

Top 10 Reasons People Stop Building Their Airplanes

And top tips to deal with the challenges that may arise.

By Lynne Wainfan

Perhaps you're one of the many people who have started building an airplane and have run out of steam, at least temporarily, on your project. Have you ever wondered how other people have managed to push through the same challenge that you've found? Maybe you're considering buying a new kit and you'd like to avoid the project turning into a dust-collecting, shin-scraping permanent obstacle in your garage.

Recently, I posted an unscientific survey on an Internet newsgroup for homebuilders (rec.aviation.homebuilt) that asked people, "Why have you stopped building your airplane?" The responses I received showed that the builders had a number of reasons in common, some that could have been avoided, and some that can be overcome.

Here, in approximate inverse order, are the top 10 reasons people have stopped building their airplanes, along with some suggestions for how to prevent or overcome the problem.

Reason No. 10: Job Change

Working longer hours and having more job-related travel were cited as reasons people stopped or slowed their building projects. While it is hard to completely predict the future,

you might be able to account for an upcoming job change in your choice of airplanes to build. About to get a promotion? Perhaps an easier project would be best. Will the longer work hours be temporary? You might want to hold off on starting a project until you have a more regular schedule.

If you're in the middle of your building project, there may be ways to keep the project on track by trading money for time. For example, instead of covering and painting the airplane yourself, spend some of that overtime pay on a professional covering job. Often, the challenges associated with the job change are temporary, but meanwhile it's hard to sustain the enthusiasm to finish the airplane.

Reason No. 9: Ran Out of Money

Perhaps you need to work longer hours to earn more pay (but then, of course, you'll have problem No. 10). Getting more information before starting the project can sometimes prevent this problem. Also, consider building from plans rather than a kit. Plansbuilt projects are less expensive, and you can buy the components as you go along.

Some builders reported that the tools and hangar rent cost much more

than they expected, or they didn't know it would be so expensive to rewire the hangar for the 220-volt tools they had bought. Make sure you have a realistic estimate of the total cost of the project, including all components of the final airplane, tools, supplies and hangar rent. Rent adds up as a project stretches out, and sometimes losing a hangar-mate for a number of months can really hurt.

Another tip is to get an estimate of how much it will cost to own and operate your aircraft, including fuel and insurance. Make sure you are not starting a Cadillac-level project on a Chevette-level budget. If you find yourself running out of money, you might be able to regroup and find a cheaper hangar (preferably one fully tooled up by generous hangar-mates), store the project inexpensively for a while until you can afford to continue, or trade your project for one that's less expensive to build or operate.

Reason No. 8: New Kids

As the mother of three, I can relate to this one. When my first daughter was 1, we started building the Facetmobile, the airplane my husband designed. We brought Katie to the hangar every weekend and took turns playing with her when she was-

n't napping. As she got older, we gave her work to do, such as sweeping the floor or sorting hardware, to make her feel like she was part of the project. Any guilt I felt for not spending every free moment with her vanished when she was 6 years old, and I could see she was inspired by our building

