

A SPECIAL TOOLS CACHE

BY TONY BINGELIS

Do you really know where all your tools are? I'll bet you have some at the hangar, some in your car, and most of them at home in your garage/workshop. Oh yes, and don't forget those you may have in that small emergency tool kit in your airplane.

That's a lot of tools . . . many more than you probably realized you had. And yet, when you need a particular tool, a special seldom used one, for example, where do you start looking for it? At home? In the hangar? In the car? In the airplane?

Assuming you really don't know where it is, you will obviously start

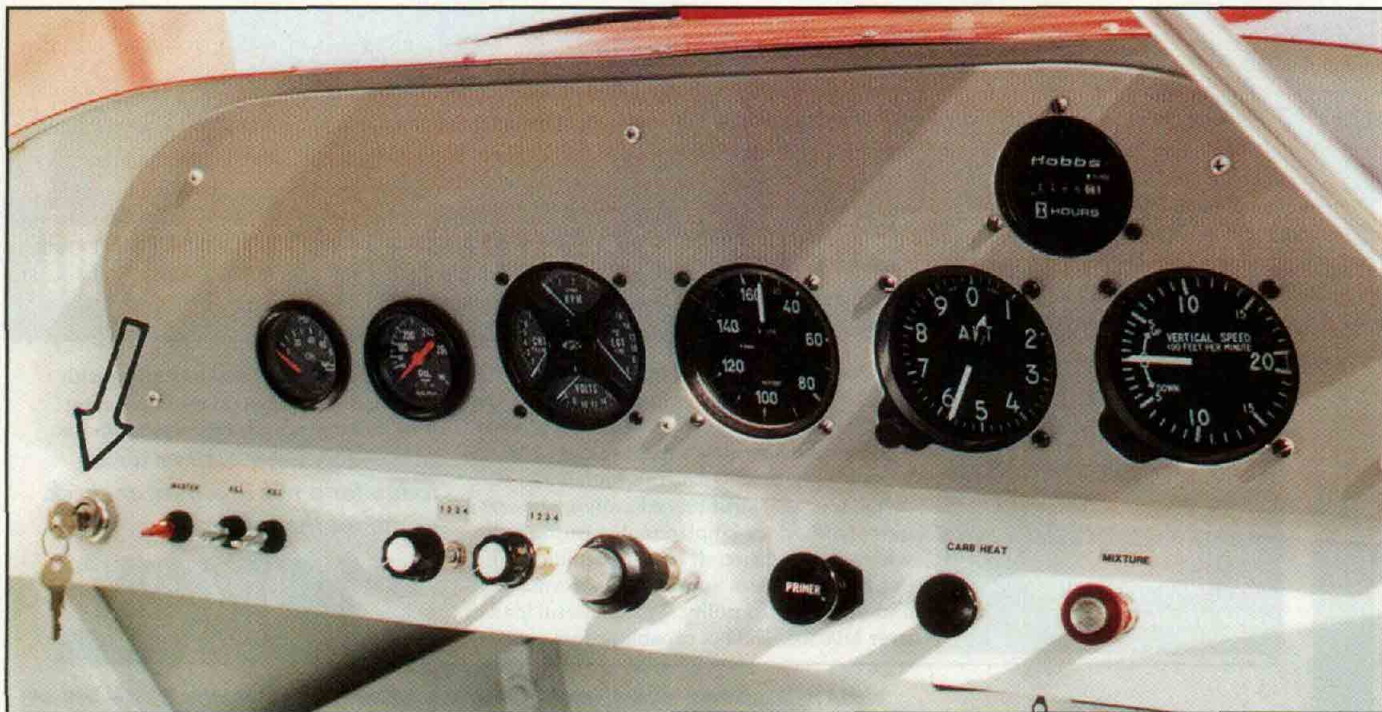
looking for it where you happen to be working at the time . . . the place where you first realized the need for it. For example, if you have an airplane you have been flying regularly, or have just completed your home-built project and are now flying it, it would be logical to assume that the tool you want and need, right now, is with most of your tools at the airport . . . in the hangar.

