary Restricted Airspace	Airservices Australia National Aeronautical Information Processing System (NAIPS)	At least every 15 minutes	Data effective date	It is allowed for this airspace to be filtered 500ft and below.	[HBY0010] [HBY0011] [HBY0012] [MICR0010] [MICR0011] [MICR0012] [CEX0010] [CEX0011] [CEX0012] [ReOC0020] [ReOC0021] [ReOC0022]

Data Type & ID	Authoritative Source	Refresh Rate (Minimum)	When applied	Notes	Related Operating Rules
[ASD0015] Temporary Prohibited Airspace	Airservices Australia National Aeronautical Information Processing System (NAIPS)	At least every 15 minutes	Data effective date	It is allowed for this airspace to be filtered 500ft and below.	[HBY0010] [HBY0011] [MICR0010] [MICR0011] [CEX0010] [CEX0011] [ReOC0020] [ReOC0021]
[ASD0020] Danger Areas	Airservices Australia Product Group B Dataset 14 – PRD (Prohibited Restricted Danger Areas)	When updated by data provider (currently bi-annually)	AIRAC effective date	It is allowed for this airspace to be filtered 500ft and below.	[HBY0040] [CEX0040] [ReOC0040]
[ASD0021] Military Operating Area (MOA)	Airservices Australia Product Group B Dataset 14 – PRD (Prohibited Restricted Danger Areas)	When updated by data provider (currently bi-annually)	AIRAC effective date	MOA has the “M” prefix within the dataset commencing 30 November 2023. If NAIPS subscription or ERSA is not available, all restrictions should be considered 24H restrictions. It is allowed for this airspace to be filtered 500ft and below. Airspaces with a lower value of NOTAM or Surface level must be included.	[HBY0010] [HBY0012] [MICR0010] [MICR0012] [CEX0010] [CEX0012] [ReOC0020] [ReOC0022]
[ASD0025] Controlled Aerodromes	Airservices Australia Product Group A Dataset 1 – Australian Landing Sites - AD, ALA, HLS, CTAF Frequencies (applicable only to those aerodromes printed in FAC section of ERSA)	When updated by data provider (currently quarterly)	AIRAC effective date	The no-fly zone for controlled aerodromes are to be defined by reference to section 4 of the Part 101 Manual of Standards. Attachment C details the process for generating this portion of the no-fly zone. If NAIPS subscription or ERSA is not available, all aerodromes should be considered 24H active.	[HBY0030] [MICR0025] [MICR0030] [CEX0030] [ReOC0025]

Data Type & ID	Authoritative Source	Refresh Rate (Minimum)	When applied	Notes	Related Operating Rules
				Controlled aerodromes are determined by using the airport code to evaluate where the following conditions are true: 1. Aerodrome in Dataset 10 (ATS Communications Frequencies) where 'Service Type' is 'TWR' (Tower) 2. Aerodrome in Dataset 6 has runway threshold coordinates Aerodromes not meeting both of these criteria are non-controlled and are subject to ASD0035.	
[ASD0030] Approach and departure paths of an aerodrome	Airservices Australia Product Group A Dataset 6 – Runway Thresholds Dataset 7 – Runway Details Dataset 10 – ATS Communications Frequencies	As updated by data provider (currently quarterly)	AIRAC effective date	For controlled aerodromes, these are to be defined by reference to section 4 of the Part 101 Manual of Standards. For non-controlled aerodromes, these are to be defined by reference to section 9 of the Part 101 Manual of Standards. Attachment C details the process for generating this portion of the no-fly zone. Approach and departure paths at non-controlled aerodromes shall be included where runway thresholds are provided, while they may be included where runway thresholds are not provided. Non-controlled aerodromes can be identified where the following conditions are true: 1. in Group A Dataset 10, where "Service type" is NOT "TWR", 2. which have runway threshold coordinates in Group A Dataset 6.	[HBY0030] [HBY0031] [HBY0035] [MICR0025] [MICR0030] [MICR0031] [MICR0035] [CEX0030] [CEX0031] [CEX0035] [ReOC0025] [ReOC0026] [ReOC0030]

