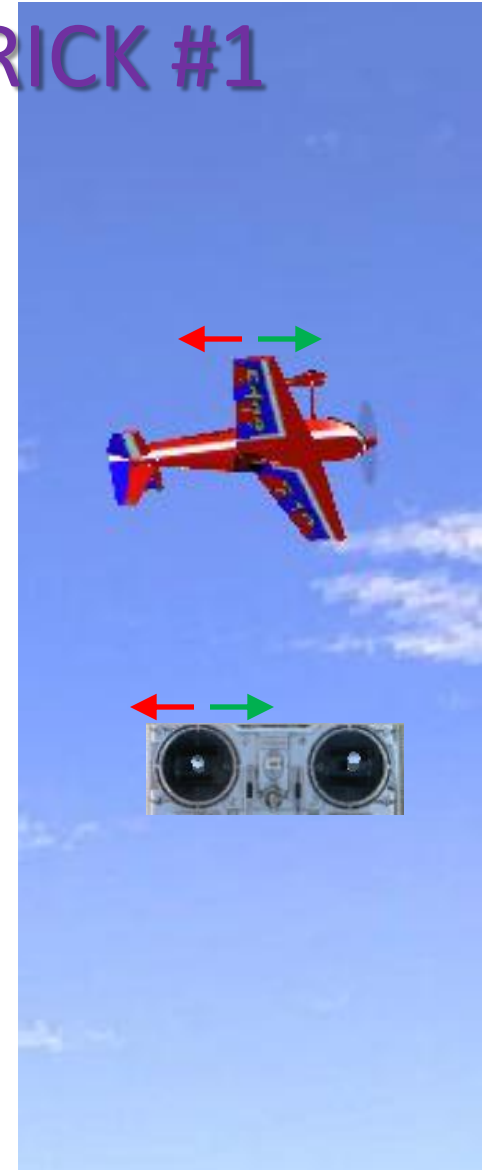


# PRECISION AEROBATICS TRICK #1

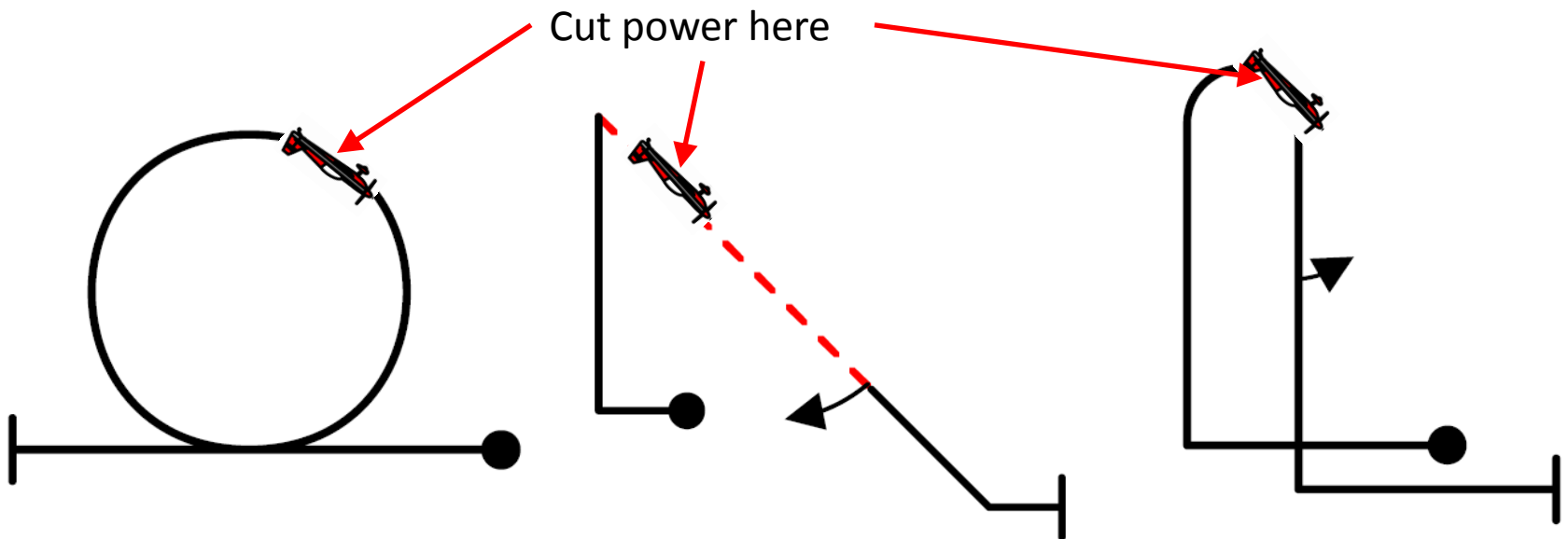
Using the rudder when inverted



For rudder corrections when inverted, imagine the rudder stick is attached to the part of the plane that is pointed at you. Move the stick right to move that part of the plane right and vice versa.

