

Mountaineer Skies

Volume 1, Issue 1

<http://www.as.wvu.edu/~planet/index.html>

September 2001

Welcome to *Mountaineer Skies*

This is the first edition of *Mountaineer Skies* and we hope you find it both interesting and useful. Our singular goal is to provide the local community with timely information about forthcoming astronomical events such as visible planets, upcoming meteor showers, or how to see a new comet. Most of the things mentioned will require only your naked eye to see, though binoculars might be useful. (See article on page 2.)

If there is something that you do not see in our newsletter that you would like to see, please let us know, and we will make an effort to add it, as our goal is to help you in your night sky exploration.

Each month, we will try to have articles of general interest to the amateur astronomer, as well as the tabular data found below.

In The Sky This Month

On September 22, autumn arrives. This day is also called the Autumnal Equinox, which means that we have a day where the period of daylight and darkness are of equal length. From now until the Winter Solstice on December 21, the days will shorten, as the nights grow longer.

There is another equinox, called the Vernal Equinox, or first day of spring, which occurs around the 21 of March. This is the only other day in the year when the period of daylight and darkness are equal.

Visible Planets in the Night Sky

Mars is visible this month in the constellation Sagittarius, the Archer. Because of its shape, it is also called the Teapot.

Sagittarius, The Archer



Upcoming Space Missions

The next space shuttle mission is scheduled for November 1. Endeavor will carry a supply module and equipment racks from Kennedy Space Center. Projected launch time is 6:27 p.m.

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About: Venus



False color image of Venus using Radar data from the Magellan spacecraft collected between 1990 and 1993

Mass (kg)	4.87×10^{24}
Diameter (km)	12104
Mean density (kg/m ³)	5250
Escape velocity (m/sec)	10400
Avg distance from Sun (AU)	0.723
Mean surface temperature (K)	726

Rotation period (length of day in Earth days) 243.0 (retrograde)

Revolution period (length of year in Earth days) 224.7

Mean surface temperature (K) 726°

Request for Articles and Photographs

If you have an article or photographs that you would like to submit for publication, please send them to:

John Hopkins
Subject: Submissions
256 Hodges Hall
West Virginia University
Morgantown, WV 26506

Or email to: jhopkins@wvu.edu with "Submission" on the Subject line.

Sky Watching with Binoculars

When buying your first instrument to augment night sky viewing, a telescope may not always be the best choice. Binoculars have several advantages over telescopes, especially for a new amateur astronomer.

Binoculars mounted on a tripod can provide excellent views of the moon and visible planets, Mercury, Venus, Mars, Jupiter, and Saturn. If you think that binoculars will not be up to the task, remember that Galileo, using a crude telescope having an objective lens diameter of about 1 inch, discovered the four largest moons of Jupiter. Many modestly priced binoculars have an objective lens larger than that.



Galileo's Telescope

The first and most obvious advantage is cost. Binoculars are an excellent choice for parents when buying for a young child who has expressed an interest in astronomy. As curiosity in the mysteries of the night sky is often a passing fancy, you have not lost a lot of money, and binoculars can be used during the day for observing nature as well.

Another advantage is portability. The binoculars, even with a tripod, take up very little space in the back seat or trunk of a car, so that is easy to take with you.

Binoculars are always ready for use. When you see something interesting in the sky, you only have to look up. They do not require the long, exacting setup procedure a telescope needs.

2001 – 2002 Planetarium Shows

<p><i>Magellan: Report from Venus</i> – The Magellan radar-mapping mission to Venus was extraordinarily successful; the spacecraft returned more data than all NASA's previous planetary missions combined. During this half-hour planetarium show, we follow Magellan's progress, from its launch through the most significant discoveries. Included are spectacular images of volcanoes, impact craters and landslides. Important planetary science topics of volcanism, tectonism, and impact cratering are covered, and radar imaging is discussed.</p>	<p><i>'Tis The Season</i>– The program is shown annually in November and December and recounts the historical, religious, and cultural rituals practiced during the time of winter solstice -- not only Christian and Jewish, but also Nordic, Roman, Egyptian, and Hopi. It also takes a look at some of our more light-hearted seasonal traditions, from gift-giving and kissing under the mistletoe to the custom of decking the halls with greenery and candles. St. Nicholas, Sinterklaas, Kris Kringle, Father Christmas, and Santa Claus all drop by as well. This is our most popular show.</p>
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September 14 & 28, 2001 <i>Magellan from Venus</i>	October 12 & 26, 2001 <i>Magellan from Venus</i>	NOVEMBER 9 & 16, 2001 <i>'TIS THE SEASON</i>
December 14 & 21, 2001 <i>'TIS THE SEASON</i>	January 11 & 25, 2002 <i>Magellan from Venus</i>	February 8 & 22, 2002 <i>Magellan from Venus</i>
March 8 & 22, 2002 <i>Magellan from Venus</i>	April 12 & 26, 2002 <i>Magellan from Venus</i>	May 10 & 24, 2002 <i>Magellan from Venus</i>
June 14, 2002 <i>Magellan from Venus</i>	July, 2002 Closed	

