ASTR 330 Term Project Questions

PHASES OF THE MOON

Date Due: Tuesday, November 16, 2004

Name: _____

Please read the University of Maryland Honor Pledge below, then sign your name and date your signature.

"I pledge on my honor that I have not given or received any unauthorized assistance on this project."

Signature: _____ Date: _____

Staple all of your moon observations onto this handout.

1 Data Statistics

Perform an assessment of your observations by calculating the following quantities. "Clouded Out" days are when you looked for the Moon, but the sky was too cloudy to tell for sure if it was above the horizon.

Question	# or %
Total Number of Days of Possible Observations	
Percentage: Clouded Out	
Percentage: Not Cloudy, But Moon Not Seen	
Percentage: Moon Observed	
Percentage: No Observation Recorded	

When did you observe the Moon? Taking into account the times when you could have or did see the Moon (the "not cloudy" and "moon observed" categories above), calculate the percentage of times your observations were made during each time of day for all observations first, and then successful observations (when the Moon was actually seen).

Time Period	% of All Observations	% of Successful Observations
Midnight - 6AM		
6AM - Noon		
Noon - 6PM		
6PM - Midnight		

2 Environmental Factors

In the space below, name and describe the horizon of the typical location from which you made your observations. In which directions were there tall buildings or trees? Approximately what fraction of the distance to the zenith did they extend to?

How do you think weather patterns affected your observations? Obviously if it was cloudy you couldn't see the Moon. However, was it detrimental to just have one day clouded out? How much worse was it to have a number of cloudy days in a row? Comment on the effect you think this has had on your prediction of the next full Moon (which you will give in the next section.)

Did you successfully observe the Moon at all during the daytime? Was this difficult to do? Describe your experience.

3 Prediction of Next Full Moon

Give the date when you expect the next full Moon to occur (month, day, and year, just to be clear). Explain how you determined this date from your observations. Explicitly list any crucial observations by date. (This question will be graded on how well you explain and support your prediction based on your observations, NOT on whether it is exactly correct.)

4 Possible Improvements

If you had to do this project again, what would you do differently to make your analysis easier and/or your prediction more accurate?