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)

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

S = Range from launch point (nm)

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

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

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