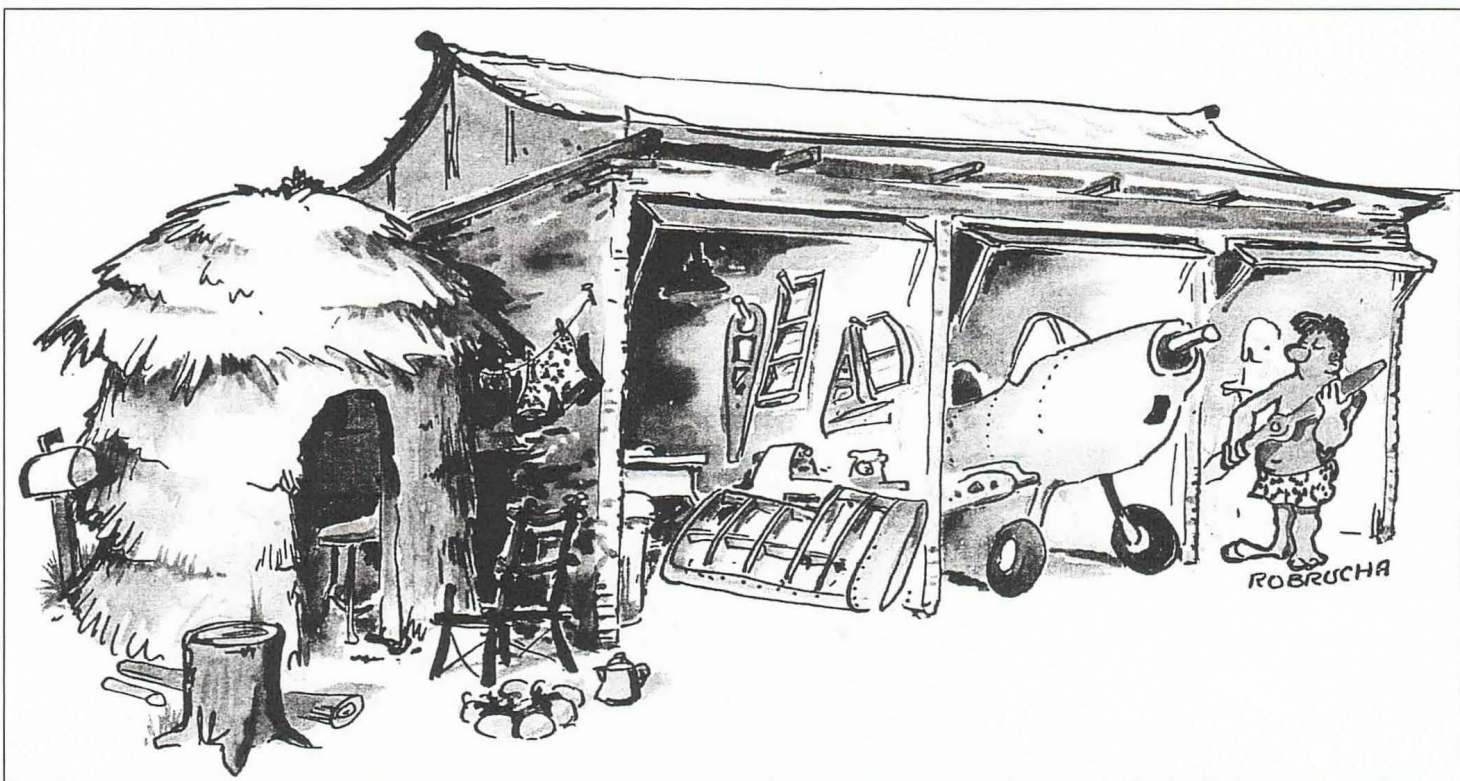
antique airplane when you're done.

Reason No. 7: Had to Move

People reported that the move to a new house was what did their projects in. In some cases, they couldn't find a nearby place to finish the project. In another case, careless movers

you need a bigger airplane. Some people reported that they started building the airplane and then decided to build a car or a boat. For whatever reason, they fell out of love with the project they started.

Before this happens to you, spend sufficient time in the courtship and



Make sure you have suitable shop space lined up before you start to build.

experience. One of her inventions earned her a television spot and an award from the patent office.

Before you start your project, discuss your plans with your spouse. Make sure you both have a shared view of how long the project will take and when you will work on it. Discuss your spouse's role in the project, as well as the kids' (see my article "How to Build an Airplane and Avoid AIDS [Aviation-Induced Divorce Syndrome]" in the November 1996 KITPLANES®). If you have already started building, you might overcome the new-kid challenge by moving the project from the hangar to the garage. This lets you use those smaller bits of time on weekday evenings. Another option is to wait until the kids go off to college, and then you have an instant

damaged the airplane.

Typically, a new house requires a lot more time (unpacking, repairing and fixing-up) than expected. The advice here is to have a realistic expectation of the amount of time and planning it takes to move into a new home.

Another option is to move the plane into the new garage. Our realtor was most amused when we told her that our dream house should be wired for 220 volts, and should have a two- to three-car garage, which would never have cars in it.

