WEST VIRGINIA UNIVERSITY
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THE DEPARTMENT OF PHYSICS
TOMCHIN PLANETARIUM AND OBSERVATORY

Mountaineer Skies

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From the Editor's Desk

Daylight Saving Time (DST) ends on October 29, 2006 this year. Next year, 2007, the dates of Daylight Saving Time, by law, will change. Currently DST begins on the first Sunday in April and lasts until the last Sunday in October. The new dates are from the second Sunday in March to the first Sunday in November, adding about a month to the period of Daylight Saving Time. Here are the dates for the next several years.

Year	Daylight Saving Time begins	Daylight Saving Time ends
2007	March 11	November 4
2008	March 9	November 2
2009	March 8	November 1
2010	March 14	November 7

Daylight Saving Time is not observed in Hawaii, Guam, and American Samoa. Additionally, Arizona, with the exception of the Navajo Indian Reservation, does not observe DST.

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In The Sky This Month

Visible Planets in the Night Sky

Beginning of October, 2006

	Const	Rise	Transit	Set	Mag
Sun		07:17	13:09	19:02	- 26.8
Mercury	Vir	09:08	14:26	19:46	- 0.1
Venus	Vir	06:43	12:47	18:52	- 3.9
Mars	Vir	07:51	13:36	19:20	1.7
Jupiter	Lib	10:36	15:44	20:49	- 1.8
Saturn	Leo	03:18	10:12	17:10	1.8

Beginning of November, 2006

	Const	Rise	Transit	Set	Mag
Sun		06:49	12:03	17:18	- 26.8
Mercury	Lib	08:04	13:00	17:49	1.6
Venus	Lib	06:57	12:09	17:24	- 3.9
Mars	Vir	06:34	11:51	17:10	1.6
Jupiter	Lib	08:06	13:08	18:07	-1.7
Saturn	Leo	00:29	07:20	14:15	1.7

Beginning of December, 2006

	Const	Rise	Transit	Set	Mag
Sun		07:22	12:09	16:56	-26.8
Mercury	Lib	05:48	10:55	16:01	- 0.6
Venus	Oph	08:08	12:46	17:26	- 3.9
Mars	Lib	06:21	11:15	16:11	1.6
Jupiter	Lib	06:41	11:34	16:30	- 1.7
Saturn	Leo	22:36	05:26	12:20	1.5

Leo	Leo, The Lion
Oph	Ophiuchus, The Serpent Holder
Lib	Libra, The Scales
Vir	Virgo, The Maiden

About: Stonehenge, part 2

In the last issue we took a look at the first period of the Stonehenge construction story which took place about 5000 years ago or around 3000 B.C. During this period, wood was the primary material used in construction. Although the use to which it was put is not certain, a good guess would be as a religious site.

Five hundred years later, about 2500 B.C., Chapter Two begins. During that half millennium between the first and second periods of construction, all of the wooden posts in the Aubrey Holes did, of course, rot. Consequently the second phase began with a rebuilding, but this time in the place of wood, the builders used stone. This compounded the construction difficulty substantially. Remember that they did not have wheels for transporting the stones or metal to cut them. They had to cut stone with stone, an extremely time consuming process. Looking around for just the right type of rocks, they found them in the Presceli Mountains, nearly 250 miles away.

That is a long way away by foot. Here they cut nearly eighty, three to four ton igneous rocks (rocks of volcanic origin) known as "bluestones", so called because when wet they appear a certain shade of blue.

There is, of course, much difficulty in transporting stones of this size from the Presceli Mountains to Salisbury Plain. It is thought by some that the stones were dragged, floated on rafts, and then dragged some more to Salisbury Plain. Perhaps they used logs as rollers or sledges drawn by oxen.

This represents an incredible effort of many years duration, using a significant portion of the population. Whatever their purpose, it must have been almost as important to them as food and shelter. This single-mindedness suggests something of a religious nature, but that is only a surmise. It could just as easily have been used as an astronomical observatory telling the builders when to plant and when to harvest. This phase, for reasons unknown, was never completely finished.

The last chapter, Chapter Three, started about 4,100 years ago (~2100 B.C.) and is still in the Stone Age, still with no metal tools. After rearranging the bluestones from Chapter Two, itself a major accomplishment, they then dragged much larger stones, some weighting as much as 45 tons, from Marlborough Downs, some 20 miles away, to Salisbury Plain and somehow erected them. The new stones, made of sandstone, are now called Sarsen stones weighing between six and sixty tons. These enormous sandstone slabs were usually erected and then capped with interlocking lintels or cap stones. Two sandstone slabs capped at the top by another large stone are called collectively *trilithons*. How they got the stones to Stonehenge, how they got them upright, and how they placed the lintel stones is still a matter of conjecture.

Part 3 continued in the next issue.

