Australian Regs' Supplement

July 2023

PilotTrain

Table of Contents

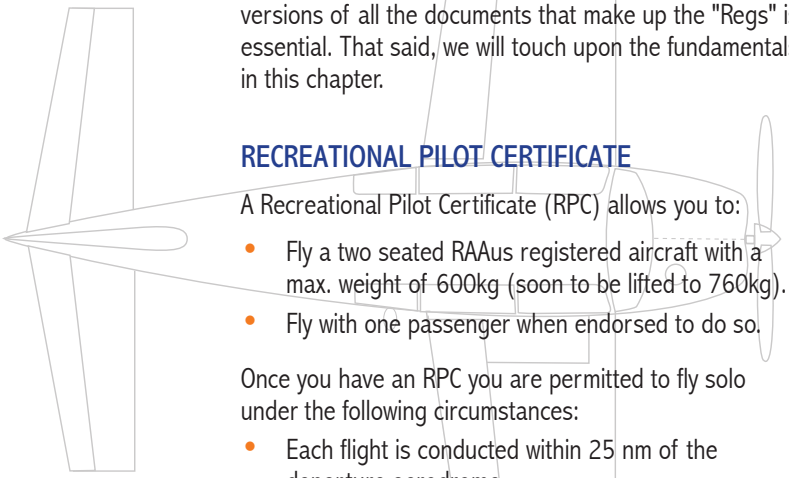
SERIOUS STUFF

This is a condensed version of Australian flying regulations. It covers the day-to-day stuff but obviously can't replace the full official version known as VFRG (Visual Flight Rules Guide).

You can pick up a free copy of this VFRG from the CASA (Civil Aviation Safety Authority) website.

If in doubt, or if there seems to be a conflict between the VFRG and what you read here, the VFRG is to be taken as the up to date legal authority.

To truly understand the regulations that apply to you, as a student pilot in Australia, obtaining the most recent versions of all the documents that make up the "Regs" is essential. That said, we will touch upon the fundamentals in this chapter.



RECREATIONAL PILOT CERTIFICATE

A Recreational Pilot Certificate (RPC) allows you to:

- Fly a two seated RAAus registered aircraft with a max. weight of 600kg (soon to be lifted to 760kg).
- Fly with one passenger when endorsed to do so.

Once you have an RPC you are permitted to fly solo under the following circumstances:

- Each flight is conducted within 25 nm of the departure aerodrome.
- You may only fly VFR (in Visual Met Conditions).
- You may not fly at night.
- You must self-declare a Drivers Licence health standard.

When you've completed a cross-country endorsement, you can fly anywhere except in controlled airspace - for that you'll need a controlled airspace endorsement.

RECREATIONAL PILOT LICENCE

A Recreational Pilot Licence (RPL) allows you to:

- Fly a light, single-engine aircraft as the pilot in command, without supervision - up to 1,500 kg max. take-off weight.
- Fly with more than one passenger if you hold a Class I or Class II medical certificate, or fly with another suitably qualified pilot who does.

Once you have an RPL you are permitted to fly solo under the following circumstances:

- Each flight is conducted within 25 nm of the departure aerodrome - or to and from the local training ground.
- You may only fly VFR (in Visual Met Conditions) during the day in uncontrolled airspace.
- The maximum take-off weight must not exceed 1,500 kgs.

You can fly in controlled airspace after you get an endorsement from your flight instructor. You can land at controlled aerodromes after you obtain a controlled airspace endoresement.

RAAUS VS CASA CONFUSUON

Since CASA introduced the Recreational Pilots Licence (RPL) in 2014, there's been debate on whether a recreational certificate or CASA licence is better.

Neither is superior, they simply cater to different needs. Recreational flying is popular due to affordability and enjoyment.

Recreational Pilot Certificate (RPC) allows daytime flying in uncontrolled airspace with two-seater aircraft, while Recreational Pilot Licence (RPL) permits flying larger aircraft in controlled airspace and offers additional capabilities, such as aerobatics with extra training. Both licences log flight hours for total aeronautical experience.

