

Key Risk Area (KRA)

KRA 1.11 Remotely Piloted Aircraft (RPA)(Drone) Operations

1. Purpose

This document provides guidance on how the University ensures that Remotely Piloted Aircraft (RPA) (Drone) activities undertaken by the University meet the duty of care to ensure, so far as is reasonably practicable, the health and safety of persons participating in, observing or otherwise affected by such activities.

2. Scope

This Guideline applies to all health, safety and wellbeing activities of staff, students, visitors (including volunteers and contractors), Council members, and other persons interacting with the University of Newcastle (workers); the operations of staff of University aligned Research Centres and controlled entities; and all activities conducted by or on behalf of the University of Newcastle on and outside of the University's campuses.

3. Guidelines

3.1 Regulatory requirements

The Civil Aviation Safety Authority (CASA) regulate the activities of RPAs (drones) in Australia. This regulation includes the following activities: Registration of RPAs; accreditation and certification of operators; issuing of exemptions or authorisation of approvals; and development, review and implementation of the requirements.

As per the *Civil Aviation Safety Regulations 1998* Subpart 101.023, operating an RPA (drone) "for the educational, training or research purposes of a higher education provider within the meaning of the *Higher Education Support Act 2003*" (of which the University of Newcastle is confirmed) is considered 'recreational flight'. Under this rule, University operations do not require the Remote Operators Certificate (ReOC) of commercial flight operations performed for reward or monetary compensation.

However, there are health and safety standards that must be met to ensure that our drone activities are risk assessed, that Standard Operating Procedures (SOP) are in place as

methodologies for the use of such equipment, that drone operators can demonstrate competency with drone use and that the accreditation requirements are met.

3.2 University Mandatory Requirements

The following accreditations and/or documentation are mandatory before any RPA flight operation can be reviewed via the [Safety Review Protocol](#) process with the Health, Safety and Wellbeing team and operations be insured.

Please see Appendix 1 for a flow diagram of the below mandatory requirements.

3.2.1 Indoor RPA operations

Operation of drones indoors is not regulated by CASA, however these operations are governed by other legislation such as the NSW Work Health and Safety Act and the Privacy Act and these activities must be risk assessed to ensure the safe operation of this equipment.

The requirements for indoor RPA operations are:

- Request to be added as a user to the [RPA SharePoint](#). Registration of the RPA details (including brand, model, serial number etc) in the University [RPA Register](#).
- Complete a UoN Health and Safety Risk assessment.
- Review the example Standard Operating Procedure (document pending) on the RPA SharePoint and amend as necessary for the operations. Ensure that all crew have reviews and signed the SOP.
- Submit a Safety Review Protocol with the Risk Assessment and SOP attached for review by the Health, Safety and Wellbeing Team. Ensure approval is confirmed before commencing any activities.

3.2.2 Outdoor RPA Operations (≤2kg payload)

Operation of drones outdoors is regulated by CASA with University activities falling in the 'recreational' category. For smaller RPAs, less than or equal to 2kg weight including the payload, there are two different requirement pathways. See Appendix 1.

Within Standard Operating Conditions (referenced in Appendix 1), activities and potential complications are considered lower risk. The requirements are:

- Apply to [CASA](#) for an Aviation Reference Number (ARN) via myCASA and register the RPA in your account.

- Obtain a CASA [Remotely Piloted Aircraft Operator Accreditation](#)
- Request to be added as a user to the [RPA SharePoint](#). Register your ARN, level of accreditation and the RPA details (including brand, model, serial number etc) in the University [RPA Register](#).
- Complete the Verification of Competency (VOC) assessment (document pending) with a University worker who holds a Remote Pilot Licence (RePL). Upload the completed VOC to the RPA SharePoint.
- Complete a University Health and Safety Risk Assessment.
- Review the example Standard Operating Procedure on the RPA SharePoint and amend as necessary for the operations. Ensure all crew members have read and signed the SOP.
- Complete an RPA Flight Plan. See Appendix 2.
- Submit a Safety Review Protocol with the Risk Assessment, flight plan and SOP attached for review by the Health, Safety and Wellbeing Team.

