

13.01 Establishment and Operation of RPAS Units SOP

Section 1 - Purpose and Objectives

(1) This procedure provides guidance on CFA's program for the operation of Remotely Piloted Aircraft Systems (RPAS) and sets out the guidelines for training and response for CFA Brigades that host Remotely Piloted Aircraft Systems (RPAS).

Section 2 - Scope

- (2) This procedure applies to all CFA members participating in the CFA Remotely Piloted Aircraft Systems (RPAS) Program. The CFA RPAS Program covers RPA that are operated under the CFA's Remote Operating Certificate (ReOC) using RPA that are owned or leased by CFA Brigades and are maintained by (or under direction of) CFA.
- (3) General procedures for utilisation of RPAS by CFA are provided in 13.02 Use of Remotely Piloted Aircraft Systems (RPAS) SOP.

Section 3 - Procedure

- (4) This SOP establishes a Program to provide RPAS capability using Remotely Piloted Aircraft (RPA) that are owned or leased by CFA Brigades.
- (5) Unless otherwise specifically approved by the Deputy Chief Officer Operational Response and Coordination (DCO ORC), 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 CFA RPAS Program.
- (6) Operating RPA under the CFA RPAS Program imposes significant legal obligations and additional accountabilities and responsibilities on CFA.
- (7) CFA is required to conduct RPAS Program operations in accordance with various regulations, agreements and procedures including, but not limited to:
 - a. <u>Civil Aviation Safety Regulations 1998</u> (CASR), including CASR Part 101 Unmanned Aircraft and Rockets, and its associated CASR Part 101 Manual of Standards;
 - b. CASA approved Remotely Piloted Aircraft Operator's Certificate (ReOC);
 - c. CASA approved CFA RPAS Operations Manual;
 - d. IAOP SO 4.05 Remotely Piloted Aircraft Operations, and other IAOPs;
 - e. other state and local government rules and regulations that may govern or limit the operation of RPAS.

CFA RPAS Units

(8) This SOP authorises the establishment of organisational units known as CFA RPAS Units to provide CFA-operated

RPAS services as part of the CFA RPAS Program. CFA RPAS Units hosted by Brigades maintain responsibility for RPA and associated equipment, arrange maintenance and arrange for the operation of the RPA and provision of RPAS services in accordance with the CFA RPAS Operations Manual.

- (9) Operation of RPA under the CFA ReOC may only be conducted by an approved CFA RPAS Unit.
- (10) CFA Brigades who wish to host RPAS must be approved by the Deputy Chief Officer Operational Response and Coordination (DCO ORC), on the recommendation of the Aviation Commander.
- (11) Approved RPAS Units are listed in Schedule 1.

General Considerations - Response and Deployment of CFA RPAS

Pre-Flights Requirements

- (12) Prior to RPAS being deployed, all proposed operations (including all training flights) must be approved by the Chief Remote Pilot or their delegate in accordance with the CFA RPAS Operations Manual.
- (13) RPAS operations must be re-approved if there are any changes to:
 - a. RPAS;
 - b. date/time of operation;
 - c. location;
 - d. the crew.
- (14) Before each RPA flight, an inspection of the aircraft must be undertaken, and any defects noted in the RPAS Technical Log and reported to the Maintenance Controller.
- (15) When RPA are being flown with more than one person present as part of the RPAS operating and support crew, the Remote Pilot must conduct a briefing that outlines the plan for the operation, emergency procedures, specific site hazards and the crew's roles and responsibilities.

Response and Deployment of CFA RPAS - Fire and Emergencies

- (16) CFA RPAS Units hosted by Brigades are expected to maintain capacity within their relevant response area to deploy a minimum of one RPA at all times (unless approved by the Aviation Commander), to ensure operational capacity is maintained.
- (17) RPAS Units should drive under Code 3 conditions to an incident, unless otherwise approved by the State Duty Officer (SDO), District Duty Officer (DDO) or Incident Controller.
- (18) For fire and emergency incidents, a minimum of one qualified Remote Pilot and one observer are to be dispatched. If the RPAS requirement is expected to continue beyond the first day, two qualified Remote Pilots are to be dispatched.
- (19) When deployed to fire and emergency incidents, RPAS Unit personnel must be integrated into the Australasian Inter-Service Incident Management System (AIIMS) structure:
 - a. at incidents where there is no Aviation Unit established, the RPAS crew reports directly to the Incident Controller;
 - b. at incidents where crewed aircraft are present, the RPAS crew is to report to the Aircraft Officer.