This assumption, you hope, includes those seldom used special tools you had to acquire, make or modify in order to get your airplane built. Remember them? I don't mean

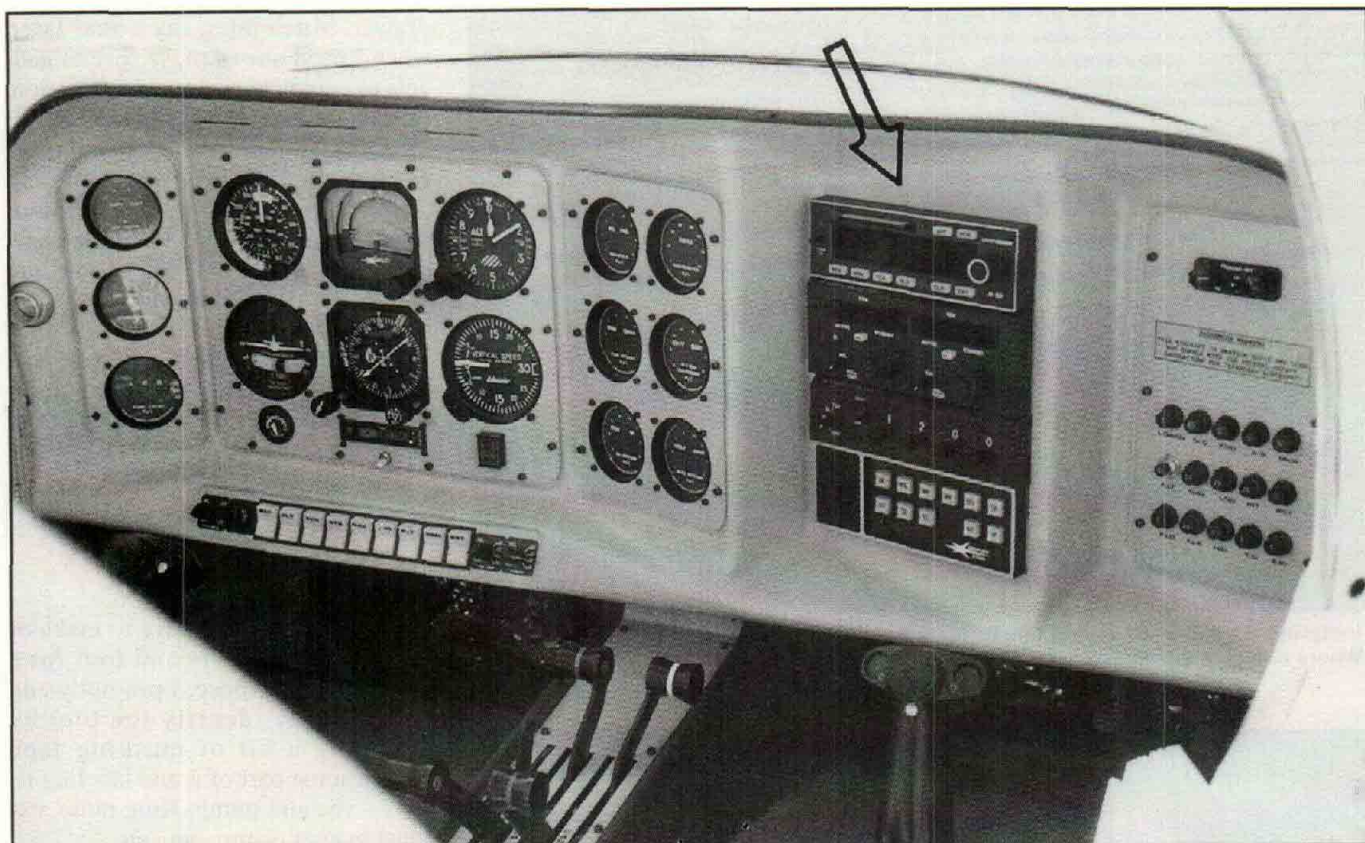
common shop tools like electric drills, wrenches, socket sets and the like . . . you probably have quite a few duplicates of those scattered about and you shouldn't have trouble finding any of those anytime you need them.