PILOT'S RESPONSIBILITIES

As pilot-in-command you are responsible for:

- Operating the aircraft in accordance with the Regs. If you depart from the Regs, in the interests of safety, you must notify ATC of your actions as soon as possible.
- Making sure that the aircraft, its instruments and equipment are in every way fit for each flight.
- Making sure that the aircraft is properly loaded and that cargo and luggage is safely stowed.
- Making sure that your view is not obstructed in any way – this includes dirty windscreens!
- Checking that you have enough fuel and oil for the flight, plus mandatory reserves.
- Obtaining weather information for all flights.

LIQUOR, NARCOTICS AND DRUGS

The old rule of eight hours between bottle and throttle is fine if used intelligently – say one or two drinks. Current medical thinking suggests that 12 and even 24-hour periods should be used for anything more than a couple of drinks.

Most regulations stipulate that you shall not be under the influence of any liquor, narcotic or drug which impairs your capacity to act as a pilot. Under the influence means **any** influence – which includes a hangover.

There are very few medicines that are OK for flying, and even common cold capsules can be extremely dangerous. The rule is, don't fly when you are taking any medicines that have not been approved by a doctor who is qualified in aviation medicine.

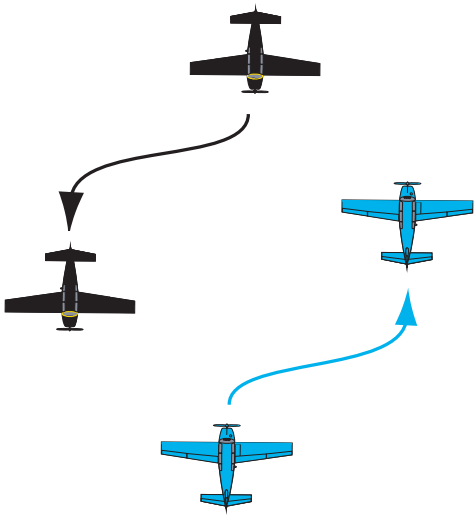
You should also refuse to carry any passenger who is under the influence of alcohol, drugs or narcotics.

RECKLESS OR NEGLIGENT FLYING

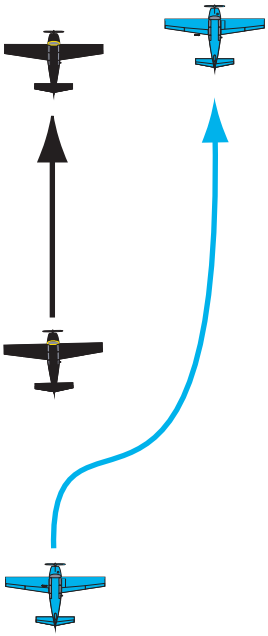
Every country's regulations have a big **thou shalt not!**

RIGHT OF WAY

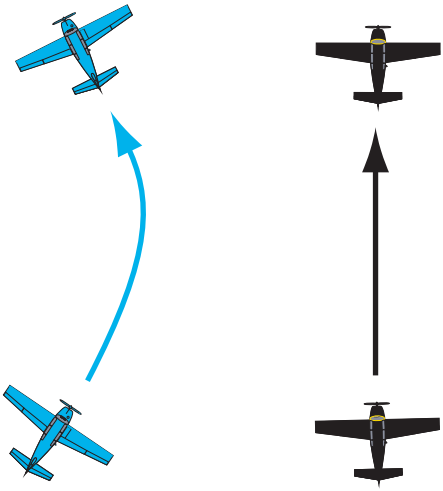
- It is your responsibility to avoid collision or danger even if you have right of way.
- Aircraft approaching head-on must both turn right.
- Normal aircraft must give way to **airships**, **gliders**, **balloons** and aircraft which are **towing** other aircraft or objects.
- If you are overtaking another aircraft you must do so on its right-hand side, and keep well clear until safely past.



