

DARK SKIES for December 2018:

S/S Dec.	1/2	6:08 p.m.	-	1:57 a.m.
S/M Dec.	2/3	6:08 p.m.	-	3:05 a.m.
M/T Dec.	3/4	6:08 p.m.	-	4:12 a.m.
T/W Dec.	4/5	6:07 p.m.	-	5:18 a.m.
W/T Dec.	5/6	6:07 p.m.	-	5:35 a.m.
T/F Dec.	6/7	6:07 p.m.	-	5:35 a.m.
F/S Dec.	7/8	6:07 p.m.	-	5:36 a.m.
S/S Dec.	8/9	6:08 p.m.	-	5:37 a.m.
S/M Dec.	9/10	6:39 p.m.	-	5:38 a.m.
M/T Dec.	10/11	7:33 p.m.	-	5:39 a.m.
T/W Dec.	11/12	8:30 p.m.	-	5:39 a.m.
W/T Dec.	12/13	9:28 p.m.	-	5:40 a.m.
T/F Dec.	13/14	10:27 p.m.	-	5:41 a.m. G!
F/S Dec.	14/15	11:26 p.m.	-	5:42 a.m.
S/S Dec.	15/16	12:27 a.m.	-	5:42 a.m.
S/M Dec.	16/17	1:29 a.m.	-	5:43 a.m.
M/T Dec.	17/18	2:33 a.m.	-	5:43 a.m.
T/W Dec.	18/19	3:40 a.m.	-	5:44 a.m.
W/T Dec.	19/20	4:49 a.m.	-	5:45 a.m.
T/F Dec.	20/21	none		
F/S Dec.	21/22	none		
S/S Dec.	22/23	none		
S/M Dec.	23/24	none		
M/T Dec.	24/25	6:13 p.m.	-	6:59 p.m.
T/W Dec.	25/26	6:13 p.m.	-	8:12 p.m.
W/T Dec.	26/27	6:14 p.m.	-	9:26 p.m.
T/F Dec.	27/28	6:15 p.m.	-	10:38 p.m.
F/S Dec.	28/29	6:15 p.m.	-	11:49 p.m.
S/S Dec.	29/30	6:16 p.m.	-	12:58 a.m.
S/M Dec.	30/31	6:17 p.m.	-	2:04 a.m.
M/T Dec.	31/1	6:18 p.m.	-	3:10 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.

Time Travel

conducted by David Oesper

Alexander Stewart Herschel

He took frequent part in the discussions at the Meetings of the North of England Institute of Mining Engineers, of which he was Honorary Member, and constantly helped in the scientific work of that Association. He was an active Member of several of its Special Committees, and much labour was spent by him in making experiments for them on fans for mine ventilation, in designing apparatus for registering earth-tremors, and on many other subjects of applied science.

Altogether I should say that no man ever worked more incessantly or *gave away* his work more readily to anyone who could, or thought he could, make use of it; and no one did

so more generously or with a more utter indifference to thanks. If Herschel had patented one-hundredth of the inventions or improvements he was constantly making or contriving for others, he would have been a rich man indeed. But no man ever cared less to make money than he. He was a thoroughly open-hearted man, kind to a fault, and one whose great worth was largely withheld from public ken by the absolute modesty and under-estimation of himself, which were among his many personal charms. That he was somewhat eccentric in many small matters was obvious on very slight acquaintance, and only those who had the privilege of knowing him long and intimately could realize what great gifts of heart and intellect and what amazing courage were hidden beneath his mere outward characteristics.

G. A. LEBOUR.

METEORIC astronomy has indeed lost an ardent, able, and experienced student in Prof. Herschel. During a very long series of years he not only made observations himself but collected, compared, and discussed the results of others.

Prof. Herschel was a prolific writer and a correspondent of exceptional kind, his letters being exceedingly long and highly interesting. His desire for the truth often led him to enter minutely into details. In the observation of meteor-flights he attained a high degree of accuracy, and in the calculation of the real paths of Fireballs he probably stood alone, for no one could deal so well with discordant observations and treat them as effectively, often getting very satisfactory results from apparently incongruous data. Though Prof. Herschel did not habitually employ a telescope in astronomical observation, nor systematically sweep the firmament for interesting objects as his father and grandfather had done before him, he yet accomplished very meritorious work with the unaided eye, and meteoric astronomers will ever be deeply indebted to him for the extent and valuable character of his labours. W. F. D.

[In a letter to Miss Herschel from a friend of the family.]

I TRUST that he died without pain, and I feel sure, from his well regulated career, that his mind accepted the inevitable with submission and peaceful trust. I have been told that he willingly lent his valuable mathematical aid to foreigners, astronomers and others, quite regardless, so long as the lamp of knowledge was handed on, that it should be known by whose hand it was transmitted. This is a rare quality amongst gifted men, and I think no one could meet the Professor without being struck with the fact that one who knew so much should be so simple and unassuming.

JOHN W. SHERER.

The Observatory (July 1907)

"It is a saying of Arago, founded originally upon observation and confirmed by constant experience in later years, that the Earth encounters more shooting-stars in going from aphelion to perihelion than in going from perihelion to aphelion..."

- Alexander Stewart Herschel (1864)