

Sky Basics

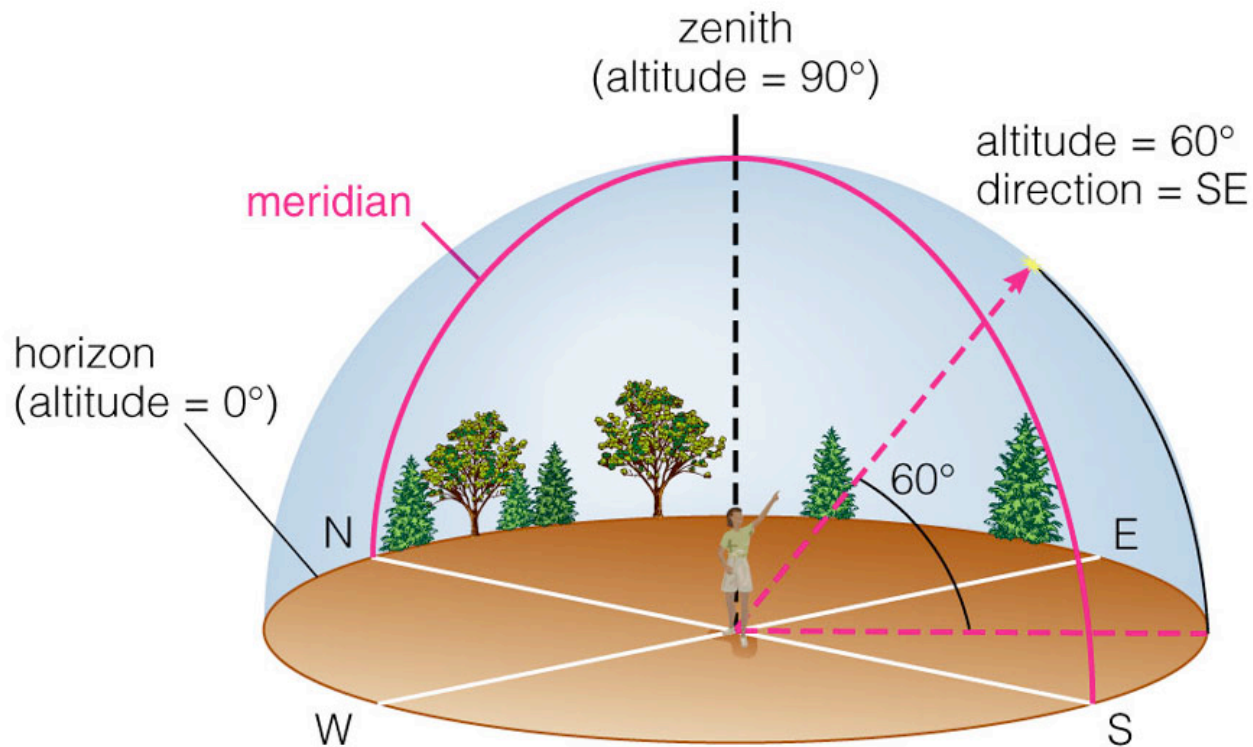
RECON Spring Training Workshop
Carson City, Nevada
April 4-7, 2013

RECON



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the NSF under Grant No. 1212159.





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Directions tied to local horizon

- ◆ **Azimuth**

- ◆ north, south, east, west, northeast, southwest, etc.

