

Mountaineer Skies

From the Editor's Desk

The first day of Spring, called the **Vernal Equinox**, will occur this year on Saturday, March 20th. This is the day when the periods of night and day are of approximately the same length. There is only one other day in the year that is like this. That day is called the **Autumnal Equinox** or the first day of Autumn.

After the **Vernal Equinox**, the sun will continue to get higher and higher in the southern sky at noon, and the days will get longer and longer until the **Summer Solstice**, the first day of summer, is reached. This is the longest day of the year. After this day the sun will begin to get lower and lower in the sky until once again we reach a day of equal parts of night and day, called the **Autumnal Equinox**. The sun continues to get lower and lower in the sky at noon, and the days shorten until we reach the shortest day of the year, the **Winter Solstice**.

This cycle, Vernal Equinox, Summer Solstice, Autumnal Equinox, and Winter Solstice, repeats itself every year making the seasons predictable.

In The Sky This Month

Visible Planets in the Night Sky

Beginning of March, 2004

	Const	Rise	Transit	Set	Mag
Sun		6:48	12:32	18:16	- 26.8
Mercury	Aqr	6:54	12:27	18:02	- 1.6
Venus	Psc	8:30	15:13	21:57	- 4.2
Mars	Ari	9:28	16:39	23:48	1.1
Jupiter	Leo	18:12	0:42	7:13	- 2.5
Saturn	Gem	12:39	20:07	3:34	2.2

Middle of March, 2004

	Const	Rise	Transit	Set	Mag
Sun		6:26	12:29	18:30	- 26.8
Mercury	Psc	6:55	13:09	19:25	- 1.3
Venus	Ari	8:09	15:16	22:23	- 4.3
Mars	Tau	9:00	16:20	23:39	1.3
Jupiter	Leo	17:08	23:41	6:13	- 2.5
Saturn	Gem	11:40	19:12	2:39	2.3

End of March, 2004

	Const	Rise	Transit	Set	Mag
Sun		6:00	12:24	18:46	- 26.8
Mercury	Ari	6:32	13:29	20:23	0.4
Venus	Tau	7:49	15:19	22:48	- 4.4
Mars	Tau	8:32	16:00	23:28	1.4
Jupiter	Leo	15:56	22:31	5:06	- 2.4
Saturn	Gem	10:40	18:11	1:38	2.4

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
Tau	Taurus, The Bull

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About: Search for Extraterrestrial Intelligence (SETI)

The **search for extraterrestrial intelligence** is a pursuit that is, surprisingly, not very old. It had its birth about the same time as the space race. Two years after the Soviets stunned the world with their first successful launch of **Sputnik** on October 4, 1957, two scientists from Cornell University, Philip Morrison and Giuseppe Cocconi, pointed out that it was indeed very easy to send radio messages into space. A short time later it was suggested that radio telescopes* could be used to listen for messages sent by intelligent life from beyond the Earth.

In early April of 1960, Frank Drake, a radio astronomer working at the **National Radio Astronomy Observatory (NRAO)** in **Green Bank, West Virginia** designed an experiment that used radio telescopes to listen to two nearby stars, **Tau Ceti in the constellation Cetus, The Whale, and Epsilon Eridani in the constellation Eridanus, The River.** These stars were chosen not only because they were close to Earth but also because they were of about the same age as the Earth and might have a civilization about as old as ours.

For about 12 weeks beginning in April 1960, scientists listened to the two stars for about 6 hours each day. The results were not encouraging. Static was all that was heard. Although unsuccessful, **Project Ozma**, as it was called, was the first real attempt to listen for extraterrestrial messages.

Although interest was high to continue projects such as Project Ozma, it was soon realized that any SETI project had the potential of receiving a signal today, next year, or never.

Even NASA became interested and in 1992 they began listening to the skies. Unfortunately, because of both the uncertainty of success and its high cost, Congress withdrew funds only a year later.



In 1984, the **SETI Institute** was incorporated in California with the stated goal of conducting

“scientific research and educational projects relevant to the origin, nature, prevalence, and distribution of life in the universe.”

The institute assumes that given a planet with an appropriate atmosphere and plenty of time, intelligent life will arise and eventually develop a technology-based society. Assuming that they have reached a level of technological sophistication wherein they communicate by radio or television, then it follows that we could detect this civilization using radio telescopes. This seems to be a reasonable assumption, but, of course, it still remains unproven.

The SETI Institute has been able to collect an enormous amount of data, in fact more data than they alone can process.

You can become a real part of the search for extraterrestrial life. Your computer can help the scientists at SETI analyze this data. Go to

<http://setiathome.ssl.berkeley.edu/>

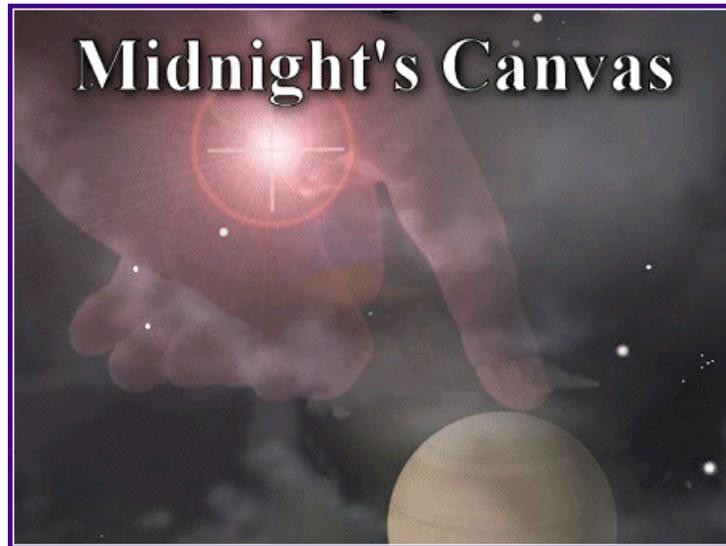
and select **Download SETI@home**, then just follow the installation instructions. Before you download, you might want to check **Frequently Asked Questions** which is located under the **Help & information section**.

