

REMOTELY PILOTED AIRCRAFT SYSTEMS COMMERCIAL FILMING GUIDE

OVERVIEW

Film Victoria has developed this Guide for commercial filming using Remotely Piloted Aircraft Systems (RPAs, or drones) to assist councils, land managers and film production companies. This Guide covers:

- / RPAs and their use;
- / Civil Aviation Safety Authority (CASA) regulation framework including standard conditions for operating a drone and how to report a breach of the conditions;
- / the two commercial categories of RPA operation;
- / the role of councils and land managers in permitting land use for drone activity;
- / how film and television companies can work with drone operators;
- / flying exemptions and how they work; and
- / brief outline of the RPA notification requirements of other authorities.

This Guide provides a general overview of the types of issues users might consider when using RPAs for commercial filming. The content of this Guide is intended only to provide a summary and general overview. It is not intended to be comprehensive nor does it constitute advice on the use of RPAs. You should seek professional advice before relying on the content.

Drones are an emerging technology and the rules are evolving. Refer to CASA's website for up-to-date information: <https://www.casa.gov.au/operations/standard-page/rpa-resources-and-links>

RPAs and their use

Small battery powered multi-rotor helicopters fitted with a camera are the most common configuration for an RPA. RPAs can also include small fixed wing aircraft that enable longer flight times. On larger drones the camera, motors, props and batteries can all be tailored to the requirements and the environment they will operate in.

CASA Regulation Framework and Standard Operating Conditions

CASA is the Federal Government body that regulates Australian aviation safety. The rules outlining drone use are set out in the **Civil Aviation Safety Regulations 1998 - Part 101**. Once in the air the RPA is in the National Airspace regulated by CASA. All pilots, including recreational drone pilots are required to follow the CASA Standard Operating Conditions. Only Certified Operators and Pilots (as defined in the Regulations) can request exemptions to the Standard Operating Conditions.

The CASA Standard Operating Conditions for RPAs include the following requirements:

- / Only fly RPAs during the day and within unaided visual line of sight. *The RPA must be close enough for the pilot to see and maintain accurate flight and orientation e.g. not in fog, not behind trees.*
- / Do not fly higher than 120 metres above the ground level. *This is to keep RPAs below other aircraft.*
- / Keep the RPA at least 30 metres away from other people. *This is the exclusion zone for any person not involved with the safe operation of the drone.*
- / Do not fly RPAs over or near emergency operations or areas affecting public safety. *Absolutely no flying near police, fire services or search and rescue operations.*
- / Fly only one RPA at a time.
- / Keep the RPA at least 5.5 km from controlled aerodromes or helicopter landing sites (HLS)*.

**CASA certified operators may apply for an exemption to fly closer to controlled airports. Flying within 5.5km of a non-controlled (unmanned) aerodrome or HLS is possible if no aircraft are operating. Pilots must check CASA's website for advice on how to avoid the departure/approach paths.*

To check airspace restrictions in your area: *Can I Fly There?* <https://casa.dronecomplier.com/external>

Reporting breaches of the CASA Standard Operating Conditions

Anyone aware of commercial or recreational operators in breach of the standard operating conditions should report this via the CASA website. Safety breaches can only be investigated where there is sufficient evidence such as photos or video of the breach and the person controlling the drone. Details of the event must include the date, time, operator and circumstances. Fines of up to \$8,500 or limits on RPA licenses can be issued by CASA.

To report unsafe drone operations: <https://www.casa.gov.au/webform/report-unsafe-drone-operations>

Categories of Commercially Operated Drones

CASA recognizes two categories of commercially operated RPAs:

1. Under 2kg; and
2. Over 2kg.

Under 2kg – Operating in the Excluded Category



- / This category applies to simple commercial operation by a pilot such as a photographer.
- / Operation is allowed using the Standard Operating Conditions.
- / The person operating the drone needs to have an aviation reference number (ARN) issued by CASA and to inform CASA where they will be flying via the CASA website.
- / The take-off and landing exclusion zone will need to be approved by council or the relevant land manager unless the activity is entirely on private property.
- / In this category operators cannot ask for CASA exemptions such as flying near restricted airspace.

