CROSSWINDS: PICK YOUR POISON

The two basic ways of flying a crosswind approach to a runway are illustrated below. Each has its benefits, drawbacks and finer points.

In the crab method, top, the pilot turns into the crosswind, establishing a zero-drift heading that keeps the airplane’s flight direction aligned with the runway centerline. As the airplane flares for touchdown, rudder is used (perhaps with some upwind aileron) to “kick out” the crab and align the airplane’s nose with the runway, allowing the touchdown to occur with minimal or no sideload on the landing gear. This method requires some skill and experience in knowing how and when to remove the crab attitude before touchdown.

The wing-low or sideslip method, meanwhile, usually eliminates the need to kick out the crab, but also requires establishing and maintaining a slightly wing-low attitude with aileron while using opposite rudder to maintain the airplane’s alignment with the runway. This slight crossing of the flight controls requires some skill and experience, but also eliminates the need to kick out the crab attitude described above. An added benefit of this method is that the airplane is already in an attitude appropriate for touchdown as it approaches the runway.

Both methods have their adherents, both methods are easy to perform after some practice and both methods can be combined in extreme situations to ensure control is maintained throughout the flare and onto the runway.