# PRECISION AEROBATICS TRICK #2

Power over the top



At the top of a loop, partial loop or vertical line, airspeed is reduced. To regain airspeed and control authority quickly, keep the throttle open past the highest point of the figure, then pull back to idle.

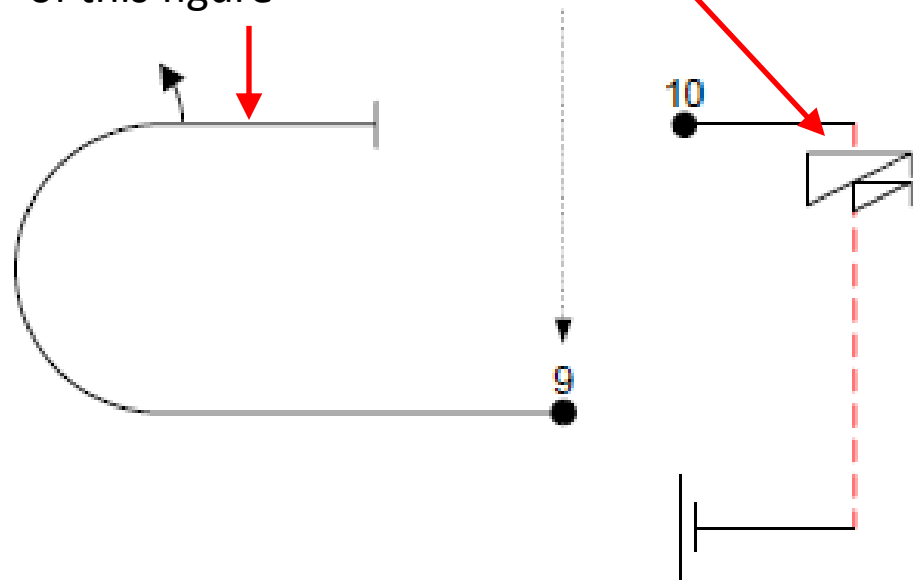
Don't allow speed to build too much; cut back when the pitch of the engine/prop start to increase.

# PRECISION AEROBATICS TRICK #3a

## Thinking Ahead

Spins require  
low airspeed. . .

. . .so don't build too  
much speed at the top  
of this figure

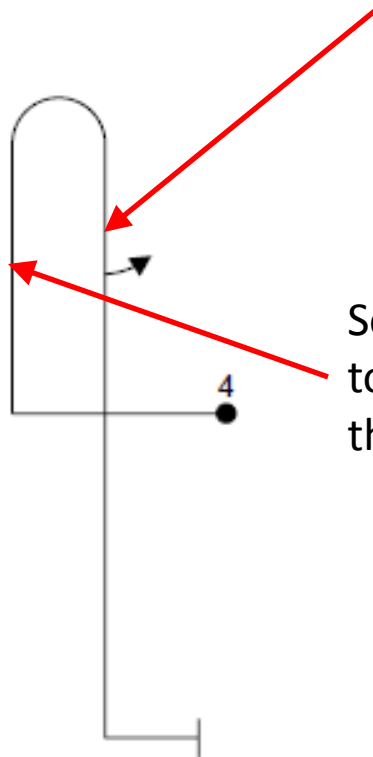


Building too much speed at the top of the Immelmann will cause you to drift too far to the right waiting for speed to bleed off so you can complete the spin

# PRECISION AEROBATICS TRICK #3b

## Thinking Ahead

On the down line you will need enough time to draw a line, do a half roll and continue the line

