

Mountaineer Skies

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

Oct – Dec 2008

From the Editor's Desk –

A new minor planet has been discovered. It is called **Makemake** (ma-kee ma-kee) and is located beyond the orbit of Neptune. Along with **Ceres**, **Pluto**, and **Eris**, we now have four minor planets.

Standard Time will begin on Nov. 2, 2008 and **Daylight Saving Time** (not **Daylight Savings Time**) will start again on March 8, 2009. In the United States, Daylight Saving Time starts on the second Sunday in March and reverts to Standard Time on the first Sunday in November.

Meteor Showers

The **Leonid meteor shower** will peak on the night of November 17-18 with an estimated occurrence of between 31 – 45 per hour.

The **Geminid meteor shower** is both the most colorful as well as the most reliable of the year. Its maximum is on the night of December 13 – 14 when an excess of 50 per hour can be expected. These meteors seem to herald in the Christmas season with colors that range from white, yellow, blue, red, and green.

In The Sky This Month

Visible Planets in the Night Sky

Beginning of October 2008

	Const	Rise	Transit	Set	Mag
Sun		07:15	13:09	19:03	-26.8
Mercury	Vir	08:07	13:43	19:11	2.7
Venus	Lib	09:51	15:03	20:18	-3.9
Mars	Vir	08:52	14:22	19:50	1.6
Jupiter	Sgr	14:51	19:33	00:16	-2.4
Saturn	Leo	05:13	11:41	18:14	1.0

Beginning of November 2008

	Const	Rise	Transit	Set	Mag
Sun		07:47	13:03	18:19	-26.8
Mercury	Vir	06:35	12:10	17:49	-0.9
Venus	Oph	11:01	15:36	20:13	-4.0
Mars	Lib	08:38	13:42	18:46	1.5
Jupiter	Sgr	13:03	17:47	22:31	-2.2
Saturn	Leo	03:28	09:52	16:20	16.5

Beginning of December 2008

	Const	Rise	Transit	Set	Mag
Sun		07:20	12:09	16:58	-26.8
Mercury	Oph	07:44	12:22	17:04	-1.0
Venus	Sgr	10:36	15:15	19:56	-4.0
Mars	Oph	07:28	12:13	16:59	1.3
Jupiter	Sgr	10:22	15:12	19:59	-2.0
Saturn	Leo	00:41	07:02	13:28	16.4

Vir	Virgo, The Maid
Leo	Leo, The Lion
Oph	Ophiuchus, The Serpent Holder
Lib	Libra, The Scales
Sgr	Sagittarius, The Archer

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About: **The Great Galactic Ghoul and the Exploration of Mars**

The Ghoul

This article is really about Earth's exploration of Mars, but I thought that "The Great Galactic Ghoul" was a catchy title and it does fit in. The Great Galactic Ghoul is an imaginary (probably) being that lives between Earth and the Red Planet and appears to have an insatiable appetite for probes to Mars. Of the first thirteen missions, only three were successful and these were flybys. The other ten were devoured by the Ghoul. Although this monster seems to prefer Soviet (or Russian) spacecraft, it will dine on American and British probes with equal enthusiasm. The term "The Great Galactic Ghoul" probably originated from the computer (or typewriter) of Donald Neff, a writer for *Time* magazine, when one of our probes failed to reach Mars. It is similar to the Earth-bound "gremlins" of World War II.

Exploration

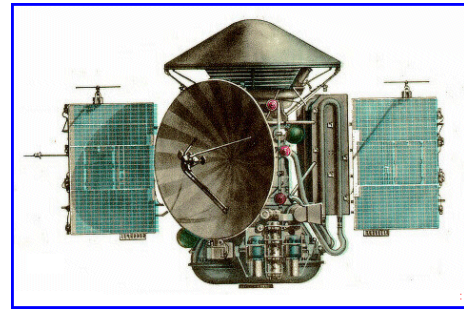
Exploration of the Red Planet began with the flybys of the 1960's, then orbiters in the late 1960's and very early 1970's, and finally landers in the 1970's and 1980's. The first successful lander, Mars 3 from the Soviet Union, reached its destination in 1971.

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@mail.wvu.edu with "Submission" on the subject line.



Mars 3 Lander and Rover

After we were more reliably and consistently able to land on Mars, exploration became more mobile with land rovers. This phase began in 1997 with the Mars Pathfinder and its sidekick rover, Sojourner, from the USA. They were able to broadcast data for nearly three months before ceasing.



Sojourner Sept 27, 1997

In 2003, the twin Energizer™ Bunnies of rovers, Spirit and Opportunity, were landed. Spirit was first on January 4 and was followed three weeks later on January 25 by Opportunity. Having an estimated life of three months, they continue to send back data and pictures from the surface of Mars, five years later. Incredible!



Spirit and Opportunity

2008 – 2009 Planetarium Shows



Oct 3 & 10, 2008 <i>Earth's Wild Ride & It's About Time</i>	Nov 7 & 14, 2008 <i>Earth's Wild Ride & It's About Time</i>	Dec 5, 12 & 19, 2008 <i>'tis the Season</i>
Jan 9 & 23, 2009 <i>Dawn of the Space Age & Saturn, the Ring Planet</i>	Feb 13 & 27, 2009 <i>Dawn of the Space Age & Saturn, the Ring Planet</i>	Mar 13 & 27, 2009 <i>Dawn of the Space Age & Saturn, the Ring Planet</i>
April 10 & 24, 2009 <i>Dawn of the Space Age & Saturn, the Ring Planet</i>	May 8 & 22, 2009 <i>Dawn of the Space Age & Saturn, the Ring Planet</i>	Jun 12, 2009 <i>Dawn of the Space Age & Saturn, the Ring Planet</i>
July, 2009 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

