

PRACTICAL OR MANUFACTURER TRAINING

CASR 101.295 (b) says that to be eligible for a Remote Pilot Licence you must have completed a course in the manual or automated operation of an RPA which is of the same category as the applicant intends to operate. Additionally you can undertake manufacturer training which is delivered by the manufacturer or an agent of the manufacturer of the RPA you intend to operate. CASA have now mandated that the Manufacturer training course must have been conducted prior to June 1 - 2017.

This means that someone who purchases an off the shelf system which is ready to fly, such as a DJI Inspire where the manufacturer doesn't offer training, can receive training for a Remote Pilot Licence according to **CASR 101.295 (b)**

If training directly with the manufacturer of the RPA the training will typically cover everything from the operation of the RPA, to the ground control station, to the flight planning software. You should be able to walk away from this training feeling confident that you can operate the vehicle which you have purchased safely. Considering there are Remotely Piloted Aircraft on the market, which cost up to \$100,000, this training is obviously of vital importance, for both your confidence and your wallet!

101.295 Eligibility for remote pilot licence

- (2) Subject to regulation 11.055, CASA must grant a remote pilot licence to the applicant if he or she:
 - (a) has passed:
 - (i) an aeronautical knowledge examination (within the meaning of Part 61) for a flight crew licence under Part 61; or
 - (ii) an aviation licence theory examination before 1 September 2014 that is taken to be an equivalent requirement for the grant of a flight crew licence under regulation 202.274; or
 - (iii) the theory component of an RPL training course; or
 - (iv) the theory component of a course conducted in a foreign country which CASA is satisfied is equivalent to the theory component of an RPL training course; and
 - (b) has completed:
 - (i) an RPL training course in the manual or automated operation of a category of RPA that he or she proposes to operate; or
 - (ii) before 1 June 2017, a training course in the operation of a category of RPA that he or she proposes to operate, conducted by the RPA's manufacturer or an agent of the manufacturer; or

If you do your training with a company that is recognized by CASA as having Basic RPAS training on their RPA Operating certificate, you would meet the requirements of **101.295 (2) (a) (iii)** above for the theory component, and **101.295 (2) (b) (i)** for the practical component.

If you were coming in having passed a flight crew exam for full size pilots, you would meet CASR 101.295 (2) (a) (i) or (ii) for the theory component, and either of **CASR 101.295 (2) (b) (i)** or **(ii)** for the practical component.

STANDARISTAION OF UNMANNED AIRCRAFT RULES

In the first iteration of CASR Part 101, there was some discrepancies between the rules for a commercially operated UAV (as it was known in the original Part 101) vs a Model Aircraft.

Specifically, there was no limit to model aircraft flying above 400 feet provided the operator kept it in sight, and there was also nothing preventing a model aircraft being operated within 3 nautical miles of a controlled or non-controlled aerodrome. This lead to a discrepancy between the rulesets for Remotely Piloted Aircraft, and Model Aircraft. It also meant that a model aircraft operator (who could be operating a Phantom 4 or similar) could legally operate (although not advised) within 3NM of the movement area of a controlled aerodrome, as long as they weren't creating a hazard to another aircraft, person or property.

CASA addresses this for commercial operators by placing conditions on RPA Operator Certificates, and in Operations Manuals, which dictates that commercial operators cannot conduct an operation any closer than 3NM to a controlled aerodrome, without approval from CASA. However, as CASR part 101 doesn't prohibit this for model aircraft, an instrument was issued ([Instrument 96/17](#)). This instrument applies to all unmanned aircraft, therefore making the rules for model and commercial unmanned aircraft more aligned.

The instrument sets out to clarify and simply operations between recreational and commercial use, near aerodromes, around people and above 400 feet AGL.

This instrument makes a number of directions when it comes to operating an unmanned aircraft near a controlled aerodrome. Remember, these directions now apply to all unmanned aircraft, regardless of whether recreational, excluded category, or as a commercial operator with an RePL and ReOC.

These directions are -

A person must not operate an unmanned aircraft within 3 nautical miles of the movement area of a controlled aerodrome.

This direction obviously does not apply if the person has an authorisation or exemption (also known as an area approval) to operate within 3NM of the movement area of the controlled aerodrome.

The other directions that are listed in Instrument 97/17 relate to operation of Unmanned Aircraft in the vicinity of non-controlled aerodromes, or aerodromes that don't have an Air Traffic Control Service associated with them.

The directions relating to non-controlled aerodromes are -

1) a person must not launch an unmanned aircraft within 3 nautical miles of the movement area of a non-controlled aerodrome if the

2) If a person controlling an unmanned aircraft within 3 nautical miles of the movement area of a non-controlled aerodrome becomes aware that an aircraft is operating to or from the aerodrome

However, the directions listed on the previous page in subsections (1) and (2) do not apply to the operation of an unmanned aircraft conducted in accordance with any of the following:

- (a)** an authorisation (however called) or exemption granted under CASR that permits operation of the aircraft within 3 nautical miles of the movement area of the aerodrome;
- (b)** the approval of an approved area under regulation 101.030 of CASR;
- (c)** if the aircraft is an RPA operated by the holder of a remote pilot licence — the privileges and limitations associated with:
 - (i)** the licence; and
 - (ii)** the certification of the RPA operator that is conducting the operation.