Data Type & ID	Authoritative Source	Refresh Rate (Minimum)	When applied	Notes	Related Operating Rules
[ASD0035] Non-controlled aerodromes including helicopter landing sites	Airservices Australia Product Group A Dataset 1 – Australian Landing Sites - AD, ALA, HLS, CTAF Frequencies Dataset 25 – NON-FAC- ERSA Australian Landing Sites	As updated by data provider (currently quarterly)	AIRAC effective date	The no-fly zone for non-controlled aerodromes are to be defined by reference to section 9 of the Part 101 Manual of Standards. Attachment C details the process for generating this portion of the no-fly zone. If NAIPS subscription or ERSA is not available, all aerodromes should be considered 24H active. Non-controlled aerodromes can be identified where the following conditions are true: 1. Group A Dataset 25, where “Verified” is “Y” 2. Aerodrome does not meet the criteria of controlled aerodrome (see ASD0025)	[HBY0035] [HBY0036] [MICR0035] [MICR0036] [CEX0035] [CEX0036] [ReOC0030] [ReOC0031]
[ASD0050] CASA Advisories	CASA RPAS Platform – https://data.rpasplatform.net/casa/data/advisories.json	At least every 15 minutes	Data effective date	URL needs authentication with a service account. CASA Advisories are CASA-generated airspace activation data to inform RPA users of locations where it may be unsafe or unlawful to operate a RPA for a specified period, and where those locations are not otherwise identified in an authoritative data source.	[HBY0070] [MICR0070] [CEX0070] [ReOC0045]
[ASD0060] Grid Cell Definition (GCD) Airservices Controlled Aerodrome Digital Facility Maps	CASA RPAS Platform - https://data.rpasplatform.net/asa/gcd	At least every 24 hours	Data effective date	Geometry and properties of each GCD cell area, including maximum ceiling height allowed of RPAS operation, airport readiness (flag) status, and allowed operation categories. Where two or more concurrent and valid GCD files for the same airport/area exist, the drone safety app should only display and use (issue authorisations against) the GCD file with the latest valid_from date. Note: GCD data for controlled aerodromes is sourced from and owned by Airservices Australia. Use of this data is subject to Airservices’ conditions.	[AA0015] [AA0055]

Data Type & ID	Authoritative Source	Refresh Rate (Minimum)	When applied	Notes	Related Operating Rules
[ASD0061] Grid Cell Definition (GCD) - Other GCD files	CASA RPAS Platform – https://data.rpasplatform.net/casa/gcd	At least every 24 hours	Data effective date	Geometry and properties of each GCD cell area, including maximum ceiling height allowed of RPAS operation, airport readiness (flag) status, and allowed operation categories. Where two or more concurrent and valid GCD files for the same airport/area exist, the drone safety app should only display and use (issue authorisations against) the GCD file with the latest valid_from date. Note: GCD data for R405A/B is not subject to Airservices' conditions.	[AA0015] [AA0055]

A.2 Additional Data

Data Type & ID	Authoritative Source	Refresh Rate (Minimum)	Notes	Related Operating Rules
[AD0005] Fire Hazards and Incidents	See Attachment E for each states incident data feed.	At least every 15 minutes	Additional sources may be displayed for each state (where applicable) in addition to the incident feeds listed in Attachment E. Where no radius or polygon is supplied, default to a 30m standoff distance. If displaying GeoJSON burn areas for Victoria, only features of feedType "Burn Area" should be displayed. To display Fire and Rescue Victoria incidents, only features where sourceOrg = "VIC/FRV" in the GeoJSON.	[HBY0015] [CEX0015] [ReOC0010]
[AD0010] High Voltage Electricity Transmission Lines	Geoscience Australia https://d28rz98at9flks.cloudfront.net/150022/150022_01_0.zip	As updated by data provider	Current file is 'Electricity_Transmission_Lines_v4'. See Attachment B for the mapping of kilovolt ratings to height and width.	[HBY0045] [CEX0045] [ReOC0055]

Data Type & ID	Authoritative Source	Refresh Rate (Minimum)	Notes	Related Operating Rules
[AD0015] Marine Zones	Parks Australia https://parksaustralia.gov.au/marine/maps/	As updated by data provider	It is allowed to trim parks to the Australian country boundary with a minimum of 12 NM from shore.	[HBY0075] [CEX0075] [ReOC0035]
[AD0020] CASA Notifications	CASA RPAS Platform - https://data.rpasplatform.net/casa/data/notifications.json	At least every 15 minutes	URL needs authentication with a service account. The software provider may elect to maintain state to ensure that users are not presented with the same notification multiple times once read or acknowledged.	[UAA0030]

