

# Mountaineer Skies

## From the Editor's Desk

### Leap Year

This year, 2004, will be a leap year. This means that February will have 29 instead of 28 days. The determination as to whether or not a year is a leap year is a little complicated. A leap year occurs when a year is evenly divisible, that is there is no remainder, by 4 but not by 100. If, however, the year is evenly divisible by 4 and 100, as well as 400, then it is also a leap year. The year 2004 is evenly divisible by 4 ( $2004/4 = 501$ ) but not evenly divisible by 100 ( $2004/100 = 20.04$ ), so it qualifies as a leap year. This means that 2004 has a extra day which is added to the end of February, giving it 29 days instead of the usual 28.

The years 1700, 1800, 1900 and 2100 were not leap years but 2000 was as it is evenly divisible by 4 ( $2000/4 = 500$ ), 100 ( $2000/100 = 20$ ) and 400 ( $2000/400 = 5$ ).

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## In The Sky This Month

### Visible Planets in the Night Sky

#### Beginning of January, 2004

	Const	Rise	Transit	Set	Mag
Sun		7:37	12:23	17:10	- 26.8
Mercury	Sgr	6:28	11:22	16:24	1.6
Venus	Cap	9:42	14:46	19:49	- 4.0
Mars	Psc	11:51	18:12	0:31	0.2
Jupiter	Leo	22:32	4:55	11:19	- 2.3
Saturn	Gem	16:51	0:17	7:42	1.8

#### Middle of January, 2004

	Const	Rise	Transit	Set	Mag
Sun		7:35	12:29	17:23	- 26.8
Mercury	Sgr	5:57	10:47	15:36	- 0.2
Venus	Agr	9:32	14:57	20:22	- 4.0
Mars	Psc	11:15	17:48	0:19	0.5
Jupiter	Leo	21:36	4:00	10:23	- 2.3
Saturn	Gem	15:51	23:17	6:43	1.9

#### End of January, 2004

	Const	Rise	Transit	Set	Mag
Sun		7:25	12:33	17:41	- 26.8
Mercury	Sgr	6:23	11:10	15:55	- 0.2
Venus	Aqr	9:14	15:05	20:57	- 4.1
Mars	Psc	10:36	17:23	0:08	0.7
Jupiter	Leo	20:28	2:53	9:18	- 2.4
Saturn	Gem	14:43	22:09	5:36	2.0

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

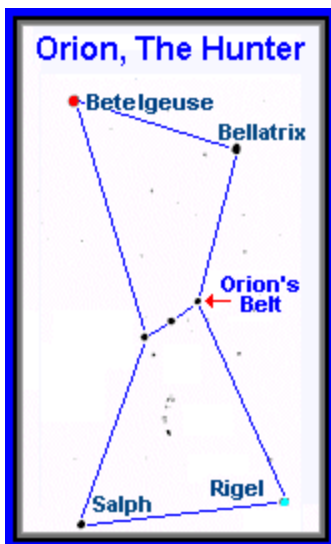
**About: Finding Sirius, the brightest star in the sky**

The brightest star in the night sky is called **Sirius** and is located in the constellation **Canis Major**, the Big Dog. The name comes from the Greek meaning "searing" or "scorching". It is not the North Star (Polaris) as some people think. To find Sirius, we must first find **Orion**, the Hunter.

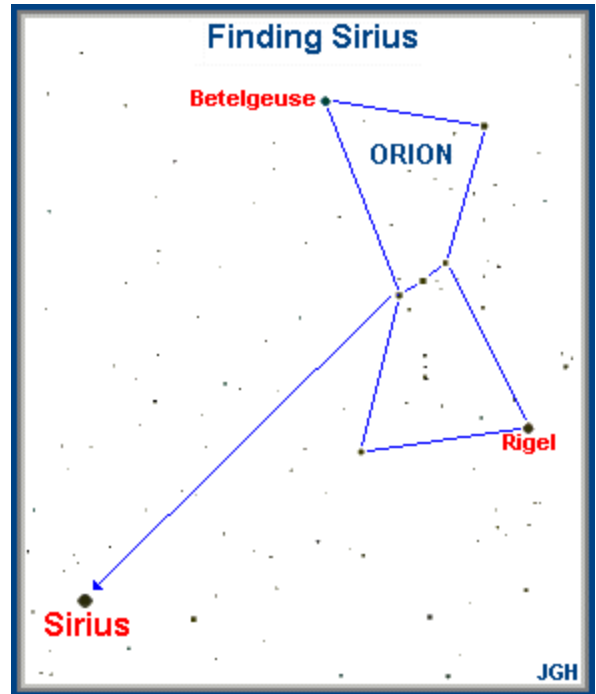
Orion is my favorite winter constellation. The reason that this is so is because I ski, but am not very good at it. Consequently, I spend a lot of time on my back, looking up at Orion.

**Orion, the Hunter**, is the dominant southern winter constellation. It is roughly hour glass shaped. Four stars outline his body and three stars represent his belt.

The upper left hand star in Orion is called **Betelgeuse**, a difficult word to pronounce. Because of this, it is usually pronounced as "beetle juice", which is much easier to say.

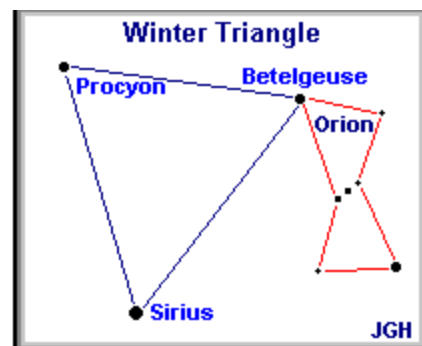


For completeness, the three stars in Orion's belt, from upper right to lower left, are **Mintaka**, **Alnilam**, and **Alnitak**. Their names come from the Arabic.



