

Mountaineer Skies

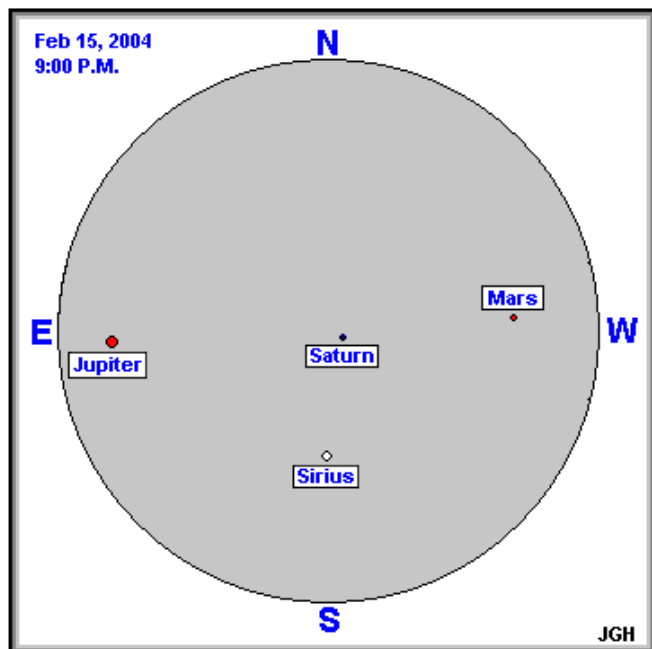
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February 2004

From the Editor's Desk

You can easily find Jupiter (the brightest), Saturn (the least bright), and Mars this month with the naked eye, though binoculars would help with locating Saturn and maybe Mars. Use Sirius as a reference.



In The Sky This Month

Visible Planets in the Night Sky

Beginning of February, 2004

	Const	Rise	Transit	Set	Mag
Sun		7:24	12:33	17:42	- 26.8
Mercury	Sgr	6:24	11:13	15:58	- 0.2
Venus	Aqr	9:12	15:06	20:59	- 4.1
Mars	Ari	10:33	17:21	0:07	0.7
Jupiter	Leo	20:23	2:49	9:14	- 2.4
Saturn	Gem	14:38	22:05	5:32	2.0

Middle of February, 2004

	Const	Rise	Transit	Set	Mag
Sun		7:10	12:34	17:58	- 26.8
Mercury	Cap	6:43	11:45	16:43	- 0.5
Venus	Psc	8:54	15:10	21:26	- 4.1
Mars	Ari	10:03	17:02	23:58	0.9
Jupiter	Leo	19:25	1:53	8:20	- 2.5
Saturn	Gem	13:44	21:11	4:38	2.1

End of February, 2004

	Const	Rise	Transit	Set	Mag
Sun		6:49	12:32	18:15	- 26.8
Mercury	Aqr	6:54	12:24	17:56	- 1.5
Venus	Psc	8:31	15:13	21:55	- 4.2
Mars	Ari	9:30	16:40	23:48	1.1
Jupiter	Leo	18:17	0:47	7:17	- 2.5
Saturn	Gem	12:43	20:11	3:38	2.2

Sgr	Sagittarius, The Archer
Aqr	Aquarius, The Water Bearer
Ari	Aries, The Ram
Leo	Leo, The Lion
Gem	Gemini, The Twins
Psc	Pisces, The Fishes
Cap	Capricornus, The (Sea) Goat

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About: Venus – The Beauty is a Beast

Venus, now the evening star, will be visible in the west-southwest this month during and after sunset. As the month progresses, if you are very observant, you should be able to detect a very slight increase in brightness.

Venus, from Roman mythology, gets its name from the goddess of love and beauty. In Greek mythology, she is called Aphrodite. By convention most of the named features on Venus are feminine.



Know since prehistoric times, the planet is the second closest to the sun with an orbit that is nearly circular. Remember that all of the planets orbit the Sun in elliptical rather than circular paths.

Venus is the planet that is closest to the Earth in size, and because of this is often called Earth's twin. Its mass, volume, equatorial radius, mean density, surface gravity, and escape velocity are within 90 – 95% of that of Earth's. That is, Earth is just a little bigger, but not by much.

Their similarity ends there. Venus is very much like our idea of Hell.

Its year is 225 Earth days long and because the planet's rotation is so slow, it takes 243 Earth days to rotate once. This means that a Venusian's day is longer than a Venusian's year. Venus also rotates on its axis in the direction opposite from all other planets except Uranus. The others rotate in the same direction that Earth does.

The average surface temperature is 464 °C or 867 °F, hotter even than Mercury. It is so hot that lead (328 °C or 622 °F) or zinc (420 °C or 788 °F) would melt. This means that theoretically you might find small lakes of lead or zinc on the planet's surface. The reason that it is so hot on Venus has to do with the planet's closeness to the Sun and the way sunlight passes through the atmosphere of the planet, but for various reasons, does not reflect much back into space.

On Earth the average surface temperature is a pleasant 15 °C or 59 °F.

The atmosphere of Venus is composed primarily of carbon dioxide (CO₂) at 96% and nitrogen (N₂) at 3.5 %. Sulfur dioxide (SO₂), argon (Ar), water (H₂O), carbon monoxide (CO), helium (He) and neon (Ne) are present in trace amounts.