Reason No. 6: Got Interested in Another Building Project

With all the new designs coming out, it's not hard to believe that many people start building one plane and then see something they like more. Perhaps the family has grown and

dating phase; do your research to find out if there is anything else that might meet your current and future needs better. Find others who have built your type of plane and hound them for information and rides. Sometimes going for rides in the same type of airplane will encourage you to keep building. Don't go to boat shows.

Reason No. 5: Waiting for Parts from the Factory

Kits come in two forms: complete kits and a series of partial kits. One kit on the market reportedly comes so complete that a razor blade is included along with the shrink-wrapped parts to open the packaging. The manufacturer even includes a bandage for those who cut themselves with the razor blade! Most

Reason No. 4: Didn't Want to Fly the Airplane, Even When It Was Finished

kits are delivered in stages, either because the factory's process is set up that way or because it allows you to pay as you go. Unfortunately, some kit manufacturers may not always deliver the components you need when you need them.

This is where research and communication can come in handy. Find out more about the company you're considering dealing with. How many kits has it delivered? Will the company put you in touch with other builders? What kind of reputation

People cited many reasons for not wanting to fly their airplane: It was too hard to fly, the cockpit was too small, their needs had changed, they had heard about problems with similar aircraft.

A common problem with high-performance airplanes is that to stay proficient, you have to practice. While you're building, you're probably not practicing much. A general rule is to buy a kit that would require one level less proficiency than you anticipate you might have. Schedule

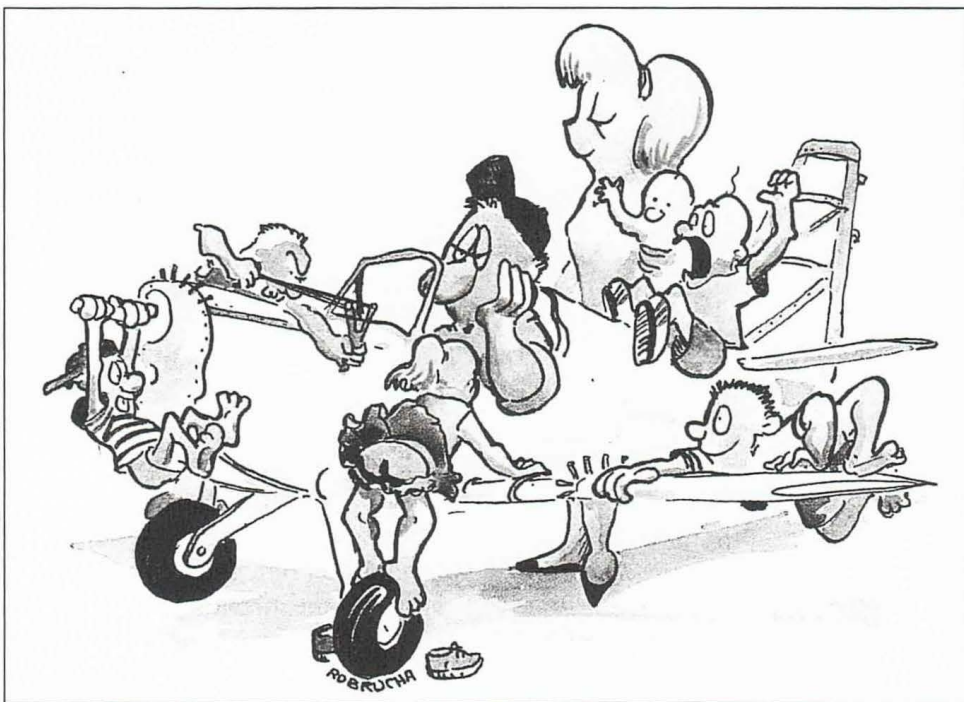
you are considering, there are a few things you can do to see how you'll fit: 1) visit Ron Wanttaja's web site (<http://www.halcyon.com/wanttaja/cockpit.html>), which describes the cockpit dimensions that are most important and lists measurements from various types of airplanes; 2) make a rough mock-up of the cockpit out of PVC pipe (the type found in underground sprinklers) and drywall screws. Sit in it and see if you have enough elbow-room, headroom, and whether the cockpit feels right.

