

Mountaineer Skies

Volume 9, Issue 1

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

Jan – March, 2009

From the Editor's Desk

The UN has declared 2009 to be the **International Year of Astronomy**. In celebrating this year, we have purchased a planetarium show called *Dawn of the Space Age*, a really fine history of space flight. More about this on page 2.

The Chinese celebrate the New Year on January 26. They begin the New Year on the second new moon after the **winter solstice**, the shortest day of the year. The sun rises north of east and sets north of west. It does not rise due east and set due west.

The **Vernal Equinox** or the first day of Spring begins on March 20. This is only one of the two days each year when the period of daylight and darkness are of equal length, and the sun also rises directly east and sets directly west. The **Autumnal Equinox** is the other.

Daylight Saving time begins this year on March 8. On this day, you set your clocks forward one hour. "**Spring forward, Fall back**" is a mnemonic device designed to help you remember what you do and when.

INSIDE THIS ISSUE

- 1 **In The Sky This Month**
- 2 **About: Planetarium Updates**
- 3 **Planetarium Show Schedule**
- 3 **Selected Sunrise/Sunset, Moon Rise/Moon Set Times**
- 4 **Monthly Sky Chart**

In The Sky This Month

Visible Planets in the Night Sky

Beginning of January, 2009

	Const	Rise	Transit	Set	Mag
Sun		07:38	12:23	17:08	-26.8
Mercury	Cap	08:55	13:45	18:35	-0.6
Venus	Aqr	10:16	15:36	20:56	-4.3
Mars	Sgr	07:12	11:51	16:30	1.3
Jupiter	Sgr	08:43	13:38	18:30	-1.9
Saturn	Leo	22:42	05:04	11:25	16.3

Beginning of February, 2009

	Const	Rise	Transit	Set	Mag
Sun		07:24	12:33	17:42	-26.8
Mercury	Sgr	06:02	11:00	16:02	0.5
Venus	Psc	09:13	15:24	21:33	-4.6
Mars	Sgr	06:41	11:30	16:20	1.3
Jupiter	Cap	07:05	12:07	17:05	-1.9
Saturn	Leo	20:36	02:58	09:21	16.3

Beginning of March, 2009

	Const	Rise	Transit	Set	Mag
Sun		06:49	12:32	18:14	-26.8
Mercury	Cap	06:02	11:11	16:18	-0.2
Venus	Psc	07:38	14:26	21:09	-4.6
Mars	Cap	05:58	11:09	16:20	1.2
Jupiter	Cap	05:35	10:40	15:47	-2.0
Saturn	Leo	18:36	01:01	07:27	16.3

Cap	Capricornus, the Goat
Aqr	Aquarius, the Water Bearer
Sgr	Sagittarius, the Archer
Leo	Leo, the Lion
Psc	Pisces, the Fishes

About: Planetarium Updates

For those of you who are close to Morgantown, West Virginia, where Tomchin Planetarium is located, we have recently made some significant improvements so that our audience will have a more exciting and, hopefully, a more meaningful experience when they visit us.

First we have added a digital projector from e-Planetarium that allows us to present a more immersive type of show. In the past, we were not able to present the same quality of shows that much larger institutions were able to. That, fortunately, is no longer the case. During the autumn semester, 2008, we showed *Earth's Wild Ride* and *It's About Time*. Both of these shows are currently being shown in large and small planetariums throughout the country. Those who have seen one or both of these shows have appreciated the excitement that full-dome projection brings to Tomchin Planetarium. We also have two new presentations for the spring semester, 2009.

The first one, *Saturn, the Ring World*, describes the historic Cassini-Huygens mission to this beautiful planet. Prior to this mission, NASA had sent three space craft on flyby missions to the ringed world. The first, **Pioneer 11**, flew by in 1979. **Voyager 1** then flew past the planet in 1980 and finally, a year later in 1981, **Voyager 2** passed by.

Cassini-Huygens is a two part mission. It was comprised of the Cassini spacecraft which explored Saturn and its moons from orbit, and the Huygens probe which landed on the surface of Titan, Saturn's largest moon. The piggy-backed space craft was launched in October 1997 and reached Saturn in June 2004. It was designed for a four year stay of exploration.

This show lasts about 22 minutes, is a full dome presentation, and is narrated by John Billingsley, **Star Trek's** Dr. Phlox.