- ◆ **Altitude**

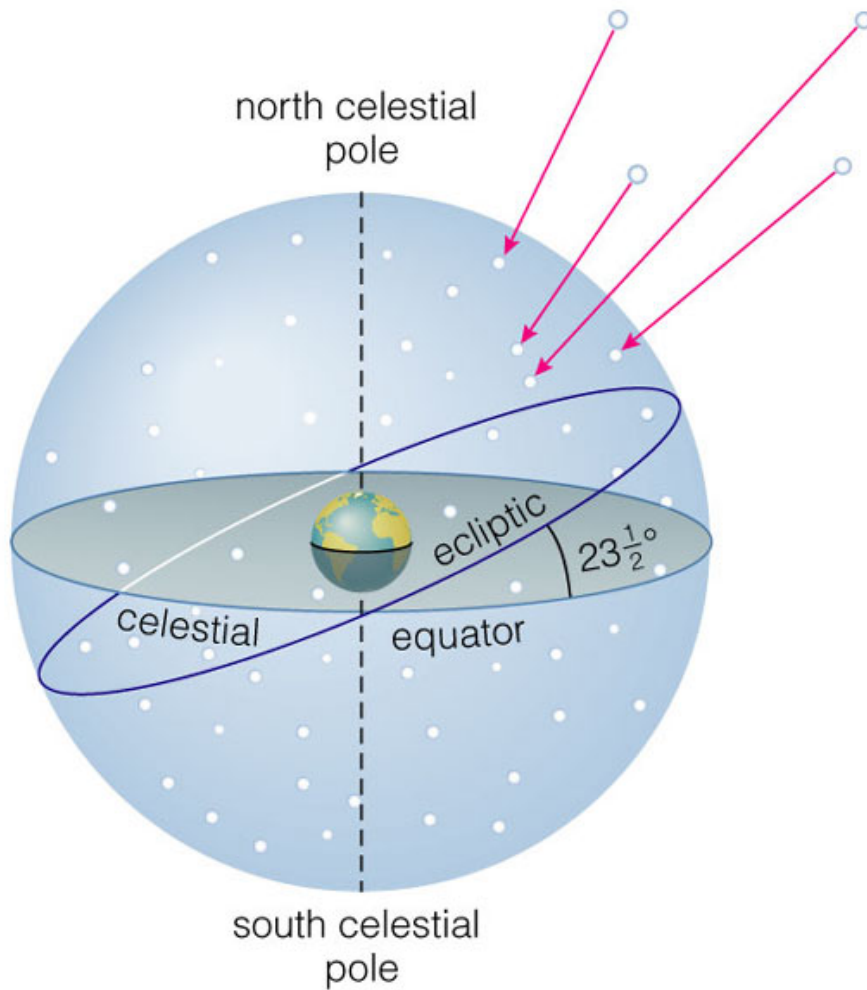
- ◆ low, high, directly overhead (**zenith**)

- ◆ **Meridian**

- ◆ Line passing from north through zenith to south

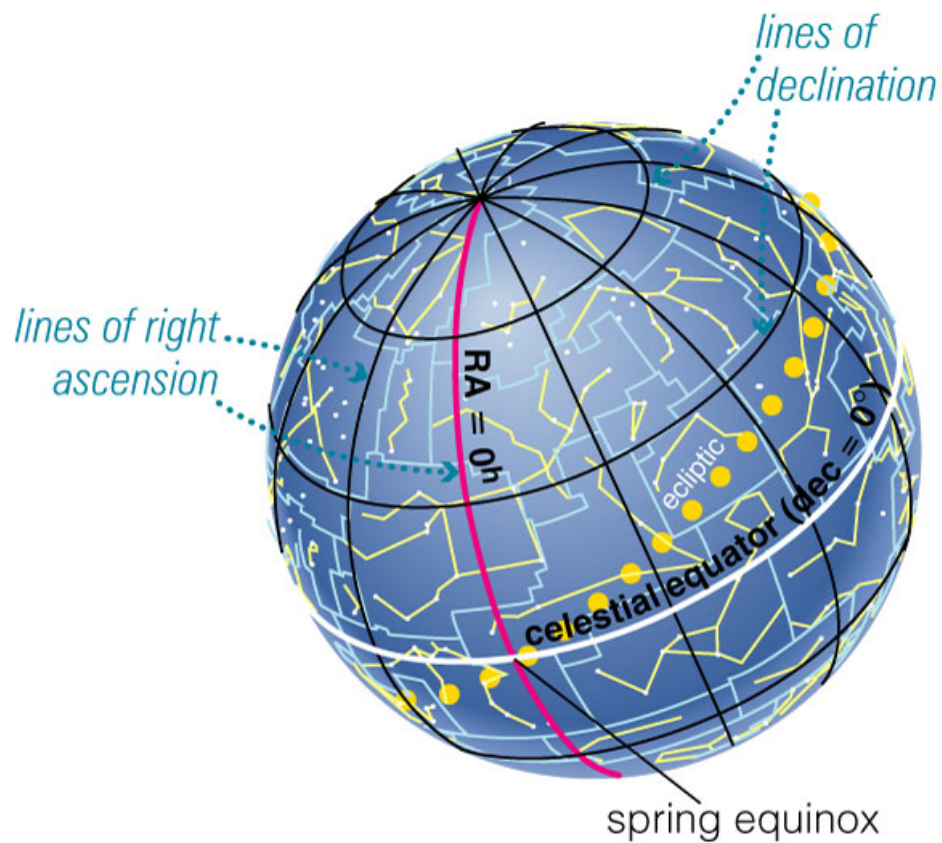


Celestial Sphere



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RA and DEC



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Right Ascension and Declination

