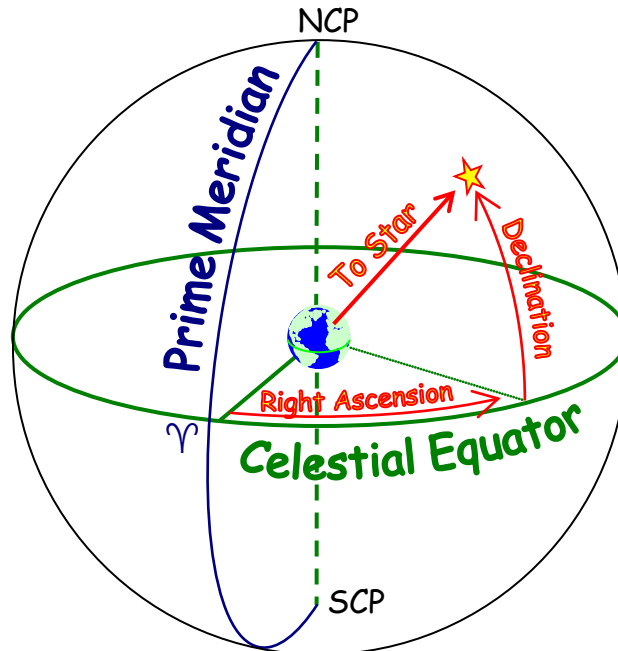


## Celestial Coordinates

### I. RIGHT ASCENSION AND DECLINATION

A way to locate a point on the sky is to use its right ascension and declination:



**DECLINATION (Dec or d):** Measures the angle north or south of the celestial equator  $\pm 0^\circ$  to  $90^\circ$   
 Celestial Latitude ... parallels of declination  
**DEGREES, ARCMINUTES, ARCSECONDS:**  $0^\circ 0' 0''$  to  $90^\circ 0' 0''$

**RIGHT ASCENSION (RA or  $\alpha$ ):** Measures the angle east of the prime meridian from 0h to 24h  
 Celestial Longitude ... great circles of right ascension  
**HOURS, MINUTES, SECONDS:**  $0^h 0^m 0^s$  to  $23^h 59^m 59^s$

On your celestial globe

- ★ identify the **celestial equator** and find the **hours of right ascension** markings
- ★ identify the **prime meridian** and find the **degrees of declination** markings

<sup>12</sup>Using the RA and Dec markings, identify the stars located at the following coordinates. Use the *Peterson Field Guide* to confirm these and find the Bayer designation.

RA	DEC	STAR NAME	CONSTELLATION	BAYER DESIGNATION
6h 45m	- 16° 43'	Sirius	Canis Major	$\beta$ CMa
18h 37m	+ 38° 47'			
5h 15m	- 8° 12'			
7h 39m	+ 5° 14'			
6h 24m	- 52° 41'			

Look up in Appendix 2 (in order of RA)

<sup>18</sup> On **BOTH** charts from the Field Guide, use colored pencils to highlight and label the

- lines of 0<sup>h</sup>, 6<sup>h</sup>, 12<sup>h</sup> and 18<sup>h</sup>
- circles of 0°, +20°, +50°, -20°, and -50°.

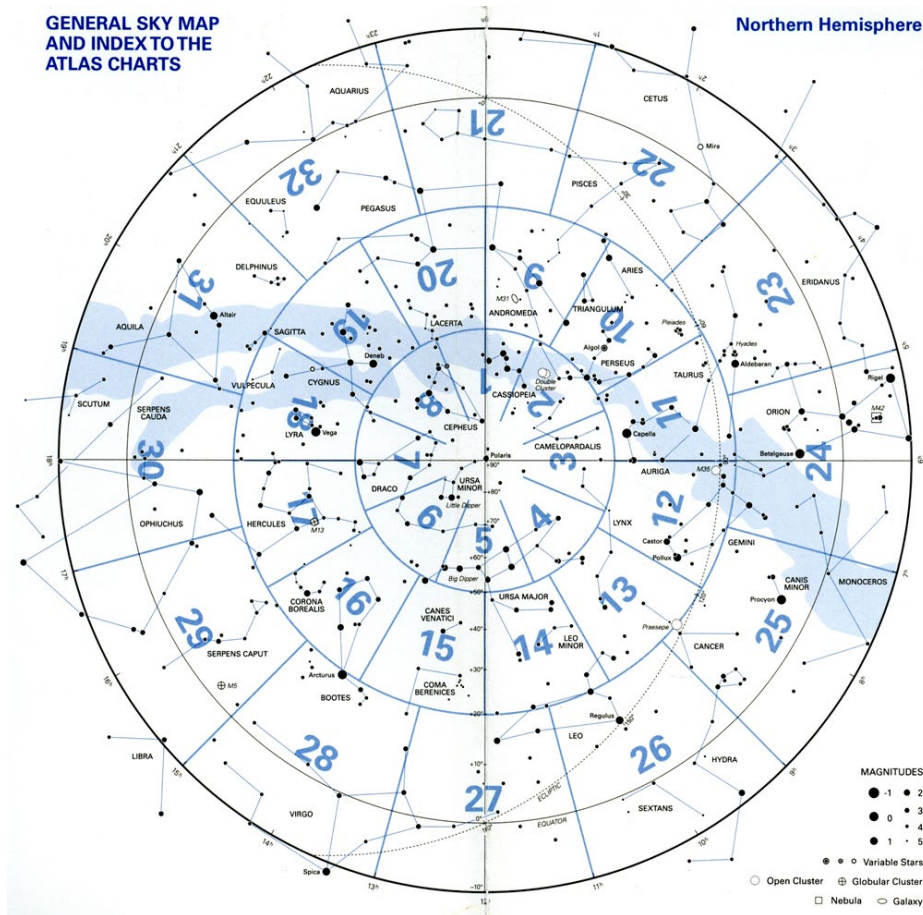
<sup>10</sup> Also highlight and label the stars listed on the flip side of this sheet.

<sup>4</sup> In what constellation is the point 21<sup>h</sup>, +20°? (Use the Atlas Chart, look at constellation boundaries!)

(Use your field guide to read the numbers since these are very small!)

GENERAL SKY MAP AND INDEX TO THE ATLAS CHARTS

Northern Hemisphere



Southern Hemisphere

GENERAL SKY MAP AND INDEX TO THE ATLAS CHARTS