Our second new show was purchased specifically to celebrate the **International Year of Astronomy, 2009**. This presentation is called *Dawn of the Space Age*, and it deals with the history of space flight from 1957 to the near future.

This show is being shown both throughout the United States, and also throughout Europe in major planetariums. At 44 minutes in length, it is longer than most of our recent shows, but it is also the best. This has been the most popular show at recent planetarium conventions.

Over three years in the making and very accurate, this show follows the space program from the Russian Sputnik to the American Apollo missions to the flight of SpaceShipOne from Burt Rutan's company, **Scaled Composites**, and beyond. The digital projector makes you feel as if you were a part of the action.

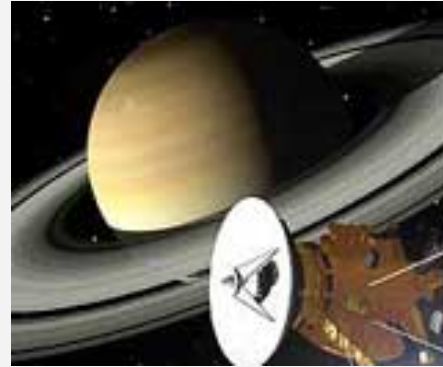
As always, these shows are free to the public, but, because of our limited seating (30), reservations are required. These can be made at (304)293-3422, ext. 1443.

Additionally, through a competitive process, Tomchin Planetarium has acquired on loan from **NASA** an **artifact** - a tire that was flown into space for two weeks aboard the **Columbia** spacecraft in 1996. This is the same spacecraft that was tragically lost upon reentry seven years later in 2003. This artifact will be on display in the planetarium for the next three years.

Note:

If you are interested in seeing the International Space Station (ISS) in the night sky, go to <http://www.spaceweather.com/> and highlight the **Satellite Flybys** icon on the right most column. Once you have been taken to the **Satellite Tracker** page, simply enter your zip code, and select **Go!**. You will then be presented with the times the ISS will pass your location. The projections are normally for about a week.

2009 Planetarium Shows



Saturn, the Ring Planet

Jan 9 and 23, 2009 7:00 P.M Dawn of the Space Age 8:00 P.M. Saturn, the Ring World	Feb 13 and 27, 2009 7:00 P.M Dawn of the Space Age 8:00 P.M. Saturn, the Ring World	Mar 13 and 27, 2009 7:00 P.M Dawn of the Space Age 8:00 P.M. Saturn, the Ring World
April 3 and 24, 2009 7:00 P.M Dawn of the Space Age 8:00 P.M. Saturn, the Ring World	May 8 and 22, 2009 7:00 P.M Dawn of the Space Age 8:00 P.M. Saturn, the Ring World	Jun 12, 2009 7:00 P.M Dawn of the Space Age 8:00 P.M. Saturn, the Ring World
July, 2009 - Closed		

