1. Preamble

Remotely Piloted Aircraft Systems (RPAS; in short drones) are used for diverse purposes such as surveying, remote sensing, aerial photographing, aerial filming, infrastructure inspection, environmental assessment, crop health monitoring, emergency response and disaster relief. Their outdoor operation in the Australian airspace is regulated by the Australian Civil Aviation Safety Authority (CASA) according to Commonwealth legislation, and UNSW has a framework in place to enable compliance with CASA and other requirements.

2. Regulatory Environment

Piloting a drone for UNSW purposes may be considered a commercial activity by CASA. Accordingly, UNSW holds a Remotely Piloted Aircraft Operator’s Certificate (ReOC) and has a CASA-approved Chief Remote Pilot and Maintenance Controller to oversee all drone operations on behalf of the Deputy Vice-Chancellor Research and the institution as outlined in this Procedure and supporting documents. Risk assessments for drone usage are prepared using the UNSW Drone Operators Risk Management Form and approved by the drone operator’s Head of School/Centre/Institute for ‘excluded’ category commercial activities and by the Chief Remote Pilot for ‘included’ category commercial activities. Policy and administrative support is provided by Research Ethics & Compliance Support (RECS) as detailed on the UNSW drone operation and management website.
3. Excluded Category

Operating a drone weighing less than 2kg is excluded from CASA's explicit authorisation when flown within Standard Operating Conditions (SOC) as defined by CASA. Under these circumstances, drone operators do not need to become CASA-certified remote pilots. However, operators are still required to obtain an Aviation Reference Number (ARN) and complete an RPAS Notification with CASA, register the drones with UNSW Insurance and successfully complete the UNSW RPAS Operation and Management Course.

In addition, where drones less than 2kg are listed in the UNSW RPA Operations Manual for dual-use under excluded and included category operations, drone operators who are not CASA-certified remote pilots need to be adequately trained by a CASA-certified controller, and must maintain the drones in strict adherence with the UNSW RPA Operations Manual. This recognises the risk that inadequate or non-compliant operations of drones listed in the UNSW RPA Operations Manual may compromise the university’s ReOC.

4. Included Category

For drones above 2kg, and drones under 2kg flown outside SOC as defined by CASA, operators are required to become CASA-certified remote pilots. This includes

- obtaining an ARN and a Remote Pilot Licence (RePL) from CASA
- submitting their ARN, RePL and relevant qualifications with UNSW RECS by email to drones@unsw.edu.au, as well as providing drone details for insurance purposes
- successfully completing the UNSW RPAS Operation and Management Course
- completing the competency assessment and obtaining flight authorisation for flight conduction from the UNSW Chief Remote Pilot
- following all requirements of the UNSW RPA Operations Manual and associated documents.

5. Responsibilities of the Chief Remote Pilot

The Chief Remote Pilot is responsible for all operational matters and Remote Pilot (RP) training affecting the safety of operations. The role and responsibilities of the Chief Remote Pilot are to:

- ensure that operations are conducted in compliance with the Civil Aviation Act 1998 (Commonwealth) and the Regulations
- maintain a record of qualifications held by each RP
- monitor and maintain operational standards and supervise RP(s) who work under the authority of the UNSW ReOC
- maintain a complete and up-to-date reference library of operational documents as required by CASA for the class of operations conducted
- develop applications for approvals and permissions where required to facilitate operations
- develop checklists and procedures relating to flight operations
- be the point of contact with CASA
- notify CASA prior to any change to the UNSW RPA Operations Manual or its schedule.

