## International Space Station (ISS) Passes from Granada, September 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	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)
08 Sep	-1.9	06:31:57	18°	S	06:31:57	18°	S	06:33:14	10°	S
$08 \mathrm{Sep}$	-2.9	21:31:49	$10^{\circ}$	SSW	21:34:45	$29^{\circ}$	SE	21:35:42	$24^{\circ}$	ESE
$08 \mathrm{Sep}$	-0.5	23:08:31	$10^{\circ}$	W	23:08:41	$11^{\circ}$	W	23:08:41	$11^{\circ}$	W
$09 \mathrm{Sep}$	-2.8	22:19:35	$10^{\circ}$	WSW	22:22:48	$45^{\circ}$	NW	22:23:12	$43^{\circ}$	NNW
$10 \mathrm{Sep}$	-3.8	21:30:51	$10^{\circ}$	SW	21:34:11	$84^{\circ}$	NW	21:37:22	$11^{\circ}$	NE
10  Sep	-0.4	23:09:25	$10^{\circ}$	WNW	23:10:18	$13^{\circ}$	NW	23:10:18	$13^{\circ}$	NW
$11 \mathrm{Sep}$	-1.2	22:19:58	$10^{\circ}$	WNW	22:22:31	$20^{\circ}$	NNW	22:24:10	$15^{\circ}$	N
$12 \mathrm{Sep}$	-1.9	21:30:47	$10^{\circ}$	W	21:33:45	$30^{\circ}$	NNW	21:36:46	$10^{\circ}$	NNE
$13 \mathrm{Sep}$	-0.7	22:21:15	$10^{\circ}$	NW	22:22:24	$11^{\circ}$	NNW	22:23:33	$10^{\circ}$	N
_14 Sep	-0.9	21:31:26	10°	WNW	21:33:29	15°	NNW	21:35:31	10°	NNE

continues in next page

comes from previous page

Date	Brightness	Begins			Hig	hest p	oint	Ends		
	(mag)	Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.
$\underline{\hspace{1cm}}$ (1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
17 Sep	-0.9	20:42:57	10°	NW	20:44:17	12°	NNW	20:45:37	10°	N
$21 \mathrm{Sep}$	-0.7	22:20:22	$10^{\circ}$	N	22:20:33	$10^{\circ}$	N	22:20:33	$10^{\circ}$	N
$23 \mathrm{Sep}$	-1.0	22:18:37	$10^{\circ}$	NNW	22:19:26	$15^{\circ}$	NNW	22:19:26	$15^{\circ}$	NNW
24  Sep	-1.6	21:30:08	$10^{\circ}$	NNW	21:32:18	$16^{\circ}$	NNE	21:32:29	$16^{\circ}$	NNE
$25 \mathrm{Sep}$	-1.3	20:41:50	$10^{\circ}$	N	20:43:10	$12^{\circ}$	NNE	20:44:29	$10^{\circ}$	NE
$25 \mathrm{Sep}$	-1.3	22:17:11	$10^{\circ}$	NW	22:18:26	$21^{\circ}$	NW	22:18:26	$21^{\circ}$	NW
$26 \mathrm{Sep}$	-2.8	21:28:28	$10^{\circ}$	NNW	21:31:31	$32^{\circ}$	NNE	21:31:33	$32^{\circ}$	NE
$27 \mathrm{Sep}$	-2.1	20:39:50	$10^{\circ}$	NNW	20:42:27	$21^{\circ}$	NNE	20:44:45	$12^{\circ}$	ENE
$27 \mathrm{Sep}$	-1.3	22:16:06	$10^{\circ}$	WNW	22:17:38	$23^{\circ}$	WNW	22:17:38	$23^{\circ}$	WNW
$28 \mathrm{Sep}$	-3.9	21:27:05	$10^{\circ}$	NW	21:30:26	$89^{\circ}$	SW	21:30:55	$63^{\circ}$	SE
$29 \mathrm{Sep}$	-3.4	20:38:12	$10^{\circ}$	NW	20:41:28	$48^{\circ}$	NE	20:44:18	$13^{\circ}$	ESE
$29 \mathrm{Sep}$	-0.9	22:15:54	$10^{\circ}$	W	22:17:12	$14^{\circ}$	WSW	22:17:12	$14^{\circ}$	WSW
30 Sep	-1.9	21:26:10	10°	WNW	21:29:03	27°	SW	21:30:44	18°	S

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