

BALANCE

Your R54 must balance in the range shown on the plans, with the UAT full of fuel (since it is behind the CG) and the gear retracted. Do not exceed the rear limit! In general, it easiest to balance the R54 upside down. Most likely, you will need to add some lead to the nose. The nose block cavity will hold a fair amount of lead shot, but you may need even more. Every modeler hates to add dead weight, but grit your teeth and add enough to be in the forward half of the balance range for the first flight. You can put lead shot in small plastic bags which can be removed later as desired. Be sure to also check the lateral balance and add weight to one of the wingtips if necessary to balance.

CONTROL THROWS

Adjust the amount of control surface deflection to the amounts shown below. These are fairly active settings - go easy on the sticks for the first flight or two, then adjust the control throws to suit your flying style.

RECOMMENDED CONTROL THROWS

AILERONS: 3/4" UP, 5/8" DOWN

ELEVATOR: 5/8" UP, 5/8" DOWN

RUDDER: 1-1/2" LEFT, 1-1/2" RIGHT

FLAP DEFLECTION: FULL MOVEMENT (60°)

DOWN ELEVATOR WITH FULL FLAPS: 1/8"

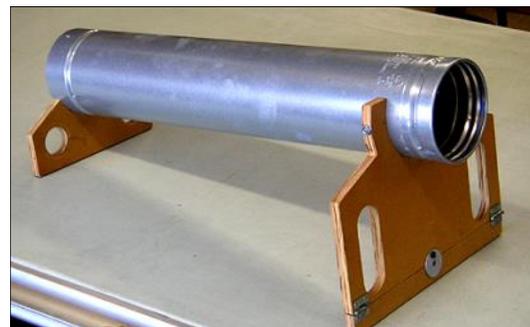
Notice the ailerons should move UP more than DOWN. This aileron differential helps combat adverse yaw, making for smoother rolls. If you like rates or exponential, but go ahead and program them in if you wish. Automatic DOWN elevator compensation is helpful to counteract the nose-up tendency of the model when the flaps are deployed. This is a common feature found on many modern radios.

PRE-FLIGHT INSPECTION

Be sure to perform radio range checks, both with the turbine off AND with it running. If there is a significant decrease in the range with the engine running, you may need to reposition your components or re-route the antenna. Keep in mind that even though this is a big airplane, it's the little things that will "getcha". Double check all of your servo arm screws, clevises, pushrods, nuts, bolts, hinges, cables, and fuel tank connections. Triple check that your flight controls are all moving in the proper direction.

AN IMPORTANT SAFETY NOTE

You also need a positive way of shutting off the engine from the transmitter, either using full idle trim or a separate channel to switch off the turbine instantly. If you have any trouble during flight, the most important thing you can do as a pilot is to shut off the turbine **without hesitation**. The chance of a post-crash fire is greatly diminished if you get the turbine shut down before impact. With its huge wing, the R54 can glide in for a safe landing from nearly anywhere if you still have control (a nice feature for flameouts - believe me!). ◀ R54 ▶



Start Tube - I consider it mandatory to use some sort of flame protection for the model during every turbine start up. A hot start could obviously cause a problem, but even normal starts often produce a small flame and hot, slow-moving exhaust gases that can scorch Monokote. I use this start tube made from double-walled stovepipe with plywood legs. Notice the hinged extension at the bottom of the front plywood leg. The height can be changed so it works with both my R54 and my PST Reaction ARF. Warn helpers to grab the plywood after starting - the tube will be hot!