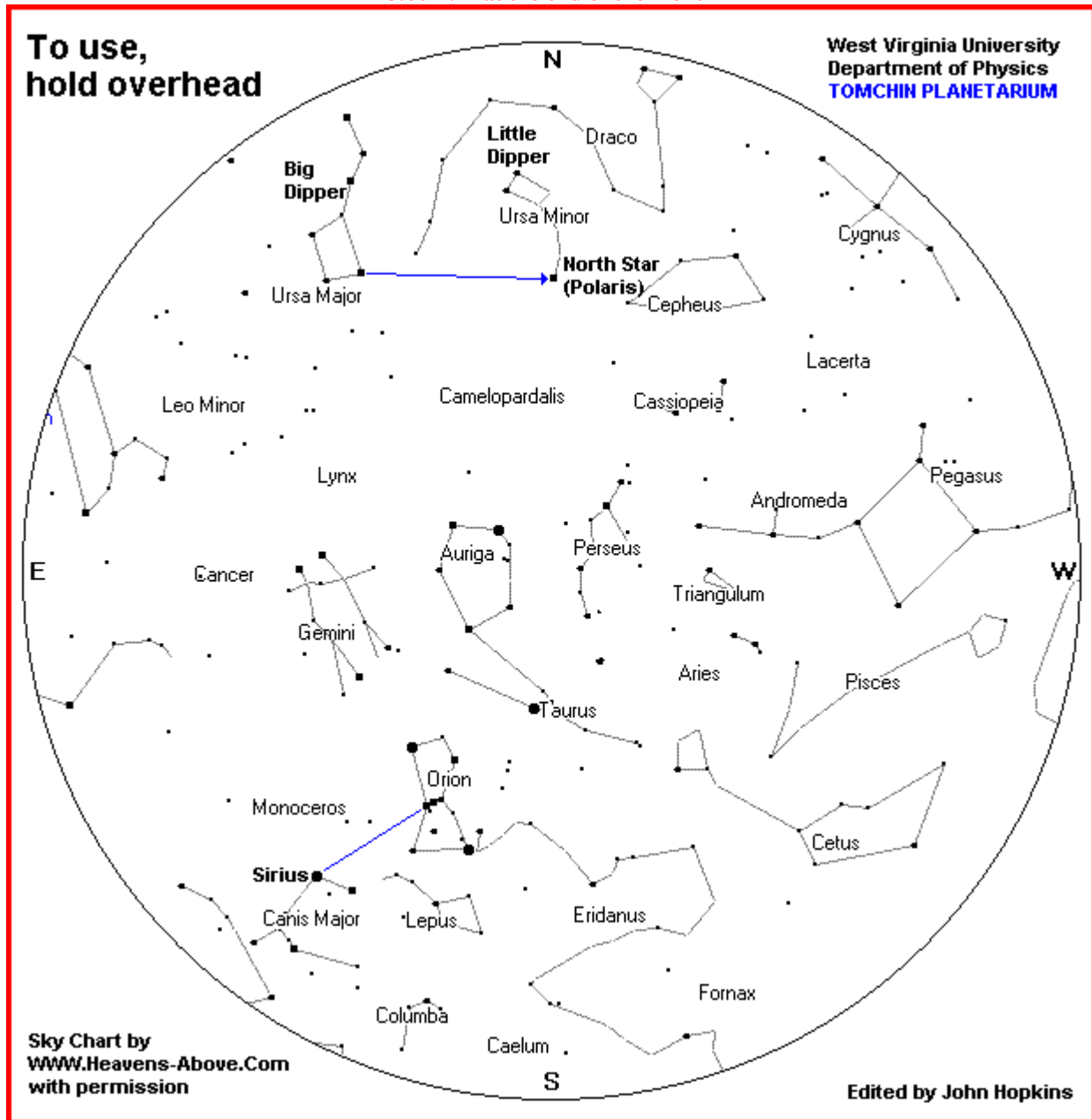
For those who are interested in bringing a group, such as schools or scouts, during the day, please call for more information. These shows are usually given on Tuesday or Thursday mornings.

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 (2009)	Sunrise	Sunset	Moon Rise	Moon Set	Moon Phase
Jan 4	7:40 A.M.	5:08 P.M.	11:40 A.M.	12:23 A.M.	First Qtr
Jan 10	7:40 A.M.	5:13 P.M.	4:48 P.M.	7:21 A.M.	Full Moon
Jan 17	7:37 A.M.	5:21 P.M.	12:05 A.M.	11:00 A.M.	Last Qtr
Jan 26	7:32 A.M.	5:31 P.M.	7:44 A.M.	6:04 P.M.	New Moon
Feb 2	7:26 A.M.	5:39 P.M.	10:43 A.M.	12:32 A.M.	First Qtr
Feb 9	7:19 A.M.	5:48 P.M.	6:13 P.M.	7:14 A.M.	Full Moon
Feb 16	7:10 A.M.	5:56 P.M.	1:02 A.M.	10:32 A.M.	Last Qtr
Feb 24	7:00 A.M.	6:05 P.M.	6:39 A.M.	5:59 P.M.	New Moon
Mar 4	6:48 A.M.	6:14 P.M.	11:01 A.M.	1:54 A.M.	First Qtr
Mar 10	7:39 A.M.	7:20 P.M.	7:14 P.M.	7:08 A.M.	Full Moon
Mar 18	7:26 A.M.	7:28 P.M.	2:43 A.M.	11:42 A.M.	Last Qtr
Mar 26	7:13 A.M.	7:36 P.M.	6:52 A.M.	8:01 P.M.	New Moon

January 2009 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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