

13.02 Use of Remotely Piloted Aircraft Systems (RPAS) SOP

Section 1 - Purpose and Objectives

(1) This procedure provides guidance on the use of Remotely Piloted Aircraft Systems (RPAS) by CFA.

Section 2 - Scope

(2) This procedure applies to all CFA members.

Section 3 - Procedure

- (3) Remotely Piloted Aircraft Systems (RPAS) are used by CFA for a range of purposes such as aerial observation, search and rescue operations, infrared thermal imaging, vegetation management, mapping and aerial photography (including training and community events).
- (4) Using RPAS to support CFA operations may offer important benefits, however, Remotely Piloted Aircraft (RPA) can present significant safety concerns for emergency and land management agencies.
- (5) CFA is required to conduct RPAS operations in accordance with various regulations, agreements and procedures including, but not limited to:
 - a. Civil Aviation Safety Regulations 1998 (CASR), including CASR Part 101 Unmanned Aircraft and Rockets;
 - b. IAOP SO 4.05 Remotely Piloted Aircraft Operations;
 - c. CASA approved Remotely Piloted Aircraft Operator's Certificate (ReOC) (for RPAS operated internally by CFA as part of the CFA RPAS Program);
 - d. CASA approved CFA RPAS Operations Manual (for RPAS operated as part of the CFA RPAS Program);
 - e. other state and local government rules and regulations that may govern or limit the operation of RPAS.

General Requirements for Utilising RPAS

- (6) The safety of persons on the ground and in the air is the highest priority in planning and conducting any RPAS operation on behalf of CFA.
- (7) Any utilisation of RPA by CFA in association with any CFA operation or activity is considered to be "other than for the purposes of sport and recreation" for the application of CASA regulations and rules.
- (8) No CFA member, or any other person, is approved to engage or operate any RPA or model aircraft or to authorise any RPAS operation in association with any CFA activity, except in accordance with the procedures set out in this SOP.
- (9) No CFA member shall operate (pilot or control) any RPA or model aircraft in association with any CFA activity unless:

- a. The CFA member is operating as part of a CFA RPAS Unit established in accordance with the SOP 13.01 Establishment and Operation of RPAS Units; or
- b. The CFA member is operating under the direction of an external RPAS service provider, who is providing authorised RPAS services to CFA.
- (10) Any RPA that is owned or leased by CFA (including by any Brigade), or maintained by or at the direction of CFA, may only be operated as part of the specific CFA RPAS Program (that is, operated under the CFA's Remote Operating Certificate (ReOC)) unless otherwise specifically approved by the Deputy Chief Officer Operational Response and Coordination (DCO ORC).
- (11) If an RPA is required to support CFA fire or emergency operations, the Incident Controller should contact the State Duty Officer (SDO) via FireCom who will arrange for appropriate capability, as required, through either:
 - a. the CFA RPAS Program (provided by CFA RPAS Units); or
 - b. another Victorian emergency service with RPAS capability; or
 - c. a suitable commercial provider who is the holder of an appropriate ReOC, via the respective procurement procedures or contracts.
- (12) Engagement by CFA of any RPAS capability, other than those listed in clause 11 above must be, approved by the Deputy Chief Officer Operational Response and Coordination (DCO ORC), or their delegate.
- (13) If an RPAS capability is required for non-emergency operations (i.e. inspections, media, demonstrations, training etc.), the relevant CFA member is to contact the inbox rpas@cfa.vic.gov.au in the first instance to discuss available options.
- (14) Where RPAS are engaged or deployed to support fire and emergency incidents or planned burns, the operation must be integrated with the incident control arrangements in accordance with the procedures described in the respective IAOPs.

- (15) The Incident Controller must approve all RPA operations conducted at the incident.
 - a. All CFA members must take reasonable steps to minimise any noise or nuisance arising from RPA utilised on behalf of CFA where operationally practicable.
 - b. All CFA members should also consider the privacy of other CFA members, incident personnel and the members of the public when operating RPA and take reasonable steps to manage and protect this.

Specific Requirements for Utilising RPAS

- (16) Except where Australian Defence Force (ADF) resources are engaged, CFA will only utililise RPA that are operated under an appropriately endorsed Remote Operating Certificate (ReOC), and piloted by the holder of an appropriately endorsed RePL (Remote Pilot Licence).
- (17) Except where ADF resources are engaged, any operation of an RPA in association with any CFA operation or activity must be conducted in accordance with any conditions, limitations or endorsements set out on the Operator's ReOC and per all provisions of the Operator's RPAS Operations Manual.

- (18) Utilisation of any RPAS capability by CFA for fire and emergency operations (including those that involve partner agencies or conventional aircraft), or any other non-operational activity must be reported to the State Air Desk (via the phone number 1300 134 144) prior to operations commencing. The person dispatching the capability must ensure that these reports are made.
- (19) Where an RPA is deployed by CFA to a fire or emergency incident or planned burn, the RPA crew must have the capacity to monitor and communicate on aeronautical (VHF-AM) radio.
- (20) Where an RPA is deployed by CFA to a bushfire incident or planned burn, each member of the RPA crew must have completed Basic Wildfire Awareness or equivalent training.
- (21) An RPA must not be operated within 30 metres laterally of any person who is not directly involved in the control or navigation of the RPA, unless appropriate procedures are provided in the Operator's RPAS Operations Manual.

