

Mountaineer Skies

Volume 9, Issue 4

<http://planetarium.wvu.edu/>

October - December 2009

On October 12, the **Moon occults** (or hides) the red planet **Mars**. Mars will go behind the Moon for about an hour and a half, then it will re-emerge.

The **Draconids Meteor Shower** will peak on the evening of October 9. Very few incidents per hour are expected this year. However two weeks later, on the evening of October 21, the **Orionids Meteor Shower** will max at as many as 30 meteors each hour.

Daylight saving (not **daylight savings**) **time** ends Sunday, November 1. Set your clocks back one hour. **This is a good time to change batteries in your smoke detectors.**

On the night of November 17, the **Leonids Meteor Shower** will reach its maximum of up to 100 per hour. It could be very spectacular!

The **winter solstice**, the day that has the shortest period of daylight, will occur this year on December 21, four days before Christmas.

In The Sky This Quarter

Visible Planets in the Night Sky

Beginning of October, 2009

	Const	Rise	Transit	Set	Mag
Sun		07:15	13:09	19:03	-26.8
Mercury	Leo	05:50	12:09	18:25	0.1
Venus	Leo	05:10	11:39	18:09	-3.9
Mars	Gem	00:47	08:12	15:38	0.8
Jupiter	Cap	16:49	21:56	03:03	-2.7
Saturn	Vir	06:10	12:28	18:43	1.1

Beginning of November, 2009

	Const	Rise	Transit	Set	Mag
Sun		06:47	12:03	17:19	-26.8
Mercury	Lib	06:38	11:57	17:15	-1.3
Venus	Vir	05:20	11:00	16:40	-3.9
Mars	Cnc	23:00	06:15	13:31	0.4
Jupiter	Cap	13:48	18:56	00:04	-2.5
Saturn	Vir	03:26	09:36	15:49	1.0

Beginning of December, 2009

	Const	Rise	Transit	Set	Mag
Sun		07:20	12:08	16:58	-26.8
Mercury	Oph	08:40	13:10	17:44	-0.5
Venus	Lib	06:31	11:29	16:25	-3.9
Mars	Leo	21:51	04:58	12:07	-0.1
Jupiter	Cap	11:55	17:11	22:23	-2.3
Saturn	Vir	01:42	07:48	13:58	1.0

Oph	Ophiuchus, the Serpent Holder
Lib	Libra, the Scales
Leo	Leo, the Lion
Cap	Capricornus, the Goat
Cnc	Cancer, the Crab
Vir	Virgo, the Maid
Gem	Gemini, the Twins

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About: An Amateur Astronomer Makes a Discovery, an impact spot, on Jupiter

With all of the huge, costly, and sophisticated equipment at the disposal of professional astronomers, how can an amateur astronomer ever hope to discover anything new? It is not easy. It takes knowledge and understanding, good equipment, persistence, and more than a little luck. These things are exactly what Anthony Wesley, a 44 year old computer programmer living in Murrumbateman, Australia, has. Thirty minutes North of Canberra, Murrumbateman is an ideal place for astronomical observation as there is almost no light pollution to interfere with viewing.



Glen McCurtayne/FAIRFAXPHOTOS.COM
Anthony Wesley and “Nemesis”

On the night of July 19, 2009, Wesley was observing Jupiter with his self-built 14.5 inch Newtonian (reflecting) telescope (see photo above) which he amusingly calls “Nemesis”. His primary objective that night was to observe the famous Great Red Spot (GRS). The GRS is a huge, counter-cyclonic storm, not unlike hurricanes that we have on Earth, but it is much larger and has lasted a very long time. It is so large, in fact, that three Earths could fit inside it with room left over.

After he had been observing awhile he noticed a black spot located towards the southern pole of

the giant planet. (see image below.) He at first thought that it was just a shadow of one of Jupiter’s many moons, but it was in the wrong place. Then he realized that what he was seeing was the remnant of a comet’s collision with our largest planet. The smudge that he discovered was quite like the Shoemaker-Levy Comet impacts in 1994 when similar spots were left after several pieces of the comet impacted the planet. What makes this so interesting is that no one else, including any of the large observatories of the world, had seen it. He was the first.

