

Common Problems with Crosswind Circuit Landings

Problem	Cause	Solution
Not landing on centreline	Although there may be sufficient rudder to keep the nose of the aircraft pointing in the right direction, there is insufficient bank to keep the aircraft on the centreline. The amount of bank required changes dependant on airspeed and crosswind component	Focus on the runway centreline and keep the nose of the aircraft straight. Once the aircraft is stabilised in this plain, apply enough bank to keep the aircraft from moving left or right. The amount of bank must vary depending on airspeed and crosswind component, and because crosswinds usually gust, the bank is usually variable
All three wheels vibrating rapidly after landing	The aircraft is not pointing straight down runway, and the aircraft is moving sideways which is scrubbing the tyres on the ground causing them to vibrate	Push the rudder to get the nose straight. If the vibration stops when the aircraft is not travelling down the centreline, reduce the aircraft speed which will increase the tyre friction
Wings don't sit level when rolling along the runway after landing	The crosswind is causing one wing to produce more lift than the other, and although there isn't sufficient lift to takeoff, there is enough to put the aircraft off balance	Roll the ailerons into the wind to reduce the amount of lift on the windward wing
Entire aircraft moves sideways on the runway regardless of how much rudder I put in	This is common when there is a large crosswind at a medium aircraft speed. There is insufficient friction on the tyres to hold the aircraft straight or insufficient speed to allow sufficient rudder effectiveness	Roll the ailerons into wind to reduce the amount of lift on the windward wing, and reduce aircraft speed to reduce total lift and thus increase tyre friction. Alternatively, if taking off, increase aircraft speed to increase the rudder effectiveness
Nose wheel vibrates rapidly after landing	Usually the control column is too far forward which is putting too much force on the nose wheel	Move the control column back to a neutral position
The plane lands very quickly, not a gentle 1-2-3	Either the aircraft is too slow on short final which will result in reduced roll control, or the wings are level on flaring which will result in the aircraft moving sideways	Make sure the approach speed is correct on short final (normal approach speed plus 5 kts), and make sure the rudder is keeping the nose straight while to bank is keeping the aircraft on the centreline
With sufficient rudder to keep the nose straight and wing into wind, when I touch down the aircraft moves sideways on the runway with one wheel only on the ground	Rudder effectiveness, roll control and total lift produced from the wings are all reduced when the airspeed reduces in the flare	The aircraft moving sideways is a bank issue, so adjust the bank to suit the conditions, however the bank must be slightly increased when the power is reduced due to the reduction in airspeed.