If you find that you're in the middle of a project and are concerned about fitting in, the kit manufacturer might be able to put you in touch with some of its larger builders so that you can see whether they like their airplanes and if they have any suggestions.

One person reported that he was in the middle of his project and heard there had been an accident in a similar type of aircraft. This caused him to get concerned about whether there had been a problem with the airplane. With the advent of the Internet, information about the safety record of your type of aircraft is readily available. The National Transportation Safety Board posts accident reports on its web site (<http://www.ntsb.gov/aviation/aviation.htm>), as well as results of accident investigations. The database is searchable, so you can research your type of aircraft.

Often builders' needs change during the building process; they may have married or had children, may have changed the type of flying they wish to do, or just fell out of love with the airplane. If, despite all your careful pre-build planning, you can't rekindle the romance, it might be time to sell the partially built project. This is quite common, and it's made more convenient by the Internet.

If you want to buy a partially completed project, be sure to do your research on both the aircraft and the builder.



Including the kids in the building may help alleviate guilt about not spending time with them.

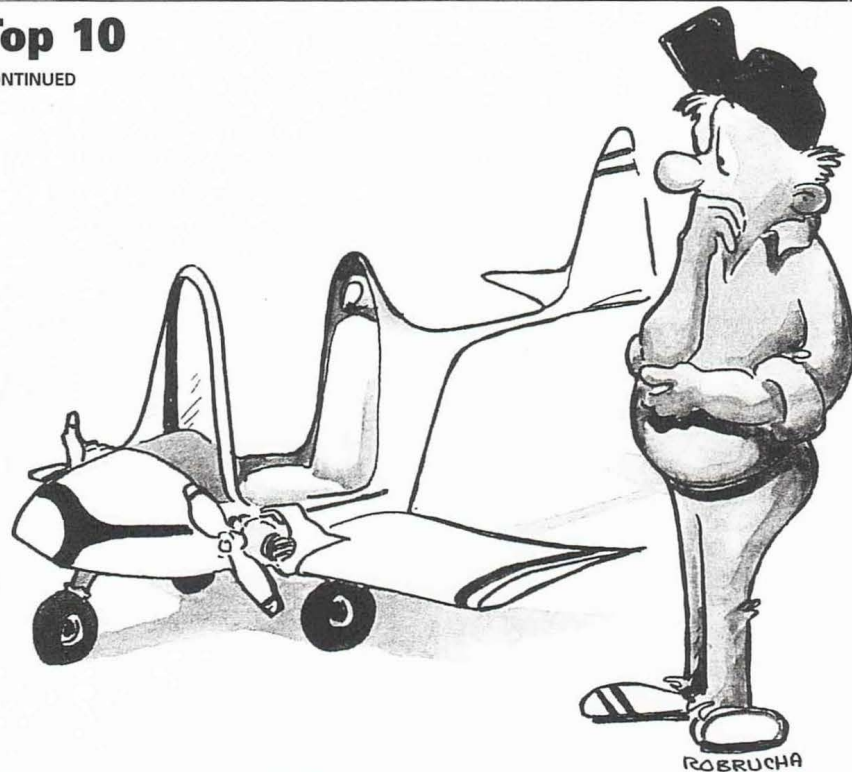
does the company have among home-builders? How much inventory does the company keep?

Some companies offer a choice of buying the complete kit or buying it in sub-assemblies; if you anticipate a long building process, you may want to buy the complete kit. Otherwise, you are taking the chance that the company might not be able to provide that last piece years from now. If you find yourself unable to get components from the manufacturer, try to find another builder who has exactly the part you need.

some time to get checked out in that type of airplane to make sure you will enjoy flying it.

One builder reported that he didn't fit in the plane he was building, but he didn't realize it until it was too late. He made some design changes (fortunately, he was a qualified engineer), but the changes affected other parts of the design such as wing sweep and engine placement. He then calculated that after all the changes, he would be 40 pounds over the weight limit.

If it is not practical to actually fly or sit in the type of aircraft that



Trying an airplane on for size before starting to build can prevent future disappointments.

