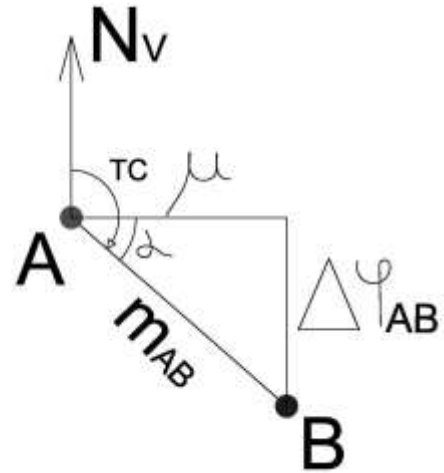
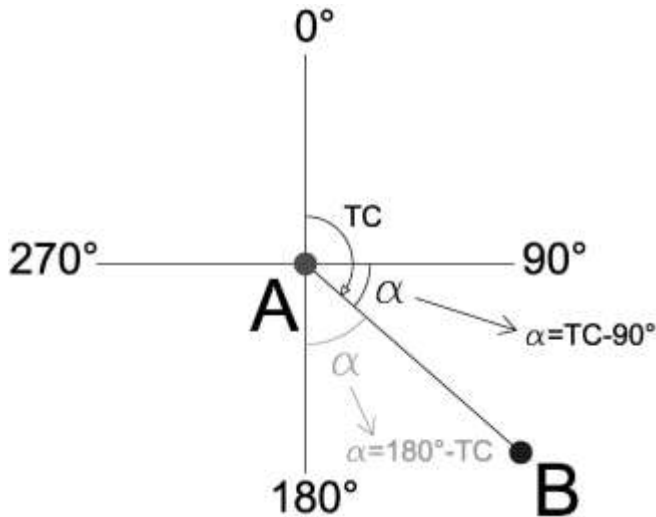


Problema 2: Calcolare la distanza lossodromica e la rotta da impostare per andare dall'aeroporto di **Dubai** (Codice ICAO: OMDB – Latitudine $\varphi_A = 25.2528$ N – Longitudine $\lambda_A = 55.3644$ E) all'aeroporto di **Bangkok** (Codice ICAO: VTBD – Latitudine $\varphi_B = 13.9126$ N – Longitudine $\lambda_B = 100.607$ E).

[TC = 218°; $m_{AB} = 927,8$ NM]

Svolgimento



$$\Delta\varphi_{AB} = \varphi_B - \varphi_A = 13^\circ,9126 - 25^\circ,2528 = 11^\circ,3402S \equiv 680,4NM$$

$$\Delta\lambda_{AB} = \lambda_B - \lambda_A = 100^\circ,607 - 55^\circ,3644 = 45^\circ,2426E \equiv 2714,56NM$$

$$\varphi_{C_A} = 7915,7 \cdot \log \left[\operatorname{tg} \left(45^\circ + \frac{\varphi_A}{2} \right) \right] = 1556',7$$

$$\varphi_{C_B} = 7915,7 \cdot \log \left[\operatorname{tg} \left(45^\circ + \frac{\varphi_B}{2} \right) \right] = 843',08$$

$$\Delta\varphi_{C_{AB}} = |\varphi_{C_A} - \varphi_{C_B}| = 713',62$$

$$\operatorname{Tg}(\alpha) = \frac{\operatorname{sen}(\alpha)}{\cos(\alpha)} = \frac{\Delta\varphi_{C_{AB}}}{\Delta\lambda_{AB}} \rightarrow \alpha = \operatorname{arctg} \left(\frac{713',62}{2714,56} \right) = 14^\circ,73$$

$$TC = 90^\circ + \alpha = 90^\circ + 14^\circ,73 \cong 105^\circ$$

$$m_{AB} = \frac{\Delta\varphi_{AB}}{\operatorname{sen}(\alpha)} = \frac{713',62}{\operatorname{sen}(14^\circ,73)} = 2806,6 \text{ NM}$$