Outside Standard Operating Conditions, activities and potential complications are considered higher risk. See Section 3.3.3 for examples. The requirements are:

- Apply to [CASA](#) for an Aviation Reference Number (ARN) via myCASA and register the RPA in your account.
- Obtain a Remote Pilot Licence from a registered training organisation (Ensure the Aeronautical Radio Operators Certificate is included)
- Request to be added as a user to the [RPA SharePoint](#). Register your ARN, level of accreditation and the RPA details (including brand, model, serial number etc) in the University [RPA Register](#).
- Complete a [Model aircraft model flight authorisation area approval](#) through CASA as the regulatory body. Additional documentation will be requested by CASA including the Form 1589 Airspace Risk Assessment. All communication will be directly with CASA.
- Review the example Standard Operating Procedure on the RPA SharePoint and amend as necessary for the operations. Ensure all crew members have read and signed the SOP.
- Submit a Safety Review Protocol with a copy of the CASA flight authorisation approval with all supporting documents including the Airspace Risk Assessment, and an SOP attached for review by the Health, Safety and Wellbeing Team.

3.2.3 Outdoor RPA Operations (≥2kg, ≤25kg payload)

See Appendix 1.

Within Standard Operating Conditions, the requirements of operating this size of drone are:

- Apply to [CASA](#) for an Aviation Reference Number (ARN) via myCASA and register the RPA in your account.
- Obtain a Remote Pilot Licence from a registered training organisation.
- Request to be added as a user to the [RPA SharePoint](#). Register your ARN, level of accreditation and the RPA details (including brand, model, serial number etc) in the University [RPA Register](#).
- Complete a UoN Health and Safety Risk assessment.
- Review the example Standard Operating Procedure on the RPA SharePoint and amend as necessary for the operations. Ensure all crew members have read and signed the SOP.
- Complete an RPA Flight Plan
- Submit a Safety Review Protocol with the Risk Assessment, flight plan and SOP attached for review by the Health, Safety and Wellbeing Team.

Outside Standard Operating Conditions, the requirements of operating this size of drone are:

- Apply to [CASA](#) for an Aviation Reference Number (ARN) via myCASA and register the RPA in your account.
- Obtain a Remote Pilot Licence from a registered training organisation (Ensure the Aeronautical Radio Operators Certificate is included)
- Request to be added as a user to the [RPA SharePoint](#). Register your ARN, level of accreditation and the RPA details (including brand, model, serial number etc) in the University [RPA Register](#).
- Complete a [Model aircraft model flight authorisation area approval](#) through CASA as the regulatory body. Additional documentation will be requested by CASA including the Form 1589 Airspace Risk Assessment. All communication will be directly with CASA.
- Review the example Standard Operating Procedure on the RPA SharePoint and amend as necessary for the operations. Ensure all crew members have read and signed the SOP.
- Submit a Safety Review Protocol with a copy of the CASA flight authorisation approval with all supporting documents including the Airspace Risk Assessment, and an SOP attached for review by the Health, Safety and Wellbeing Team.

3.2.4 Outdoor RPA Operations (≥25kg)

See Appendix 1

Whether operating within OR outside of Standard Operating Conditions, the requirements of operating this size of drone are:

- Apply to [CASA](#) for an Aviation Reference Number (ARN) via myCASA and register the RPA in your account.
- Obtain a Remote Pilot Licence from a registered training organisation (Ensure the Aeronautical Radio Operators Certificate is included)
- Request to be added as a user to the [RPA SharePoint](#). Register your ARN, level of accreditation and the RPA details (including brand, model, serial number etc) in the University [RPA Register](#).
- Complete a [Model aircraft model flight authorisation area approval](#) through CASA as the regulatory body. Additional documentation will be requested by CASA including the Form 1589 Airspace Risk Assessment. All communication will be directly with CASA.
- Review the example Standard Operating Procedure on the RPA SharePoint and amend as necessary for the operations. Ensure all crew members have read and signed the SOP.
- Submit a Safety Review Protocol with a copy of the CASA flight authorisation approval with all supporting documents including the Airspace Risk Assessment, and an SOP attached for review by the Health, Safety and Wellbeing Team.

3.2.5 University ARN

The University of Newcastle holds an Aviation Reference Number (ARN). The ARN is 224496 and this should be used whenever there is correspondence between the University of Newcastle and the Civil Aviation Safety Authority. Do not link this ARN however to your personal ARN as it is already associated with the Health, Safety and Wellbeing Team for ownership.

Note: A separate ARN is required for each individual RPA used for university activities. Once obtained the registration details should be added to the University RPA register.