Attachment B – Electricity Transmission Lines

B.1 High Voltage Electricity Transmission Lines

The Electricity Transmission Lines Database does not include the height or width of any tower or transmission line, only their kilovolt rating.

https://researchdata.edu.au/electricity-transmission-lines/1203985

It is recommended to use this table to calculate the expected height and width:

Kilovolts	Height (metres)	Width (metres)
11	11	10
22	17	10
33	17	10
66	21	10
132	42	20
275	55	25
More than 275	60	25

If a kilovolt rating is between two table entries, the entry for the next higher rating **shall** be used.

B.2 Sourcing

The locations for high voltage electricity transmission lines are found within the National Electricity Infrastructure Data and Publications page of Geoscience Australia's website.

https://ecat.ga.gov.au/geonetwork/srv/eng/catalog.search#/metadata/150022

Height and width values have been sourced here:

SA.GOV.AU - Identifying powerlines - https://www.sa.gov.au/topics/energy-and-environment/safe-energy-use/powerline-safety/identifying-powerlines

SA.GOV.AU - Safe clearance distances - https://www.sa.gov.au/topics/energy-and-environment/safe-energy-use/powerline-safety/building-safely-near-powerlines

Attachment C - Generating Aerodrome No-fly Zones

The ***no-fly zone*** of an aerodrome consists of the 3nm no-fly zone (1) and the approach and departure paths (2), below 400 FT AGL, and which is defined in the Part 101 MOS chapter 4 and chapter 9. Both zones are derived from the ***runway centreline***, which is in turn derived from the ***runway thresholds***.

Runway threshold has the same meaning as in the Part 139 Manual of Standards. The points are contained in Airservices General Aviation Data Product Group A, Dataset 6.

Measurement point is defined in the Part 101 MOS as any point on the actual or notional centreline of a runway between the 2 threshold centrepoints.

For the purpose of this attachment, **the notional centreline will be defined as a geodesic line joining the runway threshold points**.

All references to bearings and distances **shall** be calculated using the WGS84 Ellipsoidal model.

Note: None of the drawings below are to scale.

Diagram 1

C.1 Producing the runway or HLS no-fly zone

A runway (3nm) no-fly zone is produced using one of the following two methods, depending on the data available for the relevant aerodrome. A HLS (0.75nm) no-fly zone is produced using method B only.

A. Where runway thresholds are available, the 3nm no-fly zone is the area generated when a 3 NM (5.56km) buffer is applied to the measurement point (see diagram 2).

