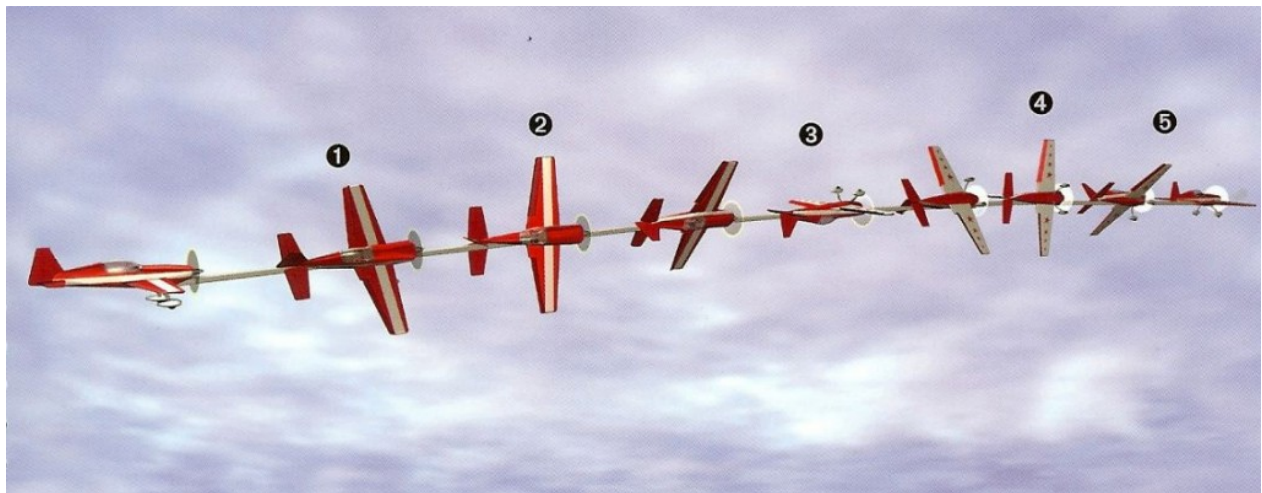


Secrets to Flying a Precision Roll

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Because it's used in so many other maneuvers, it's important to perfect this one and add it to your foundation repertoire. High-speed rolls are generally easier to start with because inertia is a tremendous help. Long, graceful rolls are usually done at medium to high speed to allow inertia to help keep the maneuver axial. Keep the midsection of the roll (when the plane is directly inverted) centered on your position.

STEPS TO SUCCESS

1. Begin the maneuver by flying straight and level either into the wind or downwind and then initiate the roll with a little aileron (constantly maintain that throughout the maneuver).
2. As the roll begins, apply rudder to maintain a straight and level heading. (If the roll is to the right, use left rudder and vice-versa.) The maximum amount of rudder will be required when the wing reaches vertical.
3. As the plane continues to roll past vertical, start to ease off on the rudder and begin to apply down-elevator until the plane is inverted. At this point, you should have applied the maximum down-elevator needed to maintain level flight.
4. As the roll continues, begin to ease off elevator and apply the appropriate rudder (at

this point, right rudder for a roll to the right) to maintain altitude as the plane rolls around again to vertical. When the wing is in the second vertical position, the plane should again have the maximum amount of rudder, with no elevator input necessary to maintain level flight.

5. The plane will continue to roll over until it is in the upright position. During this time, slowly release the rudder stick so that there is no rudder input when the plane reaches its upright position. Exit at the same altitude at which you started the maneuver.

PRO TIPS:

Problems can occur if you push too much down-elevator as the plane is inverted.

Another frequent error is pushing the elevator stick too soon, while the plane is right-side up, or not releasing the elevator quickly enough as the plane rolls back over.