

# Crosswind Landings

Practising crosswind landings in New Zealand can be a tricky business. Trying to organise an aircraft, instructor, and runway while there is a consistent wind can be difficult. It is an essential skill to have, however, as more often than not there will be a component of crosswind in any given headwind.

A crosswind is experienced any time the wind is blowing at an angle to the runway. Here is one of many quick ways to calculate a crosswind component after receiving an ATIS/AWIB while flying.

If the runway heading is 340 degrees, and the wind is blowing from 300 degrees, then the difference between the two is 40 degrees. If we add 20 (mathematical constant) to this number, we get 60. The crosswind is therefore 60 percent of the headwind. In this example, 60 percent of the 20 knots blowing is 12 knots. The crosswind is therefore 12 knots.

This method works for a difference of up to 80 degrees between runway heading and wind direction, because after that the crosswind becomes close to 100 percent.

(See diagram below.)



## Maximum Demonstrated Crosswind

The “Maximum Demonstrated Crosswind” component, which can be found in an aircraft’s flight manual, is the figure at which factory testing has shown that directional control of the aircraft can still be maintained. It is affected by the size of the rudder, its distance from the C of G, and the availability of asymmetric braking.

An aircraft is capable of landing in crosswinds of greater strength than the

maximum demonstrated crosswind, provided that the pilot’s technique and currency are up to the job. Is your technique up to scratch? If not, grab an instructor and get out practising.

A reminder to instructors who are certifying competency for both PPL issue and Biennial Flight Reviews, that it is a requirement to have crosswind skills demonstrated to you. It is for this reason that a BFR can be conducted over a period of up to 60 days.