Note: Appropriate procedures usually involve seeking consent from affected persons, and in any case will not permit RPA to be flown within 15 metres laterally of a person. Persons being filmed or photographed – such as firefighters or members of the public – are not considered to be involved in the control and navigation of the RPA. Lateral distances are measured from the point on the ground directly below the RPA to the position of any person.

- (22) An RPA must not be operated within 500 feet (152.4 metres) vertically and 1500 meters horizontally of any airborne crewed aircraft unless approved explicitly by the Chief Remote Pilot of the Operator, or their authorised delegate, in accordance with procedures set out in the Operator's RPAS Operations Manual. Any such approval by a Chief Remote Pilot must be immediately conveyed to the State Air Desk.
- (23) CFA is required to conform with legislation regarding the use of surveillance technology and the protection of privacy. Breaching of privacy requirements, or unauthorised or accidental disclosure of images or data collected by RPAS, presents a significant risk to CFA. Any CFA member engaging, dispatching, utilising, supporting or operating an RPAS must take all reasonable precautions to ensure appropriate ownership of imagery and data, and must not disclose any acquired information or data outside of the chain of command.
 - a. Any footage captured by RPA should be stored in an authorised CFA database.
 - b. Stored RPA footage should only be accessible to those with the necessary authority, approval from the Aviation Commander should be sought if access to the footage is requested.

CFA RPAS Program and CFA RPAS Units

- (24) CFA Brigades may operate an RPAS capability, through the CFA RPAS Units. This is known as the CFA RPAS Program. For this Program, CFA RPAS Units provide RPAS services under CFA's Remote Operating Certificate (ReOC) using RPA that are owned or leased by CFA and are maintained by (or under the direction of) CFA.
- (25) Procedures for the provision of RPAS capability by the CFA RPAS Program and for the establishment of CFA RPAS Units are detailed in CFA SOP 13.01 Establishment and Operation of RPAS Units.

Other Related Requirements

- (26) If a CFA member encounters or observes an unauthorised RPA operation and has reason to believe that it has not been previously reported, this must be conveyed without delay to the Incident Controller through the chain of command.
- (27) If CFA members are approached by a member of the public or an organisation wishing to operate an RPA, or offering to provide RPAS services over or near an emergency incident or planned burn, or any other CFA activity,

members must not accept any service and must not provide consent to operate.

Safety Note

- (28) Piloting and flying RPA must not be conducted in a manner that may create a hazard to other aircraft operations, property or people.
- (29) Any person operating an RPA on behalf of CFA must be fit for duty. Anything that could impair an individual's ability to pilot and control the RPA (e.g. illness or injury) should be reported to the CFA member who engaged the RPA; or in the case of members of CFA Brigades that host RPAS Units, to the CFA Chief Remote Pilot or a Senior Remote Pilot.
- (30) The environmental conditions under which CFA often operates (e.g. high winds, poor visibility, changing conditions) mean that there may be an elevated risk of safety incidents involving RPA. Care must be taken by all personnel involved in operating and supporting RPAS to continuously monitor the operating environment and to ensure an appropriate level of safety.
- (31) Remote Pilots operating RPA on behalf of CFA may refuse any RPA assignment or tasking that they believe cannot be completed with an appropriate level of safety.

Environmental Note

(32) Nil.

Section 4 - Definitions

Commonly defined terms are located in the CFA centralised glossary.

Section 5 - Related Documents

Civil Aviation Safety Regulation Part 101 Unmanned Aircraft and Rockets

IAOP SO 4.05 Remotely Piloted Aircraft Operations

Status and Details

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Responsible Officer	Garry Cook Deputy Chief Officer Operational Response & Coordination
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Glossary Terms and Definitions

"CFA member" - Refers to all CFA volunteers, volunteer auxiliary workers, officers, employees and secondees.

"**Incident Controller**" - The individual designated by the control agency to have overall management of the incident and who is responsible for all incident activities.

"FireCom" - The callsign for day to day / normal radio communications to CFA vehicles and aircraft.

"Chief Remote Pilot" - The Chief Remote Pilot is responsible for safely managing the Remotely Piloted Aircraft operations of CFA.

"Senior Remote Pilot" - Senior Remote Pilots are designated by the Chief Remote Pilot and must be existing Remote Pilots within CFA. They are responsible for all operational matters when authorised by the Chief Remote Pilot.

"Remotely Piloted Aircraft (RPA)" - An aircraft where the pilot flying is not on board the aircraft.

"Aviation Commander" - Commander rank, Manager CFA Aviation.

"IAOP" - Interagency Aviation Operating Procedures

"CASA" - Civil Aviation Safety Authority

"Remotely Piloted Aircraft Systems (RPAS)" - A set of configurable elements consisting of a remotely piloted aircraft, its associated remote pilot station (or stations), the required command and control links and any other system elements as may be required at any point during the operation of the aircraft.