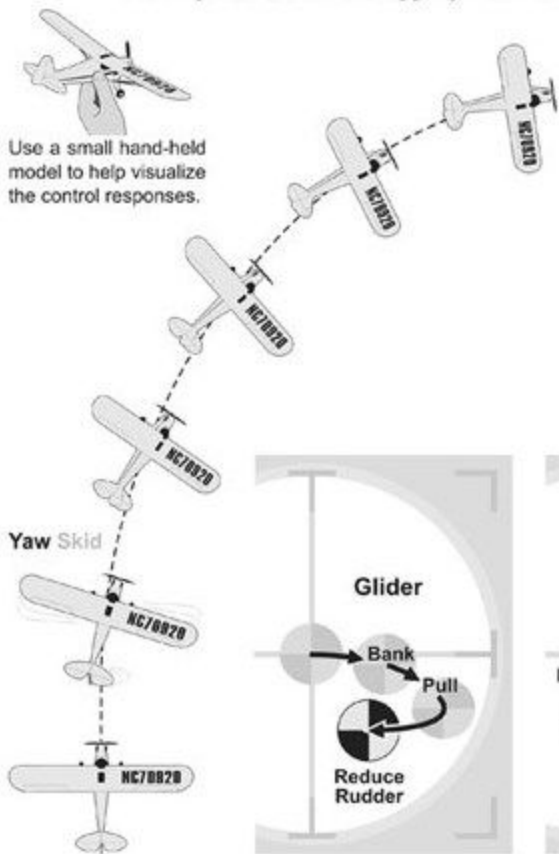




Rudder Turns

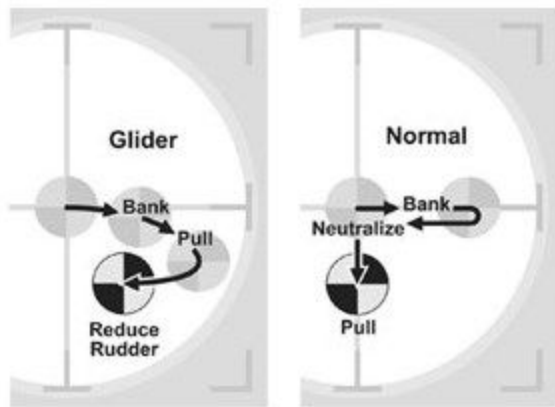
Applying rudder will yaw the nose of the airplane in the direction you want to turn. Applying rudder (yaw) also makes the wing on the outside of the turn travel faster and therefore generate more lift, causing the outside wing to rise up and bank in the direction the rudder is applied. Up elevator is used during the turn to keep the nose from dropping when the wings are banked and to keep the turn level throughout.



Use a small hand-held model to help visualize the control responses.

There are basically two different techniques required to turn with rudder, depending on the airplane. Planes that have a lot of inherent upright stability, such as a high wing powered glider, typically resist banking and therefore require you to continue holding in rudder to keep turning. Typically, a larger rudder input is needed to get the turn started, but once started, the rudder has to be reduced to keep the turn from becoming increasingly tighter, i.e., too tight!

Other planes require a technique similar to an aileron turn, where the rudder is applied only long enough to bank the wings, and then it is taken out to avoid over-banking and entering a downward spiral. The turn is then sustained and kept level by holding in up elevator.



Until you learn the characteristics of your plane, it would be safer to neutralize the rudder after a count of "1," and discover that you have to reapply it, than to realize that you have held it in too long after the plane has started diving.

