ENP TO GEOGRAPHIC (GEO) COORDINATE SYSTEMS

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Local ENP System

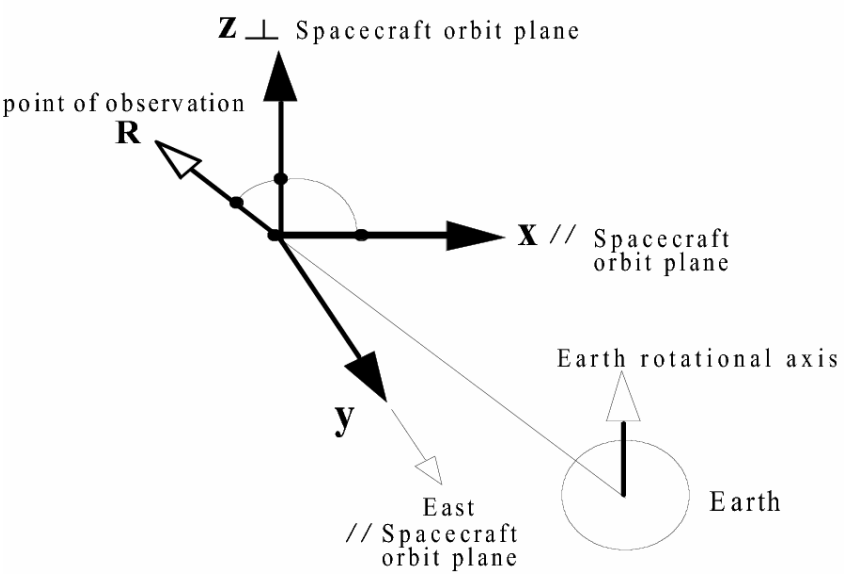


Figure 1 Local ENP System
The Z (P) is normal to the satellite orbital plane, positive northward. X (E) and Y (N) are perpendicular to P. X points towards earth's center, while Y = X x Z is positive east and completes the left-hand coordinate system. This system is a local coordinate system, which is dependent of the position of the point of observation from the Earth.

Local RH-ENP System

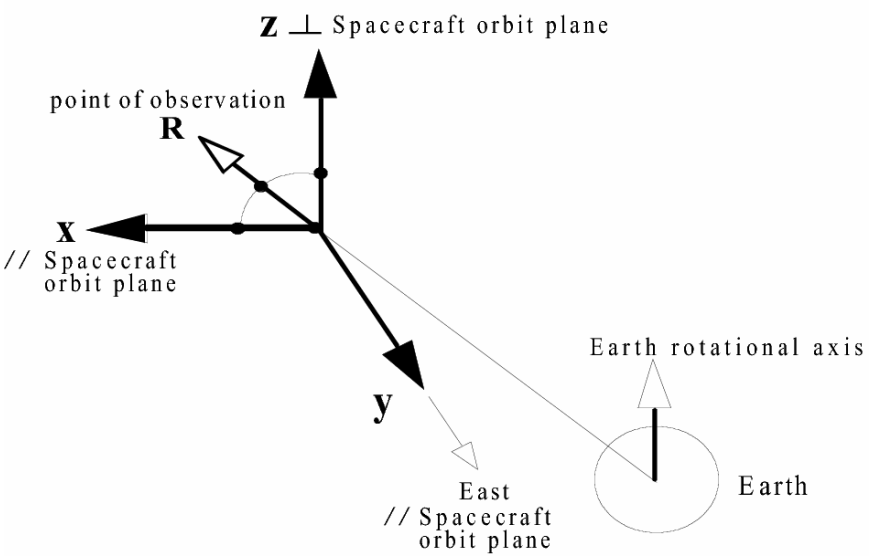


Figure 2 ENP Converted to Right-Hand Coordinate System
This system is a local coordinate system, which is dependent of the position of the point of observation from the Earth. This is an intermediate coordinate system required for all transformations.

Geographic (GEO) System

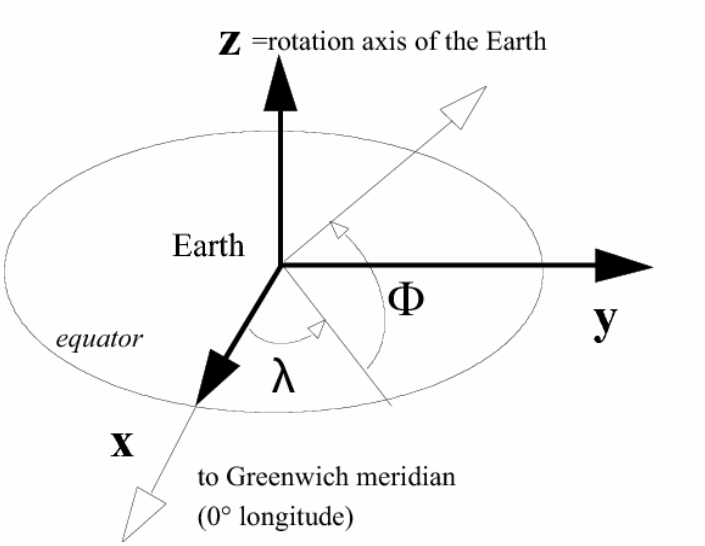


Figure 3 GEO System
The Z-axis is parallel to the rotation axis of the Earth. The X and Y axis are included in the equator plane. The X axis is pointing from the centre of the Earth to the Greenwich meridian (0° longitude). The *GEO* system is fixed with the rotating Earth. Longitude λ and latitude Φ are defined in this system in the same way as right ascension and declination in *GEI* system. This is an intermediate coordinate system required for some transformations.