No, I am talking about those special small tools. Unique wrenches and gadgets that you had to make or modify in order to accomplish some problem task you encountered while building your airplane.

It doesn't take long to learn that certain special-use tools and gadgets are essential to complete even simple tasks like installing a radio, airing the



You installed an expensive keyed ignition switch for security and what do you do? That's right. You leave the key in the panel all the time because you are afraid you might misplace it or lose it. This gent must be doubly fearful. Two keys. Lose one and he has lost them all. The spare key should be kept in a safe readily available place.



A nice radio stack installation. If you have to remove one of the radios would you know where to look for that special wrench you used for installing it?

tires without taking off the wheel pants, installing a vacuum pump, or torquing the propeller nuts, to name a few.

HOW SPECIAL TOOLS ACCUMULATE

Think back . . . remember when you couldn't install that stupid, almost inaccessible little nut because you couldn't get your fingers on it much less an ordinary wrench, pliers or screwdriver? Obtain the right tool or improvise, that's what. You may find, for example, that bending the handle of a wrench or cutting it in half will allow you to reach into that crowded location.

Or, maybe you find that by grinding an ordinary wrench so thin that it is no thicker than a dime will allow you to slip it in where the regular one won't go. Are you beginning to get the idea?

Then there are the tiny screwdrivers or small hex wrenches you have to have just to install and remove your radio sets.

After a long search and several vis-

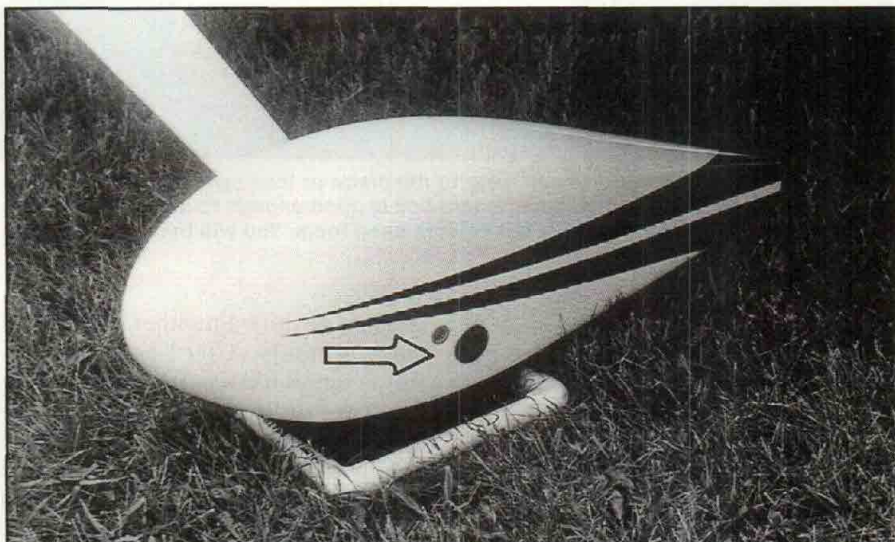
its to a Radio Shack or a few hardware stores, you may find the special tool or gadget you need and finally get the job done.

Using the proper tool is simple, but what happens to it after you are finished with it?

Such a small seldom used tool, you

learn, may be more difficult to locate later than it was when you originally tried to find and acquire one for yourself.

You certainly don't want to lose any of your special tools, do you? But, will you remember what you did with yours? For that matter, do you



Provide easy access to the tire valve and you won't have to remove the wheel pants to air the tire . . . providing you remember where you put the tire valve extension. Since you don't have to use it frequently, it is easy to misplace, isn't it?



Installing a radio or removing one from its tray is a simple matter with that tiny tool. Where do you keep yours?



Here's the solution for your small easy to misplace or lose special tools/gadgets dilemma. A small, boldly labeled cardboard box is good enough to serve as a reliable central cache for those essential but seldom used tools. You will then always know where they are.

think you will remember that you even had a tool for the job, or what the thing looked like?

