

Navigation Formula Sheet

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

$$\text{Departure} = \text{D'Long} \times \text{Cos Mean Lat}$$

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

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

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

$$\text{Cos AB} = (\text{Cos P} \times \text{Sin PA} \times \text{Sin PB}) + (\text{Cos PA} \times \text{Cos PB})$$

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

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

$$C = A \pm B$$

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

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

$$\text{Sin mid part} = \text{Tan adjacent} \times \text{Tan adjacent}$$

$$\text{Sin mid part} = \text{Cos opposite} \times \text{Cos opposite}$$