WEST VIRGINIA UNIVERSITY
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THE DEPARTMENT OF PHYSICS
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Mountaineer Skies

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From the Editors Desk

The Autumnal Equinox occurs on September 23 this year. This is the day when the periods of daylight and darkness are of approximately the same duration. From now until December 22 (Winter Solstice) the length of daylight will become increasingly shorter. On the 22nd, the Sun will reach its lowest point in the Southern sky at noon. This is also known as the shortest day of the year. After the solstice, the Sun will begin its slow rise in the sky, bring increasingly longer days. On March 20, 2004, the Vernal Equinox, the days and nights are once again of about the same length. After the equinox, the sun continues to rise in the sky until it reaches its maximum height on June 20, 2004, the first day of summer which is know as the Summer Solstice. After this day, the sun begins its decent again, with days becoming shorter and shorter until once again, on the day of the Autumnal Equinox, the days and nights are of equal length. This process continues each year.

For season dates for 2004 and 2005, see end of page 2.

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In The Sky This Month

Visible Planets in the Night Sky

Beginning of September, 2003

	Const	Rise	Transit	Set	Mag
Sun		6:45	13:20	19:55	- 26.8
Mercury	Leo	8:11	14:14	20:12	2.0
Venus	Leo	7:05	13:36	20:09	- 3.9
Mars	Aqr	19:59	1:09	6:19	- 2.8
Jupiter	Leo	6:04	12:52	19:37	- 1.7
Saturn	Gem	1:56	9:21	16:50	2.4

Middle of September, 2003

	Const	Rise	Transit	Set	Mag
Sun		6:58	13:15	19:32	- 26.8
Mercury	Leo	6:14	12:40	18:59	2.8
Venus	Vir	7:37	13:45	19:55	- 3.9
Mars	Aqr	18:53	0:01	5:10	- 2.5
Jupiter	Leo	5:24	12:08	18:50	- 1.7
Saturn	Gem	1:06	8:31	15:59	2.4

End of September, 2003

	Const	Rise	Transit	Set	Mag
Sun		7:12	13:10	19:08	- 26.8
Mercury	Leo	5:48	12:10	18:34	- 0.8
Venus	Vir	8:11	13:54	19:39	- 3.9
Mars	Aqr	17:46	22:58	4:10	- 2.1
Jupiter	Leo	4:40	11:18	17:59	- 1.8
Saturn	Gem	0:11	7:35	15:04	2.3

Leo	Leo, The Lion
Aqr	Aquarius, The Water Bearer
Gem	Gemini, The Twins
Vir	The Maiden

About: The Harvest Moon

The Harvest Moon refers to the Full Moon that comes closest to the autumnal equinox, or the first day of autumn. Depending upon the year, the Harvest Moon can fall anywhere from two weeks before or after the equinox, which arrives annually on or near September 23. This year, the Harvest Moon reaches full phase on September 10.

Before the advent of artificial lighting, our ancestors were acutely aware of the daylight hours waning more rapidly around the autumn equinox (when the Sun rises due east and sets due west) than at any other time of the year. But back then, people also understood lunar behavior, harvesting after dark by the light of the Moon.

It was common knowledge that at the vicinity of Full Moon, the Moon rises around sunset, shines all night long and sets around sunrise. Note for yourself on the night of September 9-10 that the Moon lights up the night sky from dusk till dawn.

After Full Moon, the Moon rises on the average of fifty minutes later with each passing night. Farmers in olden times knew, however, that this lapse of time between successive moonrises shrinks most dramatically near the fall equinox, ushering in a glorious parade of moonlit nights. With only twilight intervening between sunset and moonrise for nights on end, folks could gather their crops from under the lantern of the Harvest Moon.

The Harvest Moon is really a phenomenon of far northern (or southern) latitudes. At the Earth's equator, there is no Harvest Moon; and at the tropics, there's not enough of one to say so. From Morgantown, the Moon rises some twenty-five minutes later for several days in succession, but in Anchorage, Alaska, moonrise comes at the same time every day for a week, showcasing a bona fide Harvest Moon!

Bruce McClure
http://www.idialstars.com/

Full Moon Names

Month	Monthly names
January	Wolf Moon
February	Snow Moon
March	Worm Moon
April	Pink Moon
May	Flower Moon
June	Strawberry Moon
July	Buck Moon
August	Sturgeon Moon
September	Harvest Moon
October	Hunter's Moon
November	Beaver Moon
December	Cold Moon

Seasons for 2004 - 2005

	2004	2005
Vernal Equinox	March 20	March 20
Summer Solstice	June 20	June 21
Autumnal Equinox	Sept 22	Sept 22
Winter Solstice	Dec 21	Dec 21

2003 – 2004 Planetarium Shows

September 12 & 26, 2003 Midnight's Canvas	October 10 & 24, 2003 Midnight's Canvas	November 14 & 21, 2003 Midnight's Canvas
December 5, 12, & 19, 2003 'tis The Season	January 9 & 23, 2004 Midnight's Canvas	February 13 & 27, 2004 Midnight's Canvas
March 12 & 26, 2004 Midnight's Canvas	April 9 & 23, 2004 Midnight's Canvas	May 14 & 28, 2004 Midnight's Canvas
June 11, 2004 Midnight's Canvas	July, 2004 Closed	