3.2.6 Additional permissions

Depending on the location of the planned RPA operation, additional permissions may be required. Ok2Fly is an excellent resource for such information (See Section 3.3.1). Permissions can include National Parks and Wildlife, forest reserves, council specific restrictions or restricted airspace. It is also important to check the state or territory laws and/or guidelines for the planned flight location.

3.3 RPA operations and risk management

Unless operating outside of the CASA defined Standard Operating Conditions, a general risk assessment must be undertaken utilising the University Health and Safety Risk Assessment form.

Example indoor flight considerations include:

- The drone must not be able to escape the building. The closing of doors, partitioning of areas and/ or netting may be considered.
- The drone must not be flown within 30m of people who are not directly associated with the drone operations. The flight area should be signposted.
- The drone must not be flown in a way that could cause injury or harm to people, plant or equipment.
- The drone (and/or its software) should be equipped with a Fail-Safe feature or a kill switch in the case of emergency.

Example outdoor flight considerations include:

- Weather is it within the limits for the RPA and its operation. What contingencies are in place for adverse weather.
- Ability to maintain 30m distance from the public.
- Physical hazards (buildings, trees etc)
- Level of experience/ confidence. If this is low, consider the assistance of an observer.
- Ability to maintain Visual Line of Sight (VLOS) due to obstacles.
- Suitable take off/ landing areas.
- Planned altitude and max altitude.
- Ability to engage fail safe mode and make an emergency landing.
- Unexpected interactions with wildlife
- Electrical/ mechanical/ data link failure of equipment
- Distractions
- Local emergencies

3.3.1 RPA Flight plan

See an example and template in Appendix 2

In order to complete the RPA Flight plan submitted with the Safety Review Protocol for flights within the Standard Operating Conditions, it is recommended to use [OK2Fly](#).



OK2Fly is a free CASA verified drone safety website and app that produces highly informative, interactive maps of a planned flight area at the planned flight time, outlining whether you can or cannot fly, area restrictions, local landmarks including nearby airfields and heliports.

Choose the recreational pilot type in Settings along with any other specifics and screenshot the page for use in the RPA Flight Plan. The flight path or planned area can then be overlaid.

With some projects, the specific flight paths will not be known in advance, so it is recommended to provide as much location information, including variable locations, as possible in the RPA flight plan to submit with the Safety Review Protocol. This will ensure that all possible restrictions, permissions and safety considerations have been comprehensively identified.

Where RPA operations change during the progress of a Project, a variation to the Safety Review Protocol with updated RPA Flight Plan must be submitted for review.

3.3.2 Verification of competency

An RPA operator that intends to fly a drone less than or equal to 2kg payload within Standard Operating Conditions is required by The University of Newcastle to obtain the CASA Remote Pilot Operator Accreditation. This is a free online course that ensures all RPA operators demonstrate understanding of CASA rules for safe operation of drones in Australia.

In order for this RPA operator to demonstrate competency to operate within this category and meet University health and safety requirements, an internal verification of competency assessment must be completed.

The verification of competency (document pending) is a series of questions and practical skill demonstrations that must be completed by the RPA operator who can reference the RPA Operations manual (document pending) and any available Standard Operating Procedures.

The verification of competency must be observed, assessed and verified by a University worker who holds a current Remote Pilots Licence (RePL). It is recommended to complete the practical skills with the RPA that will be used for operations.

The completed VOC must be uploaded to the RPA SharePoint and will be checked by the HSW team upon receipt of a Safety Review Protocol.

3.3.3 Operation within 5.5km of a non-controlled aerodrome/ heliport

A drone may be operated within 5.5 km of a non-controlled airport or helicopter landing site (e.g., Westpac helicopter base within proximity of Callaghan Campus) if:

- there are no crewed aircraft flying in the area.
- You see any crewed aircraft flying to or from the airport or helicopter landing site you land as safely as possible.
- You stay outside the airfield boundary.

For such flights it is recommended to have an observer to watch for crewed aircraft in the area during the RPA operations.

3.3.3 Flights outside of Standard Operating Conditions:

You must apply to CASA for permission to operate in the following conditions which are considered outside of Standard Operating Conditions:

- Above 120m (400ft) AGL
- Within 5.5km (3nm) of a controlled aerodrome
- An RPA weighing more than 25kg.
- Within restricted airspace (includes Sydney Harbour)
- Over the movement area of a non-controlled aerodrome
- Beyond Visual Line of Site (BVLOS) operations including flying at night

All RPA operators at the University of Newcastle that intend to operate outside of Standard Operating Conditions require the training, technical competency assessment and risk awareness that is provided in the Remote Pilot Licence. Additionally, an Aeronautical Radio Operator Certificate (AROC) is required by anyone who needs to communicate on an aviation air-band radio frequency as part of safe flight practice. It is recommended to complete the AROC certificate with the RePL.