- ◆ **Right Ascension (RA)**

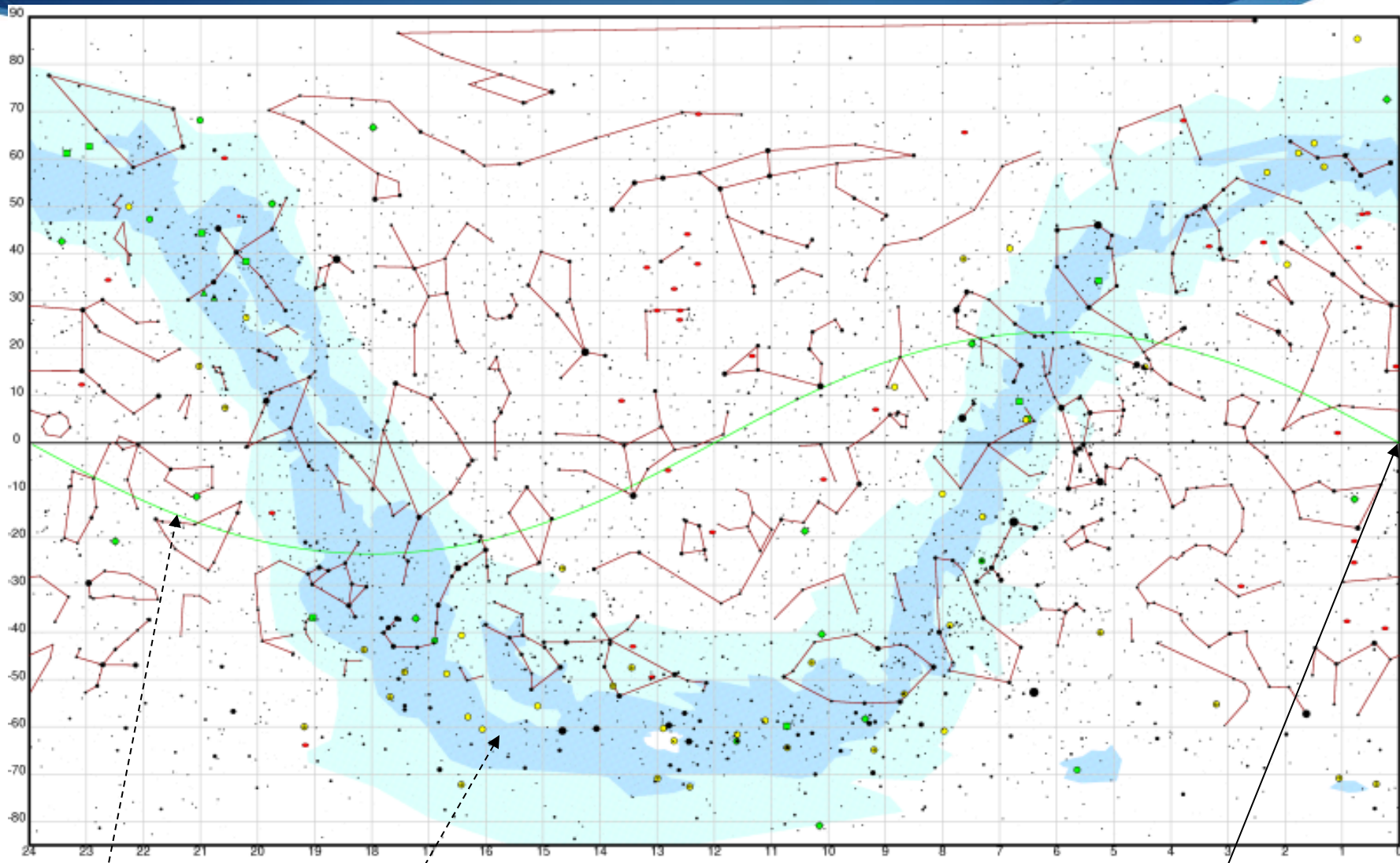
- ◆ Hours, minutes, and seconds east of where sun crosses celestial equator on first day of spring