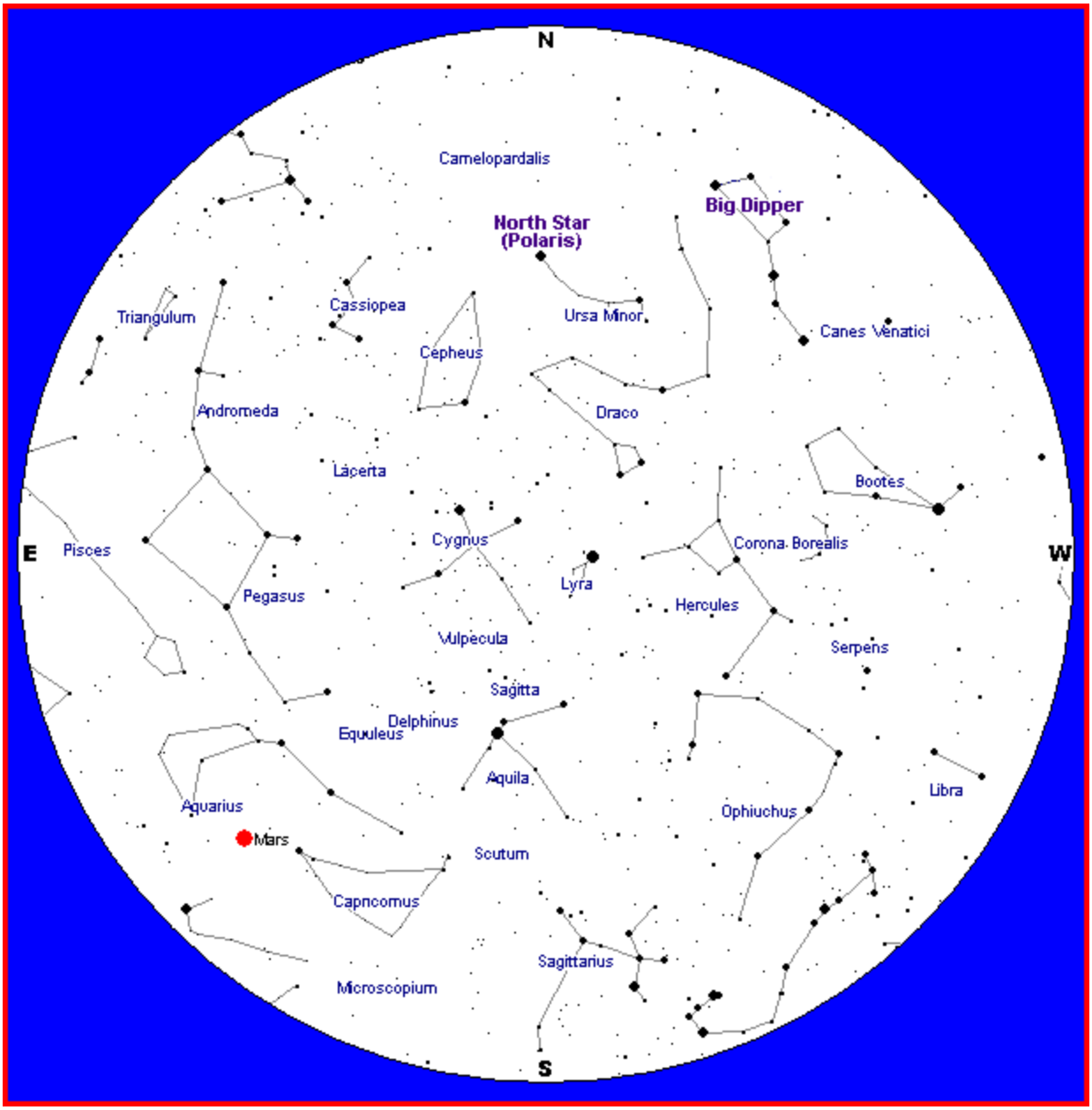
For those who are interested in bringing a group, such as schools or scouts, during the day, please call for more information. These shows are usually given on Tuesday or Thursday mornings.

For further information or reservations, please call John Hopkins at (304)293-3422, extension 1443 or by email at: jhopkins@mail.wvu.edu

Selected Sunrise/Sunset and Moon Rise/Moon Set Times

Date	Sunrise	Sunset	Moon Rise	Moon Set	Moon Phase
Sept 3	6:48 A.M.	7:49 P.M.	2:49 P.M.	none	First Qtr
Sept 10	6:55 A.M.	7:38 P.M.	8:03 P.M.	6:37 A.M.	Full Moon
Sept 18	7:02 A.M.	7:25 P.M.	11:51 P.M.	2:45 P.M.	Last Qtr
Sept 25	7:09 A.M.	7:13 P.M.	6:21 A.M.	7:21 P.M.	New Moon

September 2003 Sky Chart* for:
10:00 P.M at the beginning of the month
9:00 P.M in the middle of the month
8:00 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 Princeton, W.Va., who made a generous donation to ensure its continuing operation, 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 Planetarium Project at the WVU Foundation, Inc., phone (304)284-4000. Thank You.

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