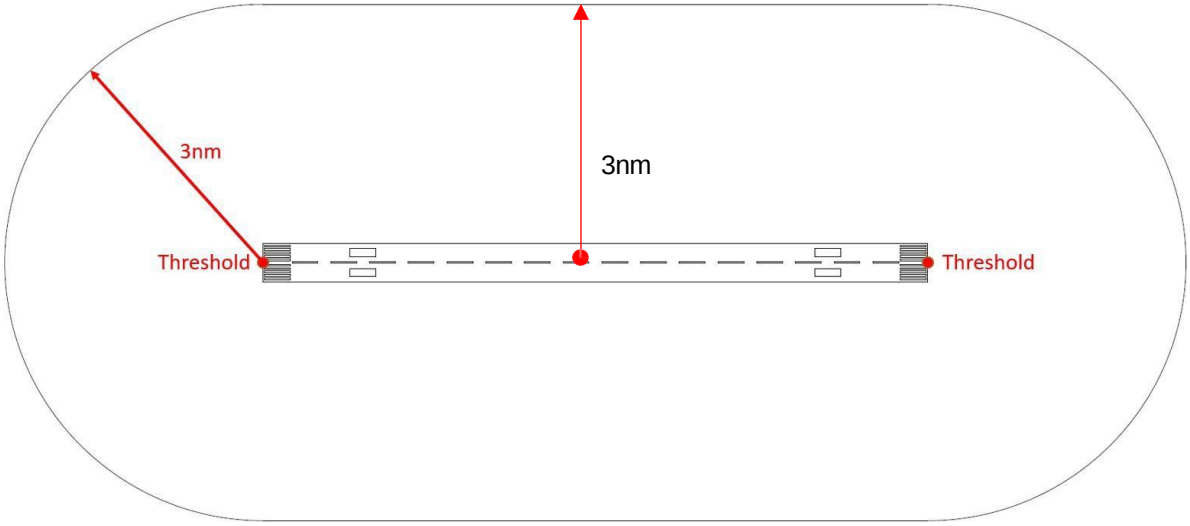

Diagram 2

In the case where an airport has more than one runway (see diagram 3), the 3nm no fly zone is the union of the buffers.

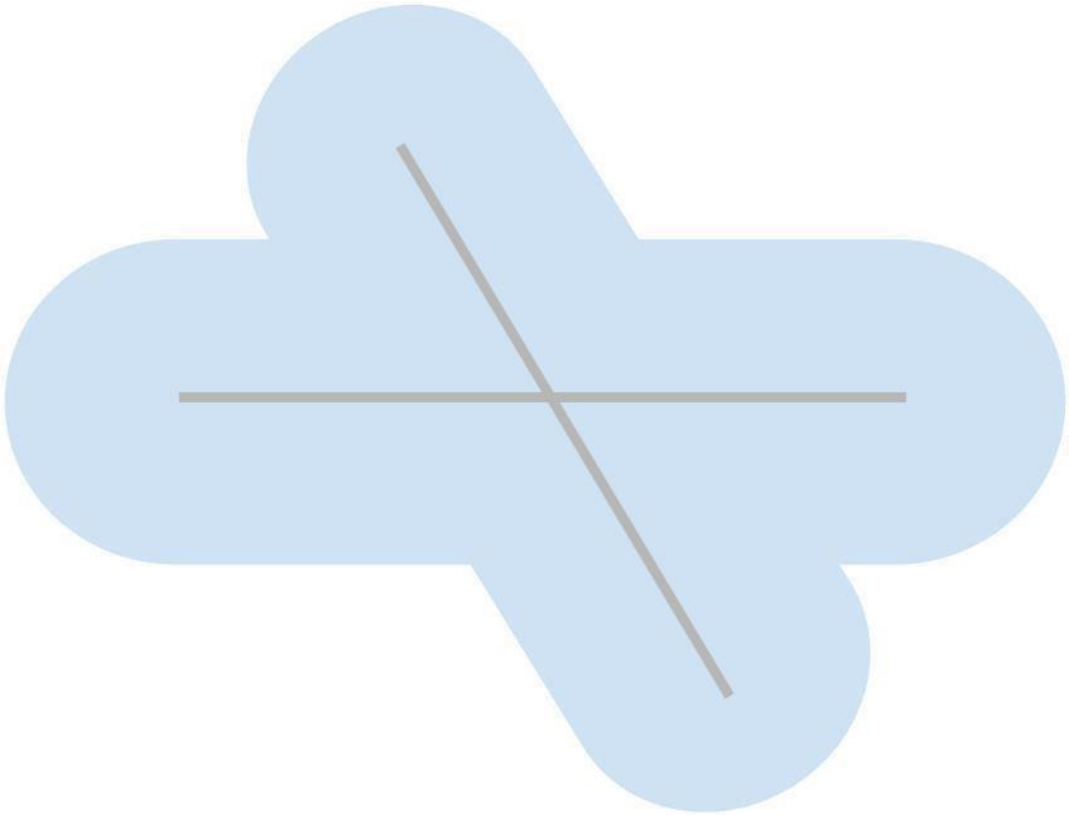

Diagram 3

B. Where runway thresholds are not available, the runway no-fly zone is the area generated when a 3nm (5.56km) buffer is applied to the aerodrome reference point (see diagram 4).

   A HLS no-fly zone is the area generated when a 0.75nm (1.39km) buffer is applied to the aerodrome reference point (see diagram 5).