In preparing a flight application, the RPA pilot intending to operate outside of Standard Operating Conditions must utilise the [Form 1589 Airspace Risk Assessment](#) as required by CASA.

3.3.4 Emergency procedures

A drone must never be flown during emergencies unrelated to RPA activities as this can cause a major safety hazard to response teams in the air and on the ground. Do not fly a drone during natural disasters such as bushfires or electrical storms or during emergency operations such as traffic accidents. Check the local emergency services authority for the latest updates and warnings in a location.

During operation of a drone, unforeseen circumstances and emergencies can happen. These can include unexpected hazards such as wildlife, mechanical or electrical failure of the equipment, and collision.

Any RPA operated must be equipped and operated with an active fail safe (back to base) mode that will ensure the in the case of a data-link loss with the RPA or any loss of control, the RPA will:

- Adjust altitude to a minimum safe level to provide obstacle clearance and minimum potential for collision, in any case not above 400ft/ 120m AGL.
- Transit to a predefined safe landing or flight termination area and
- Land or otherwise terminate the flight.

In any case action should be taken to reduce any further damage or injury to person, wildlife or property. If possible, the RPA should be brought down immediately in a safe area and/ or recovered if safe to do so.

First aid shall be given to treat any injuries received and transport to medical assistance shall be made if necessary.

Where equipment failure has occurred, the RPA should be tagged with an 'Out of Service' tag until it can be serviced, and any identified issues rectified.

An incident report shall be made using the University Incident reporting system.

Emergency procedures are detailed further in the UoN RPA Operations Manual

3.3.5 Preflight operational checks and safety briefing

An important safety precaution prior to any organised RPA activity is a preoperational check of the plan, location, risk assessment and equipment. This check will aid the operator and crew in identifying any challenges or alternatives that must be considered prior to launch to ensure a safe and successful operation.

A preflight operational check should include the following as a minimum:

- Overview of mission as planned and its suitability, time and duration.
- Weather assessment (for outdoor flights)
- Location assessment
- Hazard awareness and risk control measures in place
- Ensure the crew is carrying a copy of the approved Safety Review Protocol as well as any permissions or authorisations.
- Equipment checks- e.g., props, battery, battery life, load check. Refer to the RPA User manual.
- Software check – ensure the app has been correctly configured prior to launch including Fail-safe altitude. Calibrate the compass as per the RPA User manual.
- Check aeronautical radio communication and equipment (if applicable)

In addition to preflight checks, a safety briefing on site should be provided to crew before launch. This should involve as a minimum:

- Discussing the flight plan and duration and any activities to be performed
- Identification of any associated hazards and risks. Any specific tasks for crew members (such as person tasked with keeping observers from straying into area of operation)
- Discussing emergency procedures
- Identification of a safe zone
- Action to be performed following an incident.
- How the pilot and/ or observer will communicate any problems or corrections
- If applicable, aeronautical radio communication information

3.3.6 Maintenance

RPA's must be maintained as per the manufacturer's guidelines. Maintenance includes visual inspections, correct battery maintenance, charging and storage and correct RPA storage and transport. Maintenance records should be kept for each RPA.

See the RPA Operations manual for further information.

3.3.7 Incident management

In the event that an incident or near miss occurs during an RPA operation, following any immediate incident response and once the situation has been made safe, all details should be fully recorded on site. These details should include for example, date and time, location

information, nature of incident, personnel involved, and actions taken. See [HSG 5.1 Health, Safety and Wellbeing Event Notification](#) and Investigation for further information.

The RPA operator must enter the details of the incident or near miss into the University's [All Incident Management System \(AIMS\)](#).

A debrief of the incident should be performed with the crew of the operation, or in the absence of a crew, with a supervisor. Debriefing allows for the root cause of the incident or near miss to be identified and discussed, along with contributing factors and preventative future actions for similar RPA activities.

