

Training – Dead Stick II

Last month we started talking about the causes of dead-stick landings. It should have been obvious that we focused on glow-powered aircraft, but in case it wasn't clear, that was the intent. We will not discuss causes of electric power dead-sticks for a while, and since few students train with gas power, we will ignore that entirely. We covered two possible causes of dead-sticks last month (running out of fuel, and picking up air or fuel vapor) but there are more.

One of the things that is particularly confusing to many new pilots is carburetor adjustment. And, it is this very thing that can cause an engine to run poorly or even die in the air. The subject of proper adjustment is much too complicated to fully cover in this column, but we will give a little general advice here. One consideration is that if you are new to the hobby, or at least new to glow engines, it might be wise to seek help with adjustments from one of our training staff or another experienced club member. There is a wealth of information in the club and you should not hesitate to ask for help. Another consideration is that better engines generally have better carburetors, and adjusting a better carburetor is generally easier and the results are more consistent. You may want to consider this when you first purchase an engine, and again, seek advice from club members. Above all, don't take to the air with a carburetor that is clearly out of adjustment or not working properly. It is seldom the case that they run better (or even as well) in the air than they did on the ground. Also, if you start your training with a "used" aircraft, it may well be that the entire plane including the fuel system should be inspected as someone may have let his problems pass to you.

What else might cause you to have to make a dead-stick landing? Well, suppose you let a little bit of trash or water get into your fuel system? Guess what happens when that foreign matter gets to the carburetor. Yes, the engine might quit and you are thus ready for another dead-stick landing. Refer also to the example in the June '08 Training Column. It is available in the training section on our Web page. There are several good fuel line filters available and it is good insurance to place them in appropriate places in both your fuel supply bottle and its delivery system, as well as in the fuel plumbing of your aircraft. And.... be very careful what you let get into your fuel can.

But there are other little gremlins that can lead to a dead-stick landing. Do you assume your fuel line is in perfect condition? Well, on occasion that line can get an almost invisible crack, split or worn spot and allow air to be sucked into the carburetor. We have already discussed what happens then...and it may be random....depending on the stress or "G-forces" on the tubing. One diagnostic trick is to look for tiny air bubbles in the line while running the engine on the ground. But this will not always show a problem. Be especially careful how you pull the fuel line off a fitting as it is not always mechanically very strong and can get a split or tear quite easily. These leaks can be quite hard to find. Generally it is good practice to replace the fuel lines every year or so. Use a good quality line of the proper type for your glow (or gas) engine and be sure to use the proper size for your tank, carburetor and other fittings.

There are many other potential causes of dead-stick landings, and we will discuss some of them next month.

Until then...remember to try something new each time you fly.

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