- An aircraft on finals for landing has right of way over all other aircraft on the ground or in the air.
- When two aircraft are on finals, the lower one has the right of way.



- A glider on finals has right of way over a powered aircraft, regardless of the above rule.
- You may not take off until there is no apparent risk of collision or danger to other aircraft.
- If you know another aircraft is forced to land, you must give way to it.
- You must give way to aircraft taking off or landing.
- When aircraft are converging, the one which has the other on its right (the left one) must give way.
- After landing you must clear the runway as soon as possible.
- Vehicles on the ground must give way to aircraft.
- Aircraft approaching each other on the ground must each move to the right-hand side of the taxiway.
- When aircraft are converging on the ground, the left-hand one must give way.



FLYING AT AIRFIELDS – CONTROLLED AND UNCONTROLLED

When in the vicinity of an airfield you must:

- Keep your eyes and ears open for other aircraft.
- Conform to, or avoid, the pattern of traffic formed by other aircraft.
- Make all turns to the left when approaching for landing or after take-off, unless there is a right-hand circuit in force.
- Land and take off, as far as possible, into wind.
- Overfly the airfield at a minimum of 2000ft agl.

MINIMUM ALTITUDES

These are the minimum altitude requirements in Australia:

- Built-up areas and gatherings (towns etc) – 1000ft above the highest obstacle within a radius of 600m.
- Elsewhere, a minimum of 500ft agl. Low flying is extremely dangerous unless you have been properly trained. Don't make the mistake of thinking you can do it.

There are also flight restrictions around proected areas, such as the Freycinet National Park in Tasmania. Check ERSA for details and fly neighbourly.

TOWING OBJECTS

You may only tow things – gliders, banners and so on – with the permission of the civil aviation governing body, and in accordance with requirements prescribed by them. You must also have a tug pilot rating to tow gliders.

DROPPING OBJECTS

The only things you may drop out of an aircraft are fine sand and clean water used as ballast. You may also drop chemicals used for crop spraying and dusting if you conform to the requirements governing this.

PICKING UP OBJECTS

You may only pick up objects with the approval of the civil aviation governing body.

PARACHUTE DROPS

You may only drop parachutists in an emergency, or when and where permission has been granted by the civil aviation governing body for parachute clubs and schools.

SIMULATED INSTRUMENT FLYING

For flying 'under the hood' the aircraft must have dual controls, and you must have a qualified Flight Instructor with you, and their vision must not be obstructed.

AEROBATIC FLIGHT AND SPINS

This means flight in which there is an abrupt change of attitude, an abnormal attitude, an abnormal speed or an angle of bank exceeding 60°. Aerobatics are not permitted under any circumstances on an RPC.

VISUAL METEOROLOGICAL CONDITIONS (VMC)

The following are the flight and minimum weather conditions for VFR in uncontrolled airspace below 10,000 ft:

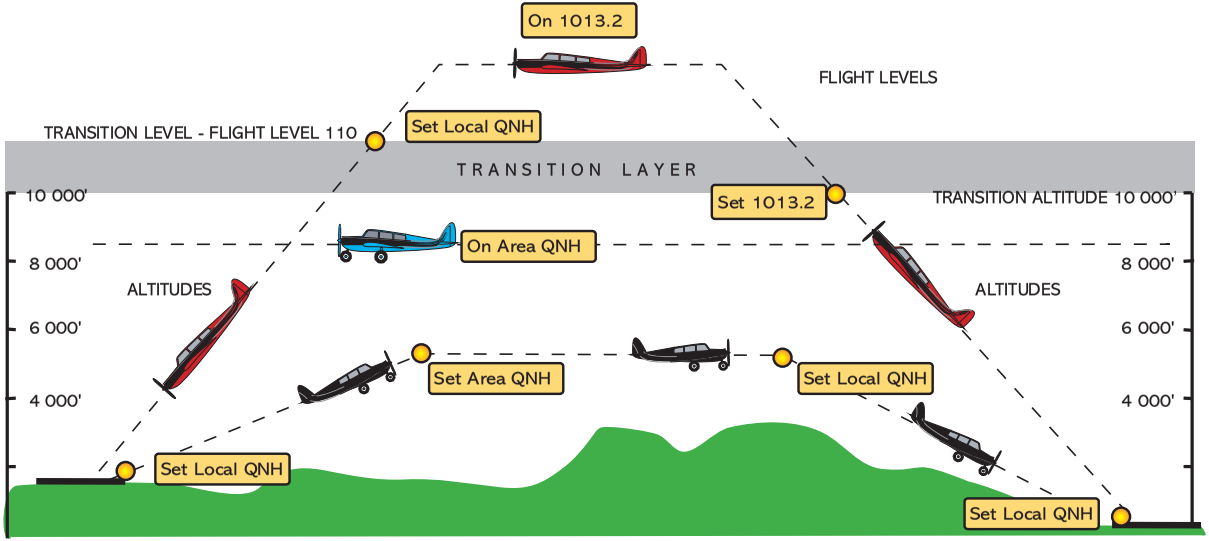
- Visibility must be at least 5km.
- You must be at least 1500m clear of cloud, horizontally.
- You must be at least 1000ft clear of cloud vertically.

At or below whichever is the higher of 3,000 ft amsl or 1,000ft agl you must remain in sight of the ground or water and clear of cloud.

Some of the above are relaxed in different types of airspace, but these are the most stringent conditions.

At controlled airfields ATC decides if the weather is OK for VFR. Away from airfields it is up to you to remain VFR.

Note. People often confuse the terms VMC and VFR. VMC means Visual Met Conditions – these are the weather conditions in which you may fly in accordance with a set of rules called Visual Flight Rules (VFR).



- Before take-off set the local QNH (or set your altimeter to airfield elevation - which will give you QNH).
- Take off and climb to your cruising altitude.
- Set the area QNH on your altimeter.
- At top of descent set local QNH which you will get from ATC or the ATIS.
- When you have QNH set, you are at an altitude and you refer to your height in thousands and hundreds of feet. For instance, you would say *six thousand five hundred feet*.
- When you are on 1013.2 hPa, you are at a flight level. You refer to it without the hundreds. So you would say *flight level one two five*.
- If you cruise above the transition altitude of 10 000 ft (for which you will need oxygen), then you change to 1013.2 climbing through 10,000 ft. When you descend, you change to local, or area, QNH at the transition level – flight level 110.

FLIGHT LEVELS AND ALTITUDES

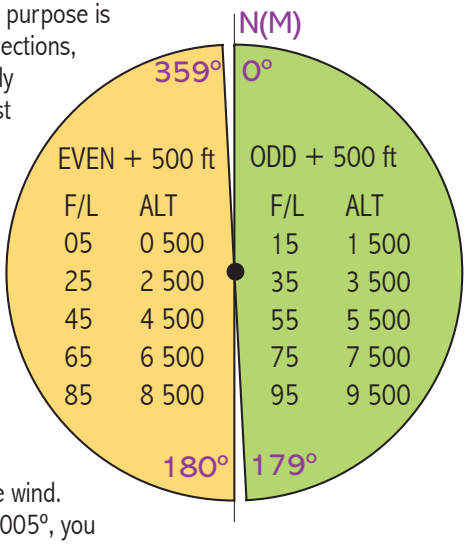
In some countries each airfield has a published transition altitude. You get the transition level from ATC or from the ATIS (it can change with the QNH).

Australia uses a single transition layer for the whole country. The transition altitude is 10 000ft, and the transition level is flight level 110.

Below the transition layer Aussies use area QNH for A-to-B flights, and local QNH for landing and take-off.