4. Definitions

In the context of the Health and Safety Management System Framework:

AGL	Above ground level
ARN	Aviation Reference Number issued by CASA upon registration of the RPA. (A separate ARN is required for each individual RPA used for university activities. The University of Newcastle has an ARN which can be referenced if requested as part of a registration, however this number is linked to the account of a member of the HSW team).
AROC	Aeronautical Radio Operators Certificate
As safely as possible	In relation to the landing of an RPA as soon as safely possible, refers to the safety of people, manned aircraft and property other than the RPA itself
ATC	Air traffic control
BVLOS	Beyond visual line of sight where the RPA in flight can no longer be seen by natural sight of the operator, includes flying at night
CASA	Civil Aviation Safety Authority
CASR	Civil Aviation Safety Regulations
Controlled Aerodrome	An aerodrome at which air traffic control service is provided to aerodrome traffic
Employer	Means the University of Newcastle (the University).
Executive Committee	Consisting of the Vice-Chancellor, the Deputy Vice-Chancellors, the Pro Vice-Chancellors, the Chief Operating Officer, Chief People and Culture Officer and the Chief Financial Officer, the University Secretary and the President of Academic Senate.
Leader / Supervisor	Any member of the University who is responsible for supervising staff and/or undergraduate or postgraduate students and/or for leading research projects.

NOTAM	Notice to Airmen- notice filed with an aviation authority to alert aircraft pilots of potential hazards along a flight route or at a location that could affect the safety of the flight.
Observer	An individual assisting the RPA operator to maintain visual contact with the RPA in flight and maintain verbal communication
Operator	The person which is controlling the flight of an RPA and holds the appropriate certification for the activity according to CASR
Operator Accreditation	Remotely Piloted Aircraft Operator Accreditation. Online course offered by CASA.
Payload	The vehicle mass with any additional load attached such as cameras.
Populous area	An area with sufficient density of population for some aspect of the RPA operation to pose a reasonable risk to the life, safety or property of someone who is in the area but is not connected to the operation.
ReOC	Remote Operators Certificate. Required for commercial RPA operations.
RePL	Remote Pilot Licence.
RPA	Remotely Piloted Aircraft (also referred to as drones). An unmanned aircraft where the pilot flying is not on-board the aircraft.
Safety Review Protocol	The safety review protocol is the risk management process by which the drone operations are reviewed by the HSW team. This will be either via the Safety Review form or Tick@Lab depending on the suite of hazards identified for the project or activity. Ref HSG 3.1 Health and Safety Risk Management
Standard Operating Conditions	The drone safety rules as outlined by CASA, also known as standard operating conditions, which apply to all types of drones and remotely piloted aircraft.
VLOS	Visual line of sight
Worker	Includes an employee, conjoint, student on work experience, contractor, sub-contractor, and volunteer. A person is a worker if the person carries out work in any capacity for the University or another person conducting a business or undertaking, including work as: (a) an employee, or (b) a contractor or subcontractor, or (c) an employee of a contractor or subcontractor, or (d) an employee of a labour hire company who has been assigned to work in the person's business or undertaking, or (e) an outworker, or (f) an apprentice or trainee, or (g) a student gaining work experience, or (h) a volunteer, or (i) a person of a prescribed class.

5. Responsibilities

A comprehensive list of health, safety and wellbeing responsibilities is provided in [HSG 1.2 Roles and Responsibilities Guideline](#).

Specific responsibilities under this Guideline include:

Supervisors and Leaders

- University workers (including students) under their supervision are aware of, and comply with, the requirements relating to planning for and conducting RPA (drone) operations.
- A risk assessment is undertaken for any RPA activities utilising the Health and Safety Risk Assessment template and this is submitted to the Health, Safety and Wellbeing team via a Safety Review Protocol (either the Safety Review Form or Tick@Lab), and that related documentation and procedures for the RPA operations are prepared accordingly.

Health and Safety (H&S) Team

- Provide advice to the university community when required in regard to the health and safety requirement for RPA activities.
- Provide input to the review of health and safety risk assessments, flight plans and flight approval requirements for RPA activities through the safety review process.
- Communicate changes in legislation, University health and safety or CASA requirements that would impact RPA (drone) activities for UoN workers.
- Verify that the RPA Operator has obtained the correct accreditation for the activity and that the RPA is registered and accreditation recorded within the University RPA Register

RPA Operators/ Workers involved in RPA Operations

- The RPA operator obtains an ARN and registers the RPA to be used with CASA.
- All controllers of an RPA flown outdoors hold a current Remotely Piloted Aircraft Operator Accreditation or a current Remote Pilot Licence (RePL) as required for the specified flight operations. Refer to Appendix 1
- The RPA operator additionally records accreditation and RPA details with the University of Newcastle via the University RPA Register
- A risk assessment is completed by the RPA operator and submitted with a Safety Review Protocol prior to the first flight for each project or activity and the risk assessment is reviewed when there are changes to the original project or activity, an

incident occurs, or control measures are no longer proving effective. An RPA flight plan for the project or activity is also submitted with the Safety Review Protocol. The flight plan should be created to the best of the Operator's knowledge of the activity and location(s).

