

DARK SKIES for May 2021:

S/S May	1/2	9:52 p.m.	-	1:43 a.m.
S/M May	2/3	9:54 p.m.	-	2:28 a.m.
M/T May	3/4	9:55 p.m.	-	3:05 a.m.
T/W May	4/5	9:57 p.m.	-	3:34 a.m.
W/T May	5/6	9:59 p.m.	-	3:54 a.m.
T/F May	6/7	10:01 p.m.	-	3:52 a.m.
F/S May	7/8	10:03 p.m.	-	3:50 a.m.
S/S May	8/9	10:04 p.m.	-	3:48 a.m.
S/M May	9/10	10:06 p.m.	-	3:46 a.m.
M/T May	10/11	10:08 p.m.	-	3:44 a.m.
T/W May	11/12	10:10 p.m.	-	3:42 a.m.
W/T May	12/13	10:11 p.m.	-	3:41 a.m.
T/F May	13/14	10:20 p.m.	-	3:39 a.m.
F/S May	14/15	11:18 p.m.	-	3:37 a.m.
S/S May	15/16	12:11 a.m.	-	3:35 a.m.
S/M May	16/17	12:57 a.m.	-	3:34 a.m.
M/T May	17/18	1:37 a.m.	-	3:32 a.m.
T/W May	18/19	2:11 a.m.	-	3:30 a.m.
W/T May	19/20	2:40 a.m.	-	3:29 a.m.
T/F May	20/21	3:06 a.m.	-	3:27 a.m.
F/S May	21/22	none		
S/S May	22/23	none		
S/M May	23/24	none		
M/T May	24/25	none		
T/W May	25/26	none		
W/T May	26/27	none		
T/F May	27/28	none		
F/S May	28/29	10:38 p.m.	-	11:30 p.m.
S/S May	29/30	10:40 p.m.	-	12:23 a.m.
S/M May	30/31	10:41 p.m.	-	1:04 a.m.
M/T May	31/1	10:43 p.m.	-	1:37 a.m.

Times listed are for Dodgeville, Wisconsin when

(1) Moon is below the horizon

(2) Sun is > 18° below the horizon
(astronomical twilight)

Time Travel

conducted by David Oesper

Continued from last month...

Hunting for Comets and Planets*

Freeman J. Dyson

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(Received 1991 November 4)

As usually happens, when we put up an instrument that opens a new window on the universe, we see a new and unexpected universe. We do not know whether the gamma-ray bursts are connected with any of the familiar objects that are seen in visible light or in radio-waves. All that we know for sure is that Nature's imagination is richer than ours.

How splendid it is, to think that these vast and mysterious outbursts of extreme violence may also carry information in their spectra about objects as parochial as comets. And how splendid it is, that the search for comets

may bring together in fruitful collaboration the professional space-astronomers with their massive orbiting observatories and the world-wide fraternity of students and amateurs with their cheap little telescopes and personal computers. In astronomy, just as in music and drama and all the other fine arts, it is the amateurs who ultimately sustain the culture within which the professionals can flourish.

* The text of the Milne Lecture, delivered 1991 October 24.

Quarterly Journal of the Royal Astronomical Society (1992), **33**, 45-57

PUPIL. What is the zodiac?

TUTOR. That part of the heavens which contains the twelve signs, and which you may conceive to be a zone or belt extending eight degrees on each side the ecliptic, in which the planets constantly revolve: so that no planet is ever seen more than eight degrees either north or south, that is above or below the ecliptic.

PUPIL. What am I to understand by a degree?

TUTOR. All circles, whether great or small, are supposed to be divided into 360 equal parts, called degrees, and each degree into 60 equal parts, called minutes: therefore, if I speak of a circle in the heavens, the circumference of the earth, or any other circle, by a degree is meant the 360th part of that circle; and a minute the 60th part of a degree.

PUPIL. What are the names of the twelve signs?

TUTOR. The first is called Aries, which you know signifies a Ram; Taurus, the Bull; Gemini, the Twins; Cancer, the Crab; Leo, the Lion; Virgo, the Virgin; Libra, the Balance; Scorpio, the Scorpion; Sagittarius, the Archer; Capricorn, the Goat; Aquarius, the Water-bearer; and Pisces, the Fishes.

PUPIL. Do you wish me to commit these to memory, Sir?

TUTOR. It is very requisite; but as I know you are fond of verse, you shall hear what Doctor Watts says—

The Ram, the Bull, the heav'nly Twins,
And next the Crab the Lion shines,
The Virgin, and the Scales:
The Scorpion, Archer, and Sea-goat,
The Man that holds the Water-pot,
And Fish with glitt'ring tails.

PUPIL. I like it much, as it will assist my memory.

The Study of Astronomy, by John Stedman (1796)

To be continued next month...

"Doctor Watts" mentioned above is Isaac Watts (1674-1748)