

## DARK SKIES for August 2017:

T/W Aug.	1/2	1:44 a.m.	-	3:55 a.m.
W/T Aug.	2/3	2:23 a.m.	-	3:56 a.m.
T/F Aug.	3/4	3:07 a.m.	-	3:58 a.m.
F/S Aug.	4/5	3:56 a.m.	-	4:00 a.m.
S/S Aug.	5/6	none		
S/M Aug.	6/7	none		
M/T Aug.	7/8	none		
T/W Aug.	8/9	none		
W/T Aug.	9/10	none		
T/F Aug.	10/11	none		
F/S Aug.	11/12	10:00 p.m.	-	10:25 p.m.
S/S Aug.	12/13	9:58 p.m.	-	10:56 p.m.
S/M Aug.	13/14	9:55 p.m.	-	11:30 p.m.
M/T Aug.	14/15	9:53 p.m.	-	12:08 a.m.
T/W Aug.	15/16	9:51 p.m.	-	12:51 a.m.
W/T Aug.	16/17	9:49 p.m.	-	1:40 a.m.
T/F Aug.	17/18	9:47 p.m.	-	2:37 a.m.
F/S Aug.	18/19	9:45 p.m.	-	3:40 a.m.
<b>S/S Aug.</b>	<b>19/20</b>	<b>9:43 p.m.</b>	-	<b>4:25 a.m.</b>
<b>S/M Aug.</b>	<b>20/21</b>	<b>9:41 p.m.</b>	-	<b>4:26 a.m.</b>
<b>M/T Aug.</b>	<b>21/22</b>	<b>9:39 p.m.</b>	-	<b>4:28 a.m.</b>
<b>T/W Aug.</b>	<b>22/23</b>	<b>9:37 p.m.</b>	-	<b>4:30 a.m.</b>
<b>W/T Aug.</b>	<b>23/24</b>	<b>9:35 p.m.</b>	-	<b>4:31 a.m.</b>
T/F Aug.	24/25	9:37 p.m.	-	4:33 a.m.
F/S Aug.	25/26	10:06 p.m.	-	4:34 a.m.
S/S Aug.	26/27	10:37 p.m.	-	4:36 a.m.
S/M Aug.	27/28	11:08 p.m.	-	4:37 a.m.
M/T Aug.	28/29	11:42 p.m.	-	4:39 a.m.
T/W Aug.	29/30	12:20 a.m.	-	4:40 a.m.
W/T Aug.	30/31	1:02 a.m.	-	4:42 a.m.
T/F Aug.	31/1	1:49 a.m.	-	4:43 a.m.

Times listed are for Dodgeville, Wisconsin when

(1) Moon is below the horizon

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

Please minimize your use of outdoor lighting during these times to give everyone the best possible view of the night sky.

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## Time Travel

conducted by David Oesper

### THE BEGINNINGS OF AMERICAN ASTRONOMY

(continued)

The Smithsonian Institution was founded in 1846, and Joseph Henry was called from Princeton College to direct it. There never was a wiser choice. His term of service (1846-'78) was so long that his ideals became firmly fixed within the establishment, and were impressed upon his contemporaries and upon a host of younger men. The interests of astronomy were served by the encouragement of original research through subsidies and otherwise, by the purchase of instruments for scientific expeditions, by the free exchange of scientific books between America and Europe, and by the publication of the results of recondit investigations. It is by these and like services that the

institution is known and valued among the wide community of scientific men throughout the world.

But this enumeration of specific benefits does not convey an adequate idea of the immense influence exercised by the institution upon the scientific ideals of the country. It was of the first importance that the beginnings of independent investigation among Americans should be directed toward right ends and by high and unselfish aims. In the formation of a scientific and, as it were, a moral standard a few names will ever be remembered among us; and no one will stand higher than that of Henry. His wise, broad, and generous policy, and his high personal ideals, were of immense service to his colleagues and to the country.

The establishment of a national observatory in Washington was proposed by John Quincy Adams in 1825; but it was not until 1844 that the United States Naval Observatory was built by Lieutenant Gilliss, of the navy, from plans which he had prepared. By what seems to have been an injustice Gilliss was not appointed to be its first director.<sup>6</sup> This place fell to Lieutenant M. F. Maury. Gilliss had been on detached service for some years, and a rigid construction of rules required that he should be sent to sea, and not remain to launch the institution which he had built and equipped.

The first corps of observers at Washington (1845) contained men of first-class ability—Walker, Hubbard, Coffin. Gilliss's work as astronomer to the Wilkes Exploring Expedition (1838-'42), at his little observatory on Capitol Hill, had shown him to be one of the best observers, as well as one of the most assiduous. His study and experience in planning and building the Naval Observatory had broadened his mind. To the men just named, with Peirce, Gould, and Chauvenet, and to their coadjutors and pupils, we owe the introduction of the methods of Gauss, Bessel, and Struve into the United States, and it is for this reason that American astronomy is the child of German and not of English science.

The most natural evolution might seem to have been for Americans to follow the English practice of Maskelyne and Pond. But the break caused by the War of Independence, by the War of 1812, and by the years necessary for our youthful governments to consolidate (1776-1836), allowed our young men of science to make a perfectly unbiased choice of masters. The elder Bond (William Cranch Bond, born 1789, director of Harvard College Observatory, 1840-'59) was one of the older school and received his impetus from British sources during a visit to England in 1815.

In estimating the place of the elder Bond among scientific men it is necessary to take into account the circumstances which surround him. He was born in the first year of the French Revolution (1789); he was absolutely self-taught; practically no astronomical work was done in America before 1838.

<sup>6</sup>He was, however, director during the years 1861-'65.