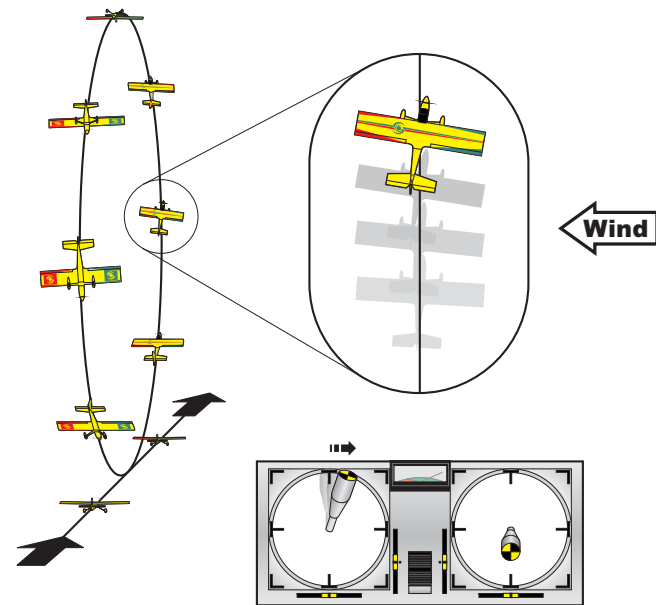
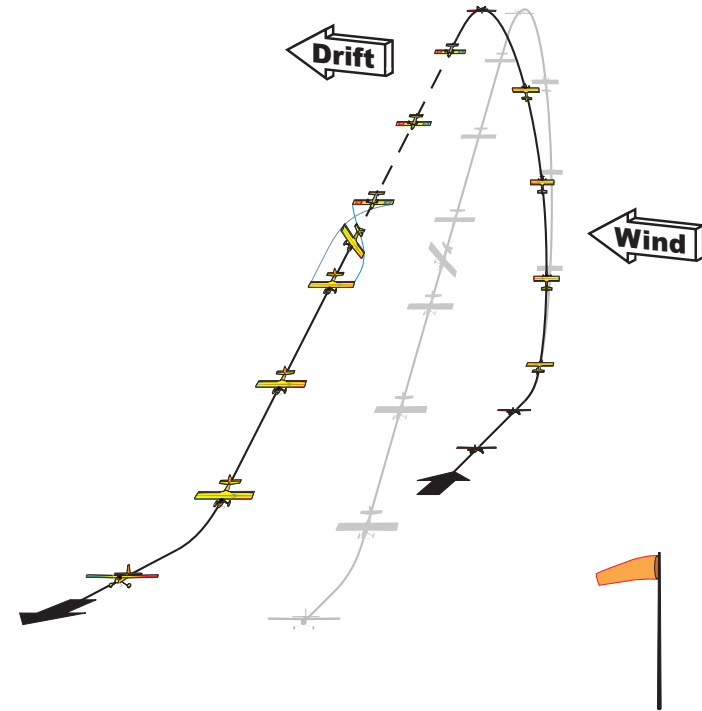


Rudder Applications

X-wind Drift

X-wind Corrections

Rudder Timing and Input Truth Tables



X-wind (crosswind) Drift and Rudder Corrections

In this section: E-46 & 47 illustrate an airplane's tendency to drift sideways during the slower portions of loops and turnarounds performed in a x-wind (crosswind).

Note: X-winds play a dominant role in causing many of the non-pilot induced deviations people end up having to correct for. Therefore, the type of rudder applications that this program will initially center on is x-wind drift and prevention. Note #2: In the application of wind corrections, using the rudder while performing maneuvers is a bit like rubbing your belly-patting your head, and takes some getting used to. Thus, this program will not weigh you down with the physics of flying in x-winds (relative wind, crosswind component, and wind correction angle), but get right into addressing the difficulties caused by wind drift and how to prevent it.

E-48 illustrates just a few of the many troublesome consequences of having to realign the airplane after each maneuver due to x-wind drift — time that could be better spent anticipating the next maneuver if only wind drift had been prevented from occurring.

E-49 introduces using rudder to prevent x-wind drift during looping maneuvers. Of course, you need to have solid basic Phase I aerobatic skills to become proficient at x-wind rudder corrections. Without that foundation to build upon, a determined flyer may eventually be able to take a stab at some late rudder corrections when the deviations are obvious, but he will never progress beyond that level. With that foundation, using the rudder can become one of the most satisfying experiences in R/C!

E-50 & 51 illustrate the positions in loops and turnarounds where, depending on the strength of the wind, wind drift is likely to occur, so that you can anticipate where to input your rudder corrections to prevent wind drift before it happens. Compare the saying, "If you wait to see the deviation, it's probably already too late to correct!"

Summary: By learning to use the rudder to prevent x-wind drift, fewer corrections are needed after each maneuver to set up the next, thus freeing up more time and energy to: 1. Reflect on your last maneuver for ways to improve it. 2. Anticipate your next maneuver. 3. Perform more maneuvers.