

Name: _____

Date: _____

Indoor Laboratory: SFA Star Charts

Introduction

Learning to read astronomical charts is an important skill. Understanding what stars are above the horizon at any given time is also important. The star charts that you printed out for class are used primarily to assist you in locating constellations in the sky. However, they can also be used to plot the positions of planets, the position of the Sun, determine the local sidereal time and the time of rise for an object.

Procedure

Right Ascension (RA)

Declination (DEC)

Answer the following questions regarding the SFA star charts.

1. For every hour on the clock, how many hour(s) of RA pass a stationary point? _____
2. At what RA and DEC is the bright star, Vega, located? _____
3. Star charts 2 & 3 are only used when facing which directions? _____
4. Which star is brighter, Antares or Sirius? _____
5. What is the DEC of the Winter Solstice? _____
6. What time will the bright star Rigel (in Orion) rise tonight? _____

*For the following 3 questions, assume that you are at the Observatory on February 20, 2004 CST,
Latitude: N 30° 34' 21" Longitude: W 96° 21' 59"*

7. At 7:30 PM, what constellation would lie along the meridian at 0° Declination? _____
8. What constellation would be at your zenith? _____
9. What are the coordinates of the Sun? RA: _____ DEC: _____

*For the next 2 questions, assume that you are at the Observatory on August 21, 2004 CDT
Latitude: N 30° 34' 21" Longitude: W 96° 21' 59"*

10. What RA would lie along the meridian at 8:00 PM? _____
11. What RA would lie along the meridian at 10:00 PM? _____