

**An article written by Dick VanGrunsven concerning possible changes in FAA certification procedures appeared in the February, 2008, issue of EAA's flagship magazine, *Sport Aviation*.**

**In that article, there was a reference to an article that appeared in the Fourth Issue of the 2007 *RVator*. That article is reprinted here.**

## *POKIN' THE BEAR*

*Dick VanGrunsven*

*Let's say you want your bear to go stand in the corner.*

*Since he doesn't understand English, you don't bother asking politely. Instead, you push and prod him gently toward the corner with a little blunt broomstick. Grudgingly, he goes. But finally he starts to feel trapped and decides he's had enough. Does he, in the spirit of fair play, acquire a similar stick and poke gently back?*

*Of course not. He's a bear. He takes a swift, powerful swipe with a massive paw and steps over your bleedin' carcass as he leaves the corner and goes about his business.*

*Think of the FAA as the bear. They have been given the very difficult task of licensing a whole category of airplanes based on the airplane builder's intent. Now, some folks in the experimental airplane world have taken the latitude inherent in that difficulty and stretched it far past the point where the bear is comfortable...and the results may be distressing for all of us.*

*In an effort to keep the bear out of the corner, Van has spent a great deal of time in meetings and on committees. Here's his report:*

There has been a quite a bit of discussion recently regarding the FAA's view, or perhaps review, of the Major Portion Rule for qualifying kit built aircraft for airworthiness in the Experimental Amateur Built category.

As we all know, this category was created about 60 years ago as an exemption from the requirement of obtaining type certification for an aircraft. Basically, it permitted the licensing of homebuilt aircraft which need not comply with normal certification standards. As a trade off, they were not to be flown for hire, and their building was to be non-commercial; for the purpose of education and recreation. Overall, this category has offered privileges and freedoms to homebuilders which have been envied and emulated by many other countries.

Over the years, homebuilding grew in popularity, better aircraft designs and kits evolved, popularity grew even more, etc. About 30 years ago, as basic kits were becoming commonplace, one advanced and very complete kit drew critical FAA attention. To assure that it met the Major Portion definition of the Amateur Built category rules, this kit was reviewed by the FAA and a checklist (FAA form 8000-38) was created. Formally, its title is FABRICATION/ASSEMBLY OPERATION CHECKLIST, and its purpose is to determine whether an airplane built from a specific kit can qualify for licensing as Amateur Built. To do so; it must be 49% or less complete as supplied by the manufacturer. It lists all tasks required to build an airplane, and has columns for checking whether each task was completed by the kit manufacturer, by the builder, or shared by both. Kit manufacturers use this list when they have their new kits evaluated for 'major portion compliance by the FAA. Generally, the FAA and DAR inspectors have not required that the aircraft homebuilders use this form to show that they completed all of the required tasks for their 50% plus major portion. Usually all they require is that the builder sign an Affidavit stating that he (or she) built the aircraft.

Though homebuilt aircraft were originally, and mostly continue to be, personal alternatives to commercially produced airplane, many kit aircraft became so good (high performance, fun, etc.) that some pilots sought to have these aircraft custom built rather than building it themselves. Thus, the Pro-Built or "Hired Gun" experimental aircraft became increasingly common. There is nothing inherently illegal about performing commercial assistance to a homebuilder, or even completely building the aircraft for the owner. However, it can become fraudulent and illegal if a person attests to the FAA that he built an airplane, when in fact someone else commercially built it for him.

About 10 years ago the FAA became concerned about the level of pro-building it observed, particularly regarding a complex "homebuilt" jet being promoted at the time. They held meetings

at Oshkosh for the purpose of curtailing such apparent abuses of homebuilding rules. That particular jet dropped out of sight for business reasons, but the meetings did result in the creation of FAA Advisory Circular AC 20-139 "Commercial Assistance During Construction of Amateur Built Aircraft."