- Authorisation to fly outside of the RPA Standard Operating Conditions is organised directly with CASA and confirmation of this authorisation and any associated requirements (e.g., NOTAMs) provided with the Safety Review Protocol.
- All other required exemptions or permits are obtained and kept on record as per local regulations and policies.
- All relevant procedures and risk controls are implemented, and compliance is monitored to ensure the health and safety of all persons involved in RPA activities.
- All RPA flight rules and federal aviation laws governing the operation of RPAs are followed at all times.
- Guidance documentation such as Standard Operating Procedures, operation manuals and instructions are made readily available to all persons who may need them.
- The Operator completes a preflight operations check and provides a safety briefing to all workers involved in the operational flights, including observers who are not directly involved in the flight operation.
- Maintains clear communication with the anyone involved in the RPA operation at all times.
- Records of all testing, maintenance and repairs are maintained and readily available to anyone who uses or has reason to verify that these requirements have been undertaken.
- Ensures correct Lithium Polymer (LiPo) battery storage, charging, maintenance and transport as per the UoN RPA Operations Manual (document pending)
- Incidents and accidents, hazards and near misses are reported immediately and entered into the University's online incident reporting system.

RPA Operations Observer(s)

- Holds a Remotely Piloted Aircraft Operator Accreditation as a minimum, or a RePL.
- Understands the RPA operations risk assessment and planned flight including any emergency procedures.
- Maintains clear communication with the RPA operator at all times (e.g., via UHF radio)

- Maintain VLOS with RPA at all times and provide clear instruction to the RPA operator if hazards are identified, emergency procedures or alternative manoeuvres are required.
- Assist with keeping the RPA operations area clear from bystanders, or observers not involved in the operation, that could compromise the safety of the flight.

6. References & Related Documents

The following documentation is referenced in, or applicable to this Guideline:

[HSG 1.2 Roles and Responsibilities](#)

[HSG 3.1 Health and Safety Risk Management](#)

[KRA 1.4 Plant and Equipment](#)

[HSG 5.1 Health, Safety and Wellbeing Event Notification](#)

[KRA 1.3 Fieldwork](#)

University of Newcastle RPA Operations Verification of Competency (document pending)

University of Newcastle RPA Operations Manual (document pending)

University of Newcastle RPA Operations flight plan template (document pending)

University of Newcastle RPA Standard Operating Procedure (document pending)

[Work Health and Safety Act 2011](#)

[Privacy Act 1988](#)

[Civil Aviation Safety Regulations 1998](#)

[Part 101 \(Unmanned Aircraft and Rockets\) Manual of Standards 2019](#)

[Higher Education Support Act 2003](#)

Form 1589 Airspace Risk Assessment

Model aircraft flight authorisation area approval

7. Amendment History

Version	Date of Issue	Approval	Section(s) Modified	Details of Amendment
1	June 2015	Director, People and Workforce Strategy	-	Original version.
2	October 2023	CPCO	All	1. All sections reviewed for legal compliance. 2. Updated content in all sections 3. Added new/renamed Related Documents

				4. Added Amendment History 5. Amended document control header and footer
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8. Appendices

