

Too many rules

When I learnt to fly in the long-ago 1980's, the Civil Aviation Regulations were an A5 book of about 100 pages, and we had Civil Aviation Orders and the AIP. Since then the CAR's have expanded like a weather balloon on its way to 60,000 ft, and we've seen the introduction of Civil Aviation Safety Regulations (CASR), Civil Aviation Advisory Publications (CAAP), and numerous changes in where information is written. And over the years the federal government department in charge of it all has gone through a variety of name changes including Department of Transport, Department of Aviation, Department of Civil Aviation, and Department of Transport and Regional Services. This week it's called the Department of Infrastructure, Transport, Regional Development and Communications. So if you have trouble keeping up with it all, you're not alone. Here's a bit of background about it all fits together.

The regulator

Once upon a time the Civil Aviation Authority was the regulator. Within that organisation a culture had developed that CAA was a servant of the industry, and even as regulators they had to consider the viability of the industry. And yes, there's truth in that – CASA should not regulate general aviation out of existence – but back then it led to inadequate oversight of operators who shouldn't have been flying, and it contributed to the Monarch Airlines crash at Young, NSW in 1993, and the Seaview Air crash on the way to Lord Howe Island the following year, with the loss of all on board in both cases. Those totally avoidable accidents led to the dissolution of the CAA and the formation of the Civil Aviation Safety Authority, which was all about safety. Provision of aeronautical information, navigation aids, ATC and airport firefighting is the job of Airservices Australia.

The International Civil Aviation Organisation (ICAO) is a UN agency based in Montreal, that manages adherence to the Convention on International Civil Aviation, better known as the Chicago Convention, which was held in 1944. CASA does its best to make rules that comply with ICAO. One example of complying with ICAO is the format of the AIP book, which has quite a few sections with nothing or very little in them, such as ENR 1.8, which is only there because the ICAO format dictates a section titled "Regional Supplementary Procedures." Another simple example was the change some years back to putting your callsign at the end of a readback instead of the start.

The types of flying

CASA's risk management approach to rule-making means they take into account:

- The probability of something going wrong in a type of activity (eg. mustering in a helicopter is more likely to result in an accident than a typical airline flight);
- The consequences of an accident (the helicopter mustering crash will only kill one person; the airline crash will kill 200).

Another principle is that the rules should provide a higher level of safety for people who have limited knowledge of or control over the risks. So the rules offer a higher level of safety to the airline passenger who just bought the cheapest ticket and has no idea how good the pilots are or how well-maintained the aeroplane is, than to the private pilot who understands the need to rock up sober, read the forecast, preflight the aeroplane, and do all the things that reduce your risk.

Air transport operations

Once upon a time CASA distinguished between Regular Public Transport (RPT), meaning fixed schedules and fixed locations (known to us the cognoscenti as airline flights and to most people as “commercial” flights), and charter. Charter meant either regular but not public (eg. FIFO to mines) or public but not regular (eg. Ring an operator and book an aeroplane and a pilot to take you to Kalbarri for the day). Now they’re grouped together as air transport operations, which includes cargo and medical, and which no longer depends on the size of the aeroplane. This is about the people who have limited knowledge of the risks. It requires an Air Operator’s Certificate (AOC).

Aerial work

Aerial work is using an aeroplane for specialised purposes, where there is some extra risk, either in terms of likelihood or consequence. It includes a wide variety of specialist operations such as crop spraying, survey and SAR. This requires an Operator Certificate, which is not the same as an AOC, but we’ll ignore the differences here.

General aviation

This comprises the remainder, and includes flight training (which used to be classed as aerial work), sport aircraft and meat bombing.

The hierarchy of rules

The central piece of legislation for aviation is the Civil Aviation Act 1988. You’re not going to read that, and you don’t need to.

The second tier is regulations – CASR and CAR. The third tier includes Manuals of Standards (MOS) and Civil Aviation Orders (CAO). They’re all available via the tab titled Rules on the CASA website.

Other places where you can find rules and information, such as the Aeronautical Information Publication (AIP), circulars, Plain English guides and the VFRG, are not legislation.