The directives established in this AC were followed by some who have established legitimate commercial assistance shops to aid homebuilders. It has obviously been ignored by the pro-build shops, and perhaps by some in the FAA. Pro-building seemed little effected as a result of the meetings and the AC. I think that this was partially due to a disconnect between FAA Washington DC and FAA inspectors in the field, and because of the admittedly difficult FAA task of job policing the intent of why and by whom an airplane was built. Incredible as it may seem, I know on good authority that one FAA head inspector personally issued Amateur Built certificates for planes he knew to be professionally built! This period also saw the emergence of DARs who took over much of the homebuilt aircraft inspection workload from the FAA. Either because of lack of direction from FAA HQ, or perhaps in some instances because of business reasons, DARs often issued licenses to pro-built kit planes. So, a condition persisted where everyone knew what the regulations stated, but also knew that these regulations were either being circumvented or ignored. I often heard the comment that "The FAA doesn't object to pro-built Experimentals because they are better and safer than if done by an amateur." This was never a formal FAA policy, but many seemed to conclude that pro-building experimental A/C was acceptable; even sort of an entitlement.

For some of the more complex kit planes, the kit manufacturing companies began offering in-house builder assistance, which is an acceptable practice if done within the guidelines of the AC. An extreme example of this began a couple of years ago when one new kit manufacturer began offering a 6 seat, pressurized, turbine powered kit plane which was only available on a "builder assist at the factory" basis. This, plus other instances where modified production aircraft were being re-licensed as Amateur Built, got the attention of the FAA administrator. The Experimental Amateur Built category had become a convenient dumping ground for aircraft which should have been licensed in some less convenient, but more appropriate category. A task group was formed to "fix the problem". Fortunately, (I think) EAA and industry representatives – including me -- were included in the task group.

A series of four meetings over the past year have resulted in recommended changes in the wording of rules and forms. These changes are intended to discourage attempts to license pro-built airplanes as amateur-built, and to give the FAA (and DAR) inspectors more instructions and authority to control this abuse. Later in the meeting process, discussions included the effectiveness and relevance of the kit checklist which determines major portion. Backing up a bit, the FAA's primary concern had been the outright pro-built airplanes and perhaps the emergence of essentially factory built with builder assistance. The absolute accuracy of the -38 form in measuring 51% and 49% was not a prime concern. Really, if a homebuilder performs only 45% of the work instead of 51%, that builder has essentially complied with the intent of the rule. It may in a strict sense be an abuse of the rule, but it is certainly not the level of abuse which would attract high level FAA attention.

Unfortunately, because of the attention attracted by major abuses of the amateur built rules, the FAA is now focusing on details of the -38 form. We fear this attention could have an adverse impact on the future of homebuilding. For instance, it has been a common practice for the kit manufacturer and the builder to share (both get credit check marks) for certain tasks. This at first glance would seem to result in a canceling or neutralizing effect, but it really doesn't in the final count. It permits the manufacturer to contribute his tooling and technology to a task, and the builder to contribute his skilled labor. Another recent FAA demand is that the builder perform a major portion of the fabrication tasks as well as the assembly tasks. This essentially would require more hacksaw work, more raw materials in the kits, and perhaps welding, on the part of the builder rather than the manufacturer. We on the industry side feel that such requirements would be a giant step backward both for safety and marketability, and would contribute little if anything toward addressing the primary problem of pro-building.

There will probably be little direct impact of the forgoing on those of you who are now building, because your kits should be protected by grandfather rules. Anyone having an aircraft pro-built, or employing an excessive level of commercial assistance, should be aware that licensing such aircraft as an amateur built is going to become difficult, if not impossible.

We are still working with the FAA to minimize any rule or policy change impact on mainstream, complying homebuilts and homebuilders. We are trying to keep the questionable activities of a

few from adversely affecting the majority of homebuilders. As you all know, the homebuilding movement has been a great benefit to general aviation, not only because of the industry which it has generated, but most importantly because of the freedoms and opportunities it has made available to tens of thousands of builders like you who's lives have been enriched by the opportunity to build and fly their own airplanes. The above is, at this time, just for your information so if a time comes when your input and support can be of assistance, you will be better prepared.