THE BASIC RULE... KEEP SPECIAL TOOLS SEPARATE

Like most everyone else who is building or has built an airplane, I con-

tinue to acquire a number of odd ball (special) tools. After I have successfully completed a particularly trying job that required some unique little tool or gadget, what do you think I usually did with it? Toss it into my tool box with the other tools? Hang it on a nail somewhere? You are right.

To make matters worse, I would "temporarily" put it on a shelf or drop it into some convenient work bench

drawer. Much later, say a year later, when I need one of those special gadgets to complete an annual inspection, replace a loran with a new GPS, or for some similar fun job, do you think I will remember where to look for it?

Heck no. For that matter, I wouldn't even remember the last time I saw it or where. By this time, too, I am not too sure I would even know what it looked like.

After the passage of a year or two, this is not an uncommon dilemma for me, and certainly must be for a lot of other builders as well.

HERE'S WHAT I DO NOW...

Lately, any time I have to make or resort to using a special tool for a very special purpose, I promptly and permanently identify the tool by wrapping a bit of masking tape around some part of it and labeling its use — vacuum pump, King radio, exhaust hanger clamp, etc., etc.

Then, when I have finished using that tool, I store it safely along with my other unique tools and gadgets in a small cardboard box (about the size of a cigar box) labeled "Avionics/Special Tools."

TONY'S SPECIAL TOOL CACHE

Here's a brief listing of the things I keep in that very special box:

- Allen wrenches for the removal and installation of radios. I label each wrench for the radio set it fits using a small masking tape tab marked with a Sharpie pen.
- A tire valve extension to simplify airing the tires without removing the wheel pants. This extension can be screwed onto the rather short tire valve, by hand, through the small wheel pants access door or cover.

Note: If the wheel pants opening is small, neither a regular air chuck or tire gage will reach the tire valve. A tire valve extension solves this problem. These valves come four to a package and I would suggest you also carry one in the airplane's emergency tool kit and put one in your special tool box. Of course, I include a tire

gage and a valve stem removal tool in my collection.

- A large sewing needle used for picking out lead deposits in spark plugs.
- Assortment of short handled special purpose wrenches . . . each labeled as to its use (I cut down and modify inexpensive "cheapie" wrenches for my "seldom-use" tools).
- A non-magnetic screwdriver for adjusting compass deviation (you can even use one made from a sliver of wood, if you have to).
- Tweezers and a small surgical clamping tool.
- Brake system bleeding tubing and connectors.
- An extra ignition key and canopy lock key. Sure, why not?
- The correct size crowfoot wrench to use with my torque wrench for checking the propeller bolts.

This should give you a general idea of what small seldom used items you could include in your own special tool and gadget cache. It is an effective way to store small, easy-to-misplace items in one obvious location.

Providing this capability takes on much greater importance when an unexpected need arises. At least you will know where to look.

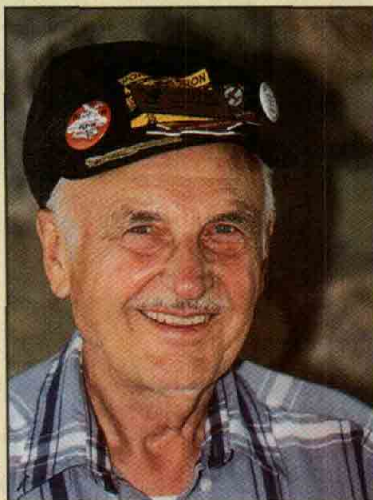
NO, DON'T HIDE IT

What good is a central depository for your special purpose tools and gadgets if you don't remember where you stashed the box? Well, where is a good place to keep the box? Obviously, if you have an operational aircraft and a hangar, that is the logical place.

On the other hand, if your airplane is still in its project stage you will want to keep your newly started collection close at hand — say, on a shelf in your workshop.

ONE FINAL SUGGESTION

As your collection builds up, it might be a good idea to post an inventory list on the outside of that "Avionics/Special Tools" container to remind you what essential goodies you have in it. ♦



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