

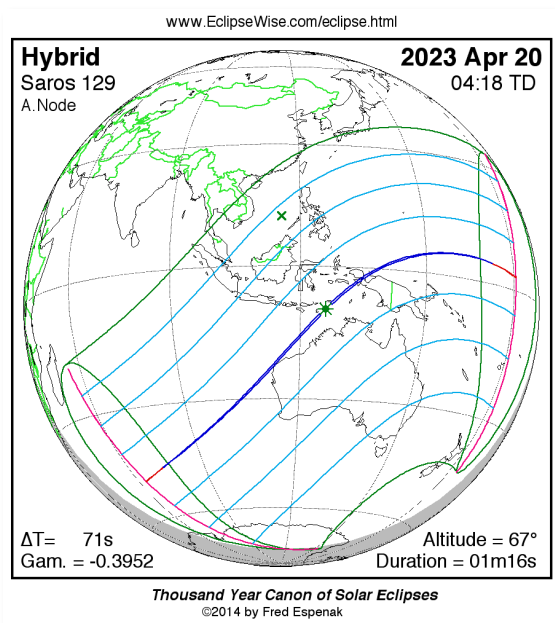
In this newsletter:

- Moon Phases
- Eclipse – 20 April 2023
- Sunrise/set and moonrise/set for Johannesburg
- Astronomical Events
- Naked Eye Planets Rise and Set Times for Johannesburg
- Lyrids Meteor Shower

Moon Phases

Full Moon: 6 Apr
 Last Quarter: 13 Apr
 New Moon: 20 Apr
 First Quarter: 27 Apr

Eclipse 20 April 2023



Type of Eclipse:

Hybrid Solar Eclipse (**NOT visible from South Africa**)

Time (SAST):

3:34 a.m. - 8:59 a.m.

Visible from:

Southeast Asia, East Indies, Australia, Philippines, New Zealand, Indonesia, Australia, Papua New Guinea

Sunrise/set and Moonrise/set for Johannesburg – April 2023

Date	Day	Sunrise	Sunset	Moonrise	Moonset
		h m	h m	h m	h m
1	Sat	06:17	18:06	15:44	01:52
2	Sun	06:17	18:05	16:18	02:46
3	Mon	06:18	18:04	16:49	03:40
4	Tue	06:18	18:03	17:19	04:34
5	Wed	06:19	18:02	17:48	05:27
6	Thu	06:19	18:01	18:19	06:21
7	Fri	06:20	18:00	18:52	07:18
8	Sat	06:20	17:59	19:28	08:17
9	Sun	06:21	17:58	20:10	09:19
10	Mon	06:21	17:57	20:59	10:23
11	Tue	06:22	17:56	21:56	11:28
12	Wed	06:22	17:55	22:58	12:30
13	Thu	06:23	17:54	--:--	13:28
14	Fri	06:23	17:53	00:05	14:18
15	Sat	06:23	17:52	01:13	15:03
16	Sun	06:24	17:51	02:20	15:42
17	Mon	06:24	17:50	03:25	16:18
18	Tue	06:25	17:49	04:28	16:53
19	Wed	06:25	17:48	05:29	17:27
20	Thu	06:26	17:47	06:31	18:02
21	Fri	06:26	17:47	07:33	18:40
22	Sat	06:27	17:46	08:35	19:21
23	Sun	06:27	17:45	09:36	20:07
24	Mon	06:28	17:44	10:35	20:57
25	Tue	06:28	17:43	11:30	21:50
26	Wed	06:29	17:42	12:19	22:46
27	Thu	06:29	17:41	13:03	23:41
28	Fri	06:30	17:41	13:42	--:--
29	Sat	06:30	17:40	14:17	00:36
30	Sun	06:31	17:39	14:49	01:30

Data calculated using MICA, US Naval Observatory

Astronomical Events – April 2023

Date	Time	Astronomical Event
6	06:35	FULL MOON
	18:45	Spica 3.3°S of Moon
7	15:51	Moon at Descending Node
10	07:50	Antares 1.5°S of Moon
11	06:42	Venus 2.5°S of Pleiades
	23	Jupiter in Conjunction with Sun
12	0	Mercury at Greatest Elong: 19.5°E
13	11:11	LAST QUARTER MOON
16	04:22	Moon at Perigee: 367,967 km
	05:47	Saturn 3.5°N of Moon
17	18	Venus at Perihelion
20	06:12	NEW MOON
	06:17	Hybrid Solar Eclipse; (NOT visible from SA)
	13:32	Moon at Ascending Node
22	11:14	Pleiades 1.9°N of Moon
23	3	Lyrid Meteor Shower
	15:03	Venus 1.3°S of Moon
26	04:18	Mars 3.2°S of Moon
	19:26	Pollux 1.5°N of Moon
27	23:20	FIRST QUARTER MOON
28	08:43	Moon at Apogee: 404,300 km