THE SEMICIRCULAR HEIGHT RULE

This rule determines the flight levels or altitudes that you may use for various magnetic tracks. Its purpose is to separate VFR traffic, flying in opposite directions, by at least 1000ft. Any aircraft on an easterly heading between 0° and 179° magnetic must use odd-numbered flight levels or altitudes plus 500ft. All westbound traffic on magnetic tracks between 180° and 359° must fly at even flight levels or altitudes + 500ft.



Remember that your magnetic track is the A to B line that you draw on your map, measured from **Magnetic North**. In other words it is your track after you have added or subtracted the variation.

It takes no account of your allowance for the wind. So if your Tr(M) is 355° but your Hdg(M) is 005°, you must use even thousands plus 500ft.

This is a requirement for all flights above 3,000 ft.

MET REPORTS

Although the regulations for different countries word it differently, the bottom line is that you must obtain all available Met information for **all** flights. This means that if you are flying to Van's farm in the bush, you must get whatever you can from Met, and top it up by phoning Van to ask what it looks like at his end.

Remember this

It is the sort of thing examiners love!

VFRG = Visual Flight Rules Guide by the Civil Aviation Safety Authority.

NIGHT FLYING

Different countries have slightly different definitions of night flying. Aussies use the end of evening civil twilight to the beginning of morning civil twilight (which you look up in charts in the VFRG).

In order to fly at night:

- You must have a night rating.
- The airfield must have the proper equipment and lighting.
- The weather must be VMC.

After that everything gets a bit vague – particularly as regards the legality of flying on a black night with no horizon – which calls for 100% instrument flying.

In my capacity as founder of the Live Cowards' Club, I urge you to confine your night flying to nights where there is no overcast and at least half a moon.

POSITION REPORTING

This is covered more fully on pages 345 and 346.

You are required to make position reports at:

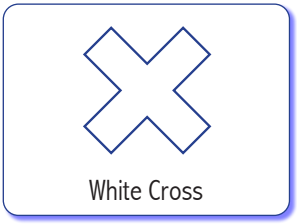
- All compulsory reporting points – including TMAs (Terminal Areas) and controlled airspace boundaries.
- At intervals specified by ATC.

GROUND SIGNALS

These are white signals that the airfield operator lays out on the ground. They may be in a 'signals square' near the terminal building, or next to the windsock, or on the runway.

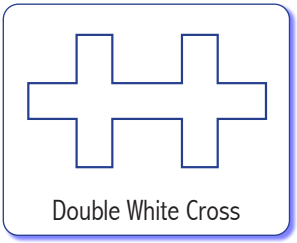
Closed Runway

A white cross on a runway means the runway is closed. Do NOT land here. This may be because of maintenance or safety issues. Just keep an eye out for other open runways to land on. If you see it displayed adjacent the wind indicator is means the aerodrome is closed.


White Cross

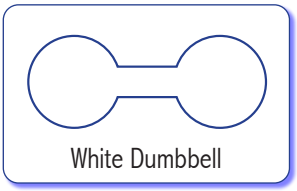
Gliding Ops in Progress

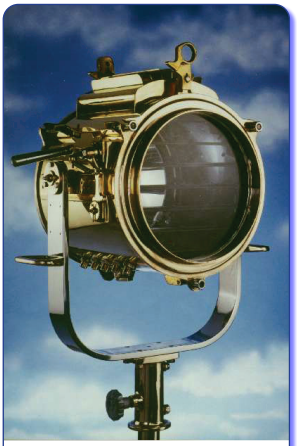
Double White Cross means gliding operations are in progress. In this case, be cautious and aware of glider activity in the area, and ensure you maintain a safe distance. Check the ERSA for a local gliding frequency.


Double White Cross

Use Hard Surfaces Only

Horizontal Dumbbell means use only hard surface movement areas. If there are both sealed and gravel maneuvering areas, stick to the sealed surfaces. In cases where there are constructed gravel and natural surface maneuvering areas, use only the gravel surfaces. Check the ERSA for local information


White Dumbbell


Aldis lamp

LIGHT SIGNALS

These are signals given by ATC to aircraft by aiming an Aldis lamp at the aircraft and giving either flashing or steady light signals. Only the aircraft in the sights of the Aldis will see the light.