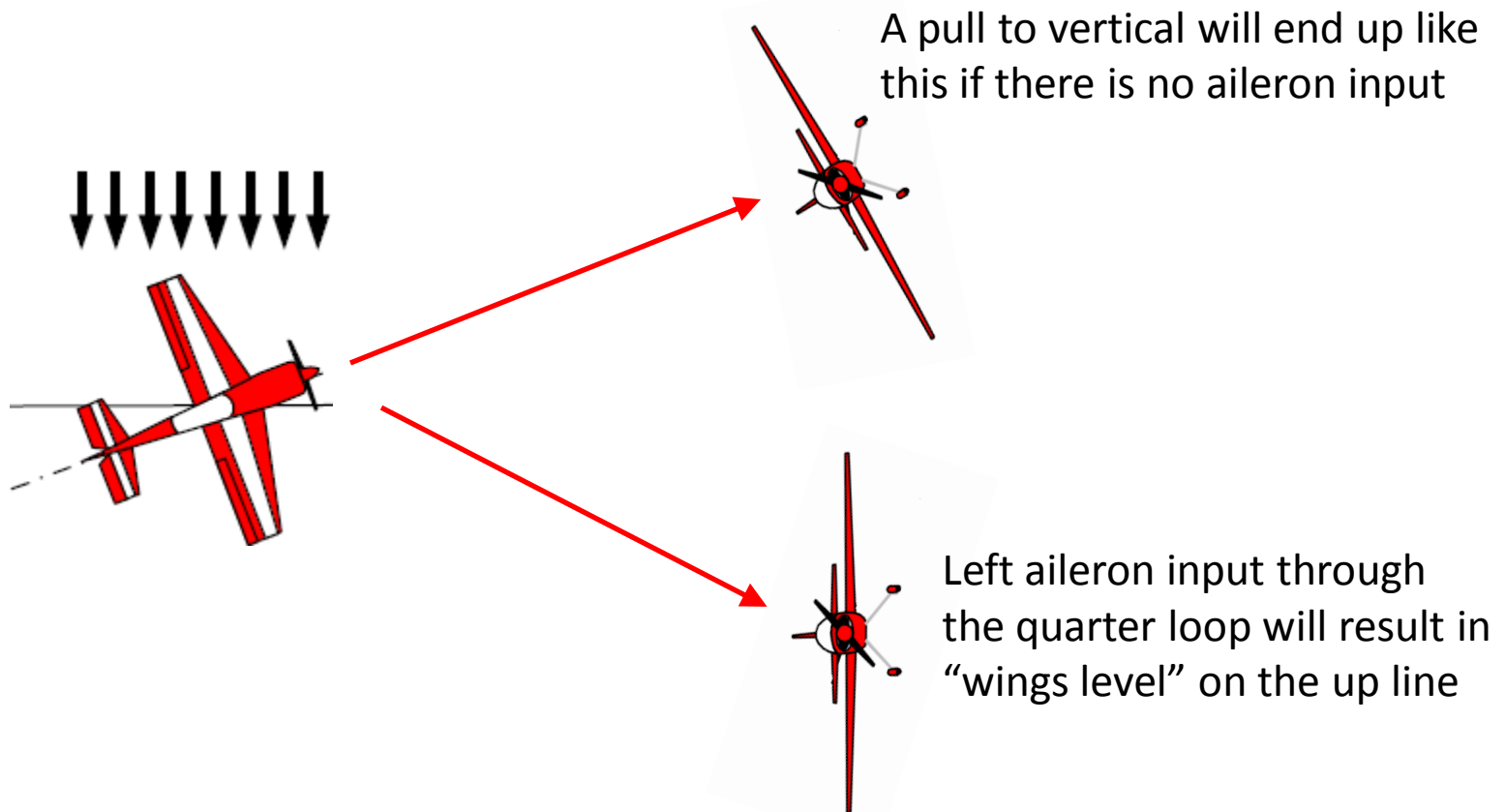


So hold your up line long enough to gain the altitude you need for the down line with half roll

# PRECISION AEROBATICS TRICK #4

## Wind correction

**Pull to vertical up line as seen from above, beginning with a crab angle into the wind**



**Work every control axis constantly to maintain correct orientation**

# PRECISION AEROBATICS TRICK #5

## Wind correction

**Wind corrections change constantly – vertical line shown below**



Aside from gusts and changes in direction, the wind generally has a gradient, stronger at higher altitudes

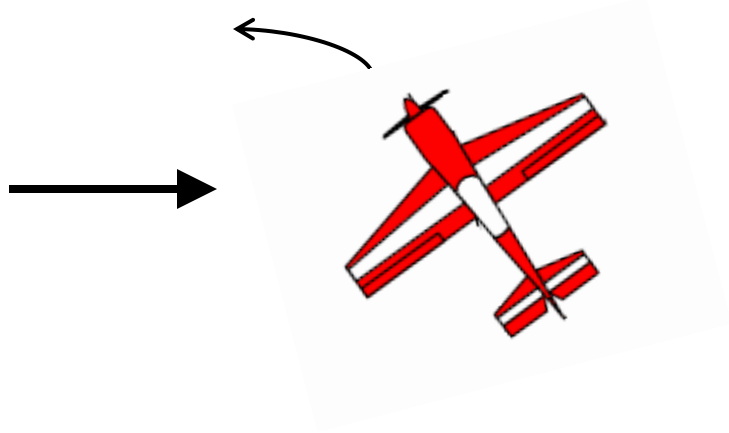


As the plane loses speed in the up line and the wind increases with altitude, the crab angle will need to be increased (usually, but pay attention to be sure)

