

DARK SKIES for August 2018:

W/T Aug.	1/2	10:19 p.m.	-	11:01 p.m.
T/F Aug.	2/3	10:17 p.m.	-	11:28 p.m.
F/S Aug.	3/4	10:15 p.m.	-	11:57 p.m.
S/S Aug.	4/5	10:13 p.m.	-	12:29 a.m.
S/M Aug.	5/6	10:11 p.m.	-	1:06 a.m.
M/T Aug.	6/7	10:09 p.m.	-	1:50 a.m.
T/W Aug.	7/8	10:07 p.m.	-	2:43 a.m.
W/T Aug.	8/9	10:05 p.m.	-	3:44 a.m.
T/F Aug.	9/10	10:04 p.m.	-	4:08 a.m.
F/S Aug.	10/11	10:02 p.m.	-	4:10 a.m.
S/S Aug.	11/12	10:00 p.m.	-	4:12 a.m.
S/M Aug.	12/13	9:58 p.m.	-	4:13 a.m.
M/T Aug.	13/14	9:55 p.m.	-	4:15 a.m.
T/W Aug.	14/15	10:19 p.m.	-	4:17 a.m.
W/T Aug.	15/16	10:49 p.m.	-	4:18 a.m.
T/F Aug.	16/17	11:20 p.m.	-	4:20 a.m.
F/S Aug.	17/18	11:52 p.m.	-	4:22 a.m.
S/S Aug.	18/19	12:26 a.m.	-	4:23 a.m.
S/M Aug.	19/20	1:04 a.m.	-	4:25 a.m.
M/T Aug.	20/21	1:47 a.m.	-	4:26 a.m.
T/W Aug.	21/22	2:34 a.m.	-	4:28 a.m.
W/T Aug.	22/23	3:25 a.m.	-	4:30 a.m.
T/F Aug.	23/24	4:19 a.m.	-	4:31 a.m.
F/S Aug.	24/25	none		
S/S Aug.	25/26	none		
S/M Aug.	26/27	none		
M/T Aug.	27/28	none		
T/W Aug.	28/29	none		
W/T Aug.	29/30	9:22 p.m.	-	9:33 p.m.
T/F Aug.	30/31	9:20 p.m.	-	10:00 p.m.
F/S Aug.	31/1	9:18 p.m.	-	10:31 p.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

Maupertuis, at the same time, had already described in nearly the same manner the catastrophes which the fear of the Earth's contact with a comet had led astronomers to imagine. Only, by the side of possible inconveniences, he enumerated the advantages that might be derived from the distant influence of these bodies, such as changes of the seasons into a perpetual spring, the acquisition of new moons, or of a ring like that of Saturn. He then adds: 'However dangerous might be the shock of a comet, it might be so slight, that it would only do damage at that part of the Earth where it actually struck; perhaps even we might cry quits if while one kingdom were devastated, the rest of the Earth were to enjoy the rarities which a body which came from so far might bring to it. Perhaps we should be very surprised to find that the *débris* of these masses that we

despised were formed of gold and diamonds; but who would be the most astonished, we, or the comet-dwellers, who would be cast on our Earth? What strange beings each would find the other!'

At the present day astronomers have abandoned these fears. Not only, according to them, is the probability of a shock so slight, that it is not worth while to trouble ourselves about such an event; but, again, the mass of comets appears such a small fraction of the mass of the terrestrial globe, that the shock would be quiet [*sic*] imperceptible.

This way of looking at the matter rests on considerations and on facts which render it very probable. In 1770 a comet was seen to traverse the system of Jupiter, without inducing the smallest perturbation in the movement of the satellites, whilst the nebulous body itself was so much disturbed that its entire orbit was changed.

[Then again, we have good reason to believe that we actually passed through the tail of the comet of 1861, and the only effect observed was a peculiar phosphorescent mist.]

But would it be the same with all comets? In our opinion, it is at least prudent not to generalise too hastily. If comets exist, the nebulosity of which seems entirely gaseous, and so transparent that small stars remain visible through them, there are others, the nucleus of which is doubtless very dense, since their light has been strong enough to be perceptible in full day, even in the vicinity of the Sun. The mass of Donati's comet has been valued by MM. Faye and Roche at about the seven-hundredth part of the bulk of the Earth.

'That is,' says M. Faye, 'the weight of a sea of 40,000 square miles 109 yards deep; and it must be owned that a like mass, animated with a considerable velocity, might well produce by its shock with the Earth very perceptible effects.'

Of the heat peculiar to the comets, and of the nature of the light that they emit, very little is yet known. Doubtless, in the vicinity of the Sun, the action of the high temperature of the radiant body cannot fail to be felt on the exterior strata of the cometary nuclei; and it is thus that the formation of the luminous jets which, becoming detached from the central mass and acted upon by some unknown force, give rise to the tail, may be accounted for.

On the other hand, it seems proved that the light of the comets is, in part at least, borrowed from the Sun. But may they not also possess besides a light of their own? and, on this last hypothesis, is this brightness owing to a kind of phosphorescence, or to the state of incandescence of the nucleus?

* 'Lettre sur la Comète. Œuvres de M. de Maupertuis,' p. 203. Dresden, 1752.

The Heavens: An Illustrated Handbook of Popular Astronomy (1872) by Amedée Guillemin (1826-1893)

Edited by J. Norman Lockyer (1836-1920)
4th Edition revised by Richard Proctor (1837-1888)