CASR

CASR first appeared in 1998, and they’re gradually replacing CARs, so they’re becoming something of a one-stop shop for rules. The Parts of CASR are typically grouped around a theme. For instance, Part 61 is Licensing, which is why we all now have Part 61 licences. Parts that are associated with that include Part 65 – ATC Licensing, Part 67 – Medical, and Part 141 – Flight training.

Another example is Part 91 – General Operating and Flight Rules, which includes information as diverse as which documents you have to carry, minimum heights, VFR, rules for right of way, refuelling, and safety briefings. Previously that information was scattered throughout CAR’s, CAO’s and AIP. There are quite a few other parts associated with Part 91, including Part 121 – Air transport operations for larger aeroplanes, Part 131 – Balloons and hot air ships, and Part 137 – Aerial application. So while we all comply with Part 91, Qantas and Virgin also comply with Part 121, our ballooning friends also comply with Part 131, and the Agtruck pilots also comply with Part 137.

Manuals of Standards

Because MOS are not legislation, they are quicker and easier to change than CASR. As an example, take safety briefings. You’ve always been required to do one, and that rule will never change; it’s now CASR 91.565. But the required contents of the briefing may change. (Who remembers, back in the 1980s, being told to put your phone in Flight mode?) The contents of a safety brief are in the Part 91 MOS. Another example is cruising levels. Part 91 says you must cruise at a level appropriate to your track; the MOS specifies the levels. Other examples of rules in the Part 91 MOS include alternate

requirements, reserve fuel, passenger safety briefings and flight instruments, which were previously in AIP and CAO.

Some other types of instruments

Airworthiness Directives (AD's) are another example of an "instrument" that CASA can use to advise of rules or requirements. These are usually issued when an aircraft manufacturer identifies a potential safety problem. An example a few years ago was Cessna's directive to replace wing spars in 172's, which led to an AD from CASA and a nice bill from Northam Air Services to the owners of PGL.

Authorisations are another type of instrument, and they can range from approval of an operations manual that will allow a company to operate, approval of a Head of Flying Operations (what used to be called a Chief Pilot – there's another change), or approval to conduct a fireworks display.

Exemptions from compliance with regulations can be issued, generally after a request from an operator.

Information that is not legislation

For a VFR pilot, the AIP includes the AIP book, the ERSA and charts, and AIP Supplements and Aeronautical Information Circulars (AIC), all available on the Airservices website. The AIP Sups and Circulars generally include information that is either temporary or will eventually be included in the AIP permanently. An example of the former is AIC H08/24, about Perth Airport pavement upgrades, and an example of the latter is the SUP H05/24, about amendments to the ERSA entry for Sunshine Coast Airport, which will be incorporated into the June edition of ERSA, at which time the SUP will be cancelled.

Some other types of information that you may find useful from time to time include:

- Advisory Circulars (ACs), such as AC 91-16 – Wake Turbulence and AC 21-99 – Aircraft Wiring and Bonding. Many of these are partly identified by the section of CASR that involves them. Wake turbulence is relevant to Part 91 – General Flight Operations, so the AC has "91" in its title, and AC 21-99 relates to Part 21 – Certification and Airworthiness Requirements.
- Civil Aviation Advisory Publications (CAAPs). These were numbered according to the CAR that they related to. For instance CAR 234 said you had to carry enough fuel, and CAAP 234 defined "enough", such as 45 minutes' fixed reserve. Since CARs are gradually being replaced by CASRs, the CAAPs are gradually being replaced by ACs.
- Plain English guides, such as for Part 91, which applies to all pilots including those who don't want to wade through the CASR to find answers, and CAO 48.1 – Fatigue Management, where the rules are so complicated that even the Plain English Guide is hard going!
- Information sheets and kits that cover a wide range of topics such as the VFRG, aviation medicine and human factors, and the StayOnTrack series on flying around our capital cities.

Have a browse through <https://www.casa.gov.au/resources-and-education> and see what you can learn.

And as to the question from last month about the airspeed velocity of an unladen swallow: any good Monty Python fan knows that to answer that, you first need to know whether it's a European or an African swallow.