

Tracking corrections required to regain track

Corrections - or interceptions by another name – are usually **twice** the number of degrees that you are off the desired track.

Example: 5° off track – Correct by 10°

10° off track – Correct by 20°

The correction is applied to the desired track.

If the wind tends to lessen the correction, then **increase** the correction by 10° or 20°, according to the amount of drift.

If you are more than two to three minutes away from the beacon and you are 5° to 10° off track then correct by 30° as a minimum. A smaller correction could take too long.

One advantage of the twice number of degrees correction is that it produces two equal side of an isosceles triangle. That is the time taken to regain the track, equals the time from the facility at the point where the track is regained.

Correction to regain a track

In general, corrections of twice the number of degrees that the aircraft is off the desired track.

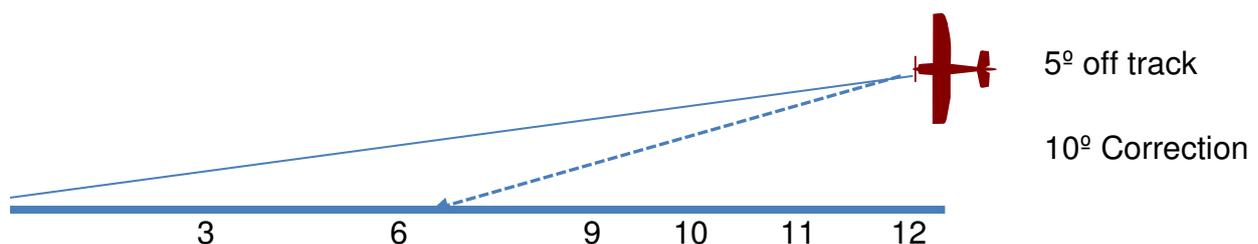
But more than 2 to 3 minutes away from the beacon a correction for 5° off track should be made with a 30° correction.

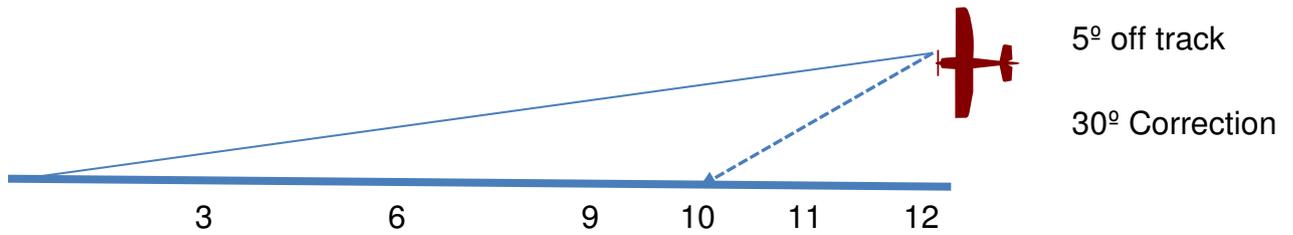
If you are 5° off at 12nm from the beacon then this 5° represents 1 nm off track. With a 10° correction you would fly 6nm before regaining track.

In controlled airspace for example, use the 30° correction for 5° off course. This angle interception will reduce the interception distance to approximately 1/3 the 10° correction.

Always increase the interception angle if the wind significantly affects it.

There is no difference when tracking inbound or outbound from a beacon, always use the same procedure.





Intercepting a track - Angle of lead

When intercepting a track to or from a beacon you must allow for the turn onto track from the intercepting heading. The allowance, in terms of degrees, is known as the angle of lead.

How much depends on three factors

1. Size of interception angle
2. Distance from beacon
3. Effect of wind

As far as distance is concerned it is better to use **time** instead and you don't have to worry about speed.

Time from station	Interception angle			
	90°	60°	45°	30°
½ minute	20° Lead	10° Lead	8° Lead	3° Lead
1 minute	15° Lead	7° Lead	5° Lead	2° Lead
2 minutes	10° Lead	5° Lead	3° Lead	1° Lead
3 minutes	5° Lead	2° Lead	2° Lead	1° Lead