



Surf Life Saving and UAVs

Please contact uav@surflifesaving.com.au with any questions or to join the SLSNSW UAV Program.

What is a UAV?

A UAV is an Uncrewed Aerial Vehicle / Remotely Piloted Aircraft (RPA) / drone. UAVs range in size from less than 250g to more than 150kg

UAV Sizes

Size	Weight
Micro	250 g or less
Very small	251 g to 2 kg
Small	2.01 kg to 25 kg
Medium	25.01 kg to 150 kg
Large	More than 150 kg

It is important that you understand the requirements and rules before engaging in any activities involving drones.

Why are Drones regulated?

The Civil Aviation Safety Regulations 1998 (CASR) exist under the Civil Aviation Act 1988 and are administered by the Civil Aviation Safety Authority (CASA).

CASA is responsible for ensuring the safety of all users of airspace as well as people on the ground. The Regulations set controls on the operators and activities of drones to minimise any foreseeable risks to the public and other aircraft.

Because of the potential risks from inappropriate use of drones, fines apply to people and organisations that do not comply with the CASR.

Surf Life Saving New South Wales

PO Box 307
Belrose NSW 2085
3 Narabang Way
Belrose NSW 2085

t. +61 2 9471 8000
f. +61 2 9471 8001
w. surflifesaving.com.au
ABN 93 827 748 379



How are Drones regulated?

The CASR define what types of flight activities can be conducted, who can conduct them and where and how they can occur.

Part 101 of the CASR governs the use of UAVs. The regulations are complex and technical and vary according to specific circumstances. CASA has produced Advisory Circular 101-10 to assist users to interpret the regulatory requirements. A Manual of Standards will also be published.

Any Surf Life Saving NSW related operation is subject to a specific approval issued by CASA. Details about the SLSNSW approved operating conditions can be found in the SLSNSW Standard Operating Procedures – Unmanned Aerial Vehicles, which can be found [here](#).

For operations under the ReOC, each pilot will be inducted into the Remote Operations Manual and Operations Library prior to operations.

It's important to understand that any members flying drones during patrols or as part of any SLS activity must fly under the SLSNSW SOPs or they will not be covered by SLS insurances.

Do you need a Remote Pilot License (RePL)?

- Not for all operations – Operations in most locations will allow commercial UAVS operations to be conducted in the very small excluded category with a RPA Operator Accreditation obtained from CASA.

Training Requirements

Very small, excluded category RPA

Content

- Aircraft general knowledge
- Aircraft type training
 - DJI Phantom 4 Pro
 - DJI Mavic 2 Enterprise (Zoom)
- Air law
- Air space

Surf Life Saving New South Wales

PO Box 307
Belrose NSW 2085
3 Narabang Way
Belrose NSW 2085

t. +61 2 9471 8000
f. +61 2 9471 8001
w. surflifesaving.com.au
ABN 93 827 748 379



- Aeronautical radio (listen only)
- Shark identification
- SLSNSW Standard Operating Procedures
- AVCRM Workflow (SLS specific)
- Safety briefing for spotters

Training and Induction Process

Each Branch has Branch UAV Instructors who have completed a “Train the Trainer” session delivered by our training partners (Avi Assist). Oversight of all courses delivered by these Instructors is a continuing requirement of the program.

Frequently Asked Question

Q: Where can I find details of upcoming UAV training courses?

A: These can be found on our public calendar [here](#).

Remote Operators Certificate (Licensed)

Training Process

Pilots are nominated through a variety of sources and carefully screen by the SLSNSW UAV Team to ensure commitment and professionalism standards are met, due to the high-profile location and cost of delivery of training.

1. Pilot completes Remote Pilot’s License (RePL);
2. Pilot is inducted into the company ReOC yearly by the Chief Pilot or Base Executive Pilot;
3. Induction information is recorded in AVCRM;
4. Flight approvals take place for each job (day of operations).

FAQs

Q: Who pays for the RePL training?

A: The local Branch/Club will need to pay for RePL training.

Surf Life Saving New South Wales

PO Box 307
Belrose NSW 2085
3 Narabang Way
Belrose NSW 2085

t. +61 2 9471 8000
f. +61 2 9471 8001
w. surflifesaving.com.au
ABN 93 827 748 379

Q: My Branch/Club is within restricted airspace, and we wish to fly under the ReOC, how do we go about this?

