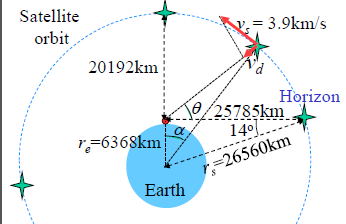
**Steps to compute Doppler frequency at varying SV elevation for L1, L2, and L5 signals:**

Let *B* be the angle between the user and the Earth’s center, measured from the SV, *vs* be the GPS SV velocity, and *c* be the speed of light in m/s.

Using the law of sines, we know that in general:

Therefore, we can solve for angle *B*:

*B* is used to compute angle *a* and subsequently, *vd*:

From there, Doppler frequencies can be calculated for each GPS signal:

