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22 August 2002

BUYING AND SELLING AN AMATEUR BUILT AIRCRAFT (To be Published in the September 2002 Issue of Australian Ultralights)

The issue of responsibility in the quality of an amateur built aircraft has raised its ugly head again and yours truly has become so deeply involved in a particular case that it may be time to refresh the memories of those who may have read my previous articles; to explain it again to those who were members (receiving the magazine) and did not read (or comprehend) them; or to advise those who were not members at the time and who are joining the large numbers of amateur builders.

If you don't feel like wading through the following, the point you should take with you is that anything dealing with an amateur built aircraft is the responsibility of the builder, the owner or the purchaser and with those people alone. No other person or organisation carries any responsibility.

The logic behind this follows.

The AUF Amateur Built Ultralight is based on the category "operating amateur built" in CASR 191(g) and is specifically defined in CAO 95.55 para 1.5. For the purposes of this discussion this is: "an aeroplane the major portion of which has been fabricated and assembled by a person who undertook the construction project solely for the person's own education or recreation, has a MTOW not exceeding 544kg and a stall speed in the landing configuration not exceeding 45kt CAS".

The weight and stall speed limits in our case are there to define Ultralight, while the Major Portion bit is there to make the builder responsible for his own fate and relieve everyone else, including government, of responsibility placing it squarely on the builder, or if it is sold, on the owner.

The Builder and the Builder Alone is Responsible. (See later for the case where the aeroplane changes hands - when the responsibility is transferred to the new owner). CASA is a Government instrument and the Government has been put there by the people to look after the people. Against this, could you really call the act of allowing someone with no practical skills to design, build and fly an aeroplane of their own design and construction be called "looking after people"? Many in the Public felt that it should be everyone's right to design, build and fly an aeroplane without government interference if they are prepared to take full responsibility themselves. This was achieved in part years ago when CAO 95.10 was introduced, but progress beyond this toward higher stall speeds and take-off weights became bogged down in Australia by definition, legalese and bias.

The US system contained this principle of personal responsibility in its Experimental Category - Amateur Built, so pressure was applied on CASA (and the Government) to adopt the US experimental system. The argument progressed for years and it was not until the legal concept of harmonising Australian Aviation rules and regulations with world standards that this was achieved with the introduction of the new legislation late in 1998 where the CASR (1998) 21.191 introduced the Experimental Category. To be charitable to CASA for its tardiness in introducing Experimental, a major stumbling block was the carriage of responsibility for the finished aircraft, large among these being the problems facing the Inspector who gives the permission to fly. How does he know the integrity of design, material and construction of things deeply embedded in the structure which

are not inspectable: mainspars, fuselage strength - indeed for the whole of the primary structure, control systems etc?

The answer is that he cannot, so a system needed to be put in place clearing the inspector and placing full onus on the builder; or for someone finishing a part built aeroplane, on the finisher. From this it follows that if someone purchases a complete amateur built aeroplane, responsibility rests on the purchaser. This is the very nub of Experimental Amateur Built or AUF Amateur Built. The Government allows people to build and operate what they want provided there is no expectation of any of the traditional guarantees the public has come to expect from Government and that builders and operators take full responsibility upon themselves.

These aircraft are what are now known as AUF Amateur Built or Category 19 (19-xxxx registered) aircraft.

Building from Kits However, nothing is simple. Here, as in the US people then decided they wanted to build from material packages and kits as well as being able to build from scratch. This muddies the water because the public expects that the government looks after what people buy: eg condoms, toasters, push-bikes; sandwiches, cars etc. So what about aircraft kits? If something goes wrong with a product, (these days) the aggrieved party runs around trying to sue someone - ably assisted by the legal profession. In the end, they generally focus on the government because it has "pots of gold" to sue for and is supposed to write laws looking after people protecting them against themselves.

CASA has a system under CAO 101.28 where people can build from CASA approved kits under the supervision of CASA approved persons (presently the SAAA) producing an aircraft designed, built and maintained to approved standards where the public could have some degree of guarantee by the government. These can be registered VH with a Certificate of Airworthiness under CAO 101.28, or those meeting Ultralight specifications are registered in the AUF as 28-xxxx when a certificate of compliance is received from the SAAA certifying compliance with CAO 101.28.

However, with the advent of the AUF Amateur Built and the GA Experimental system, the concept was that the builder could build anything. Building from an unapproved kit was one of the reasons the Experimental Category took so long to be accepted in Australia because an aeroplane made from a kit could not be said to be entirely the builder's own work and hence responsibility. From listening to the rumblings while I was in CASA, I gained the impression that it also had something to do with the different approaches of governments. It seemed that the charter in the US was that the government fostered aviation whereas in Australia, it went something along the lines of ensuring aviation safety. Thus, the two national approaches were different when it came to amateurs.

The Solution. The solution came from the fact that if someone made more than half of the aeroplane himself, then the law would accept that the responsibility for the aeroplane lay with that person and that person alone. This gave rise to the Major Portion or 51% rule. Kits purchased on the basis of the Major Portion Rule are not "approved" by the government: they are considered to be "eligible" for experimental amateur built by virtue of the Rule. The philosophy here is probably based on the fact that if you consider you can design or accept responsibility for 51% of the design of an aeroplane and then build more than 51% of it, you have taken the responsibility for it. Thus, if you fabricate and assemble more than 51% of the aeroplane yourself, you and only you are responsible - and you sign for that before the first flight.