On Earth we have a more agreeable, at least for us, atmosphere consisting of 78% nitrogen (N₂) and nearly 21% oxygen (O₂). Small amounts of argon (Ar), carbon dioxide (CO₂), neon (Ne), helium (He), methane (CH₄), krypton (Kr) and hydrogen (H₂) are found.

Rain on Earth is composed mostly of liquid water (H₂O), whereas on Venus the precipitation is composed primarily of sulfuric acid (H₂SO₄). That is real acid rain.

So remember when you look up at the beauty that is Venus in the evening sky, you are really looking at the closest thing to our idea of Hades (King of the Underworld) in the solar system. It sort of makes you appreciate our little blue place in the solar system called Earth.

2004 Planetarium Shows



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

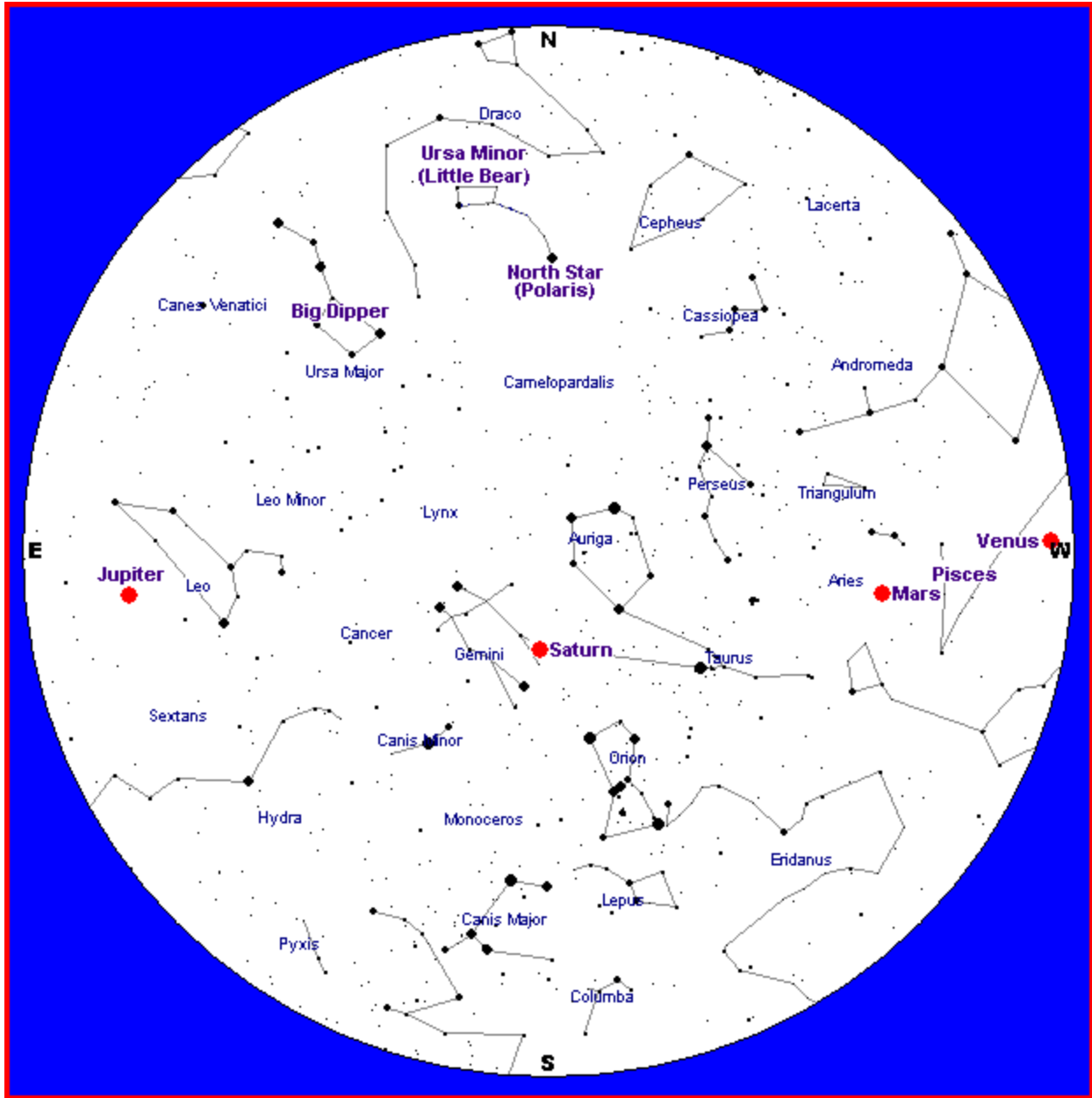
For those who are interested in bringing a group, such as schools or scouts, during the day, please call for more information. These shows are usually given on Tuesday or Thursday mornings.

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
Feb 6	7:23 A.M.	5:43 P.M.	6:07 P.M.	7:57 A.M.	Full Moon
Feb 13	7:15 A.M.	5:51 P.M.	1:01 A.M.	11:08 A.M.	Last Qtr
Feb 20	7:06 A.M.	6:00 P.M.	7:38 A.M.	6:27 P.M.	New Moon
Feb 27	6:57 A.M.	6:07 P.M.	10:35 A.M.	12:50 A.M.	First Qtr

February 2004 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](http://www.heavens-above.com/) 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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