Our Wings Carry Your Dreams

Visual Flight Rules (VFR)

Contents

Introduction

Initially, you will be conducting all of your flying under the visual flight rules (VFR) during the day. This means that you are required to be able to see where you are going and see other traffic, and therefore imposes certain requirements on low flying, separation from other aircraft, and navigation.

VFR does not refer to the weather conditions, but rather the rules under which your flight is conducted. VFR flights, however, must be conducted in weather where you can see around you, known as visual meteorological conditions (VMC).

Once you get more experience, you may choose to get an instrument rating, which allows you to fly under the instrument flight rules (IFR). IFR flights may be conducted in VMC or instrument meteorological conditions (IMC), such as in cloud.

Equipment Requirements

Although the Robin and the Warrior are equipped with full six pack instrumentation, for VFR you only require the following flight instruments:

(a) an airspeed indicating system; and

(b) an altimeter, with a readily adjustable pressure datum setting scale graduated in millibars; and

(c) (i) a direct reading magnetic compass; or

(ii) a remote indicating compass and a standby direct reading magnetic compass; and

(d) an accurate timepiece indicating the time in hours, minutes and seconds. This may be carried on the person of the pilot or navigator.

You must also carry a radio when you are operating in Class C, D or E airspace, as well as in uncontrolled aerodromes where the carriage of radio is required (as specified in the ERSA), above 5000’ AMSL, and below 3000’ AMSL / 1000’ AGL if you are operating in reduced VMC. Otherwise, you can legally fly VFR with no radio.

Navigation

When VFR, there is no requirement for any navigational equipment.

However, when navigating VFR, if you are not using a radio navaid system, you must fix your position at least every 30 minutes by reference to the ground or water.

VMC Requirements (See Associated Mini Brief)

Because you may only have these minimum instruments, you need to be able to set your attitude outside, and therefore have an outside horizon, as well as seeing and avoiding other traffic.

Therefore, you must maintain sufficient visibility (normally 5000m), and minimum legal distance from cloud. See the associated mini brief on VMC conditions for the exact requirements.

Special VFR Requirements

If you are not able to meet the VMC requirements, you may still be able to fly VFR in a control zone, or in the associated control area steps to and from the control zone, by requesting a Special VFR clearance.

To operate Special VFR, you must maintain 1600m visibility in a fixed wing aircraft, and clear of cloud.

See and Avoid

When VFR, you, as the pilot in command, are required to ‘see and avoid’ other aircraft. This means that you must take necessary avoiding action, as per the rules of the air, in order to remain clear of that aircraft. This includes when you are operating in controlled airspace.

Separation

Your status as a VFR aircraft determines what assistance ATC is required to give you in separating you from other aircraft.

When you are in uncontrolled Class G airspace, such as the Training Area, there is no separation provided by ATC.

When you are in Class D airspace, such as at Bankstown, ATC is only responsible for providing traffic information to you on other flights, and for providing separation on the runway. For example, when operating in the circuit, you may hear, for example, ‘Follow the Cherokee on

base'. Once you have reported sighting the aircraft, it is up to you to continue following the traffic, and to tell the tower if you lose sight.

However, if you are operating Special VFR, then you will be issued with a clearance that separates you from IFR traffic, and other SVFR traffic if the visibility is less than VMC.

When you are in Class C controlled airspace, such as around Sydney, you will be issued a clearance that separates you from IFR flights. You will be provided with traffic information, and suggested action for avoiding other VFR flights.

Low Flying

When VFR, you are restricted as to how low you can fly.

Except when taking off, landing, or due to stress of weather, you must remain:

- 1,000 feet above populated areas
- 500 feet above non-populated areas

In determining this, you must calculate based on the highest point within 600 metres of the aircraft. For example, if you were flying over a town, and there was a building top at 1320' AMSL, you would have to plan to fly no lower than 2320' AMSL.

Reference Material

AIP Reference:

AIP GEN 1.5 - Aircraft Instruments, Equipment and Flight Documents

AIP ENR 1.2 - Visual Flight Rules

AIP ENR 1.4 - ATS Airspace Classification

CAR 157 - Low Flying

CAR 163A - Responsibility of flight crew to see and avoid aircraft

Part 91 (General Operating and Flight Rules) Manual of Standards 2020

Trivia

While you are restricted as to how low you can fly, you are also restricted as to how high you can fly VFR. For a normal VFR flight in Australia, you must not fly above 20,000', or FL200. Above this, you must only conduct VFR flight as part of an IFR flight under a VFR-on-top, or associated procedure. Above 12,500' you, as the pilot, must use oxygen or have a pressurised aircraft.