If you are backyard lawyer and reckon that's wrong, have a go, but it's enshrined in International precedent now. It also means your loved ones will have an expensive fight if you don't come home one day while flying your experimental aeroplane which you have agreed is your responsibility and your responsibility alone. That's why the AUF requires that the major portion rule be met, why you must build it yourself and why some of the quick build kits are of concern. Nevertheless, the builder signs a document accepting full responsibility before the first flight in any case.

Eligibility under the Major Portion Rule. The requirements for Government acceptance of a kit as being eligible under the "Major Portion Rule" are specified by CASA in an Advisory Circular, AC 21.29(0) which is available from the CASA web-site, the kit must: be declared eligible by either CASA or the AUF; be listed on the FAA (US) Amateur Built Kit List or it must have a CASA ABAA (Amateur Built Aircraft Acceptance) from CASA. The AUF has developed procedures to be followed for determining eligibility and these, together with listings of aircraft that have been declared eligible are available on the Constructors page of our AUF web site. Note that the CASA AC is included in its entirety in the AUF procedure and that the AUF has requirements additional to those of CASA.

Buying and Selling. There are all the usual procedures associated with buying and selling an Amateur Built Aeroplane, but the topics discussed here are those of workmanship, quality and responsibilities. The need for what follows has arisen from concerns of a purchasers and builders.

As laboured above, there are no external quality controls on the building of an Amateur Built Aircraft to CAO 95.55 para 1.5 meaning that the aeroplane quality is entirely the business of the builder so the quality of the aeroplane – in workmanship, material and design is an unknown to anyone other than the builder – and even then, *depending on the builder's background, it may even be an unknown to the Builder!!!*

Advisory information supporting our rules also recognises that an Amateur Built Aircraft is an Amateur Built Aircraft throughout the building process regardless of whether it changes hands during construction. The purchaser then becomes the builder and accepts full responsibility. It is a concept accepting that the purchaser has the freedom to purchase a part completed project, is free under the experimental system to exercise personal judgement on the project and in doing so accepts full responsibility. This extends to the purchaser of a completed Amateur Built Aeroplane: the owner carries full responsibility as if he/she was the builder continuing the underlying principle of the Experimental Aircraft System - Operating Amateur Built where those involved accept full responsibility understanding that the Government and its Authorities (such as the AUF) are not involved with the airworthiness of the aircraft in any way.

Then along comes Bloggs who wants to buy this terrific aeroplane built and registered under the Amateur Built system, only to find after purchase horrible things about the aeroplane: low quality parts, shoddy workmanship and lethal handling characteristics.

Whose responsibility is it?

If I have explained the system properly, you would've answered "Bloggs" (and for an honours answer you would have added, "and no other person or organisation"). Whilst the AUF will help people with problems, neither the AUF or anyone else can be held responsible.

As a dedicated long term AUF member (if not only at the suggestion of "Middo"), it might be timely to raise a point of caution. Regulation overtook the Ultralight Movement in the 1970s and early 1980s in response to public concern over Ultralight activities and fatalities. This gave rise Government involvement through the politicians which led to a Parliamentary enquiry known as HORSCOTS which gave rise to CAO 95.10 and 95.55 as well as the requirement for aircraft standards and the AUF itself. Regulation (and battles for freedoms within it) continues. The AUF has a magnificent freedom in the Amateur Built concept and it is up to everyone to preserve it.

Quality of construction, like flying and airworthiness is a discipline, all of which are essential for flight safety. Anything that smacks of shoddiness in amateur building enough to draw public attention can filter through from the public to the politicians to the CASA to more red tape - that dreaded bureaucratic interference in AUF Operations. None of us wants this (including the regulators) as it will involve more cost and inconvenience to members. As has been said before, the AUF is a high quality team and relies on every single member to maintain high standards to enable the AUF to keep costs to the membership as low as possible. This requires a continuing effort on everyone's part. (...and don't forget that the AUF still has enemies out there ready to ridicule and hold any unfortunate occurrences against us with Government).

The really scary part involves the ramifications of passenger or bystander injuries in an Amateur Built which progresses to involving the legal fraternity – but then there is the placard required by law to be in clear view of all occupants which states: “WARNING: This aircraft is not required to comply with the safety regulations for standard aircraft. Persons fly in this aircraft at their own risk”. The situation would probably degenerate into a “legalfest” and a “regulationfest”, although there should be precedent from overseas for guidance.

I have heard it said of the US system that the true regulator of the experimental system is not the FAA: it is the legal and insurance system.

For the very cautious, there are some in the US where the concept of "Experimental" commenced who offer the following advice to those who are concerned over where they might stand years down the track with regard to ancestral liability after their amateur built creation has passed through several hands. It goes: "When you've finished with it, BURN IT!". This would be a quick answer for a fail safe way out for the faint of heart for the time being.

Think about it.

A handwritten signature in black ink, appearing to read 'RHC', written in a cursive, slanted style.

R Hewitt-Cook
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