Diagram 4

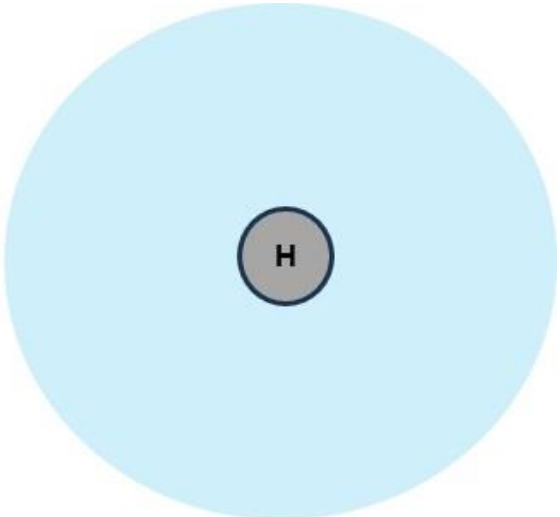

Diagram 5

C.2 Producing the approach and departure path

Producing an approach and departure path relies on the availability of the runway threshold data. Where runway threshold data is available, an approach and departure path should be generated. Approach and departure paths are comprised of the following combined two or three shapes (depending on whether the aerodrome is a controlled aerodrome):

1. A rectangle extending 500 m on either side perpendicular to the runway centreline and extending parallel to the runway strip for 2km past the runway threshold points, ensuring that the corners of the rectangle are within the trapezoids of the approach and departure paths (see diagram 6).

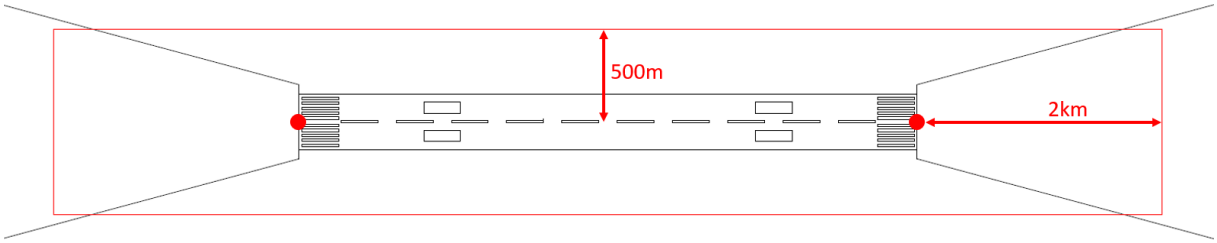

Diagram 6

2. Symmetrical trapezoids with the shorter side coincident with the runway threshold point, extending 50m in either direction perpendicular to the runway centreline. This side is extended out at an angle of 15° from the runway centreline out to 7km, as measured along the extended runway centreline (see diagram 7).
3. Applicable only for a controlled aerodrome, the symmetrical trapezoids as described in 2 extended to a further distance of 1.5km (see diagram 7).

Note: The no-fly zone of this area (7km-8.5km) exists only between 300ft-400ft AGL.

