Navigation Formulae Sheet

NB. These formulae and symbols are for guidance only and other formulae which give equally valid results are acceptable.

Departure = D'Long x Cos Mean Lat

Tan Course = $\frac{\text{Dep}}{\text{D'Lat}}$

Distance = $\frac{\text{D'Lat}}{\text{Cos Course}}$

Tan course = $\frac{\text{D'Long}}{\text{DMP}}$

Cos A = $\frac{\text{Cos PB} - (\text{Cos PA x Cos AB})}{(\text{Sin PA x Sin AB})}$

Cos B = $\frac{\text{Cos PA} - (\text{Cos PB x Cos AB})}{(\text{Sin PB x Sin AB})}$

Cos AB = (Cos P x Sin PA x Sin PB) + (Cos PA x Cos PB)

A = $\frac{\text{Tan Lat}}{\text{Tan LHA}}$

B = $\frac{\text{Tan Dec}}{\text{Sin LHA}}$

C = A +/- B

Tan Azimuth = $\frac{1}{\text{C x Cos Lat}}$

Sin Amplitude = $\frac{\text{Sin Dec}}{\text{Cos Lat}}$

Sin mid part = Tan adjacent x Tan adjacent

Sin mid part = Cos opposite x Cos opposite