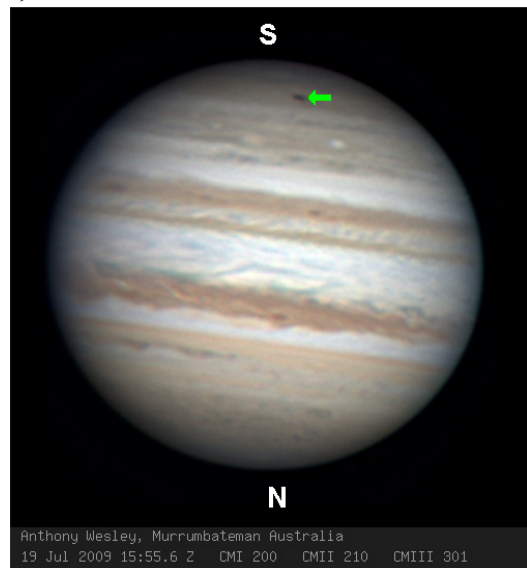


Photo by Anthony Wesley

He also noticed that the spot seemed to spread.

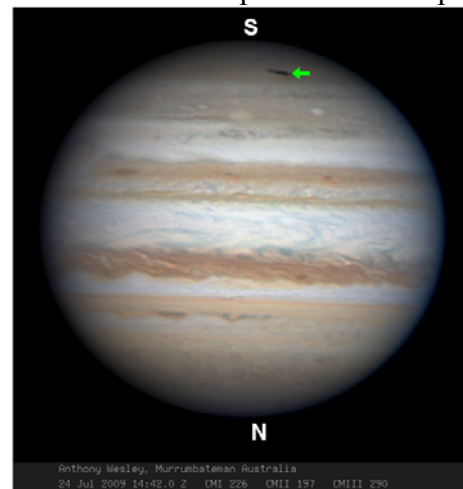
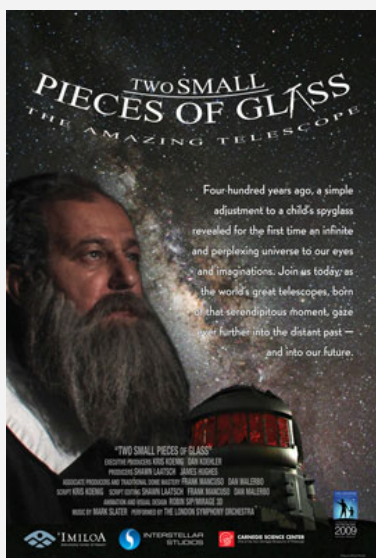


Photo by Anthony Wesley

Keep looking at the night sky. The next discovery could be **yours**.