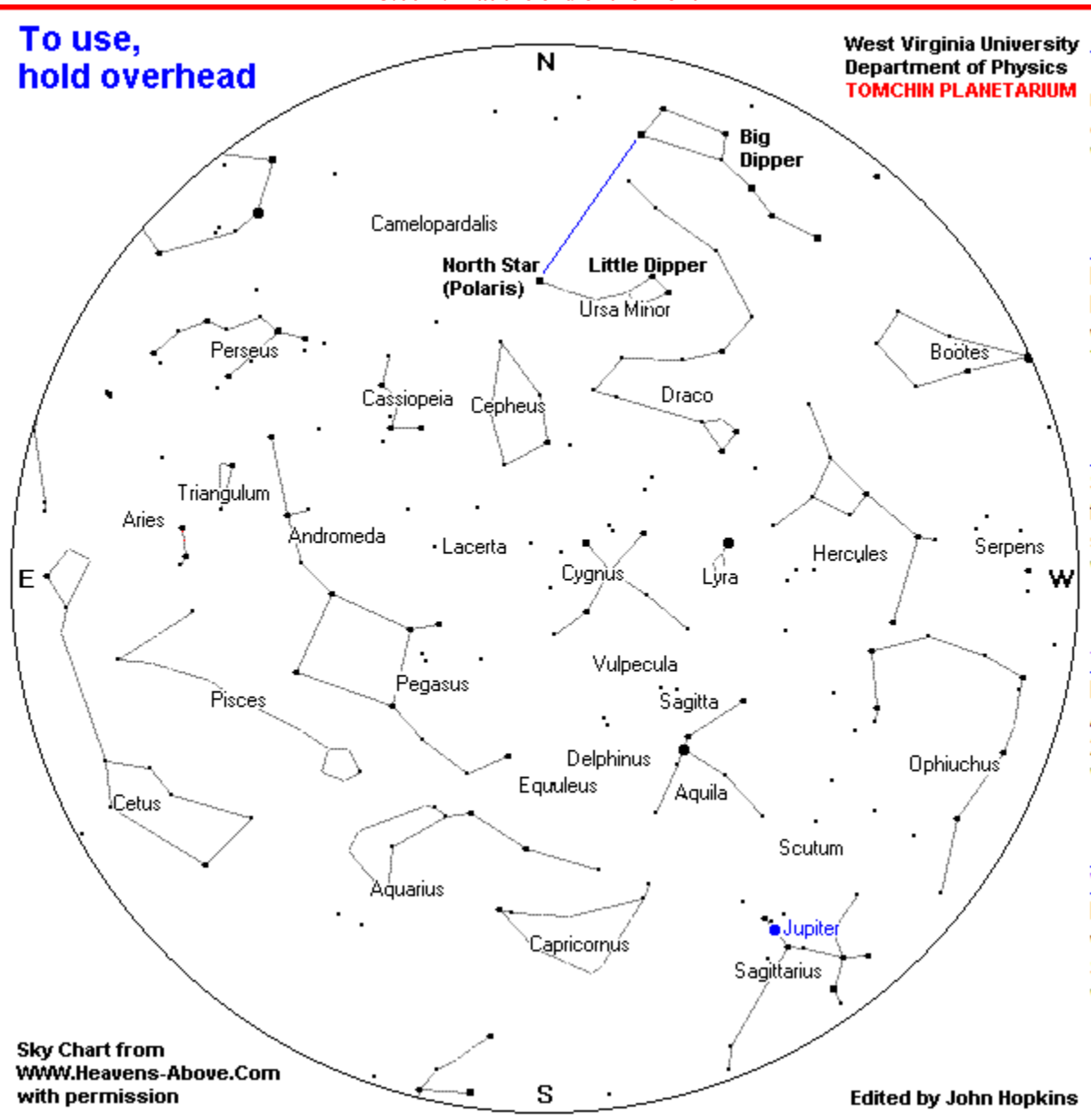
Selected Sunrise/Sunset and Moon Rise/Moon Set Times

Date (2008)	Sunrise	Sunset	Moon Rise	Moon Set	Moon Phase
Oct 7	7:21 A.M.	6:53 P.M.	3:07 P.M.	NA	First Qtr
Oct 14	7:28 A.M.	6:42 P.M.	6:19 P.M.	7:14 A.M.	Full Moon
Oct 21	7:35 A.M.	6:32 P.M.	NA	2:49 P.M.	Last Qtr
Oct 28	7:43 A.M.	6:23 P.M.	7:30 A.M.	5:51 P.M.	New Moon
Nov 5	6:52 A.M.	5:13 P.M.	1:09 P.M.	11:26 P.M.	First Qtr
Nov 13	7:01 A.M.	5:06 P.M.	5:08 P.M.	7:37 A.M.	Full Moon
Nov 19	7:08 A.M.	5:01 P.M.	NA	12:54 P.M.	Last Qtr
Nov 27	7:17 A.M.	4:57 P.M.	7:28 A.M.	4:37 P.M.	New Moon
Dec 5	7:24 A.M.	4:55 P.M.	12:25 P.M.	NA	First Qtr
Dec 12	7:30 A.M.	4:55 P.M.	4:47 P.M.	7:39 A.M.	Full Moon
Dec 19	7:35 A.M.	4:57 P.M.	12:08 A.M.	12:10 P.M.	Last Qtr
Dec 27	7:39 A.M.	5:02 P.M.	7:59 A.M.	5:07 P.M.	New Moon

October 2008 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

To use,
 hold overhead

West Virginia University
 Department of Physics
 TOMCHIN PLANETARIUM



Sky Chart from
 WWW.Heavens-Above.Com
 with permission

Edited by John Hopkins

*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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