Events featuring the natural satellites of Jupiter, February 2026

The satellites (also known as Galilean satellites in honor of the first person to observe them) of Jupiter provide some of the most striking phenomena observable with basic instrumentation. With a good pair of binoculars mounted on a tripod or a small telescope, we may be able to observe eclipses, occultations and transits of the Galilean satellites or their shadows over Jupiter. Similarly, telescopic observation of Jupiter's Great Red Spot (GRS) allows us to enjoy one of the largest storms in the entire Solar System. The following table summarizes all the events featuring Jupiter's satellites and observable from Granada.

- Column 1: Day of the month
- Column 2: Time in Coordinated Universal Time (to transform to local time add one hour in winter time and two in summer time)
- Column 3: Jupiter's altitude above the horizon
- Column 4: Main object: GMR, Great Red Spot; Gan, Ganymede; Cal, Callisto; Io, Io; Eur: Europa.
- Column 5: Event

For those unfamiliar with astronomical language, here we indicate what each of the phenomena tabulated below consists of:

- Transit: This occurs when one of Jupiter's satellites is between us and the planet, i.e. it is (in projection) over Jupiter's disk.

- Transit of the shadow: Based on the previous definition, you can get an idea of what I'm referring to here. Both Jupiter and its satellites are illuminated by the Sun and they all project a shadow in turn. This shadow, if projected by a satellite, can be lost in space or can fall on Jupiter's surface. If this is the case, we will be able to see a dark spot moving across the surface of the planet. For an observer located on Jupiter's surface, it would be a solar eclipse.

- Occultation: If the shadow, instead of being projected by the satellite onto Jupiter's surface, is projected by Jupiter onto the satellite, an eclipse will occur. What we can observe is that a given satellite goes from being visible to not being visible, because it is in the shadow projected by Jupiter and therefore does not receive any light to reflect and be visible. It would be the equivalent phenomenon to a lunar eclipse on Earth.

- Regarding the Great Red Spot (GRS), what we tabulate in this table is the moment when it passes through the central meridian, i.e. when the spot is in front of us.

Day	Time (UT)	Altitude (^{o})	Objet	Event
(1)	(2)	(3)	(4)	(5)
01	01:46	59.4	GRS	crosses central meridian
01	02:44	47.9	Gan	Occultation begins
01	21:37	61.0	GRS	crosses central meridian
02	01:38	60.2	Eur	Transit begins
02	02:45	47.0	Eur	Shadow transit begins
02	04:28	26.3	Eur	Transit ends
02	05:35	13.2	Eur	Shadow transit ends
03	03:24	38.3	GRS	crosses central meridian
03	19:41	39.7	Eur	Occultation begins
03	23:15	76.0	GRS	crosses central meridian
03	23:44	75.7	Eur	Eclipse ends
04	03:38	34.8	Cal	Occultation begins
04	19:00	32.1	Gan	Shadow transit begins
04	19:06	33.5	GRS	crosses central meridian
04	19:48	41.9	Gan	Transit ends
04	22:20	70.5	Gan	Shadow transit ends
05	04:21	25.4	Io	Transit begins
05	04:59	18.0	Io	Shadow transit begins
05	05:02	17.3	GRS	crosses central meridian
06	00:53	65.4	GRS	crosses central meridian
06	01:41	56.4	Io	Occultation begins
06	04:37	21.4	Io	Eclipse ends
06	20:45	54.7	GRS	crosses central meridian
06	22:47	74.9	Io	Transit begins
06	23:27	76.0	Io	Shadow transit begins
07	01:05	62.7	Io	Transit ends
07	01:44	55.1	Io	Shadow transit ends
07	20:07	48.0	Io	Occultation begins
07	23:04	76.1	Io	Eclipse ends
08	02:32	44.9	GRS	crosses central meridian
08	06:06	3.1	Gan	Occultation begins
08	19:31	41.5	Io	Transit ends
08	20:13	50.1	Io	Shadow transit ends
08	22:23	73.2	GRS	crosses central meridian
09	03:55	27.3	Eur	Transit begins
09	05:21	10.8	Eur	Shadow transit begins
10	04:10	23.7	GRS	crosses central meridian
10	21:59	71.0	Eur	Occultation begins
11	00:01	70.9	GRS	crosses central meridian
11	02:21	44.7	Eur	Eclipse ends
11	19:52	48.2	GRS	crosses central meridian
11	19:55	48.7	Gan	Transit begins
11	22:59	76.2	Gan	Shadow transit begins
11	23:12	75.8	Gan	Transit ends
12	02:20	44.2	Gan	Shadow transit ends