I, and several other people that I know, have been doing this for several years without any damage to our computers.

Who knows, you could be the first to find ET.

*At its simplest, a radio telescope is an instrument that studies objects in space by listening to the radio waves they give off.

2004 Planetarium Shows



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	

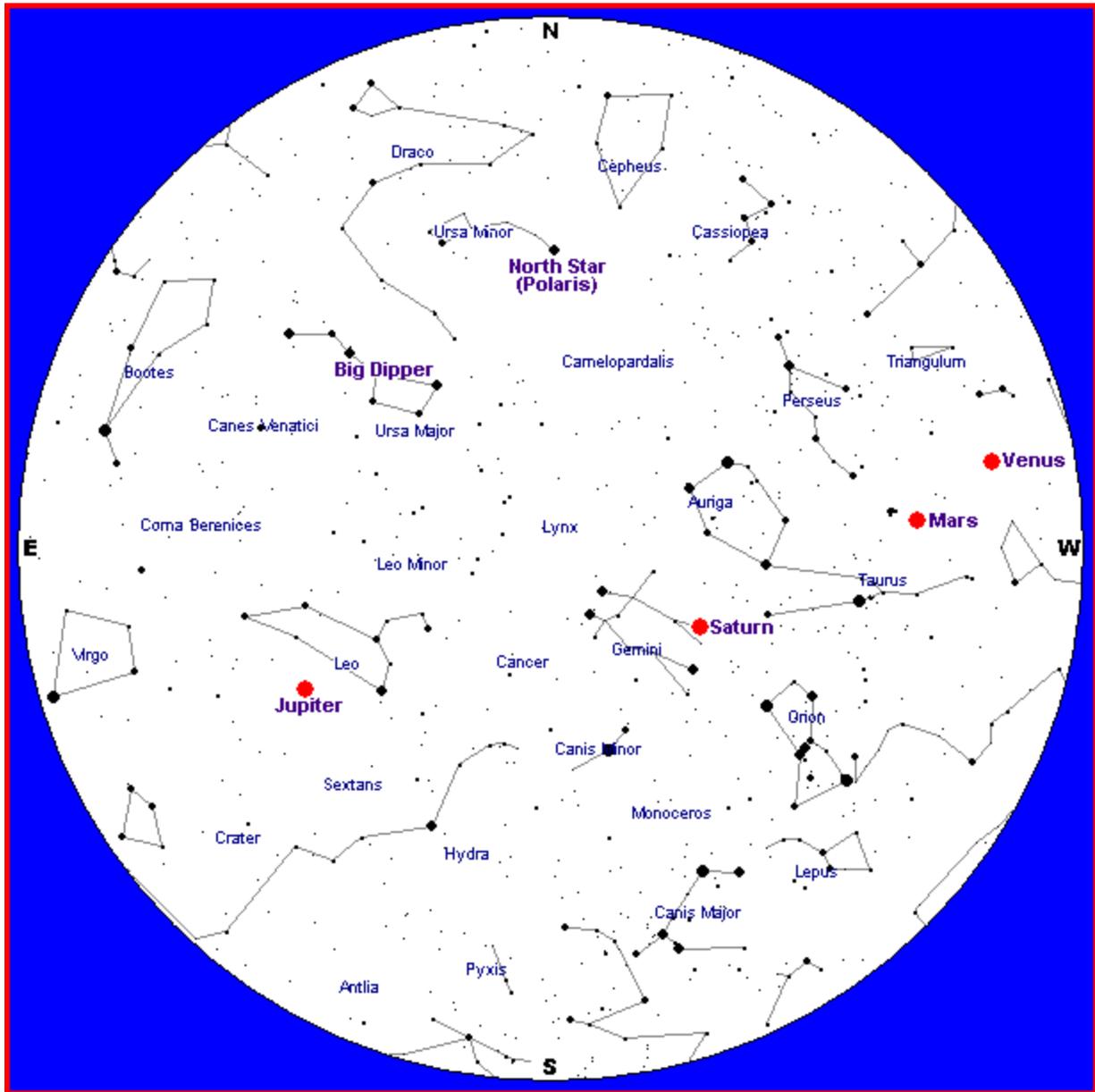
For those who are interested in bringing a group, such as schools or scouts, during the day, please call for more information. These shows are usually given on Tuesday or Thursday mornings.

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
Mar 6	6:45 A.M.	6:16 P.M.	6:08 P.M.	6:55 A.M.	Full Moon
Mar 13	6:34 A.M.	6:23 P.M.	1:21 A.M.	10:33 A.M.	Last Qtr
Mar 20	6:23 A.M.	6:31 P.M.	6:31 A.M.	6:24 P.M.	New Moon
Mar 28	6:10 A.M.	6:39 P.M.	10:33 A.M.	1:36 A.M.	First Qtr

March 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** 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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