6. Responsibilities of the Maintenance Controller

The Maintenance Controller is responsible for ensuring the maintenance of drones listed in the UNSW RPA Operations Manual in accordance with the manufacturer specifications. The role and responsibilities of the Maintenance Controller are to:

- control all drone maintenance, either scheduled or unscheduled
- keep records of personnel permitted to perform maintenance on drones including details of their training and qualifications
- develop, enforce and monitor drone maintenance standards
- maintain a record of drone defects and any unserviceability
- ensure that specialist equipment items including payload equipment are serviceable
• maintain a thorough technical knowledge of drones operating under the authority of the UNSW ReOC
• ensure maintenance activities are conducted in accordance with the procedures detailed in the relevant RPAS section of the RPAS Operational Procedures Library
• investigate all significant defects in the RPAS.

7. Responsibilities of the Remote Pilot in Command

For the purpose of this Procedure, a ‘Remote Pilot’ includes a holder of a ‘Remote Pilot Licence’ or ‘UAV Controllers Certificate’ or ‘RPA notification’. The Remote Pilot of a drone is responsible for:

• Conducting flights in accordance with this Procedure and the UNSW RPA Operations Manual for RePL holders with included drone operations
• Acting in accordance with this Procedure and operating RPAS under CASA’s Standard Operation Conditions (SOC) for excluded drone operations
• Complying with applicable regulatory requirements and supporting documents such as Civil Aviation Safety Regulations Part 101, and Advisory Circulars for drone operations and CASA’s Direction – operation of certain unmanned aircraft.

8. Responsibilities of Camera Operators, Spotters and Others

All camera operators, spotters and other persons involved in the operation of RPAS controlled under the authority of the UNSW ReOC are required to comply with the procedures set out in the UNSW RPA Operations Manual and any lawful direction given to them by a Remote Pilot in command.

9. Controlled Airspace

Drone operation within 3NM (5.5KM) of a controlled aerodrome boundary, a restricted area, a prohibited area or a populous area, can only be conducted with written approval by CASA. The UNSW Kensington Campus is situated within 3NM of Sydney Airport.

10. Complaints and Grievances

UNSW has established a complaints and grievances mechanism for UNSW personnel, students and persons external to the university. This process allows the voicing of concerns regarding the use of drones in research and the management processes for drones.

Complaints about the conduct of research using drones by UNSW staff, students and visitors should be directed to the Director of Research Ethics and Compliance Support (RECS) (drones@unsw.edu.au). Allegations involving possible breaches of the Australian Code for the Responsible Conduct of Research are referred to the Research Integrity Unit (research.integrity@unsw.edu.au) to be reviewed in accordance with the UNSW Research Code of Conduct.

Grievances about drone management processes by UNSW staff and students should be addressed to the Director of RECS (drones@unsw.edu.au).

11. Additional Operating Guidelines

Operating guidelines and manuals in support of this Procedure are approved by the DVCR and displayed in their most current form on the UNSW drone website.

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<td><strong>Responsible Officer</strong></td>
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<td><strong>Supporting Information</strong></td>
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This Procedure supports the University’s compliance with the following legislation:

- **Civil Aviation Act 1988** (Cth)
- **Civil Aviation Safety Regulations 1998**

### Parent Document (Policy)

- **UNSW Research Code of Conduct**

### Supporting Documents

- UNSW RPA Operations Manual
- RPAS Operational Procedures Library
- [Drone Operations Risk Management Form](#)
- [Drone Operations Safe Work Procedure](#)
- [HS932 Permit to fly drones - Contractors](#)

### Related Documents

- CASA: [Flying drones/remotely piloted aircraft in Australia](#)

### Superseded Documents

- Nil.

### File Number

- 2019/07527

### Definitions and Acronyms

- **ATSB**: Australian Transport Safety Bureau
- **CASA**: Civil Aviation Safety Authority
- **ReOC**: RPA Operator’s Certificate
- **RePL**: Remote Pilot Licence
- **RPA**: Remote Piloted Aircraft
- **RPAS**: Remotely Piloted Aircraft Systems
- **SOC**: Standard Operating Conditions

### Revision History

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<tr>
<th>Version</th>
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<tr>
<td>1.0</td>
<td>Deputy Vice-Chancellor Research</td>
<td>12 April 2019</td>
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