2006 Planetarium Shows

October 13 & 27, 2006 *Sky Quest*	November 10 & 17, 2006 *Sky Quest*	December 1, 8, & 15, 2006 *'tis The Season*
January 12 & 26, 2007 *Sky Quest*	February 9 & 23, 2007 *Sky Quest*	March 9 & 23, 2007 *Sky Quest*
April 13 & 27, 2007 *Sky Quest*	May 11 & 25, 2007 *Sky Quest*	June 8, 2007 *Sky Quest*
	July 2007 Closed	

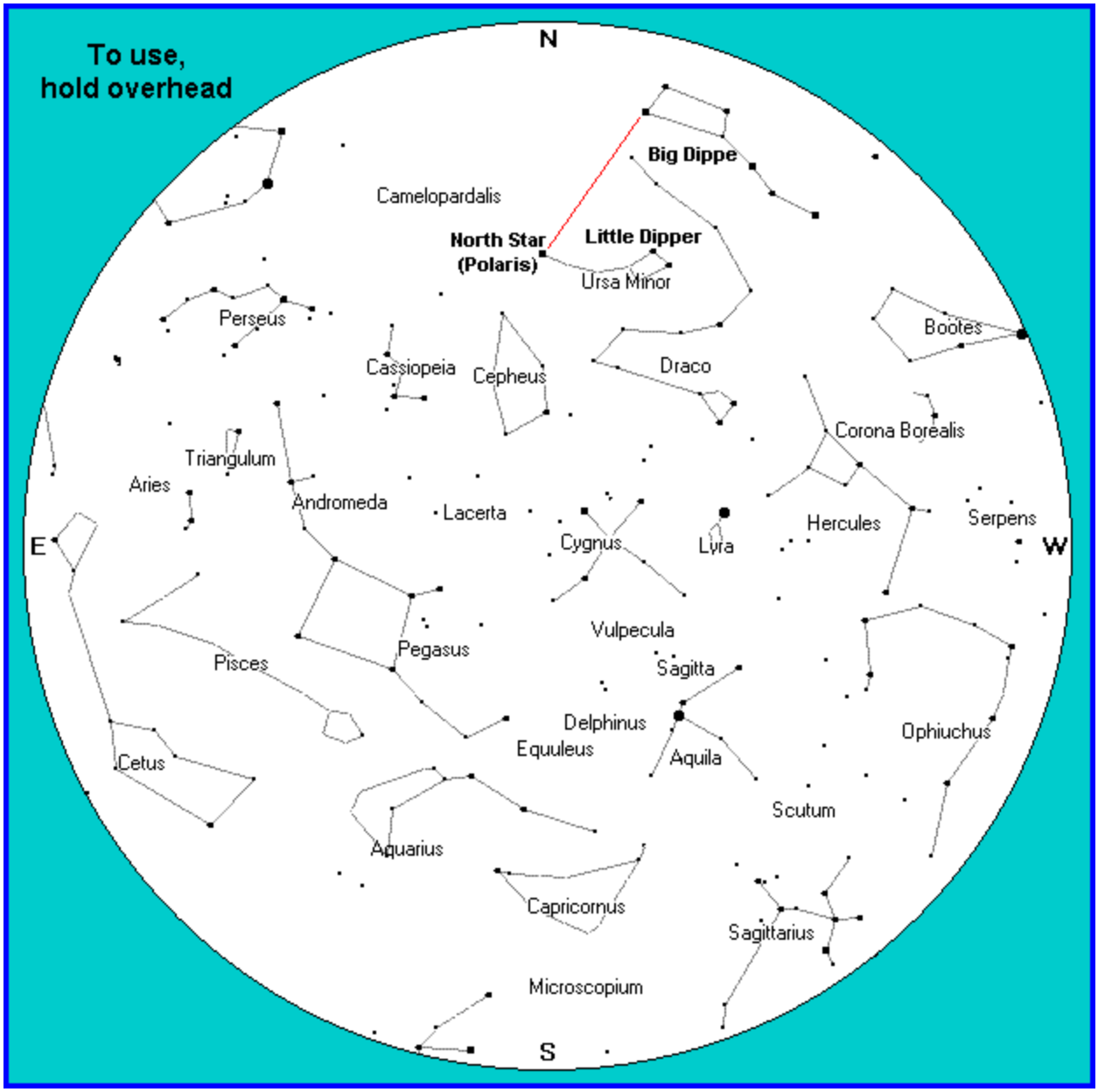
For those who are interested in bringing a group, such as schools or scouts, during the day, please call for more information. These shows are usually given on Tuesday or Thursday mornings.

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
Oct 6	7:20 A.M.	6:55 P.M.	6:38 P.M.	6:35 A.M.	Full Moon
Oct 13	7:27 A.M.	6:44 P.M.	11:54 P.M.	2:50 P.M.	Last Qtr
Oct 22	7:36 A.M.	6:31 P.M.	8:03 A.M.	6:30 P.M.	New Moon
Oct 29	6:44 A.M.	5:22 P.M.	1:43 P.M.	11:26 P.M.	First Qtr
Nov 5	6:51 A.M.	5:14 P.M.	5:04 P.M.	7:01 A.M.	Full Moon
Nov 12	6:59 A.M.	5:07 P.M.	11:56 P.M.	1:28 P.M.	Last Qtr
Nov 20	7:08 A.M.	5:01 P.M.	7:02 A.M.	4:31 P.M.	New Moon
Nov 28	7:17 A.M.	4:57 P.M.	1:13 P.M.	(none)	First Qtr
Dec 4	7:23 A.M.	4:55 P.M.	4:21 P.M.	7:11 A.M.	Full Moon
Dec 12	7:30 A.M.	4:55 P.M.	(none)	12:35 P.M.	Last Qtr
Dec 20	7:35 A.M.	4:57 P.M.	8:02 A.M.	4:48 P.M.	New Moon
Dec 27	7:39 A.M.	5:01 P.M.	12:06 P.M.	(none)	First Qtr

October 2006 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.

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