Note: for more information, IAOP SO 4.05 provides further guidance on AIIMS integration.

(20) Integration into the AIIMS structure at fire and emergency incidents does not override any requirements of the CFA RPAS Operations Manual, including those regarding approval of RPA operations.

Response and Deployment of RPAS - Non-Emergency

(21) When deployed to non-fire and emergency events (e.g. planned activities such as hazard assessment, aerial photography demonstrations, training, and media opportunities), two qualified Remote Pilots are to be dispatched, unless otherwise approved by the Chief Remote Pilot or a Senior Remote Pilot.

Training and Skills Maintenance

(22) The following training is the minimum required to acquire and maintain endorsement as a Remote Pilot in the CFA RPAS Program:

Requirement	Training
Pre-requisite	General Firefighter (GFF)* *The Chief Officer may on a case by case basis may wave or substitute this requirement.
Initial RPAS Training (CASA requirements)	CASA 5-day sub 25kg aircraft course (including the aeronautical radio operator course).
Initial RPAS Training (CFA requirements)	Two-day piloting course with the Chief Remote Pilot and/or the Senior Remote Pilot (to the syllabus provided in the CFA RPAS Operations Manual). CFA RPAS Operations additional familiarisation training (refer to CFA RPAS Operations Manual). The member must also pass the CFA Operational Assessment.
Ongoing skills maintenance requirements	CASA currency requirements as detailed in CFA RPAS Operations Manual (generally 30 minutes of flight time every 90 days in the type or class of operation). Other skills maintenance and familiarisation as required from time to time by the Chief Remote Pilot.

(23) The Deputy Chief Officer - Operational Response and Coordination (DCO ORC) may detail additional training or skills maintenance requirements in addition to minimum requirements.

Roles and Responsibilities

(24) Key responsibilities within the CFA RPAS Program are as follows:

Role	Responsibility
Deputy Chief Officer - Operational Response and Coordination (DCO ORC)	 Program oversight. Overall ongoing safety and corporate compliance of the Program. Program resourcing. Designated as Chief Executive Officer (RPAS-CEO) for regulatory purposes (incumbent is subject to approval by CASA). Ensure compliance with regulatory and legislative requirements through audit and assurance programs.

Role	Responsibility
Aviation Commander	 Implementation of CFA RPAS Program in accordance with all regulatory and legislative and CFA corporate requirements. Ensures that RPA operations are conducted in accordance with local, state and civil aviation laws and regulations. Assesses potential RPAS Units for suitability and recommends approval. Undertakes audit and assurance programs under the direction of the DCO ORC.
Chief Remote Pilot	 Responsible for safely managing the RPAS operations of CFA. Ensures that RPA operations are conducted in accordance with civil aviation laws and regulations, the CFA ReOC and the CFA RPAS Operations Manual. Provides approvals and permissions where required to facilitate CFA RPAS operations. Maintains and approves CFA RPAS Operations Manual. Ensures that all CFA members piloting RPA are appropriately qualified. Manages and maintains administrative documents, manuals and procedures. Reviews scheduling and rostering of the RPAS Unit members and manages fatigue requirements. Reviews and audits compliance and facilities.
Deputy Chief Remote Pilot	 Ensures that RPA operations are conducted in accordance with civil aviation laws and regulations. Provides approvals and permissions where required to facilitate CFA RPAS operations. Ensures the Chief Remote Pilot is informed of all matters relating to the above. Helps select, review and mentor Senior Remote Pilots. Assists the Chief Remote Pilot with administrative duties. Deputises for the Chief Remote Pilot when required and as approved.
Senior Remote Pilot	 Manages tasks on behalf of the Chief Remote Pilot. Ensures all Remote Pilots are following the correct procedures and checklists for their authorised tasks. Reports any safety or compliance issues as soon as practicable to the Chief Remote Pilot and Maintenance Controller. Acts in the role of Deputy Chief Remote Pilot when required and as approved. Provides approval and permission when delegated by Chief Remote Pilot or Deputy Chief Remote Pilot.
CFA Remote Pilots	 Conducts flights in accordance with all requirements of the CFA RPAS Operations Manual and CFA SOPs. Enables the safe operation of RPA in a way that does not pose a threat to people, property or other aircraft.