These signals are given to non-radio traffic, or to aircraft that have suffered a radio failure or other emergency. For instance a bird strike causing a broken windscreen could make it impossible to hear the radio. Or an electrical fire may cause the pilot to keep the master switch off.

Here's what the signals mean **to an aircraft in flight:**

- Steady green — cleared to land.
- Steady red — give way to other aircraft and continue circling.
- Flashing red — do not land, airfield unsafe.
- Flashing green — return for landing (given after a steady red).

To an a/c on the ground:

- Steady green — cleared for take-off.
- Steady red — stop.
- Flashing green — cleared to taxi.
- Flashing red — clear the runway.
- Flashing white — return to your starting point on the airfield.

REPORTING OF ACCIDENTS

If you have an accident you must report it to the civil aviation authority and to the nearest police station as soon as possible. You must also see that nothing is tampered with or removed, and arrange for the police to guard the aircraft until you have permission to move it.

SMOKING IN AIRCRAFT

Smoking is not permitted under the following circumstances:

- When the aircraft handbook prohibits it.
- When there are NO SMOKING notices in the aircraft.
- When the pilot (you) prohibits it.
- While on the ground and during take-off.
- During the approach and landing.

ODDS AND ENDS

A list of dos and don'ts not covered above:

- DON'T land on a public road except in an emergency.
- DON'T fly after a serious illness or accident until you have been cleared by an approved doctor.
- DO remember to sign your licence as soon as it is issued.
- DO fill in your logbook after each flight.
- DON'T carry dangerous goods such as acids, firearms, explosives and highly inflammable goods.
- DO make sure that everyone on board over the age of three has a seat and seat belt.
- DO have maps for the entire route if you are going more than 20 nautical miles from base.
- DON'T fly out of gliding distance from the shore unless you have the proper survival equipment.
- DON'T fly an aircraft that has been damaged in any way that could affect its airworthiness.

QUESTIONS

1. A student pilot may not fly solo unless authorised to do so by a flight instructor.
2. A PPL may accept payment for a joy-flight as long as it is on a cost-sharing basis.
3. A PPL may fly carry two passengers if they also hold a current class two medical certificate.
4. A white dumbbell displayed on the runway means the runway is restricted to hard surfaces only.
5. You must always have at least 30mins reserve fuel.
6. When approaching an aircraft head-on, you should turn right.
7. When two aircraft are converging, the left-hand one has the right of way.
8. The minimum height you may fly over built-up areas is 1500ft above the highest obstacle within 600m.
9. The minimum height for overflying airfields is 1000ft.
10. You may drop parachutists out of an aircraft as long as they have parachute licences.
11. You must have a flying instructor with you when you practice instrument flying under the hood.
12. Aerobatics must be completed at a minimum of 1500ft agl.
13. To remain VFR you may not fly above cloud.
14. The semicircular height rule states that, for VFR, an aircraft heading between 000° and 179° must fly at odd thousands plus 500ft.
15. You reach transition altitude while climbing and transition level while descending.
16. Daylight is from 15mins after sunrise till 15mins before sunset.

ANS
1. T
2. T
3. T
4. F
5. T
6. T
7. F
8. F
9. F
10. F
11. T
12. F
13. F
14. T
15. T
16. F

IMSAFE

Assess your fitness to fly

Illness

Are you suffering from any illness or symptom of an illness which might affect you in flight?

Medication

Are you currently taking any drugs (prescription or over-the-counter)?

Stress

Are you overly worried about other factors in life? The psychological pressures of everyday living can be a powerful distraction and consequently affect a your performance.

Alcohol

You should consider your alcohol consumption within the last 24 hours.

Fatigue

Have you had sufficient sleep and adequate nutrition?

Emotion

Have you fully recovered from any extremely upsetting events such as the loss of a family member?