To find Sirius, simply draw an imaginary line through Orion's belt in a downward direction. You will be taken to a very brilliant, blue-white star, in fact the brightest star in the night sky, **Sirius**.

**Sirius** in Canis Major or the Big Dog, and **Betelgeuse** in Orion, the Hunter, are two of the three stars that make up the **Winter triangle**. The third is **Procyon** of Canis Minor, the Little Dog.



## 2004 Planetarium Shows



January 9 & 23, 2004 <b>Midnight's Canvas</b>	February 13 & 27, 2004 <b>Midnight's Canvas</b>	March 12 & 26, 2004 <b>Midnight's Canvas</b>
April 9 & 23, 2004 <b>Midnight's Canvas</b>	May 14 & 28, 2004 <b>Midnight's Canvas</b>	June 11, 2004 <b>Midnight's Canvas</b>
	July, 2004 <b>Closed</b>	

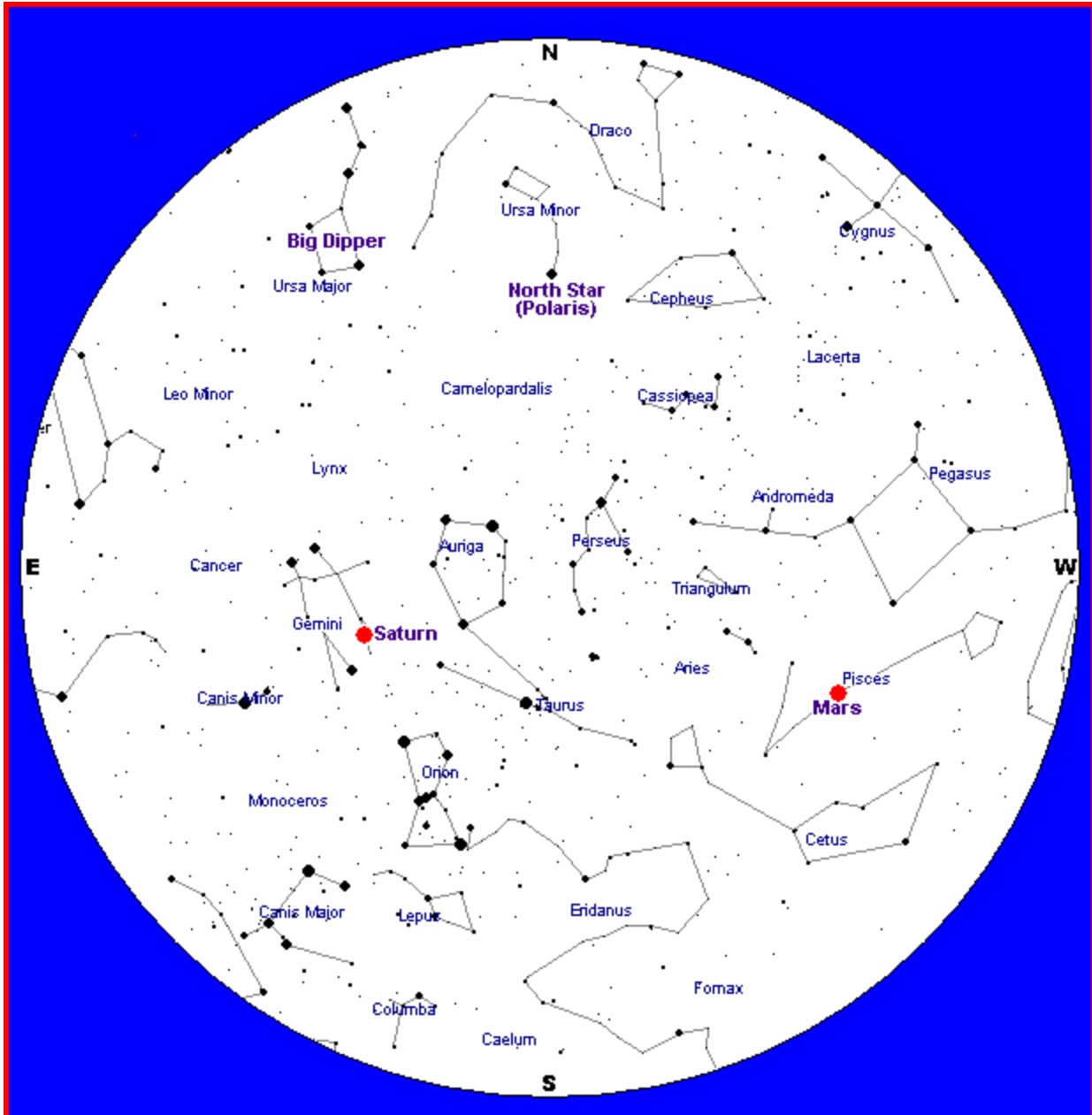
For those who are interested in bringing a group, such as schools or scouts, during the day, please call for more information. These shows are usually given on Tuesday or Thursday mornings.

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

### Selected Sunrise/Sunset and Moon Rise/Moon Set Times

Date	Sunrise	Sunset	Moon Rise	Moon Set	Moon Phase
Jan 7	7:40 A.M.	5:10 P.M.	5:05 P.M.	8:00 A.M.	Full Moon
Jan 14	7:39 A.M.	5:17 P.M.	None	11:38 A.M.	Last Qtr
Jan 21	7:36 A.M.	5:24 P.M.	7:49 A.M.	5:09 P.M.	New Moon
Jan 29	7:30 A.M.	5:34 P.M.	11:39 A.M.	1:01 A.M.	First Qtr

January 2004 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](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.



Edited by John Hopkins  
(304)293-3422, extension 1443  
jhopkins@mail.wvu.edu

