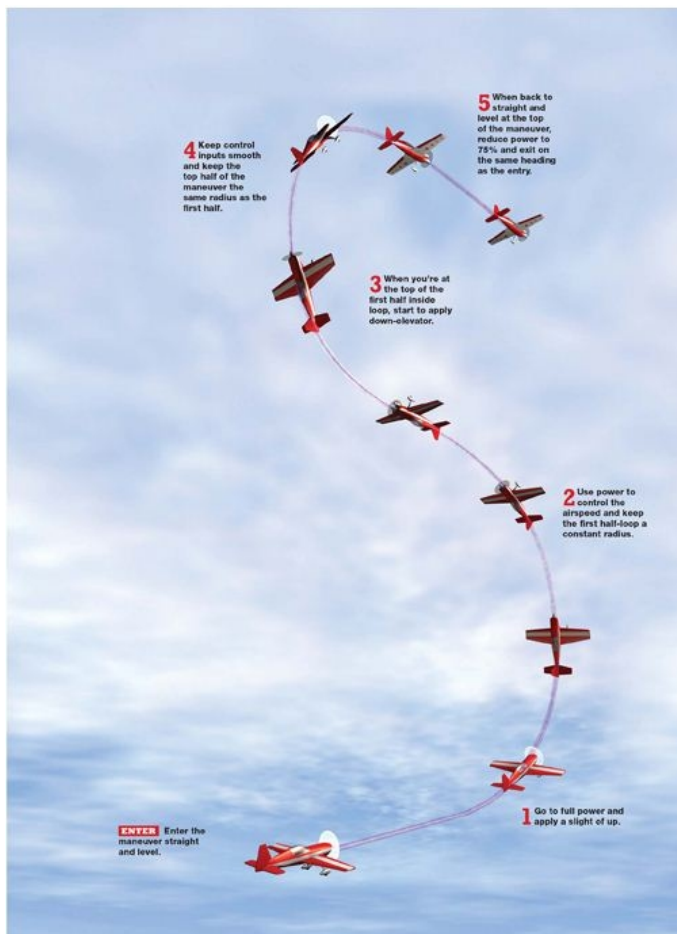


## Vertical S

From Model Airplane News



**STEP 1.** Orient your aircraft so that it is travelling parallel to the runway in upright level flight. Make sure that you are on your low rate setting (if using dual or triple rates) and increase the power to about 90 percent. Ensure that the wings of the aircraft are perfectly level and if the airplane is not parallel to the runway, make any necessary rudder and/or aileron inputs to correct the heading. This will greatly decrease your workload as if the airplane is not parallel to the runway and only elevator input is applied for the loop, the loop will not track properly from the start and will need more complex inputs to correct for this error.

**STEP 2.** As the airplane is directly in front of you, pull back, ever so slightly, on the elevator control to initiate the half inside loop. The size of this loop will determine the size of the outside loop as both portions of the maneuver must be equal. Do not make an extremely large inside loop if your airplane is not over-powered as you may run out of speed on the second half of the maneuver. Use throttle, as needed, to maintain a constant flight speed.

**STEP 3.** As soon as the first loop is complete, the airplane should be directly in front of you but at a higher altitude. As soon as the airplane is inverted, the outside loop should be performed by applying down-elevator instead of up. Cater the elevator input to the shape of the figure. It is important that you perform all inputs in a smooth manner so that the aerobatic figure will be smooth and continuous. Again, no line segment must be visible between the half loops.

**STEP 4.** Once your aircraft establishes upright level flight, you have completed the vertical S. Now, decrease throttle to about 75 percent and prepare to give this maneuver another try!

While this may appear to be a fairly simple maneuver, it may take some time to fully master it. For example, the airplane should not drift with the wind throughout the maneuver, and since this is a fairly large stunt, it may. You must concentrate on heading. If you started this maneuver 50 feet away from yourself on the edge of the runway, it should be at that same distance but at a much higher altitude once complete. If a strong cross-wind exists, you may have to lean the airplane into the wind so that the flight path remains constant and parallel to the runway. To do this, rudder corrections will need to be made as well as small aileron inputs to keep the airplane from drifting with the wind. Now, focus on doing all of this while maintaining a perfectly executed vertical S! As you can see, this may be quite tedious!