

International Space Station (ISS) Passes from Granada, January 2025

The International Space Station (ISS) is undoubtedly the symbol of space research. It is an artificial satellite, but with conditions that make it unique and unmatched (for now). It is an artificial satellite, that is, a body placed in orbit around Earth by humans, but habitable. We can consider it a space laboratory where science is researched, to name a few branches, biology, physics, astronomy or meteorology.

From Earth we can see it as a bright dot crossing the sky. Its brightness is a consequence of the reflection of sunlight on its surface, especially on its solar panels that power it for proper functioning. Its dimensions, slightly larger than a soccer field, allow that with the help of small telescopes or powerful binoculars we can discern its silhouette (around 30" in the sky) when it passes in front of the Sun or Moon (a more common event than we think).

This table shows us the main ISS passes observable from Granada during this month. The various columns indicate different information, all useful for observing these phenomena:

- Column 1: Observation date.
- Column 2: Magnitude brightness. Remember, smaller or even negative values will indicate very bright passes while higher values will reveal more modest passes.
- Columns 3 to 5(): Local time, altitude and direction to observe when the pass begins.
- Columns 6 to 8(): Local time, altitude and direction to observe when the ISS is at its highest point.
- Columns 9 to 11(*): Local time, altitude and direction to observe when the ISS will disappear.

(*) All these events are calculated at the beginning of the month. The exact moment may vary as the date approaches due to irregularities in the ISS orbit or even voluntary human modifications. I strongly recommend recalculating the ephemeris, especially if we are interested in late-month events. For more information and calculations see <http://www.heavens-above.com/>.

Date (1)	Brightness (mag) (2)	Begins			Highest point			Ends		
		Time (3)	Alt. (4)	Az. (5)	Time (6)	Alt. (7)	Az. (8)	Time (9)	Alt. (10)	Az. (11)
01 Jan	-3.7	07:44:29	11°	NW	07:47:35	71°	SW	07:50:54	10°	SE
02 Jan	-3.4	06:57:12	40°	NNW	06:58:07	59°	NE	07:01:24	10°	ESE
03 Jan	-1.4	06:09:56	23°	E	06:09:56	23°	E	06:11:35	10°	E
03 Jan	-2.2	07:42:48	12°	W	07:45:04	22°	SW	07:47:44	10°	S
04 Jan	-3.3	06:55:35	43°	SW	06:55:39	43°	SW	06:58:48	10°	SSE
05 Jan	-1.1	06:08:26	18°	SE	06:08:26	18°	SE	06:09:27	10°	SE
06 Jan	-1.3	06:54:11	12°	SSW	06:54:11	12°	SSW	06:54:46	10°	SSW
10 Jan	-1.9	20:11:21	10°	SSW	20:12:52	23°	S	20:12:52	23°	S
11 Jan	-2.2	19:22:16	10°	S	19:24:49	21°	SE	19:25:35	19°	ESE
11 Jan	-0.3	20:58:14	10°	WSW	20:58:26	11°	W	20:58:26	11°	W

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Date	Brightness	Begins			Highest point			Ends		
	(mag)	Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
12 Jan	-3.2	20:08:10	10°	WSW	20:11:02	56°	W	20:11:02	56°	W
13 Jan	-3.8	19:18:21	10°	SW	19:21:37	65°	SE	19:23:33	22°	ENE
13 Jan	-0.3	20:56:15	10°	WNW	20:56:23	11°	WNW	20:56:23	11°	WNW
14 Jan	-2.1	20:05:41	10°	W	20:08:29	25°	NNW	20:08:47	25°	NNW
15 Jan	-2.8	19:15:20	10°	WSW	19:18:29	42°	NW	19:21:06	14°	NNE
16 Jan	-1.3	20:03:49	10°	NW	20:05:37	14°	NNW	20:06:08	13°	NNW
17 Jan	-1.7	19:12:56	10°	WNW	19:15:26	19°	NNW	19:17:56	10°	NNE
19 Jan	-1.2	19:11:16	10°	NW	19:12:26	11°	NNW	19:13:36	10°	N
26 Jan	-1.6	19:48:38	10°	NNW	19:50:08	14°	NNE	19:50:08	14°	NNE
27 Jan	-1.4	20:34:05	10°	NW	20:35:02	17°	NNW	20:35:02	17°	NNW
28 Jan	-2.7	19:44:00	10°	NNW	19:46:52	26°	NNE	19:47:15	26°	NE
29 Jan	-2.7	20:29:58	10°	NW	20:32:26	44°	W	20:32:26	44°	W
30 Jan	-3.9	19:39:36	10°	NW	19:42:53	66°	NE	19:45:02	20°	ESE
31 Jan	-1.3	20:26:21	10°	W	20:28:52	20°	SW	20:30:47	13°	S

Table 1: International Space Station (ISS) Passes Observable from Granada, January 2025