Note: other roles and responsibilities in relation to the CFA RPAS Program are described in the CFA RPAS Operations Manual.

Safety Note

- (25) Piloting and flying RPA must not be conducted in a manner that may create a hazard to other aircraft operations, property or people.
- (26) 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 Aviation Commander and the member should not operate the aircraft.
- (27) CFA members operating RPAS must ensure they are undertaking a Dynamic Risk Assessment to ensure an appropriate level of safety.
- (28) The environmental conditions under which CFA often operates (e.g. high winds, poor visibility) mean that there may be an elevated risk of safety incidents involving RPA.

(29) 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

(30) Nil.

Section 4 - Definitions

Commonly defined terms are located in the CFA centralised glossary.

Section 5 - Related Documents

CFA Remotely Piloted Aircraft Operator's Certificate

CFA (CASA approved) RPAS Operations Manual (as amended from time to time)

Civil Aviation Safety Regulation Part 101 Unmanned Aircraft and Rockets

Civil Aviation Safety Regulation Part 101 Manual Of Standards

IAOP SO 4.05 Remotely Piloted Aircraft Operations

IAOP AM 1.05 - Management of Aircraft at Incidents

IAOP FO 2.04 - Operational and Flight Planning

Section 6 - Schedule 1:

Approved CFA RPAS Units

Approved CFA RPAS Units are hosted by:

Brigade/Department Name	Address
Edithvale Fire Brigade	206 Station St, Edithvale VIC 3196
Rowville Fire Brigade	1063 Wellington Rd, Rowville VIC 3178
CFA Headquarters	8 Lakeside Drive, Burwood East VIC 3151

Status and Details

Status	Current
Effective Date	11th April 2025
Review Date	11th April 2026
Approval Authority	Chief Officer
Approval Date	11th April 2025
Expiry Date	Not Applicable
Accountable Officer	Jason Heffernan Chief Officer
Responsible Officer	Garry Cook Deputy Chief Officer Operational Response & Coordination
Author	Emma Pollard Policy and Doctrine Coordinator
Enquiries Contact	Operational Response and Coordination

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.

"Dynamic Risk Assessment" - The continuous assessment and control of risk in the rapidly changing circumstances of an operational incident. DRA is an intuitive thought process and is typically not recorded.

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

"Maintenance Controller" - The Maintenance Controller is responsible for ensuring that CFA's operating Remotely Remotely Piloted Aircraft Systems are properly maintained.

"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.

"Remote Pilot" - The person who manipulates the flight controls of a Remotely Piloted Aircraft, or who initiates and monitors the flight, and is responsible for its safe conduct during flight time.

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

"Deputy Chief Remote Pilot" - The Deputy Chief Remote Pilot is appointed by the Aviation Commander on the recommendation of the Chief Remote Pilot. The Deputy Chief Remote Pilot must be an existing Senior Remote Pilot (SRP) to ensure they have a high level of competency with operating on the Remotely Piloted Aircraft Operator's Certificate or qualify as a Senior Remote Pilot prior to taking up the position of Deputy Chief Remote Pilot. This role allows operations to continue during periods of high workload for the Chief Remote Pilot and they can also be selected to stand in for the Chief Remote Pilot when the Chief Remote Pilot is not contactable or on leave.

"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.