A: Each location and Pilot flying under the ReOC will need to be assessed on a case-by-case basis by the Chief Remote Pilot for addition to the ReOC.

Very Small, Excluded Category RPA operations

As part of Surf Life Saving NSW's requirements under CASA regulations, all pilots are required to obtain an [Aviation Reference Number \(ARN\)](#) and an [RPA Operator Accreditation](#) prior to conducting operations using SLSNSW Equipment.

Once you have received these documents, please send through a copy to uav@surflifesaving.com.au for saving on your file.

Surf Life Saving NSW has a ReOC

SLSNSW has an UAV Operator's Certificate (ReOC). Our ReOC represents CASA's permission to conduct agreed types of activities using approved UAVs. CASA only issue a ReOC to an organisation that has systems that meet the highest technical and safety standards.

SLSNSW has developed an in-house compliance system to approve, monitor and record all drone operations.

The ReOC and SLS compliance system also means that our insurance program will cover approved activities and pilots, should an injury or damage to property occur.

Clubs that operate UAVs without SLSNSW approval are not covered by any insurance and will be in breach of SLSNSW regulations.

SLSNSW UAV Operator's Certificate (ReOC):

- Approves SLSNSW staff member appointed to the position of Chief Remote Pilot;
- Stipulates the types of UAV operations that can be performed, and any limitations considered necessary; and
- Lists the approved models of UAVs for approved SLS UAVS activities.

Surf Life Saving New South Wales

PO Box 307
Belrose NSW 2085
3 Narabang Way
Belrose NSW 2085

t. +61 2 9471 8000
f. +61 2 9471 8001
w. surflifesaving.com.au
ABN 93 827 748 379



Why does SLSNSW need a ReOC?

Following amendments to CASR in September 2016, not all commercial operations need a ReOC. Exclusions apply to:

- Commercial operations using very small UAVs (under 2kg);
- Some farm-owner managed agricultural operations; and
- When conducted within restricted operating conditions and 5 days after online notification to CASA has been given.

Standard Operating Conditions

Licensed RePL Pilots operating under a ReOC are approved to operate under Standard Operating Conditions (SOCs).

Generally, a UAV **can only** be operated:

- In visual line of sight (without binoculars or telescope);
- Below 400 feet above ground level;
- In visual meteorological conditions; and
- During the day.

A UAV **cannot** be operated:

- Over populous areas;
- Within 3 nautical miles – about 5km – of an aerodrome;
- In controlled airspace or prohibited areas; and
- Within 30 metres of a person not directly associated with the UAVS operating team.

As SLSNSW has a ReOC, variation to these conditions can be negotiated with CASA where it can be demonstrated that public safety can be properly managed. Check with the SLSNSW Chief Remote Pilot for details.

Approved Operating Systems

The ReOC is issued on the basis that we maintain appropriate systems to ensure the safe operation of all UAV activity.

Surf Life Saving New South Wales

PO Box 307
Belrose NSW 2085
3 Narabang Way
Belrose NSW 2085

t. +61 2 9471 8000
f. +61 2 9471 8001
w. surflifesaving.com.au
ABN 93 827 748 379



This includes systems to ensure:

- All pilots are appropriately trained;
- Effective management of all operations;
- Suitably trained personnel are appointed to the positions of Chief Remote Pilot and Maintenance Controller;
- Maintenance of all equipment is regularly conducted – UAVs, ground systems and payloads;
- Flight activity is conducted according to the operations manual approved by CASA; and
- Records are maintained in a form approved by CASA and are available for review or audit.

Our ReOC provides assurance to the SLSNSW community, to our research partners and to the public that our activity is conducted with the safety of the general public, and other users of airspace, in mind. Our insurance coverage also means we need to meet requirements under the regulations and adopt safety management measures.

Role of the Chief Remote Pilot

The Chief Remote Pilot has the necessary experience and qualifications to oversee all UAV operations.

The Chief Remote Pilot has autonomy to perform the role as required by CASA and is directly answerable to CASA for the SLSNSW management of its drone fleet (this includes any drones that may be owned by clubs but flown under SLSNSW auspices).

The Chief Remote Pilot has full authority and can and will refuse permission to any operation that does not meet CASA requirements, industry best practice or risk and insurance requirements of SLSNSW.