Planetary Ephemeris Data Courtesy of Fred Espenak, www.Astropixels.com

Naked Eye Planets Rise and Set Times for Johannesburg

Date	Mercury			Venus			Mars		
	Rise	Transit	Set	Rise	Transit	Set	Rise	Transit	Set
	h m	h m	h m	h m	h m	h m	h m	h m	h m
01-Apr	07:24	13:05	18:46	09:07	14:33	19:58	12:36	17:45	22:53
08-Apr	07:48	13:18	18:48	09:19	14:39	19:59	12:24	17:33	22:42
15-Apr	07:52	13:16	18:40	09:30	14:45	20:00	12:11	17:21	22:31
22-Apr	07:33	12:56	18:19	09:41	14:52	20:03	11:59	17:10	22:21
29-Apr	06:53	12:20	17:46	09:50	14:59	20:08	11:47	16:59	22:11

Date	Jupiter			Saturn		
	Rise	Transit	Set	Rise	Transit	Set
	h m	h m	h m	h m	h m	h m
01-Apr	06:53	12:42	18:31	03:26	09:51	16:16
08-Apr	06:33	12:21	18:09	03:02	09:26	15:51
15-Apr	06:13	12:00	17:46	02:37	09:01	15:25
22-Apr	05:53	11:39	17:24	02:12	08:36	15:00
29-Apr	05:33	11:17	17:01	01:47	08:11	14:34

Data calculated using MICA, US Naval Observatory

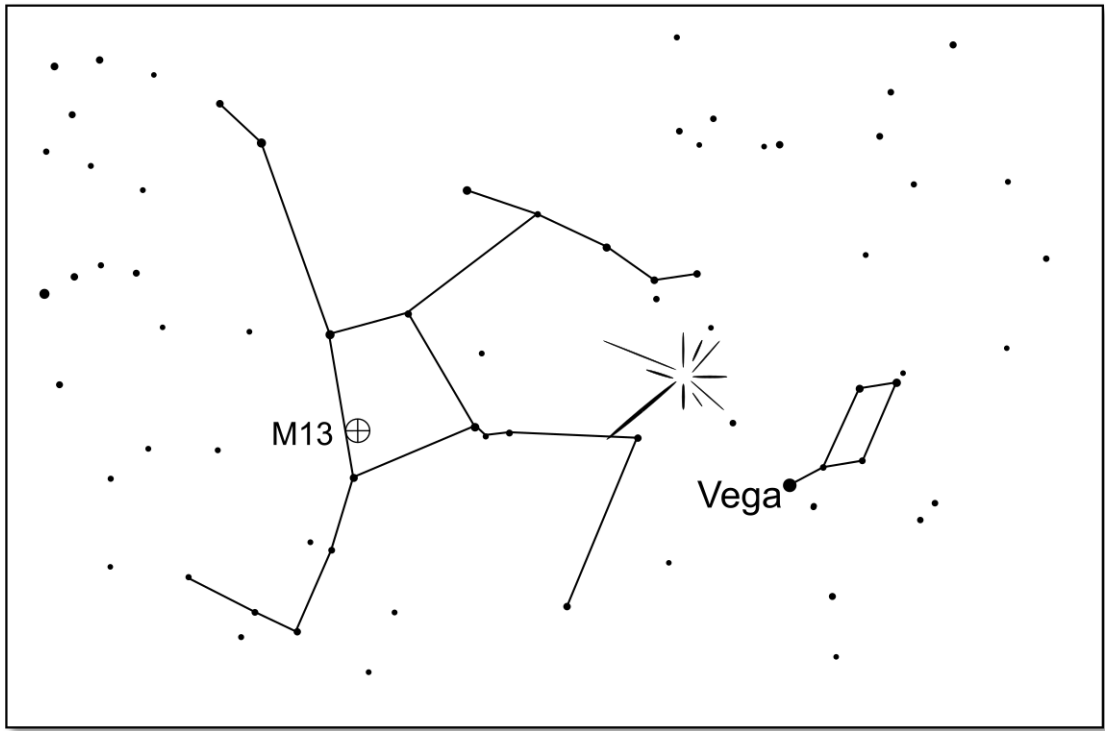
Lyrids Meteor Shower (006 LYR)

Active from: 14 – 30 April
 Maximum: 23 April
 Constellation: Lyra – The Lyre/Harp



Lyra can be seen on the right of this c. 1825 star map from Urania's Mirror, a set of constellation cards published in London c.1825. Source image Wikipedia

This meteor shower is best viewed from the northern hemisphere. Lyra rises in the northeast at around midnight, and will be directly north by 4:30 a.m. Expect to see about 18 meteors per hour.



Enjoy

Clear skies
Constant