Over 2Kg – Operating with Remote Pilots License & Operator’s Certificate



- / This category applies to CASA licensed pilots and commercial drone operators who hold a **Remote Pilots License** and are employed by an organisation with an **RPA Operator’s Certificate**.
- / The pilot will have completed CASA approved training to be able to operate as part of the aviation environment and are responsible to CASA for their activities.
- / Only pilots and operators in this category can ask for exemptions or permissions from CASA for flying in restricted airspace such as at night or near airports. See Exemptions below for more details.
- / Aviation specific public liability insurances are required
- / Certification for drone types permitted to be used will be listed on the Operators and Pilots certificates.

To check if an Operator is certified, refer to the list of RPA operator certificate holders:
<https://www.casa.gov.au/rpa-operator-certificate-holders>

COUNCILS AND LAND MANAGEMENT AUTHORITIES

Local councils and land managers are only able to control or permit the landing and take-off space for an RPA. The operator must satisfy the council or land manager that an acceptable risk management process is in place before permission to establish the RPA work area for take-off and landing can be given.

Built up urban areas will generally have greater restrictions reflecting the possible risk to people and property. In less populous areas council or land managers may have fewer restrictions. For example, The City of Melbourne has strict requirements such as police notification before approving any land use for drone activities. An application to the City of Melbourne for use of public open space will include:

- / CASA RPA Operators certificate
- / CASA RPA Pilots certificate
- / Risk Management Plan
- / VHF Airband Radio License
- / Pedestrian Management Plan
- / Stakeholder notification
- / Operator's Public Liability Insurance
- / Aircraft Operations Plan including take off and land zone, exclusion zone and flight path

Under 2kg Excluded Category

If permission is sought to operate in the less regulated Excluded category, Film Victoria suggests that the applicant provides:

- / Their Aviation Reference Number;
- / Aviation specific insurance certificate of currency;
- / Risk management plan; and
- / Map of the filming area showing take-off and landing with the exclusion zone

Permit Resources

To assist council's in permitting RPAs, Film Victoria has created a pro-forma drone filming application and checklist. Also available are sample copies of aviation specific insurance, a CASA Operators Certificate and exclusion zone map. Please contact [Film Victoria](#) for these resources.

FILM & TELEVISION PRODUCTION

For television and film production, Film Victoria recommends using a CASA certified operator. The application for RPA land use should be supplied directly by the RPA operator to the council or land manager. A copy of this should be forwarded by the operator to the production's Location Manager or Production Manager.

If the drone activity is part of other filming, the production company should include an overview of this use within the standard filming permit. This would include a map indicating the RPA exclusion zone, times of operation and the operator's details.

EXEMPTIONS & RISK MANAGEMENT STRATEGIES

Applying for an Exemption – RPAS Operator and their Chief Remote Pilot

Only CASA licensed and certified operators can fly outside the Standard Operating Conditions. The Chief Remote Pilot of the RPA Operator authorises all flights for the drone company and is responsible for any exemptions. They are required to hold a valid Remote Pilot License or UAV Controllers Certificate or as issued by CASA for the type and rating of RPA being operated. Additional qualified Remote Pilots may then work under the Chief Pilot.

Exemptions and permissions from CASA are dependent on the risk management strategies tailored to the aircraft, location and local conditions and are derived from CASA's RPA Operational Procedures Library. The aim is to reduce risk to an acceptable level that is as low as reasonably practicable.

Examples of risk management strategies for operating at night

- / Radio listening watch to monitor aircraft movements on the air traffic frequencies
- / Lights on the drone to show position and orientation
- / Restrictions as to maximum flying height to ensure segregation in the airspace
- / Drone equipped with an active fail safe mode so that - if the data link is lost - it will safely land.

Examples of risk management strategies to have film crew within the 30 metre exclusion zone

Please note even with this exemption the RPA is not allowed closer than 15 metres to people.