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Day	Time (TU)	Altitude (^{o})	Objet	Event
(1)	(2)	(3)	(4)	(5)
12	05:48	3.6	GRS	crosses central meridian
12	19:55	49.6	Eur	Transit ends
12	20:09	52.3	Cal	Shadow transit begins
12	21:30	67.5	Eur	Shadow transit ends
13	00:15	67.4	Cal	Shadow transit ends
13	01:39	51.4	GRS	crosses central meridian
13	03:27	29.9	Io	Occultation begins
13	21:31	68.3	GRS	crosses central meridian
14	00:34	63.3	Io	Transit begins
14	01:22	54.1	Io	Shadow transit begins
14	02:51	36.3	Io	Transit ends
14	03:39	26.6	Io	Shadow transit ends
14	21:54	72.4	Io	Occultation begins
15	01:00	57.7	Io	Eclipse ends
15	03:18	30.1	GRS	crosses central meridian
15	19:51	51.0	Io	Shadow transit begins
15	21:17	67.4	Io	Transit ends
15	22:09	74.6	Io	Shadow transit ends
15	23:09	74.8	GRS	crosses central meridian
16	19:29	47.5	Io	Eclipse ends
17	04:56	9.5	GRS	crosses central meridian
18	00:19	63.0	Eur	Occultation begins
18	00:47	57.8	GRS	crosses central meridian
18	04:57	8.5	Eur	Eclipse ends
18	20:39	62.6	GRS	crosses central meridian
18	23:22	71.9	Gan	Transit begins
19	02:39	34.7	Gan	Transit ends
19	02:58	30.9	Gan	Shadow transit begins
19	19:26	49.2	Eur	Transit begins
19	21:15	69.6	Eur	Shadow transit begins
19	22:16	76.1	Eur	Transit ends
20	00:06	64.0	Eur	Shadow transit ends
20	02:26	36.6	GRS	crosses central meridian
20	05:14	4.0	Io	Occultation begins
20	22:17	76.2	GRS	crosses central meridian
20	22:33	75.9	Cal	Occultation ends
21	02:21	36.7	Io	Transit begins
21	03:17	25.6	Io	Shadow transit begins
21	03:21	24.7	Cal	Eclipse begins
21	04:38	9.9	Io	Transit ends
21	23:41	67.1	Io	Occultation begins
22	02:55	29.2	Io	Eclipse ends
22	04:04	15.6	GRS	crosses central meridian
22	20:16	61.3	Gan	Eclipse ends
22	20:49	67.2	Io	Transit begins

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Day	Time (TU)	Altitude (^{o})	Objet	Event
(1)	(2)	(3)	(4)	(5)
22	21:46	75.0	Io	Shadow transit begins
22	23:05	72.2	Io	Transit ends
22	23:55	63.8	GRS	crosses central meridian
23	00:04	62.3	Io	Shadow transit ends
23	19:47	56.5	GRS	crosses central meridian
23	21:24	73.2	Io	Eclipse ends
25	01:34	43.1	GRS	crosses central meridian
25	02:42	29.4	Eur	Occultation begins
25	21:25	74.2	GRS	crosses central meridian
26	02:55	26.1	Gan	Transit begins
26	21:49	76.1	Eur	Transit begins
26	23:51	61.8	Eur	Shadow transit begins
27	00:39	52.5	Eur	Transit ends
27	02:42	27.9	Eur	Shadow transit ends
27	03:12	21.9	GRS	crosses central meridian
27	23:04	69.4	GRS	crosses central meridian
28	04:10	10.1	Io	Transit begins
28	20:53	71.7	Eur	Eclipse ends

Table 1: Phenomena Featuring Jupiter's Satellites and the Great Red Spot (GRS)