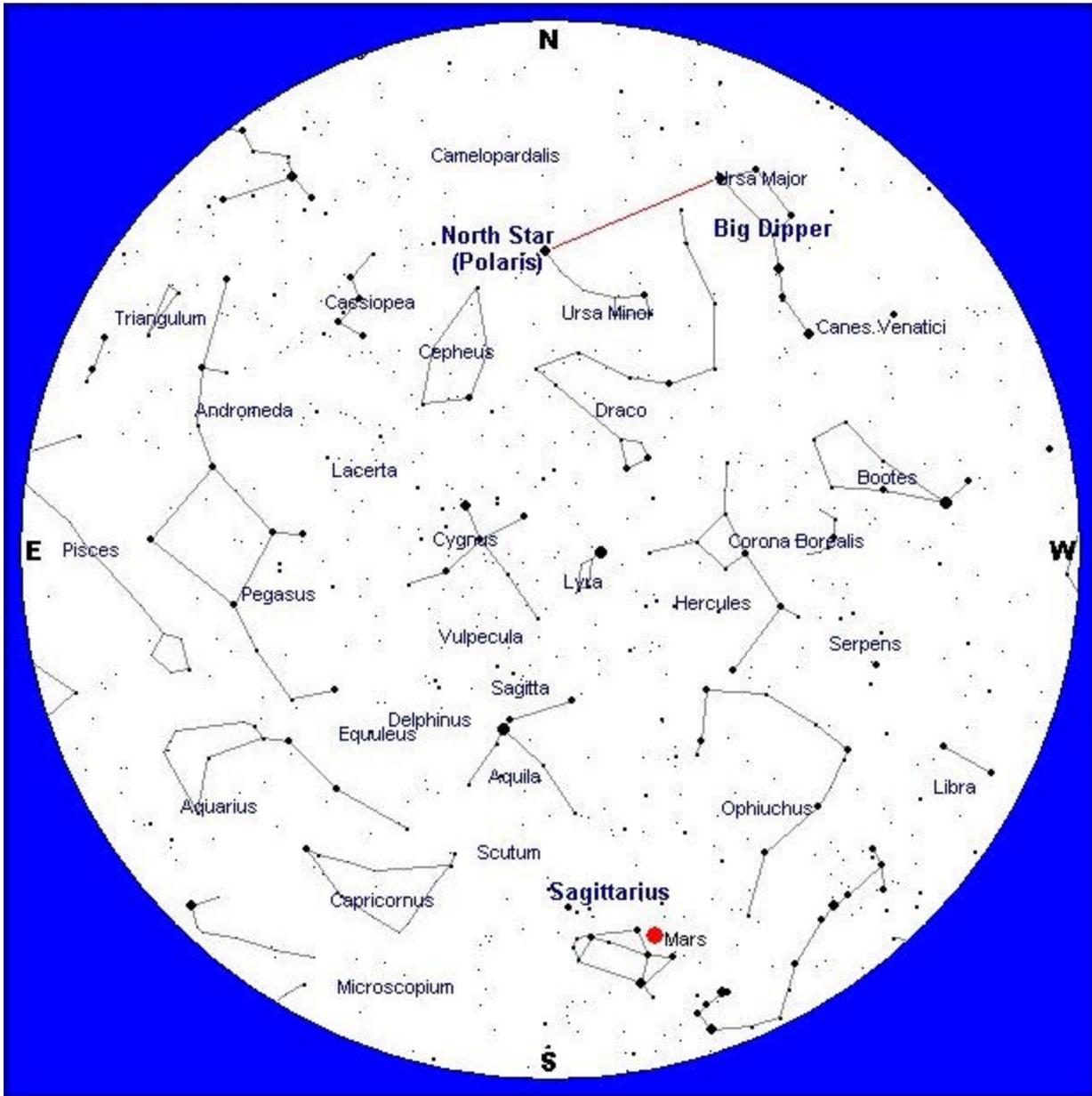
For those who are interested in bringing a group, such as schools or scouts, during the day, please call for more information. These shows are usually given on Tuesday or Thursday mornings.

For further information or reservations, please call John Hopkins at (304)296-1211, extension 1433 or by email at: jhopkins@wvu.edu

Selected Sunrise/Sunset and Moon Rise/Moon Set Times

Date	Sunrise	Sunset	Moon Rise	Moon Set	Moon Phase
Sept 2	6:49 A.M.	7:49 P.M.	8:10 P.M.	6:19 A.M.	Full Moon
Sept 9	6:55 A.M.	7:38 P.M.	11:27 P.M.	1:19 P.M.	Last Quarter
Sept 17	7:03 A.M.	7:25 P.M.	7:03 A.M.	8:02 P.M.	New Moon
Sept 24	7:09 A.M.	7:13 P.M.	2:58 P.M.	-----	First Quarter

September 2001 Sky Chart* for:
8:00 P.M at the beginning of the month
9:00 P.M in the middle of the month
10:00 P.M at the end of the month



* Sky Chart used with the kind permission of **Heavens-Above** at <http://www.heavens-above.com/>

The Tomchin Planetarium is named in honor of the late Harold Tomchin, of Bluefield, W.Va., who made a generous donation to ensure the continuing operations of this facility, and whose family continues to support the planetarium for the educational benefit of WVU students, staff, and faculty members, as well as the local community. Contributions can be made in support of the planetarium through the WVU Foundation Inc.



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