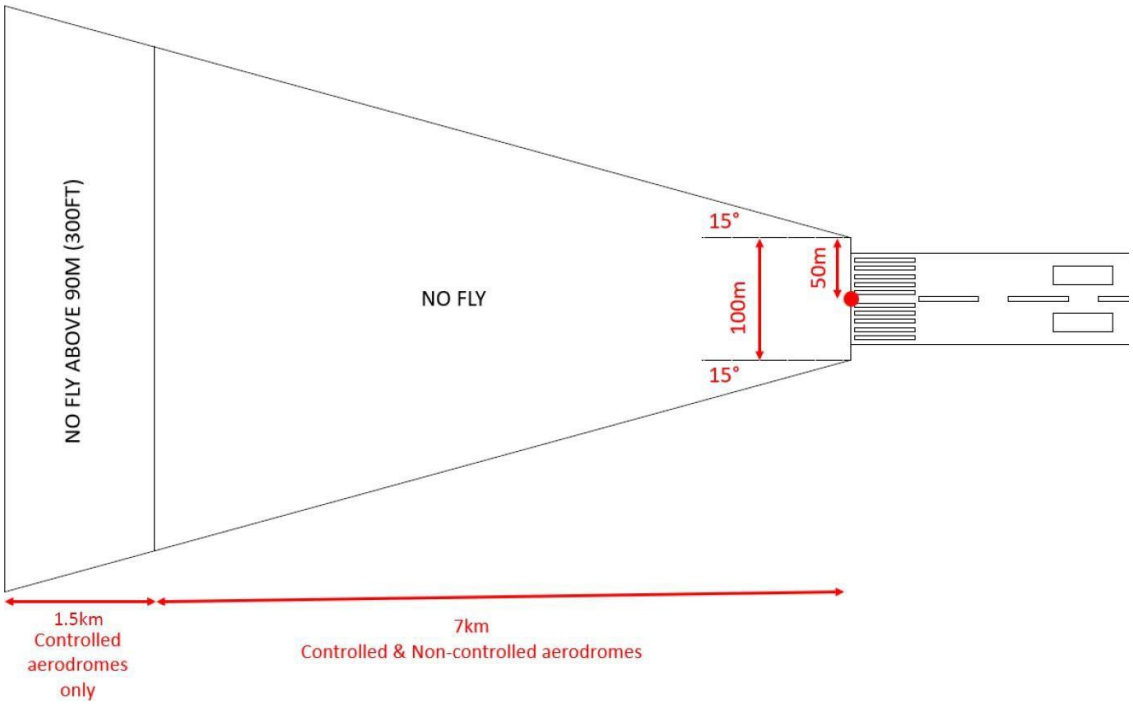

Diagram 7

The union of the rectangle and trapezoids form the approach and departure paths. For a runway, both the 3nm buffer and the approach and departure paths form the no-fly zone as depicted below.

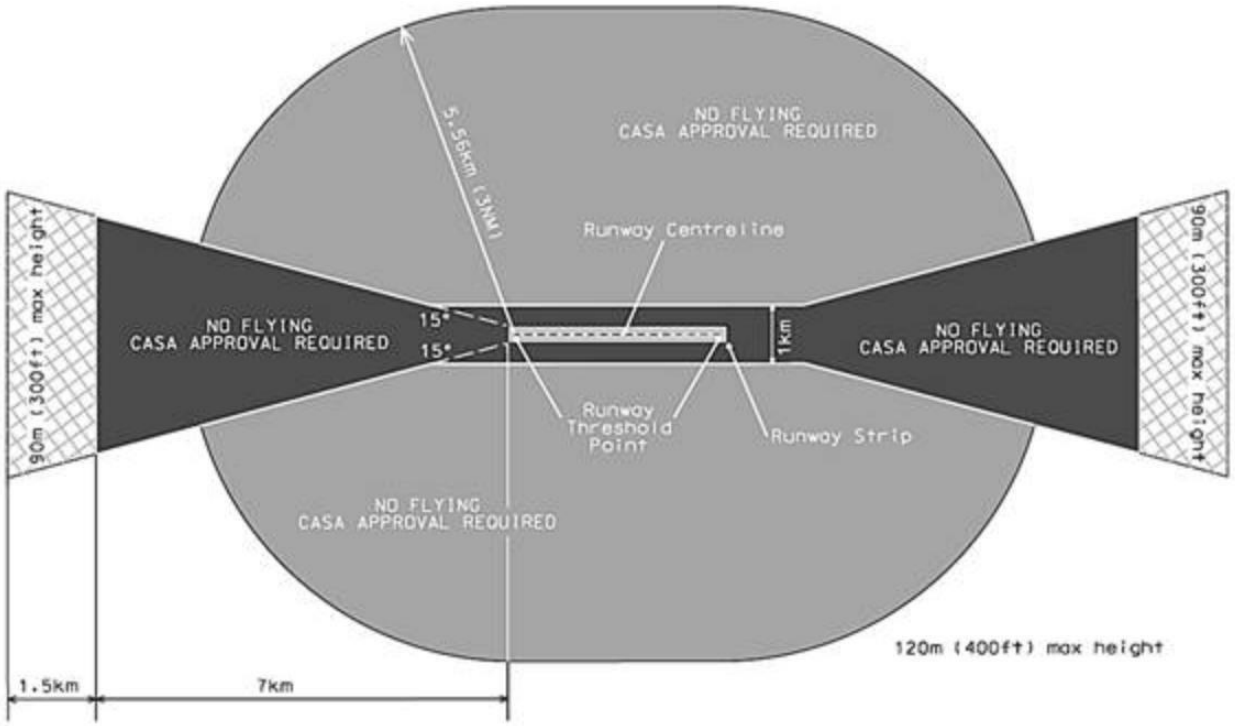

Diagram 8

Attachment D - AAA Service User Validation Process

D.1 Purpose

In accordance with RAPS Platform Operating Rule [AA0050], the application **shall** only grant access to airspace authorisation functionality after the chief remote pilot has been verified by CASA according to the method specified by CASA.

