

**DEPARTAMENTO DE INVESTIGACIÓN Y SERVICIOS HÍDRICOS**  
**DECLINACIÓN SOLAR 2013**

Para 0:00 Hrs. Tiempo Universal o tiempo Civil de Greenwich

ENERO				FEBRERO				MARZO				ABRIL				MAYO				JUNIO			
DIA		G	M	DIA		G	M	DIA		G	M	DIA		G	M	DIA		G	M	DIA		G	M
1	S	-23	0.1	1	S	-17	6.7	1	S	-7	36.4	1	N	4	31.1	1	N	15	3.5	1	N	22	2.6
2	S	-22	55	2	S	-16	49.5	2	S	-7	13.5	2	N	4	54.2	2	N	15	21.6	2	N	22	10.6
3	S	-22	49.4	3	S	-16	32	3	S	-6	50.6	3	N	5	17.3	3	N	15	39.3	3	N	22	18.2
4	S	-22	43.3	4	S	-16	13.4	4	S	-6	27.5	4	N	5	40.2	4	N	15	56.9	4	N	22	25.4
5	S	-22	36.8	5	S	-15	56.2	5	S	-6	4.4	5	N	6	3	5	N	16	14.1	5	N	22	32.2
6	S	-22	29.9	6	S	-15	37.8	6	S	-5	41.2	6	N	6	25.8	6	N	16	31.1	6	N	22	38.6
7	S	-22	22.5	7	S	-15	19.2	7	S	-5	17.9	7	N	6	48.4	7	N	16	47.8	7	N	22	44.6
8	S	-22	14.6	8	S	-15	0.3	8	S	-4	54.5	8	N	7	10.9	8	N	17	4.3	8	N	22	50.2
9	S	-22	6.3	9	S	-14	41.2	9	S	-4	31.1	9	N	7	33.3	9	N	17	20.4	9	N	22	55.4
10	S	-21	57.6	10	S	-14	21.8	10	S	-4	7.6	10	N	7	55.6	10	N	17	36.3	10	N	23	0.2
11	S	-21	48.5	11	S	-14	2.2	11	S	-3	44	11	N	8	17.7	11	N	17	51.9	11	N	23	4.6
12	S	-21	38.9	12	S	-13	42.4	12	S	-3	20.4	12	N	8	39.7	12	N	18	7.1	12	N	23	8.6
13	S	-21	28.9	13	S	-13	22.3	13	S	-2	56.8	13	N	9	1.5	13	N	18	22.1	13	N	23	12.2
14	S	-21	18.5	14	S	-13	2	14	S	-2	33.2	14	N	9	23.2	14	N	18	36.8	14	N	23	15.4
15	S	-21	7.7	15	S	-12	41.5	15	S	-2	9.5	15	N	9	44.8	15	N	18	51.1	15	N	23	18.2
16	S	-20	56.5	16	S	-12	20.8	16	S	-1	45.8	16	N	10	6.1	16	N	19	5.1	16	N	23	20.5
17	S	-20	44.9	17	S	-11	59.9	17	S	-1	22.1	17	N	10	27.3	17	N	19	18.8	17	N	23	22.5
18	S	-20	32.9	18	S	-11	38.9	18	N	0	58.3	18	N	10	48.4	18	N	19	32.2	18	N	23	24
19	S	-20	20.5	19	S	-11	17.6	19	N	0	34.6	19	N	11	9.2	19	N	19	45.2	19	N	23	25.1
20	S	-20	7.7	20	S	-10	56.1	20	N	0	10.9	20	N	11	29.9	20	N	19	57.9	20	N	23	25.8
21	S	-19	54.5	21	S	-10	34.5	21	N	0	12.8	21	N	11	50.4	21	N	20	10.3	21	N	23	26.1
22	S	-19	41	22	S	-10	12.8	22	N	0	36.5	22	N	12	10.6	22	N	20	22.3	22	N	23	26
23	S	-19	27.1	23	S	-9	50.8	23	N	1	0.2	23	N	12	30.7	23	N	20	34	23	N	23	25.5
24	S	-19	12.9	24	S	-9	28.8	24	N	1	23.8	24	N	12	50.6	24	N	20	45.3	24	N	23	24.5
25	S	-18	58.3	25	S	-9	6.5	25	N	1	47.4	25	N	13	10.3	25	N	20	56.2	25	N	23	23.2
26	S	-18	43.3	26	S	-8	44.2	26	N	2	10.9	26	N	13	29.7	26	N	21	6.8	26	N	23	21.4
27	S	-18	28	27	S	-8	21.7	27	N	2	34.5	27	N	13	48.9	27	N	21	17	27	N	23	19.2
28	S	-18	12.4	28	S	-7	59.1	28	N	2	57.9	28	N	14	7.9	28	N	21	26.9	28	N	23	16.6
29	S	-17	56.5					29	N	3	21.3	29	N	14	26.7	29	N	21	36.4	29	N	23	13.6
30	S	-17	40.2					30	N	3	44.6	30	N	14	45.2	30	N	21	45.5	30	N	23	10.2
31	S	-17	23.6					31	N	4	7.9					31	N	21	54.2				