Reason No. 3: Lost their Medical

As the T-shirt reads, "You're only one medical away from being an ultralight pilot." As a project stretches out, and you're building instead of exercising, this problem may pop up. For this situation, there are medical groups that specialize in helping pilots prevent or recover from losing their medical certificates.

One encouraging note in the U.S. comes from the FAA, whose recent proposed rulemaking would create more types of airplanes that could be flown without a Class 3 medical. The SportPlanes™ proposal says that any valid state driver's license may be substituted for an FAA medical. (For more information, see www.kitplanes.com.)

Reason No. 2: Came Upon a Technical Challenge

When we were building the Facetmobile prototype, we discovered technical challenges all the time. Fortunately, our team of three aerospace engineers became adept at group problem solving. Even if you are building someone else's design, there may be times when you're not

sure how to proceed. This could be from lack of skills or tools, or uncertainty about the instructions.

If you're just starting out, consider some builder's training. In addition to classes, books and videos, some of the fly-ins offer hands-on builder workshops. Fly-ins are also great places to meet others who are building your type of aircraft. Chances are these people have had to get through some of the same challenges.

Some kit manufacturers offer builder assistance or are set up to start you off with an introductory piece of the project so you can try the construction technique. Many companies offer tail kits so you can see if you are comfortable with the procedures (and you can also check out the company's customer support).

If you're in the middle of a project and run up against something you can't figure out, the most common solution is to contact the kit manufacturer. If you are unable to get sufficient help from the company, forming a small network of builders can come in handy. Your local EAA chapter, the regulars at the airport and even Internet discussion boards might offer the tip you need.

In other cases, you may need to spend some money. When you think of what you will have invested in the final product, a small investment in a technical expert or the right tool may make sense.

Reason No. 1: Took Much More Time than Expected

Before you start your project, you need a good estimate of how many hours it will take to complete the airplane. This estimate can come from talking with the manufacturer, from your own experience building other projects, or from someone you know who actually built the same type of plane. Let's say you did that, and you now have a good estimate of building time. If you allocate so many hours a month to building, you could calculate how many months it would take to finish the plane, right? How could it take longer than you expect?

There may be some extra things to add into your calculations: setting up the workshop, looking for and putting away tools, driving to and from the hangar, shopping for hardware or parts, building the tooling or fixtures, learning new techniques, doing things over because you weren't satisfied with the quality, unforeseen circumstances cutting down on your monthly build time, or any of the problems mentioned in items two through 10 above. If you could have factored all these extra delays into your schedule, you might have had a better estimate of the number of months it would actually take to finish the airplane.

If you're already to the point where you're not sure that finishing the project is worth the time, then you have two choices: stop working on it (at least temporarily) or find some way to press on.

Get a realistic assessment of how long it will actually take to finish the airplane now that you're into it and have a better understanding of how many hours you're really going to spend building every month. Go back and figure out why it already took so

long and see if there's something you can do differently (for example, get the shop organized so you're not looking for things so often, or get the right tools so you're not wasting so much time).

Consider moving the project. Some people find that they get more build time if the project is in the garage because they can take advantage of smaller chunks of time. We had a different experience. When we built the Facetmobile at Chino Airport in California, we knew that Saturdays and Sundays were for going to the hangar. If the plane had been in the garage, we might have let other tasks creep into our weekend building time. You might find that moving the project to a different airport gives you just what you needed: local experts, a way to share tools or a pleasant experience that makes you want to go there more often.

Re-energize yourself by attending a fly-in, reading KITPLANES®, attending chapter meetings or getting current. Find others who have built the same type of aircraft and ask them questions, or go flying with them. Visualize what it would be like to have a finished airplane. Go back and try to re-create the dream that caused you to plunk down your money for the project.

Everyone who has ever built an airplane has had one of those moments when they think they will never fly the airplane. Somehow everyone who finishes the project has overcome each obstacle. Some projects such as the Facetmobile felt like a series of hills to be climbed, each one higher than the last, with no promise that climbing the next one would get you over the one after that. On the day the Facetmobile flew for the first time, we couldn't believe that there was nothing left to do but to go fly the airplane. Funny thing, though. When you're cleaning the dew off your plane on a sunny morning at the Oshkosh fly-in, you're not thinking about all those challenges.