To ensure only appropriate users request authorisations through the AAA service, users are validated through a manual process conducted by software providers and CASA.

D.2 Process

The procedure for a software provider to validate a new user to access the AAA service consists of the following processes:

1. The software provider has a procedure for users to submit a request to gain access to the Automated Airspace Authorisation service. The procedure must include attaining the users consent to share their details with CASA and the submission of the following user information:

   The RPA Operator's 4-digit ReOC number; and

   The service user's (CRP's) 6–7-digit Aviation Reference Number (ARN).

2. The software provider inputs the user's de-identified information into the Template Validation Request Excel file and submits this to CASA by uploading it into their CASA RPAS Platform ShareFile folder.
3. CASA validates the user's identity by confirming the user has entered the correct information and that the information is valid in the EMPIC-EAP data management system.
4. After the data is validated, CASA will input the user's validation request and the result of the request into the software provider's Master List Excel file. This will then be uploaded to the software provider's RPAS Platform ShareFile folder.

CASA will retain a record of the software provider's Master List Excel file within the software provider's RPAS Platform ShareFile folder. All valid users identified in this file can be provided access to use the AAA service. No other users, or users marked as invalid or inactive, can be provided access to the AAA service.

All user information within the file must remain de-identified due to privacy requirements and the security limitations of the CASA ShareFile platform.

Attachment E - Fire Hazards and Incidents Authority Data Sources

E.1 State Data Source Links

Australian Capital Territory (ACT) Emergency Services Agency:
http://www.esa.act.gov.au/feeds/currentincidents.xml
New South Wales (NSW) Rural Fire Service:
http://www.rfs.nsw.gov.au/feeds/majorIncidents.xml
Victoria (VIC) Emergency:
https://data.emergency.vic.gov.au/Show?pageId=getIncidentXML Additional sources: GeoJSON Burn Areas and Fire & Rescue Victoria incidents (optional data source): https://emergency.vic.gov.au/public/osom-geojson.json
Tasmania (TAS) Fire Service:
https://alert.tas.gov.au/data/incidents-and-messages.kml
South Australia (SA) Emergency Services:
https://data.eso.sa.gov.au/prod/cfs/criimson/cfs_current_incidents.xml Additional sources: https://data.eso.sa.gov.au/prod/cfs/criimson/cfs_current_incidents.json
Western Australia (WA) Emergency:
https://www.emergency.wa.gov.au/data/incident_FCAD.rss
Queensland (QLD) Fire and Emergency Services:
https://www.qfes.qld.gov.au/data/alerts/bushfireAlert.xml Additional sources: https://publiccontent-gis-psba-qld-gov-au.s3.amazonaws.com/content/Feeds/BushfireCurrentIncidents/bushfireAlert.xml https://publiccontent-gis-psba-qld-gov- au.s3.amazonaws.com/content/Feeds/BushfireCurrentIncidents/bushfireAlert_capau.xml https://publiccontent-gis-psba-qld-gov-au.s3.amazonaws.com/content/Feeds/BushfireCurrentIncidents/bushfireAlert.json
Northern Territory (NT) Police, Fire and Emergency Services (PFES):
https://www.pfes.nt.gov.au/incidentmap/json/incidents.json

Attachment F - AAA GCD Rollover or Replacement

F.1 Overview

Software Providers who provide the Automated Airspace Authorisation (AAA) trial service must understand the updated processes for handling both planned rollovers and unplanned replacements of Grid Cell Definition (GCD) files. These files enable safe operation of unmanned aircraft in controlled and restricted airspace, particularly within 3 NM of controlled aerodromes. Responsibilities of Software Providers:

- Monitoring for Updates: Developers must monitor the RPAS Platform for notifications about planned rollovers or unplanned replacements of GCD files.
- Implementation of Updates: Applications must integrate new GCD files promptly, and no longer than within 24 hours, to ensure that airspace authorisation requests align with the most recent GCD file.
- Notification Management: Service providers should configure their systems to handle overlapping GCD files during the transition period, ensuring uninterrupted functionality for users.