The Chief Remote Pilot is responsible for:

- Ensuring the SLSNSW UAV operations comply with legislation and regulations;
- Maintaining records of the qualifications of all UAV pilots, drones and operations;
- Monitoring operational standards and training; and
- Ensuring access to a reference library supporting approved operations.

Surf Life Saving New South Wales

PO Box 307
Belrose NSW 2085
3 Narabang Way
Belrose NSW 2085

t. +61 2 9471 8000
f. +61 2 9471 8001
w. surflifesaving.com.au
ABN 93 827 748 379

CASA must be advised and approve any changes to the appointment of the Chief Remote Pilot and the Maintenance Controller.

What type of drone can I use?

At this point in time Surf Life Saving NSW are only utilising UAVs to service those contracts we have with Department of Primary Industries and Westpac. If your club is interested in being involved in the future, then please contact uav@surflifesaving.com.au

Unmanned Aerial Vehicles

The operation of all UAVs must be supported by an effective UAV (Unmanned Aerial Vehicle system).

This System will comprise both airborne and ground-based equipment.

The purpose of the UAV is to support continued safe flights and recovery of UAVs by ensuring that pilots have full control and real time awareness of the flight status of their aircraft.

A well-integrated UAV system will minimise the potential for human error and help prevent any possible failure of an operation by incorporating fail-safe design features.

A more complex UAV system should be put in place as risk to the safety of others, or technical difficulty of the operation, increases.

Getting Approvals

When operational requirements differ from those listed on the ReOC, an approval from CASA can be sought through SLSNSW Chief Remote Pilot.

Approvals may be needed for:

- Special types of activities - one-off or a regular activity in a specific location;
- Permission to work in special conditions – such as night-flying and close to airports; and
- Use of a specialist type of aircraft.

Surf Life Saving New South Wales

PO Box 307
Belrose NSW 2085
3 Narabang Way
Belrose NSW 2085

t. +61 2 9471 8000
f. +61 2 9471 8001
w. surflifesaving.com.au
ABN 93 827 748 379

Do not purchase or use your drone until you have discussed this with the Chief Remote Pilot and arranged for the drone type to be listed on the ReOC (this may take time if the drone is more technically complex or larger than existing drones as additional testing of all personnel by CASA may be required).

Privacy Matters

Anyone using a drone should consider privacy issues.

The same features that makes drones potentially useful in conducting a range of activities also makes them potentially intrusive when they are used without consideration of other people.

SLSNSW has a Photography Policy which requires that activities involving the collection of any photographic or video data should not be intrusive of people's privacy.

Health Safety and Wellbeing

Like other equipment that is used by SLSNSW, drones are useful tools for improving water safety.

Possible risks to safety during drone operations should be assessed as required under the SLSNSW Health Safety and Wellbeing Policy.

The safety of personnel should always be considered in the use and storage of all equipment.

Potential hazards related to drone batteries (Lithium-ion Polymer) should be considered during storage and transport.

Standard procedures related to the assessment of off-site activities and general field work must also be adhered to.

SLSNSW provides insurance cover for approved activities. This means drones which are operated in any Australian jurisdiction and in accordance with CASA requirements and [SLSNSW Standard Operating Procedures - UAVs](#).

Surf Life Saving New South Wales

PO Box 307
Belrose NSW 2085
3 Narabang Way
Belrose NSW 2085

t. +61 2 9471 8000
f. +61 2 9471 8001
w. surflifesaving.com.au
ABN 93 827 748 379



Managing Risk

The regulations governing the use of drones are intended to support the safe operations of all aircraft being used in airspace. The regulations provide a framework where the rules are well understood and information about known risks is shared.

The objective is like the systems developed to regulate road traffic. The success of the framework relies on the operators of drones understanding the rules that apply to airspace, anticipating and reducing any potential risks and having the skills and awareness to determine the best response to a range of possible incidents.

The regulations are complex because the potential risks are complex. Job Safety Assessments and Risk Assessment are completed as part of the Surf Life Saving AV CRM system Job Planning process, found at sls.rpa.avcrm.net.

Logins and training for this system have been provided to all operators and must be completed for all operations and the job planning process is outline in the [Standard Operating Procedures](#).

Surf Life Saving New South Wales

PO Box 307
Belrose NSW 2085
3 Narabang Way
Belrose NSW 2085

t. +61 2 9471 8000
f. +61 2 9471 8001
w. surflifesaving.com.au
ABN 93 827 748 379