Separation

How often have you had trouble seeing an aircraft that you know is there, even from a couple of miles away? You're inbound, someone broadcasts on downwind, you look and look, and he's on final before you see him. It proves how valuable the radio is as another pair of eyes. But how do ATC and Flight Information Service help you with that?

Class C

In Class C airspace, IFR aircraft are separated from everyone, VFR and other IFR. That's the level of service you expect when you pay for an airline flight, and it's the level of separation that, if done properly, avoids a major-headline midair. As a VFR pilot though, you are not given separation from other VFR aircraft. You get traffic information, and the separation is up to you. The exception is on the runway, where ATC provides separation for everyone.

To help ATC to help you, you must have a Mode C or Mode S transponder, meaning one that can transmit altitude. So ATC can separate you properly, they'll give you a discrete transponder code.

Class D

Class D means controlled airspace without a radar service. Because there's no radar service, you don't have to have a transponder, whereas in Class C you do. Class D is relevant to a lot of us because Jandakot is Class D. YPJT is within the Perth radar environment, but the controllers there don't use any radar to do their job. For that reason, if you have a transponder you squawk the standard code for controlled airspace when you haven't been given your own discrete code, which is 3000.

In Class D airspace you're not separated from anyone. You get information, and in a busy circuit such as a Jandakot, you get sequencing. All that means is that Tower tells you where you are in the queue, and who you have to follow. The separation is up to you. When you call on downwind and they say "PGL, number 3, follow the Cessna late downwind", they expect you to sight and follow that Cessna. They assume you've seen the traffic unless you tell them otherwise. That's why, if you haven't seen it after a few seconds (which of course you did before you turned because you keep a good lookout), you need to tell Tower so they can continue to help you.

As in Class C, ATC provides runway separation, so they won't clear you to take off or land unless the runway is clear. But in the circuit it's your job to separate yourself so you're not right on the tail of the aircraft ahead when he's doing a full stop. Tower will tell you to go around if need be, but don't let it be your own stupid fault for getting too close.

Class E

Class E airspace starts at 8,500 ft, and in some cases higher. IFR aircraft in Class E airspace get ATC service, which means for them it's controlled airspace. They get separation from other IFR traffic, and information on VFR traffic where it's practical.

As a VFR aircraft in Class E, you only get FIS, meaning for you it's uncontrolled airspace. But there's one little proviso. To help ATC to give the IFR traffic information about you, you must have a transponder, the same as for Class C.

Class G

This is obviously where you spend most of your flying time or, or all of it if you're one of the people who's scared of controlled airspace. In Class G, FIS doesn't separate anyone from anyone. IFR flights

operate on full reporting, so FIS is able to give them information on each other. That's why you hear IFR pilots telling FIS their intentions and FIS replying: "No reported IFR traffic" or words to that effect. Depending on workload, FIS will also give them information on VFR traffic.

Because you often fly around in Class G without talking to Melbourne Centre (FIS), all they know of you is a dot on their screen with "1200" and your altitude and groundspeed next to it. That is, of course, provided you've turned your transponder onto "ALT."

But despite not being legally required to, FIS will help you out if workload permits.

If you haven't talked to them, and you're traffic for someone who is talking to them, they'll identify you by position, altitude and track. For instance, if you're buzzing along towards Cunderdin and an IFR aircraft tells FIS he's on descent into Cunderdin from 5000 ft, you may hear something like "Traffic is an aircraft 7 miles west of Cunderdin, 3000, tracking east, intentions unknown." If that sounds like you, that's your cue to identify yourself to FIS and the IFR traffic, and to arrange your separation. FIS may get you to squawk Ident, and a good IFR pilot will not pass through your level until he's completely satisfied that you're no threat, preferably by seeing you.

One service that many VFR pilots don't use, but which is available if FIS workload permits, is Flight Following. This can include traffic information, and navigation help if you need it. In busy skies you may not get the service, but in our relatively unpopulated little COVID-19 hard border bubble, most of the time they'll have time to offer you the service. Have a look at this link if you're not familiar with Flight Following:

https://mirror.airservicesaustralia.com/wp-content/uploads/flight_following_fact_sheet.pdf

But whether it's Flight Following, FIS advising other traffic about you, or you just want help with traffic or navigation, don't be scared to ask. They're there to help.