The instrument also lists directions when it comes to operating an unmanned aircraft above 400 feet AGL. These are

- 1)** A person controlling an unmanned aircraft must not operate the aircraft above 400 feet AGL.

However, this does not apply if the aircraft is a tethered balloon, kite, unmanned free balloon, or rocket if it is being operated in accordance with CASR Part 101. The direction also does not apply to -

- (d) the operation of an unmanned aircraft in accordance with:
 - (i) an authorisation (however called) or exemption granted under CASR that permits operation of the aircraft higher than 400 ft AGL; or
 - (ii) the approval of an approved area under regulation 101.030 of CASR;
- (e) the operation of an RPA by the holder of a remote pilot licence in accordance with the privileges and limitations associated with:
 - (i) the licence; and
 - (ii) the certification of the RPA operator that is conducting the operation;
- (f) the operation of a model aircraft in accordance with a written approval given by CASA for the purposes of this paragraph.

Instrument 96/17 also gives direction when it comes to operating an unmanned aircraft in relation to emergency operations. There have been documented cases previously where remotely piloted aircraft operators, have kept full size fixed wing aircraft grounded for operations such as aerial firefighting, due to being too close to the area of interest. CASA have a webpage, and video on this here - <https://www.casa.gov.au/standard-page/remotely-piloted-aircraft-emergency-situations>

Instrument 67/17 also directs that a person controlling an unmanned aircraft must not operate the aircraft over an area where a fire, police, or other public safety or emergency operation is being conducted. However, if you have approval from the person in charge of the emergency operation, then this is considered to be acceptable.

This instrument, which you can view on the legislation.gov.au page gives some additional clarity to unmanned operations, and also ensures that the regulations between recreational and commercial operators are standardised, which is a good thing for industry.

OPERATIONS IN R405A AND 405B

A good example of a restricted area is operations in R405A and R405B. This is the area encompassing Sydney Harbour and the Sydney Harbour bridge as well. You can locate it using the Sydney Visual Terminal Chart either on the paper version or on your EFB.



Obviously this is a fairly popular spot for RPAS operations due to the nearby scenery and iconic landmarks within these restricted areas. For the same reason it is also popular with seaplane and helicopter operations for manned aircraft. For this reason CASA has designated it a restricted area. We can check the ERSA for further details.

IDENT	STATUS	LIMIT	HOUR	AUTHORITY	ACTIVITY
R405A	RA3	SFC - 500	H24	(110) CASA Safety Assurance Branch - Sydney Region	HELICOPTERS & SEAPLANES
R405B	RA3	SFC - 1000	H24	(110) CASA Safety Assurance Branch - Sydney Region	HELICOPTERS & SEAPLANES

From the previous page we know that we can operate in a restricted area providing we gain the permission of the controlling authority. In this case the controlling authority is the Civil Aviation Safety Authority Sydney regional office. Due to the popularity and frequency of request to operate in R405A and 405B CASA has streamlined a process which is contained in the UOC/ReOC holder information document. This is a document which CASA emails out on a semi-regular basis to registered UOC/ReOC holders.

There is no area approval required for Operations in 405A and 405B however the approval of the Civil Aviation Safety Authority Sydney regional office is required. This approval can be obtained by sending an email to the Sydney regional office at least two days prior to your scheduled operation.

R405A and R405B are now active 24 hours a day, instead of the previous sunrise to sunset (HJ)

NOTAMS -NOTICE TO AIRMEN [REG 4.12, AIP GEN 0.1]

A NOTAM provides information to pilots that is not contained in the documents discussed so far. Information of direct operational significance that may immediately affect the safety of air operations. There are three types of NOTAMs issued in Australia.

1. Head Office NOTAMs [applying to matters of a permanent nature, often advising of amendments to existing documents].
2. FIR NOTAMs [applying to a flight information region] and
3. Location NOTAMs. [applying to a particular location].

A NOTAM will need to be submitted under certain conditions when operating an unmanned system. These are if you are operating within controlled airspace, or within 3nm of a towed or non-towered aerodrome.

The information fields contained in a NOTAM are

- The time at which the information in the NOTAM becomes applicable.
- The time at which the information in the NOTAM ceases to be applicable.
- Details of the periods of activity during those times.
- Plain language text describing the activity.
- Lower limit of operations.
- Upper limit of operations.

Some example notams are shown below -

FIR NOTAM

MELBOURNE FIR (YMMM)

C7178/12 REVIEW C7022/12

OBST LIT CRANE ALUMINA REFINERY ERRECTED
PSN S33 14.2 E116 03.8
SFC TO 1434FT AMSL
FROM 11 012320 TO PERM

LOCATION NOTAM

ARCHERFIELD (YBAF)

C14/12 REVIEW C266/12

SIGNIFICANT INCREASE IN FLYING FOX ACTIVITY
IN VCY OF W BDRY IN THE APCH TO RWY 10

FIR NOTAM

BRISBANE FIR (YBBN)

C147/12 REVIEW C497/12

NASA WILL OPR A GLOBAL HAWK WI BRISBANE (YBBB) FIR ON SHORT NOTICE ROUTES. BRISBANE ATC WILL PROVIDE A SEPARATION SERVICE WI CLASS A AIRSPACE FL450 TO FL650.