- ◆ **Declination (DEC)**

- ◆ Degrees north or south of the celestial equator



Degree
s
of
DEC



Path of Sun
throughout year

Disk of Milky
Way Galaxy

Position of Sun
on Spring
Equinox

REC

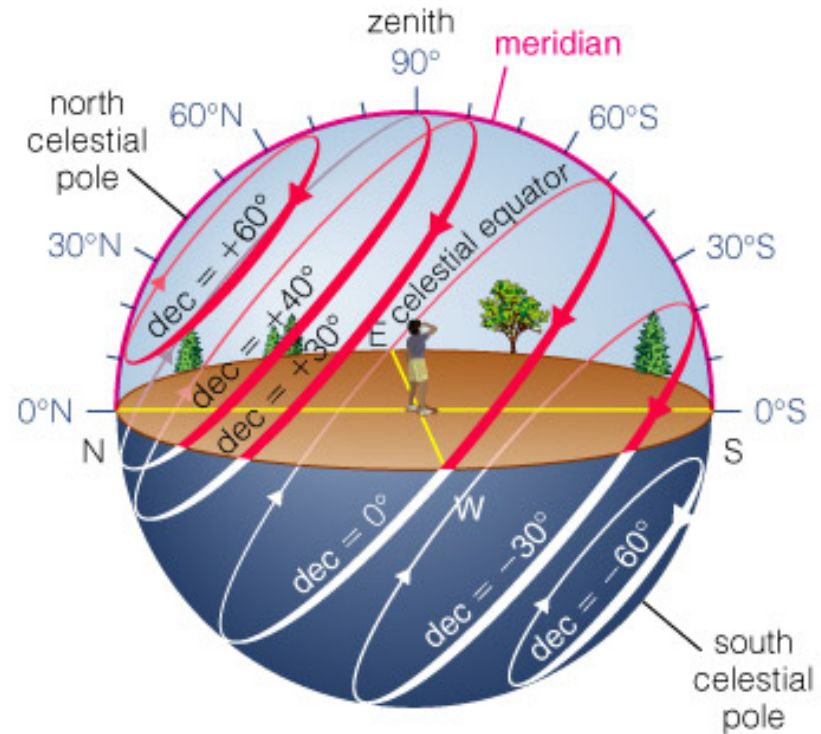
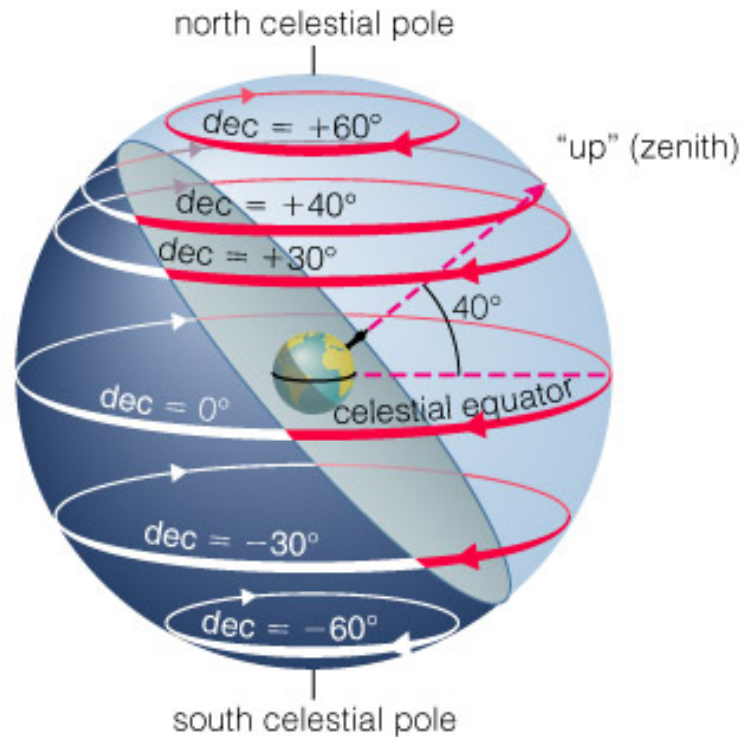