2009 Planetarium Shows

Two Small Pieces of Glass



Dawn of the Space Age



<p>October 9 and 23, 2009 7:00 P.M. – Two Small Pieces of Glass 8:00 P.M. – Dawn of the Space Age</p>	<p>November 6 and 13, 2009 7:00 P.M. – Two Small Pieces of Glass 8:00 P.M. – Dawn of the Space Age</p>	<p>December 4, 11, and 18, 2009 7:00 P.M. – ‘tis the Season 8:00 P.M. – ‘tis the Season 9:00 P.M. – ‘tis the Season</p>
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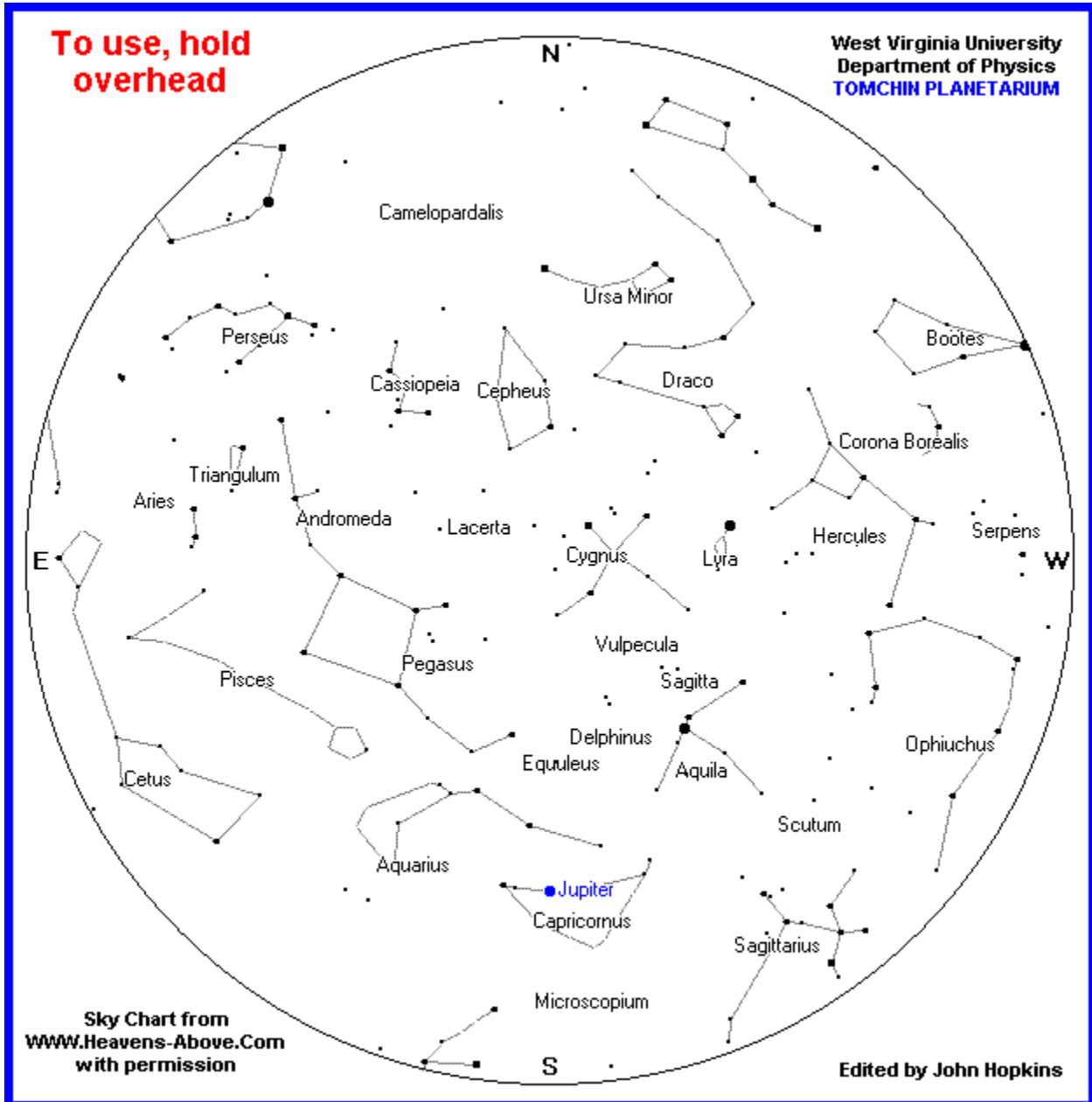
For those who are interested in bringing a group, such as schools or scouts, during the day, please call for more information. These shows are usually given on Tuesday or Thursday mornings.

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
Oct 4	7:18 A.M.	6:58 P.M.	6:50 P.M.	7:44 A.M.	Full Moon
Oct 11	7:25 A.M.	6:47 P.M.	NA	2:56 P.M.	Last Qtr
Oct 18	7:32 A.M.	6:37 P.M.	8:04 A.M.	6:29 P.M.	New Moon
Oct 25	7:40 A.M.	6:27 P.M.	2:19 P.M.	NA	First Qtr
Nov 2	6:48 A.M.	5:17 P.M.	4:53 P.M.	6:43 A.M.	Full Moon
Nov 9	6:56 A.M.	5:10 P.M.	NA	1:09 P.M.	Last Qtr
Nov 16	7:04 A.M.	5:03 P.M.	7:04 A.M.	4:40 P.M.	New Moon
Nov 24	7:13 A.M.	4:58 P.M.	12:39 P.M.	NA	First Qtr
Dec 2	7:21 A.M.	4:55 P.M.	5:10 P.M.	7:52 P.M.	Full Moon
Dec 8	7:27 A.M.	4:55 P.M.	NA	12:10 P.M.	Last Qtr
Dec 16	7:33 A.M.	4:56 P.M.	7:51 A.M.	5:03 P.M.	New Moon
Dec 24	7:37 A.M.	5:00 P.M.	11:50 A.M.	NA	First Qtr
Dec 31	7:40 A.M.	5:04 P.M.	5:06 P.M.	7:35 A.M.	Full Moon

October 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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