Appendix 1- UoN RPA (Drone) Operations flow chart

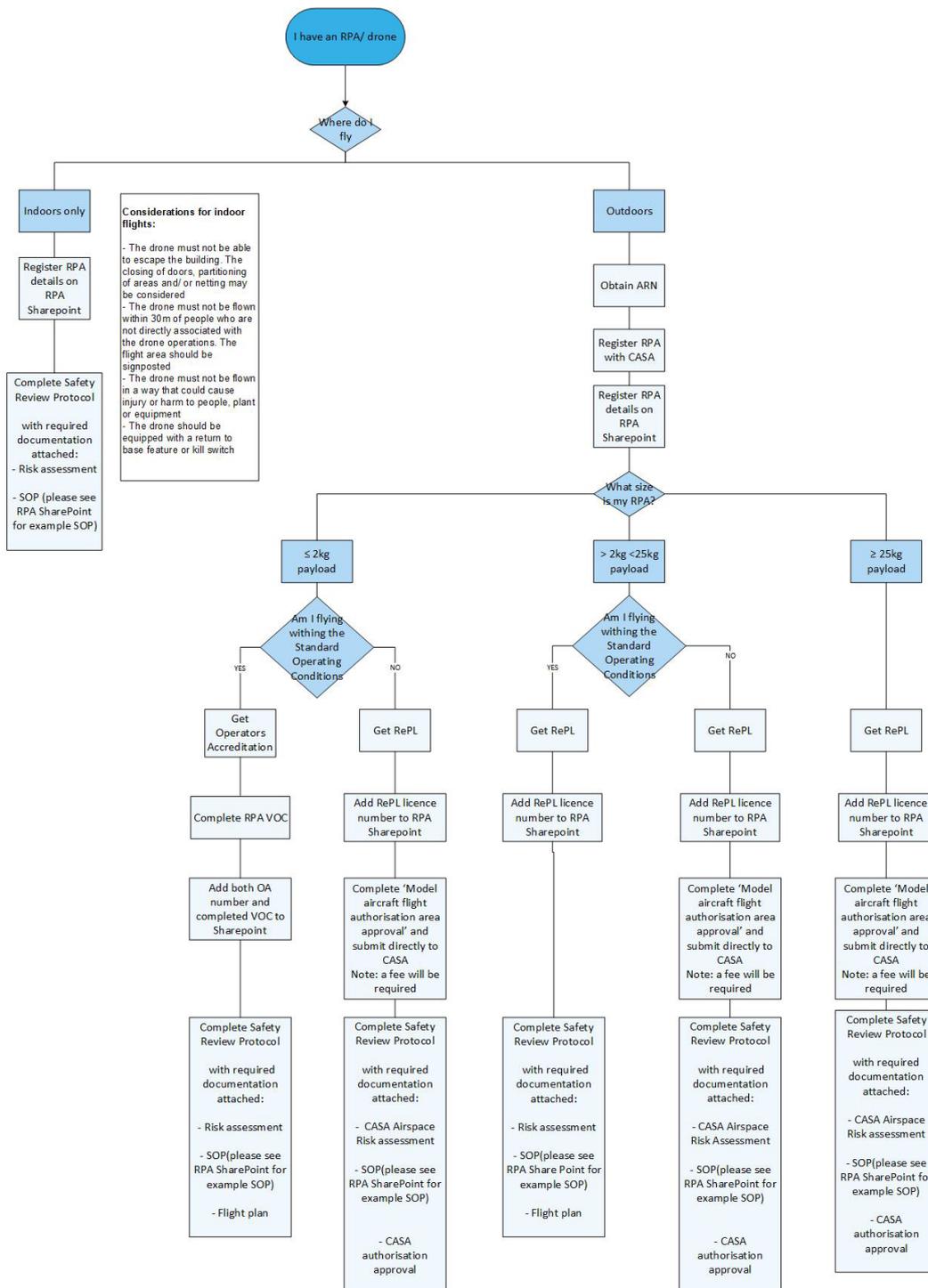
Appendix 2 – UoN RPA Flight Plan template

Appendix 1. University RPA (Drone) Operations Flow chart



The University of Newcastle RPA/ Drone Operations

Flying a drone or model aircraft for educational purposes at recognised educational institutions is considered 'flying for fun' by the Civil Aviation Safety Authority. The University of Newcastle has accepted this standard and developed its own operating model for drone safety for any flight associated UoN activities.