G = grados  
M = minutos

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JULIO				AGOSTO				SEPTIEMBRE				OCTUBRE				NOVIEMBRE				DICIEMBRE			
DIA		G	M	DIA		G	M	DIA		G	M	DIA		G	M	DIA		G	M	DIA		G	M
1	N	23	6.4	1	N	18	1.5	1	N	8	17.7	1	S	-3	9.9	1	S	-14	24.4	1	S	-21	47.3
2	N	23	2.2	2	N	17	46.3	2	N	7	55.9	2	S	-3	33.2	2	S	-14	43.6	2	S	-21	56.4
3	N	22	57.6	3	N	17	30.7	3	N	7	34	3	S	-3	56.4	3	S	-15	2.4	3	S	-22	5.1
4	N	22	52.6	4	N	17	14.9	4	N	7	11.9	4	S	-4	19.6	4	S	-15	21.1	4	S	-22	13.4
5	N	22	47.2	5	N	16	58.8	5	N	6	49.7	5	S	-4	42.7	5	S	-15	39.4	5	S	-22	21.3
6	N	22	41.3	6	N	16	42.5	6	N	6	27.4	6	S	-5	5.7	6	S	-15	57.6	6	S	-22	28.7
7	N	22	35.1	7	N	16	25.8	7	N	6	5	7	S	-5	28.7	7	S	-16	15.4	7	S	-22	35.7
8	N	22	28.5	8	N	16	8.9	8	N	5	42.5	8	S	-5	51.7	8	S	-16	33	8	S	-22	42.3
9	N	22	21.5	9	N	15	51.8	9	N	5	19.9	9	S	-6	14.5	9	S	-16	50.3	9	S	-22	48.4
10	N	22	14.2	10	N	15	34.4	10	N	4	57.3	10	S	-6	37.3	10	S	-17	7.3	10	S	-22	54.1
11	N	22	6.4	11	N	15	16.7	11	N	4	34.5	11	S	-6	60	11	S	-17	24	11	S	-22	59.3
12	N	21	58.3	12	N	14	58.8	12	N	4	11.7	12	S	-7	22.5	12	S	-17	40.5	12	S	-23	4
13	N	21	49.8	13	N	14	40.7	13	N	3	48.7	13	S	-7	45	13	S	-17	56.6	13	S	-23	8.3
14	N	21	40.9	14	N	14	22.3	14	N	3	25.8	14	S	-8	7.4	14	S	-18	12.4	14	S	-23	12.2
15	N	21	31.6	15	N	14	3.7	15	N	3	2.7	15	S	-8	29.6	15	S	-18	27.9	15	S	-23	15.5
16	N	21	22	16	N	13	44.9	16	N	2	39.6	16	S	-8	51.8	16	S	-18	43	16	S	-23	18.5
17	N	21	12	17	N	13	25.9	17	N	2	16.5	17	S	-9	13.8	17	S	-18	57.8	17	S	-23	20.9
18	N	21	1.7	18	N	13	6.6	18	N	1	53.3	18	S	-9	35.7	18	S	-19	12.3	18	S	-23	22.9
19	N	20	51	19	N	12	47.2	19	N	1	30	19	S	-9	57.4	19	S	-19	26.5	19	S	-23	24.4
20	N	20	39.9	20	N	12	27.5	20	N	1	6.8	20	S	-10	19	20	S	-19	40.3	20	S	-23	25.4
21	N	20	28.6	21	N	12	7.7	21	N	0	43.5	21	S	-10	40.4	21	S	-19	53.7	21	S	-23	26
22	N	20	16.8	22	N	11	47.6	22	N	0	20.2	22	S	-11	1.7	22	S	-20	6.8	22	S	-23	26.1
23	N	20	4.7	23	N	11	27.4	23	N	0	3.2	23	S	-11	22.8	23	S	-20	19.5	23	S	-23	25.7
24	N	19	52.3	24	N	11	7	24	N	0	26.5	24	S	-11	43.8	24	S	-20	31.8	24	S	-23	24.9
25	N	19	39.6	25	N	10	46.4	25	N	0	49.9	25	S	-12	4.6	25	S	-20	43.8	25	S	-23	23.6
26	N	19	26.5	26	N	10	25.6	26	S	-1	13.3	26	S	-12	25.1	26	S	-20	55.4	26	S	-23	21.8
27	N	19	13.1	27	N	10	4.7	27	S	-1	36.6	27	S	-12	45.5	27	S	-21	6.6	27	S	-23	19.5
28	N	18	59.4	28	N	9	43.6	28	S	-1	60	28	S	-13	5.7	28	S	-21	17.3	28	S	-23	16.8
29	N	18	45.4	29	N	9	22.4	29	S	-2	23.3	29	S	-13	25.7	29	S	-21	27.7	29	S	-23	13.6
30	N	18	31.1	30	N	9	1	30	S	-2	46.6	30	S	-13	45.5	30	S	-21	37.7	30	S	-23	10
31	N	18	16.4	31	N	8	39.4					31	S	-14	5.1					31	S	-23	5.9

G = grados

M = minutos