WEST VIRGINIA UNIVERSITY EBERLY COLLEGE OF ARTS AND SCIENCES THE DEPARTMENT OF PHYSICS TOMCHIN PLANETARIUM AND OBSERVATORY

Mountaineer Skies

Volume 10, Issue 1

http://planetarium.wvu.edu/

January-March 2010

Some good news.

It appears that we will have a new and larger planetarium, which will be located on the roof of White Hall, with a projected opening date sometime between the autumn of 2011 and the early spring of 2012. More information to follow.

Jan 03 – Quadrantids Meteor Shower peaks

Jan 04 – Earth at perihelion (0.983 AU* from the Sun)

Jul 06 – Earth at aphelion (1.017 AU* from the Sun)

Jan 28 – Mars is at its closest approach to Earth this year (0.664 AU*)

Feb 14 – Chinese New Year starts

Mar 14 – Daylight Saving Time (DST) begins. Set your clocks ahead one hour

Mar 20 – the Vernal Equinox, or the first day of Spring, begins

(* 1 AU = 149,597,870.691 kilometers)

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In The Sky This Quarter

Visible Planets in the Night Sky

Beginning of January, 2010

	Const	Rise	Transit	Set	Mag
Sun		07:38	12:23	17:08	-26.8
Mercury	Sgr	07:50	12:52	17:44	3.1
Venus	Sgr	07:33	12:13	16:54	- 3.9
Mars	Leo	19:51	03:01	10:11	- 0.8
Jupiter	Cap	10:08	15:30	20:49	- 2.1
Saturn	Vir	23:47	05:52	11:57	0.9

Beginning of February, 2010

	Const	Rise	i ransit	Set	wag
Sun		07:24	12:33	17:41	-26.8
Mercury	Sgr	06:06	10:54	15:40	- 0.1
Venus	Cap	07:47	12:54	18:02	- 3.9
Mars	Cnc	16:54	00:19	07:43	- 1.2
Jupiter	Aqr	08:24	13:54	19:21	- 2.0
Saturn	Vir	21:44	03:49	09:55	0.7

Beginning of March, 2010

	Const	Rise	Transit	Set	Mag
Sun		06:49	12:32	18:13	-26.8
Mercury	Aqr	06:35	11:57	17:15	- 0.8
Venus	Aqr	07:25	13:17	19:09	- 3.9
Mars	Cnc	14:25	21:56	05:26	- 0.6
Jupiter	Aqr	06:51	12:29	18:05	- 2.0
Saturn	Vir	19:46	01:54	08:02	0.6

Sgr	Sagittarius, the Archer
Aqr	Aquarius, the Water Bearer
Leo	Leo, the Lion
Cap	Capricornus, the Goat
Cnc	Cancer, the Crab
Vir	Virgo, the maid

About: The End of the World, Yet Again

So, once again the doomsday prophets are at work. They say that the world will end on December 21, 2012 and that the prudent should move underground. I am afraid that if the world is indeed ending, underground will not be of much help. But remember that the world did not end on January 1, 2000, or January 1, 2001 or during May 2003. Nor did it end during any of the appearances of Halley's Comet. Their reasoning, if you can call it that, is that the Mayan calendar ends. But it does not really end, it just repeats, as does our Gregorian calendar. The Mayans did have a remarkable calendar, but, like ours, it depends on recurring cycles. It does not predict the end of the world, just the end of a period. Our calendar predicts when the next year or decade or millennia will occur. Remember that 1000 became 1001, 2000 became 2001, and so on. It just keeps going. The Earth has been here some four billion years, and it seems reasonable to conclude that it will continue into the foreseeable future. The Sun will eventually burn out, but that will not happen by the day of doom, December 21, 2012

Another reason suggested is that there is a planet headed toward Earth to impact on the dreaded day. The planet even has a name in some predictions, Planet X or Nibiru. Both of these are imaginary. Some use Eris, a real dwarf planet named for the Greek god of chaos and located about 10 billion miles from the Sun or nearly 3 times farther away than the former planet Pluto. Like other bodies that orbit the Sun, Eris has and will continue to move around the Sun in a predictable manner.

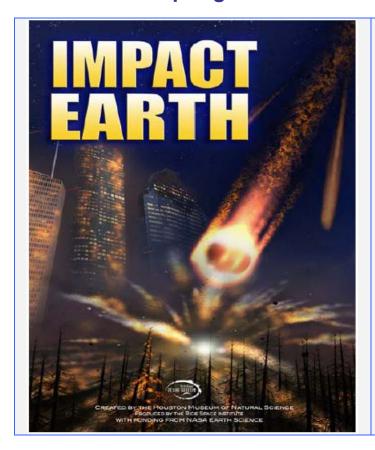
Yet another reason is the oft used "alignment of the planets." There will not be any close alignments for the next few decades. Remember that the Earth is four billion years old and during that time there have been countless near alignments, and both the Sun and the Earth are still here.

The final one we will briefly look at is a large meteor impact. Of course we are constantly bombarded by space debris called meteors. It happens all of the time and is nothing special. However, occasionally the Earth does receive the attention of an especially large object from space which can certainly bring about disastrous conditions on our planet. disastrous, in fact, that it is thought that an impact of a large asteroid brought about the demise of the dinosaurs. This happened about 65 million years ago. Even more recently, in 1908, a meteor of uncertain composition burst above the Tunguska River in Siberia and leveled over 800 square miles of forest. Fortunately, because of its remote location, there was little loss of human life. Right now we are actively looking for large meteors, and none have been spotted.

However, there is something that actually does happen on December 21, 2012. It is the first day of winter or the winter solstice.

In the future, be cautious of these scalawag prophets of doom. They seem to periodically spring up like mushrooms after a rain and prey on the credulous or gullible. Check their facts and suppositions. See if their conclusion seems reasonable. The Earth is not flat and we have been to the Moon. Remember that it is incumbent upon us to be critical in our thinking and not be led, like lambs, by bad science.

Spring Semester 2010 Planetarium Shows





IBEX: Search for the Edge of the Solar System

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.

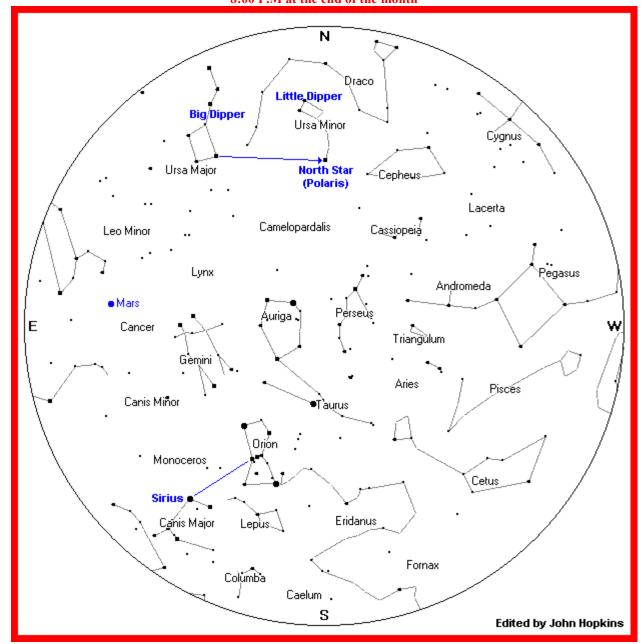
For further information or reservations, please call John Hopkins at (304)293-3422, extension 1443 or by email at: jhopkins@mail.wvu.edu

Selected Sunrise/Sunset and Moon Rise/Moon Set Times

					Moon
Date	Sunrise	Sunset	Moon Rise	Moon Set	Phase
Jan 7	7:40 A.M.	5:10 P.M.	12:33 A.M.	11:34 A.M.	Last Qtr
Jan 15	7:38 A.M.	5:18 P.M.	7:50 A.M.	5:53 P.M.	New Moon
Jan 23	7:34 A.M.	5:27 P.M.	11:13 A.M.	12:53 A.M.	First Qtr
Jan 30	7:29 A.M.	5:36 P.M.	6:31 P.M.	7:34 A.M.	Full Moon
Feb 5	7:23 A.M.	5:43 P.M.	12:36 A.M.	10:39 A.M.	Last Qtr
Feb 13	7:14 A.M.	5:52 P.M.	6:49 A.M.	5:45 P.M.	New Moon
Feb 21	7:04 A.M.	6:01 P.M.	10:29 A.M.	12:54 A.M.	First Qtr
Feb 28	6:54 A.M.	6:09 P.M.	6:35 P.M.	6:33 A.M.	Full Moon
Mar 7	6:44 A.M.	6:17 P.M.	1:34 A.M.	10:46 A.M.	Last Qtr
Mar 15	7:31 A.M.	7:25 P.M.	7:04 A.M.	7:34 P.M.	New Moon
Mar 23	7:19 A.M.	7:33 P.M.	12:14 P.M.	2:48 A.M.	First Qtr
Mar 29	7:09 A.M.	7:39 P.M.	7:37 P.M.	6:28 A.M.	Full Moon

January 2010 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.