Motion of Sky

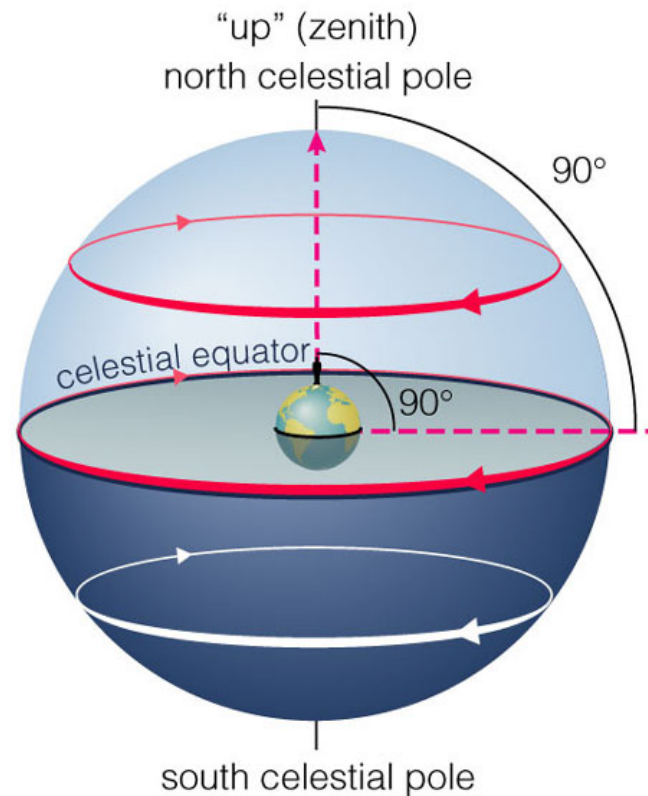
- 💧 If you live in Tonoapah and you saw a star rising directly in the east, where will that star be six hours later?
- 💧 1) High in the South
- 💧 2) Low in the South
- 💧 3) Directly Overhead
- 💧 4) Setting in the West



Motion of the Sky in Quincy



But what if you lived at the NP?



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Stars rotate around Polaris, which is directly overhead!



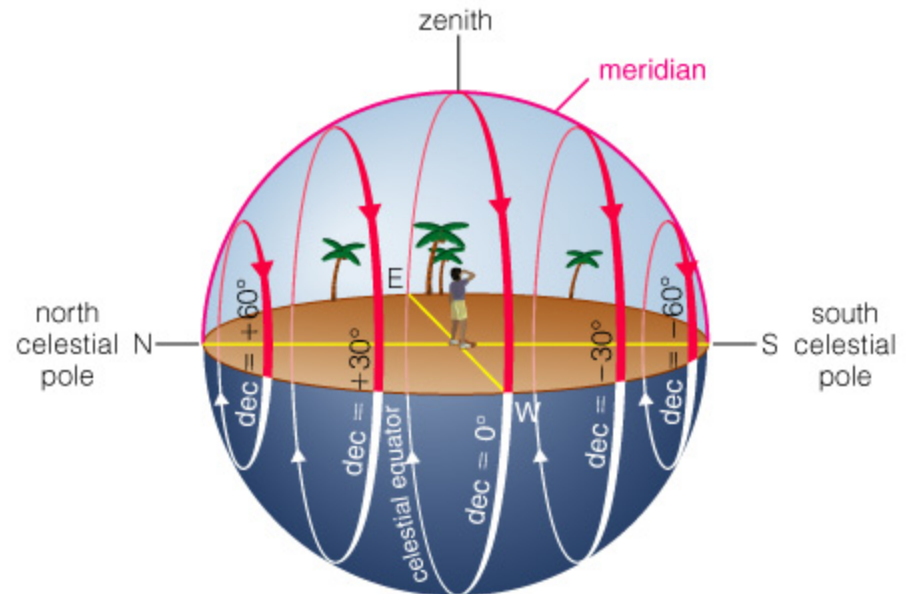
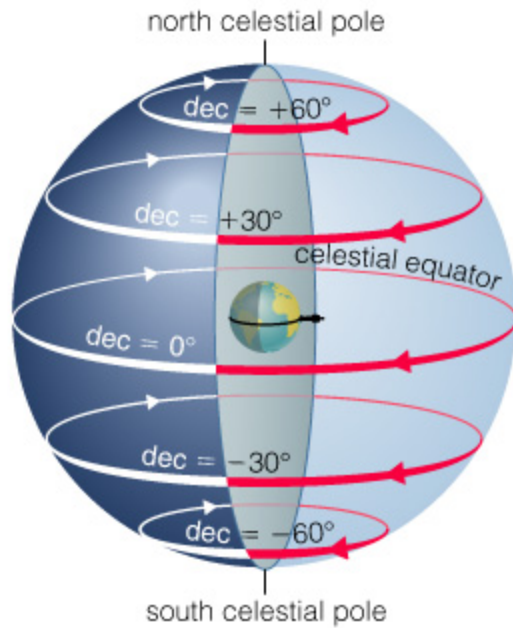
Where is this?



RECON



RECON in Ecuador!!!



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Stellarium

<http://www.stellarium.org/>