These processes are critical for maintaining the safety and integrity of operations within controlled airspace. Adherence to these procedures supports the efficient management of planned and unplanned GCD updates, minimizing risks and ensuring compliance with regulatory requirements.

F.2 GCD Rollover

Planned rollovers occur when an existing GCD file reaches its scheduled expiry, and a new version is activated. Here's what that looks like:

- The scheduled expiry is defined in the valid_until field of the GCD file ensuring the date of an impending rollover in known in advance.
- The new GCD file will be validated and uploaded to the RPAS Platform prior to the existing file's expiry, ensuring a seamless transition.
- During the transition, there will be a temporary overlap of the active GCD files to allow Software Providers to update their systems and minimise operational disruptions of users.

As per authoritative data rule [ASD0060], if multiple concurrent and valid GCD files exist for the same airport or area, the drone safety app should display and use only the GCD file with the most recent valid_from date, provided that this date is in the past or present (i.e., it has already commenced). As a result:

- new authorisations must be made against the GCD file with the latest valid_from date
- existing authorisations, those issued prior to the new version's introduction, may remain so long as the original GCD that the authorisation was issued against remains in the system
- existing authorisations, those issued prior to the new version's introduction, must be cancelled where the original GCD that the authorisation was issued against has been removed from the system.

F.3 GCD Replacement

Unplanned replacements may occur due to changing conditions affecting safety, such as sudden changes in local air traffic patterns, aerodrome modifications, or other identified risks. Here's what that looks like:

- A new GCD file will be validated and immediately uploaded to the RPAS Platform.
- This will result in two overlapping GCD files within the platform until the previous file is deactivated through its removal from the RPAS Platform.

- During the transition, there will be a temporary overlap of the active GCD files to allow Software Providers to update their systems. This overlap will be only so long as to enable the transition and may create operational disruptions among users.

As per authoritative data rule [ASD0060], if multiple concurrent and valid GCD files exist for the same airport or area, the drone safety app should display and use only the GCD file with the most recent valid_from date, provided that this date is in the past or present (i.e., it has already commenced). As a result:

- new authorisations must be made against the GCD file with the latest valid_from date
- existing authorisations, those issued prior to the new version's introduction, may remain so long as the original GCD that the authorisation was issued against remains in the system
- existing authorisations, those issued prior to the new version's introduction, must be cancelled where the original GCD that the authorisation was issued against has been removed from the system.

Attachment G - AAA Checksum Procedure

G.1 Overview

Airservices requires all DSAs pulling a controlled aerodrome Grid Cell Definition (GCD) file from the RPAS Platform to complete a SHA512 hash check to ensure the integrity of the GCD files. This process confirms that the file has not been tampered with and matches the expected hash value Airservices has on record.

This process is to be completed within 24 hours of a new GCD file being pulled from the RPAS Platform.

G.2 Instructions

CASA recommends using Windows PowerShell to check the hash as follows:

1. Open Windows PowerShell as Administrator
   - Locate Windows PowerShell from the Start Menu or search bar.
   - Right-click on Windows PowerShell and select Run as Administrator.
   - Confirm any prompts for administrative access.
2. Ensure the File is in a local folder
   - Confirm the GCD file to be checked is located within the specified folder. The file should have a .json extension.
3. Navigate to the Local Folder in PowerShell
   - Use the cd (change directory) command to navigate to the folder containing the GCD file.

     Copy code

     ```
     cd C:\
     ```

   - Replace C:\ with the actual path if your file is stored in a different location.
4. Run the Hash Check Command
   - Execute the following command in PowerShell to generate a SHA-512 hash for the file:

     Copy code

     ```
     certutil -hashfile [filename].json sha512
     ```

   - Replace [filename] with the actual name of the GCD file (e.g., gcd_2024.json).

Please use the following email address to provide Airservices Australian the Checksum for the GCD files at controlled aerodromes.

iap@airservicesaustralia.com