

ϕ_1 = Geodetic latitude of launch point (radians)

$$= \phi_1(\text{DDD}) \cdot \frac{\pi}{180} \text{ (radians per degree)}$$

λ_1 = Longitude of launch point (DDD)

$$= \lambda_1(\text{DDD}) \cdot \frac{\pi}{180} \text{ (radians per degree)}$$

S = Range from launch point (nm)

$$= S(\text{DDD}) \cdot \frac{\pi}{180} \text{ (radians per degree)}$$

α_{12} = Azimuth bearing from launch point (deg)

$$= \alpha_{12}(\text{DDD}) \cdot \frac{\pi}{180} \text{ (radians per degree)}$$