- / Written informed consent from all cast and crew to be within the drone's area of operation
- / Safety supervisor and the pilot to rehearse the drone and actor movements
- / Prop guards and lower operating speed for the RPA
- / Safety spotters.

Examples of risk management strategies for operating over populous area

- / Smaller machine and lower operating speed
- / Redundant batteries, motors and propellers so aircraft can safely return to base even with multiple mechanical failures
- / Additional landing areas in case of emergency landing
- / Signage to alert public of drone operation
- / Traffic management or other appropriate planning

OTHER AUTHORITIES

Parks Victoria & Department of Land Water and Planning (DELWP)

Only CASA certified operators can apply for a permit to fly from Parks Victoria and DELWP managed land. All recreational RPAs are prohibited on these properties. RPA applications will take a minimum of 14 days to process.

During fire season no drones are permitted to operate in State and National Parks because of the danger to aircraft operating in fire suppression. All drones are banned at The Twelve Apostles Marine National Park because of the high risk to helicopter joy flights.

Department of Environment and Energy – Australian Government

Drones are prohibited from flying within 300 metres of marine animals such as whales and dolphins. Using RPAs near these protected species requires a research permit from this department.

VicRoads

VicRoads is a significant manager of state land via its control of declared roads. Only CASA certified operators can apply to fly from VicRoads controlled property. VicRoads will not grant permission for drone operations if the intent is to take footage of private property without written permission of the owner.

VicRoads strongly recommend applying for a road closure or traffic management if the flight of the aircraft and its exclusion zone will be over roadways.

Rail Operations - Metro Trains, V/Line, Yarra Trams and VicTrack

Recreational RPA operation is prohibited on/over or immediately adjacent to any public transport infrastructure and services or any PTV or VicTrack owned or managed property because of the potential to disrupt critical transport infrastructure & services.

Any RPA filming on/over or immediately adjacent to these properties requires a permit and only CASA certified operators can apply.

If authorised to operate RPAs on/over or immediately adjacent to any public transport infrastructure and services it is recommended that operators inform the relevant public transport authority/operator in advance via the email contact listed on their respective filming approval webpages.

Victoria Police & Notification of Filming

Victoria Police strongly recommend notifying their Film & Television Office of any planned RPA activity in areas that might cause public concern. This would include flying at a popular beach, sporting event, over a busy road or at a street festival.

Victoria Police Air Wing operate their helicopters in a variety of roles with special permission to fly significantly lower than other aircraft. This can put them in the same airspace as RPAs. Police notification

lets the Air Wing know if it is likely an RPA will be operating in an area. If an RPA operator is aware of Police or any Emergency Services helicopters operating nearby, they must land the aircraft.

Visit the Victoria Police Filming Notification [page](#) for more information on notifying police of filming activities.

LINKS AND RESOURCES

Civil Aviation Safety Authority (CASA)

Phone: 131 757

Web: [Drone-RPA Resources](#)
[Drone Flying](#)

Film Victoria – Marketing & Screen Production Attraction

Phone: (03) 9660 3262

Email: locations@film.vic.gov.au

[Screen Industry Code of Conduct](#)

A template for a drone activity permit and approval checklist is available from Film Victoria.

Victoria Police Film & Television Office

Phone: (03) 9247 3259

E: film.tv@police.vic.gov.au

Web: [Filming Notification](#)

VicRoads

Phone: (03) 9093 1486

Email: vicroadsfilming@roads.vic.gov.au

Web: [Event and Filming](#)

[Event and Filming FAQ](#)

Parks Victoria

Email: events@parks.vic.gov.au

Web: [Filming & Photography Application Guidelines](#)

V/Line

Web: [Filming and Photography Application](#)

Yarra Trams

Email: fenna.phu@yarratrams.com.au

Web: [Filming and Advertising Application](#)

Metro Trains

Email: filmandphoto@metrotrains.com.au

Web: [Filming and Photography Guidelines](#)