# PRECISION AEROBATICS TRICK #6

## Wind correction

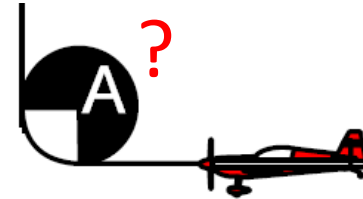
**Maintaining a correction angle – vertical line shown below**



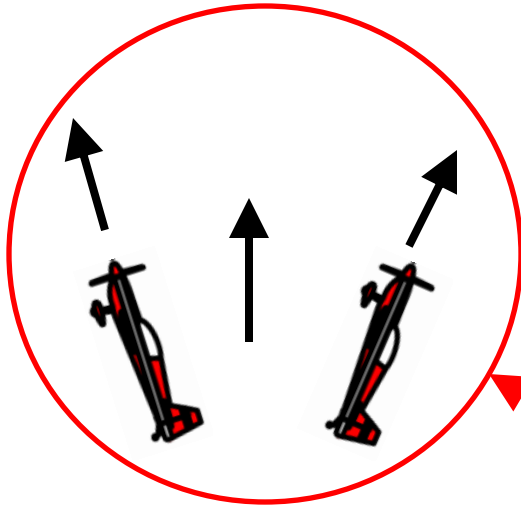
At a high crab angle the plane will tend to fall off to the side. To maintain the crab angle shown, left rudder is used, followed by right rudder to keep the angle from increasing

# PRECISION AEROBATICS TRICK #7

How tight a radius?

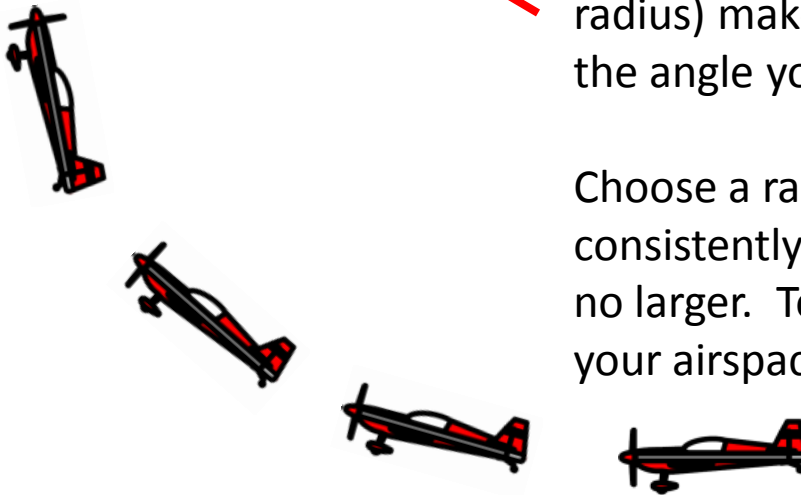


**You don't get extra points for flying a "big" figure, nor for making sharp corners. How big should your radii be?**



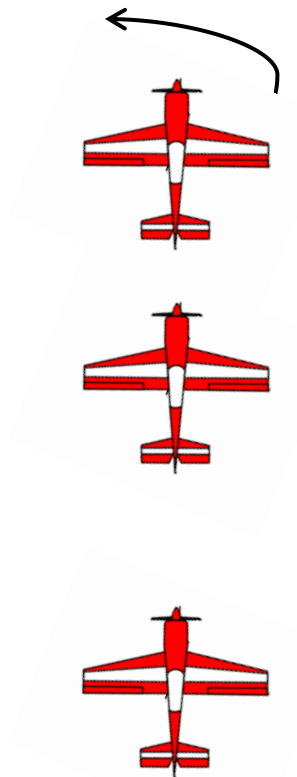
Excessively rapid pitch change (tight radius) makes it more difficult to stop at the angle you want.

Choose a radius that allows you to stop consistently at the angle you want, but no larger. Too large a radius will hurt your airspace control.



# PRECISION AEROBATICS TRICK #8

## The perfect hammerhead



3. As the plane stops, apply full rudder, keeping the engine at a fast idle or “blipping” the throttle to help the turn. Turning into the wind is preferred. Cut back to idle when the down line is established.

2. Wait for the plane to stop. The flow from the prop will allow you to maintain control despite zero air speed.

1. When you are near your desired altitude (allowing for any down line rolls) cut the throttle to a FAST IDLE.

**Make sure you have enough rudder throw for a rapid pivot at the top.**