NAVAIDS

To learn how to do various calculations using Radio Navaids some basic navigation principles must first be revised

Relationship between Heading, Flight Plan Track, Drift, Track Made Good and Track Error

The difference between FPT and HDG is called Estimated Drift

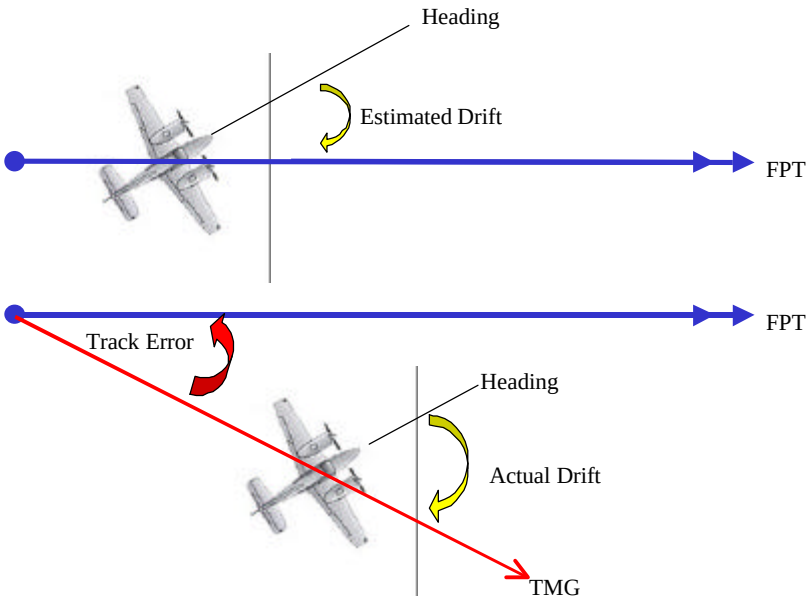
The difference between HDG and TMG is called Actual Drift

The difference between FPT and TMG is called Track Error

Drift is expressed as either LEFT or RIGHT Drift. Below is a simple way of remembering the relationship between Track, Drift and Heading.

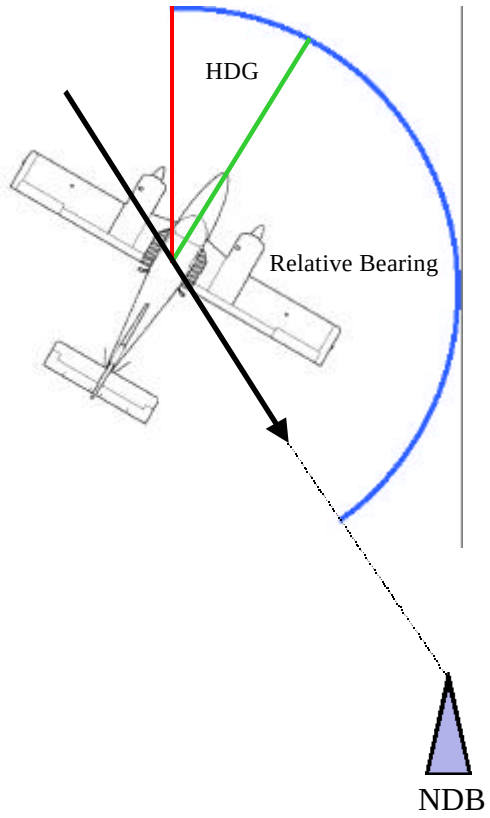
DRIFT LEFT = HEADING RIGHT OF TRACK

DRIFT RIGHT = HEADING LEFT OF TRACK



An ADF can be used to calculate your TMG from a station. Below is a diagram showing the relationship between the A/C HDG and Relative Bearing shown on the ADF. Using this information the Track Made Good can be calculated if you are tracking from an NDB. Once you know the TMG, Track Error and Actual Drift can be calculated.

NDB Orientation



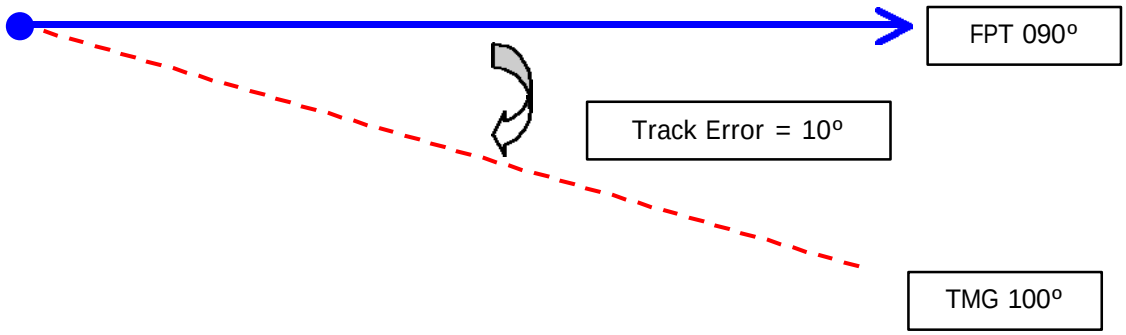
Heading + Relative Bearing = Track TO Station

Heading + Relative Bearing +/- 180 = Track FROM Station

Example.

Your HDG is 095º for a FPT of 090º. Your ADF has a Relative Bearing of 185º.
Calculate the Track Error.

Step 1 Draw a diagram
Step 2 Calculate TMG - HDG 095º + RB 185º = 280º TO STN or 100º FROM STN
Step 3 Plot TMG on diagram



Track Error = the difference between FPT and TMG