Appendix 1. University RPA (Drone) Operations Flow chart

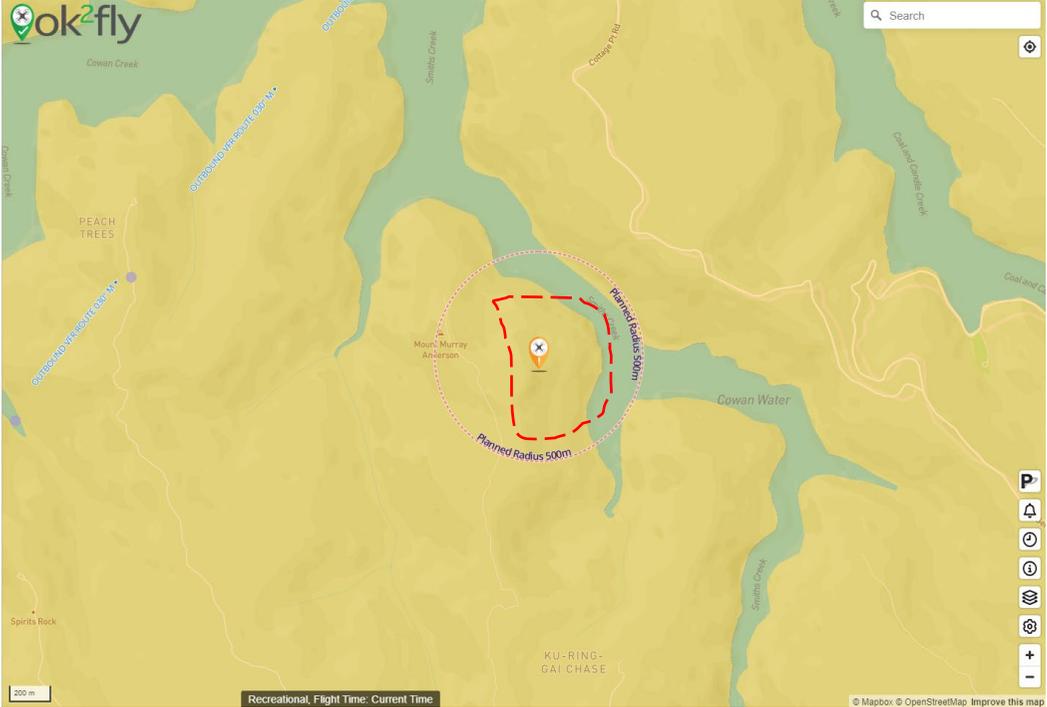
RPA Standard Operating Conditions

 <div style="border: 1px solid black; border-radius: 15px; padding: 5px; width: 100%; text-align: center;"> <p>Only fly one RPA at a time</p> </div>	 <div style="border: 1px solid black; border-radius: 15px; padding: 5px; width: 100%; text-align: center;"> <p>Fly no higher than 120m (400ft) above ground level (AGL)</p> </div>	 <div style="border: 1px solid black; border-radius: 15px; padding: 5px; width: 100%; text-align: center;"> <p>Keep visual line of sight always (no binoculars). Only fly in daylight hours.</p> </div>	 <div style="border: 1px solid black; border-radius: 15px; padding: 5px; width: 100%; text-align: center;"> <p>Keep your drone at least 30m away from people</p> </div>
 <div style="border: 1px solid black; border-radius: 15px; padding: 5px; width: 100%; text-align: center;"> <p>Do not create a hazard for other aircraft, people or property</p> </div>	 <div style="border: 1px solid black; border-radius: 15px; padding: 5px; width: 100%; text-align: center;"> <p>Never fly over people or in a populous area (e.g. beaches, busy roads)</p> </div>	 <div style="border: 1px solid black; border-radius: 15px; padding: 5px; width: 100%; text-align: center;"> <p>Respect personal privacy (never photograph or record without consent)</p> </div>	 <div style="border: 1px solid black; border-radius: 15px; padding: 5px; width: 100%; text-align: center;"> <p>Never fly over or near emergency operations (car crash, police operations, fire etc)</p> </div>
 <div style="border: 1px solid black; border-radius: 15px; padding: 5px; width: 100%; text-align: center;"> <p>Drones over 100g must keep at least 5.5km away from controlled aerodromes</p> </div>		 <div style="border: 1px solid black; border-radius: 15px; padding: 5px; width: 100%; text-align: center;"> <p>Only fly near an uncontrolled aerodrome if there are no aircraft operating</p> </div>	

Additional reminders

 <div style="border: 1px solid black; border-radius: 15px; padding: 5px; width: 100%; text-align: center;"> <p>Use CASA's 'Open Sky' or 'ok2fly' app to check for no-fly zones Always check state laws</p> </div>	 <div style="border: 1px solid black; border-radius: 15px; padding: 5px; width: 100%; text-align: center;"> <p>Obtain permission from landowner/obey relevant regulations (e.g. NPWS, council, animal welfare distance)</p> </div>
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Appendix 2. University RPA Flight Plan template

Image of flight area (insert screenshot from ok2fly to show location and planned flight time)	Legend	
<p>Example</p> 	Take off/ landing site/s	
	Flight travel path (or approximate area)	
Notes:		

RPA Operator Name:	Signature:	Location:	Project:
Observer (if required):	Planned flight date/ time:	Planned altitude:	Max altitude: