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Prefacio, 2022

En el Anuario del Observatorio Astronómico Nacional se publican efemérides astronómicas del Sol, la Luna, planetas y estrellas, sucesos astronómicos como eclipses, ocultaciones y conjunciones; datos astronómicos generales, así como parámetros geométricos y físicos de los planetas y sus satélites.

Para el cálculo de las efemérides y los instantes en que ocurren los sucesos astronómicos, se toma el meridiano efemérico 90º al oeste del meridiano efemérico de Greenwich, y la diferencia entre el tiempo de las efemérides y el Universal se estima en ΔT= 70s. Los instantes para los fenómenos astronómicos y las horas del paso por el meridiano 90° W.G., deberán corregirse por el horario de verano que corresponda al lugar geográfico y la época del año. De acuerdo al Decreto Presidencial sobre Husos Horarios (Ver Hora legal en la República mexicana).

Todos los cálculos de las efemérides astronómicas son referidos al Ecuador y Eclíptica de la época J2000.0, de acuerdo a las resoluciones tomadas por la Unión Astronómica Internacional (UAI) en 1976. Nuestros cálculos se fundamentan en los parámetros astronómicos y elementos orbitales medios, utilizados para otros anuarios astronómicos, como: Astronomical Almanac, EUA, National Almanac of Royal Greenwich Observatory, Inglaterra, Jet Propulsion Laboratory, EUA y Service des Calculs Bureau des Longitudes, Francia.

En esta edición, los cálculos son referidos a los fundamentos recomendados por la Unión Astronómica Internacional (2000) para la precesión y nutación, los sistemas de referencia celeste intermedio y el ángulo de rotación de la Tierra CIP, CIO, ICRS, CIRS. La relación entre los orígenes se da a partir de la longitud cero del origen intermedio terrestre y el origen de equinoccio verdadero y del origen del intermedio celeste (CIO), los cuales difieren por el ángulo de rotación de la Tierra (ERA). El ecuador verdadero y el intermedio son coplanares, cuyo polo es el intermedio celeste (CIP)

De acuerdo a las recomendaciones del grupo Working Group on Nomenclature for Fundamental Astronomy de la IAU, las efemérides para los planetas, el Sol y la Luna, se obtuvieron en función de la efemérides JPL Planetary and Lunar Ephemeris DE431/LE431. Para las estrellas se tomaron de los parámetros astronómicos del catálogo The Hipparcos and Tycho Catalog, ESA Hipparcos Space Astrometry Mission, apartir del cual se determinaron las posiciones medias de estrellas y posiciones aparentes de estrellas brillantes.

Para el cálculo de las declinaciones magnéticas se utilizó la décima generación del modelo del campo magnético terrestre adoptado por la “International Association of Geomagnetic and Aeronomy”. Los cálculos corresponden a las determinaciones, teóricas y observadas, para la República Mexicana del Departamento de Geomagnetismo y Exploración del Instituto de Geofísica de la Universidad Nacional Autónoma de México.

Se incluye un mapa de estrellas referidas al año 2019. En el apartado de nomenclatura de estrellas se incluyen los nombre comunes de estrellas a demás de los número de los catálogos Hipparco (NH) y los números asigandos en el Bright Star Catalog de la Universidad de Yale (NBSC). En la tabla de posiciones medias se presentan las coordenadas ascensión recta en unidades (h, m, s), y declinación (º, ‘, “), y en decimales de grado (º). Debemos señalar que en el futuro próximo las tablas de efemérides se darán en decimales de grado.

Todos los cálculos se efectuaron en los sistemas de cómputo del departamento de Astrofísica Computacional del Instituto de Astronomía, de la Universidad Nacional Autónoma de México.

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Universidad Nacional Autónoma de México
Ciudad Universitaria
Apartado postal 70-264
México, D.F., 04510

Día Juliano, 2022

A las 0^h del meridiano 90^o W.G.

d	ds	dj
Enero		
1	sab	2459580.75
2	dom	2459581.75
3	lun	2459582.75
4	mar	2459583.75
5	mie	2459584.75
6	jue	2459585.75
7	vie	2459586.75
8	sab	2459587.75
9	dom	2459588.75
10	lun	2459589.75
11	mar	2459590.75
12	mie	2459591.75
13	jue	2459592.75
14	vie	2459593.75
15	sab	2459594.75
16	dom	2459595.75
17	lun	2459596.75
18	mar	2459597.75
19	mie	2459598.75
20	jue	2459599.75
21	vie	2459600.75
22	sab	2459601.75
23	dom	2459602.75
24	lun	2459603.75
25	mar	2459604.75
26	mie	2459605.75
27	jue	2459606.75
28	vie	2459607.75
29	sab	2459608.75
30	dom	2459609.75
31	lun	2459610.75
Febrero		
1	mar	2459611.75
2	mie	2459612.75
3	jue	2459613.75
4	vie	2459614.75
5	sab	2459615.75
6	dom	2459616.75
7	lun	2459617.75
8	mar	2459618.75
9	mie	2459619.75
10	jue	2459620.75
11	vie	2459621.75
12	sab	2459622.75
13	dom	2459623.75
14	lun	2459624.75
15	mar	2459625.75
16	mie	2459626.75
17	jue	2459627.75
18	vie	2459628.75
19	sab	2459629.75
20	dom	2459630.75
21	lun	2459631.75
22	mar	2459632.75
23	mie	2459633.75
24	jue	2459634.75
25	vie	2459635.75
26	sab	2459636.75
27	dom	2459637.75
28	lun	2459638.75
Marzo		
1	mar	2459639.75
2	mie	2459640.75
3	jue	2459641.75
4	vie	2459642.75
5	sab	2459643.75
6	dom	2459644.75
7	lun	2459645.75
8	mar	2459646.75
9	mie	2459647.75
10	jue	2459648.75
11	vie	2459649.75
12	sab	2459650.75
13	dom	2459651.75
14	lun	2459652.75
15	mar	2459653.75
16	mie	2459654.75
17	jue	2459655.75
18	vie	2459656.75
19	sab	2459657.75
20	dom	2459658.75
21	lun	2459659.75
22	mar	2459660.75
23	mie	2459661.75
24	jue	2459662.75
25	vie	2459663.75
26	sab	2459664.75
27	dom	2459665.75
28	lun	2459666.75
29	mar	2459667.75
30	mie	2459668.75
31	jue	2459669.75
Abril		
1	vie	2459670.75
2	sab	2459671.75
3	dom	2459672.75
4	lun	2459673.75
5	mar	2459674.75
6	mie	2459675.75
7	jue	2459676.75
8	vie	2459677.75
9	sab	2459678.75
10	dom	2459679.75
11	lun	2459680.75
12	mar	2459681.75
13	mie	2459682.75
14	jue	2459683.75
15	vie	2459684.75
16	sab	2459685.75
17	dom	2459686.75
18	lun	2459687.75
19	mar	2459688.75
20	mie	2459689.75
21	jue	2459690.75
22	vie	2459691.75
23	sab	2459692.75
24	dom	2459693.75
25	lun	2459694.75
26	mar	2459695.75
27	mie	2459696.75
28	jue	2459697.75
29	vie	2459698.75
30	sab	2459699.75
Mayo		
1	dom	2459700.75
2	lun	2459701.75
3	mar	2459702.75
4	mie	2459703.75
5	jue	2459704.75
6	vie	2459705.75
7	sab	2459706.75
8	dom	2459707.75
9	lun	2459708.75
10	mar	2459709.75
11	mie	2459710.75
12	jue	2459711.75
13	vie	2459712.75
14	sab	2459713.75
15	dom	2459714.75
16	lun	2459715.75
17	mar	2459716.75
18	mie	2459717.75
19	jue	2459718.75
20	vie	2459719.75
21	sab	2459720.75
22	dom	2459721.75
23	lun	2459722.75
24	mar	2459723.75
25	mie	2459724.75
26	jue	2459725.75
27	vie	2459726.75
28	sab	2459727.75
29	dom	2459728.75
30	lun	2459729.75
31	mar	2459730.75
Junio		
1	mie	2459731.75
2	jue	2459732.75
3	vie	2459733.75
4	sab	2459734.75
5	dom	2459735.75
6	lun	2459736.75
7	mar	2459737.75
8	mie	2459738.75
9	jue	2459739.75
10	vie	2459740.75
11	sab	2459741.75
12	dom	2459742.75
13	lun	2459743.75
14	mar	2459744.75
15	mie	2459745.75
16	jue	2459746.75
17	vie	2459747.75
18	sab	2459748.75
19	dom	2459749.75
20	lun	2459750.75
21	mar	2459751.75
22	mie	2459752.75
23	jue	2459753.75
24	vie	2459754.75
25	sab	2459755.75
26	dom	2459756.75
27	lun	2459757.75
28	mar	2459758.75
29	mie	2459759.75
30	jue	2459760.75
Julio		
1	vie	2459761.75
2	sab	2459762.75
3	dom	2459763.75
4	lun	2459764.75
5	mar	2459765.75
6	mie	2459766.75
7	jue	2459767.75
8	vie	2459768.75
9	sab	2459769.75
10	dom	2459770.75
11	lun	2459771.75
12	mar	2459772.75
13	mie	2459773.75
14	jue	2459774.75
15	vie	2459775.75
16	sab	2459776.75

d	ds	dj
17	dom	2459777.75
18	lun	2459778.75
19	mar	2459779.75
20	mie	2459780.75
21	jue	2459781.75
22	vie	2459782.75
23	sab	2459783.75
24	dom	2459784.75
25	lun	2459785.75
26	mar	2459786.75
27	mie	2459787.75
28	jue	2459788.75
29	vie	2459789.75
30	sab	2459790.75
31	dom	2459791.75
Agosto		
1	lun	2459792.75
2	mar	2459793.75
3	mie	2459794.75
4	jue	2459795.75
5	vie	2459796.75
6	sab	2459797.75
7	dom	2459798.75
8	lun	2459799.75
9	mar	2459800.75
10	mie	2459801.75
11	jue	2459802.75
12	vie	2459803.75
13	sab	2459804.75
14	dom	2459805.75
15	lun	2459806.75
16	mar	2459807.75
17	mie	2459808.75
18	jue	2459809.75
19	vie	2459810.75
20	sab	2459811.75
21	dom	2459812.75
22	lun	2459813.75
23	mar	2459814.75
24	mie	2459815.75
25	jue	2459816.75
26	vie	2459817.75
27	sab	2459818.75
28	dom	2459819.75
29	lun	2459820.75
30	mar	2459821.75
31	mie	2459822.75
Septiembre		
1	jue	2459823.75
2	vie	2459824.75
3	sab	2459825.75
4	dom	2459826.75
5	lun	2459827.75
6	mar	2459828.75
7	mie	2459829.75
8	jue	2459830.75
9	vie	2459831.75
10	sab	2459832.75
11	dom	2459833.75
12	lun	2459834.75
13	mar	2459835.75
14	mie	2459836.75
15	jue	2459837.75
16	vie	2459838.75
17	sab	2459839.75
18	dom	2459840.75
19	lun	2459841.75
20	mar	2459842.75
21	mie	2459843.75
22	jue	2459844.75
23	vie	2459845.75
24	sab	2459846.75
25	dom	2459847.75
26	lun	2459848.75
27	mar	2459849.75
28	mie	2459850.75
29	jue	2459851.75
30	vie	2459852.75
Octubre		
1	sab	2459853.75
2	dom	2459854.75
3	lun	2459855.75
4	mar	2459856.75
5	mie	2459857.75
6	jue	2459858.75
7	vie	2459859.75
8	sab	2459860.75
9	dom	2459861.75
10	lun	2459862.75
11	mar	2459863.75
12	mie	2459864.75
13	jue	2459865.75
14	vie	2459866.75
15	sab	2459867.75
16	dom	2459868.75
17	lun	2459869.75
18	mar	2459870.75
19	mie	2459871.75
20	jue	2459872.75
21	vie	2459873.75
22	sab	2459874.75
23	dom	2459875.75
24	lun	2459876.75
25	mar	2459877.75
26	mie	2459878.75
27	jue	2459879.75
28	vie	2459880.75
29	sab	2459881.75
30	dom	2459882.75
31	lun	2459883.75
Noviembre		
1	mar	2459884.75
2	mie	2459885.75
3	jue	2459886.75
4	vie	2459887.75
5	sab	2459888.75
6	dom	2459889.75
7	lun	2459890.75
8	mar	2459891.75
9	mie	2459892.75
10	jue	2459893.75
11	vie	2459894.75
12	sab	2459895.75
13	dom	2459896.75
14	lun	2459897.75
15	mar	2459898.75
1	mie	2459899.75
17	jue	2459900.75
18	vie	2459901.75
19	sab	2459902.75
20	dom	2459903.75
21	lun	2459904.75
22	mar	2459905.75
23	mie	2459906.75
24	jue	2459907.75
25	vie	2459908.75
26	sab	2459909.75
27	dom	2459910.75
28	lun	2459911.75
29	mar	2459912.75
30	mie	2459913.75
Diciembre		
1	jue	2459914.75
2	vie	2459915.75
3	sab	2459916.75
4	dom	2459917.75
5	lun	2459918.75
6	mar	2459919.75
7	mie	2459920.75
8	jue	2459921.75
9	vie	2459922.75
10	sab	2459923.75
11	dom	2459924.75
12	lun	2459925.75
13	mar	2459926.75
14	mie	2459927.75
15	jue	2459928.75
16	vie	2459929.75
17	sab	2459930.75
18	dom	2459931.75
19	lun	2459932.75
20	mar	2459933.75
21	mie	2459934.75
22	jue	2459935.75
23	vie	2459936.75
24	sab	2459937.75
25	dom	2459938.75
26	lun	2459939.75
27	mar	2459940.75
28	mie	2459941.75
29	jue	2459942.75
30	vie	2459943.75
31	sab	2459944.75
Enero		
1	dom	2459945.75
2	lun	2459946.75
3	mar	2459947.75

Eras y ciclos cronológicos: 2022

Calendario Gregoriano

Cómputo

Letra Dominical . . . . . B
Epacta. 27
Ciclo lunar (Número de Oro). IX
Ciclo solar. 15
Indicción Romana 15

Eras

El año 2022, es el vigésimo segundo del siglo XXI de la Era Cristiana.

El año 2022, corresponde al año 6735 del Período Juliano.

El 1 de enero del año 2022 del Calendario Juliano, corresponde al 14 de enero.

Año	Era	Inicia
2775	Romana	enero 14
2682	Japonesa	enero 1
5783	Judía	septiembre 25
2334	Griega	septiembre 14
1444	Hégira	julio 29
7531	Bizantina	septiembre 14
	China	febrero 1

Fiestas y aniversarios para el año 2022

Año Nuevo	sábado 1 de enero
Epifanía	jueves 6 de enero
Proclamación de la Constitución de 1917	sábado 5 de febrero
Septuagésima	domingo 13 de febrero
Día de la Bandera	jueves 24 de febrero
Quinquagésima	domingo 27 de febrero
Carnaval	martes 1 de marzo
Miércoles de ceniza	miércoles 2 de marzo
Aniversario del Natalicio de Benito Juárez	lunes 21 de marzo
Domingo de Ramos	domingo 10 de abril
Primer día del Ramadán	domingo 3 de abril
Viernes Santo	viernes 15 de abril
Pascua	domingo 17 de abril
Día del Trabajo	domingo 1 de mayo
Aniversario de la Batalla de Puebla	jueves 5 de mayo
Ascension	jueves 26 de mayo
Pentecostés	domingo 5 de junio
Trinidad	domingo 12 de junio
Corpus	jueves 16 de junio
Domingo de Corpus	domingo 19 de junio
San Pedro y San Pablo	miércoles 29 de junio
Aniversario de la Muerte de Benito Juarez	lunes 18 de julio
Aniversario de la Muerte de Miguel Hidalgo	sábado 30 de julio
Año Nuevo Islámico	sábado 30 de julio
Aniversario de la Independencia de Mexico	viernes 16 de septiembre
Año Nuevo Judío	lunes 26 de septiembre
Yom Kipur	miércoles 5 de octubre
Día de la Raza	miércoles 12 de octubre
Conmemoración de los Difuntos	miércoles 2 de noviembre
Aniversario de la Revolución Mexicana	domingo 20 de noviembre
Adviento	domingo 27 de noviembre
Navidad	domingo 25 de diciembre

Estaciones del año, 2022

Hora del meridiano 90° W.G.

mes	día	h	m	longitud λ(°)	Signo
Invierno					
Enero	17	13	23	300	Capricornio
Febrero	16	0	50	330	Acuario
Primavera					
Marzo	20	9	33	0	Piscis
Abril	22	2	2	30	Aries
Mayo	22	23	30	60	Tauro
Verano					
Junio	21	3	14	90	Géminis
Julio	20	9	36	120	Cáncer
Agosto	20	14	56	150	Leo
Otoño					
Septiembre	22	19	4	180	Virgo
Octubre	25	24	48	210	Libra
Noviembre	24	3	57	240	Escorpión
Invierno					
Diciembre	21	15	48	270	Sagitario

Hora sideral, 2022

A las 0^h del meridiano 90º W.G.

d	dj	h	h	m	s
Ene					
1	2459580.75	6.725	6	43	29.5
2	2459581.75	6.791	6	47	26.0
3	2459582.75	6.856	6	51	22.6
4	2459583.75	6.922	6	55	19.2
5	2459584.75	6.988	6	59	15.7
6	2459585.75	7.053	7	3	12.3
7	2459586.75	7.119	7	7	8.8
8	2459587.75	7.185	7	11	5.4
9	2459588.75	7.251	7	15	1.9
10	2459589.75	7.316	7	18	58.5
11	2459590.75	7.382	7	22	55.1
12	2459591.75	7.448	7	26	51.6
13	2459592.75	7.513	7	30	48.2
14	2459593.75	7.579	7	34	44.7
15	2459594.75	7.645	7	38	41.3
16	2459595.75	7.711	7	42	37.9
17	2459596.75	7.776	7	46	34.4
18	2459597.75	7.842	7	50	31.0
19	2459598.75	7.908	7	54	27.5
20	2459599.75	7.973	7	58	24.1
21	2459600.75	8.039	8	2	20.6
22	2459601.75	8.105	8	6	17.2
23	2459602.75	8.170	8	10	13.7
24	2459603.75	8.236	8	14	10.3
25	2459604.75	8.302	8	18	6.9
26	2459605.75	8.368	8	22	3.4
27	2459606.75	8.433	8	25	60.0
28	2459607.75	8.499	8	29	56.5
29	2459608.75	8.565	8	33	53.1
30	2459609.75	8.630	8	37	49.7
31	2459610.75	8.696	8	41	46.2
Feb					
1	2459611.75	8.762	8	45	42.8
2	2459612.75	8.828	8	49	39.3
3	2459613.75	8.893	8	53	35.9
4	2459614.75	8.959	8	57	32.4
5	2459615.75	9.025	9	1	29.0
6	2459616.75	9.090	9	5	25.5
7	2459617.75	9.156	9	9	22.1
8	2459618.75	9.222	9	13	18.6
9	2459619.75	9.288	9	17	15.2
10	2459620.75	9.353	9	21	11.8
11	2459621.75	9.419	9	25	8.3
12	2459622.75	9.485	9	29	4.9
13	2459623.75	9.550	9	33	1.4
14	2459624.75	9.616	9	36	58.0
15	2459625.75	9.682	9	40	54.6
16	2459626.75	9.748	9	44	51.1
17	2459627.75	9.813	9	48	47.7
18	2459628.75	9.879	9	52	44.2
19	2459629.75	9.945	9	56	40.8
20	2459630.75	10.010	10	0	37.3
21	2459631.75	10.076	10	4	33.9
22	2459632.75	10.142	10	8	30.4
23	2459633.75	10.207	10	12	27.0
24	2459634.75	10.273	10	16	23.5
25	2459635.75	10.339	10	20	20.1
26	2459636.75	10.405	10	24	16.6
27	2459637.75	10.470	10	28	13.2
28	2459638.75	10.536	10	32	9.8
Mar					
1	2459639.75	10.602	10	36	6.3
2	2459640.75	10.667	10	40	2.9
3	2459641.75	10.733	10	43	59.4
4	2459642.75	10.799	10	47	56.0
5	2459643.75	10.865	10	51	52.5
6	2459644.75	10.930	10	55	49.1
7	2459645.75	10.996	10	59	45.6
8	2459646.75	11.062	11	3	42.2
9	2459647.75	11.127	11	7	38.7
10	2459648.75	11.193	11	11	35.3
11	2459649.75	11.259	11	15	31.8
12	2459650.75	11.325	11	19	28.4
13	2459651.75	11.390	11	23	25.0
14	2459652.75	11.456	11	27	21.5
15	2459653.75	11.522	11	31	18.1
16	2459654.75	11.587	11	35	14.6
17	2459655.75	11.653	11	39	11.2
18	2459656.75	11.719	11	43	7.7
19	2459657.75	11.785	11	47	4.3
20	2459658.75	11.850	11	51	0.8
21	2459659.75	11.916	11	54	57.4
22	2459660.75	11.982	11	58	53.9
23	2459661.75	12.047	12	2	50.5
24	2459662.75	12.113	12	6	47.0
25	2459663.75	12.179	12	10	43.6
26	2459664.75	12.244	12	14	40.1
27	2459665.75	12.310	12	18	36.7
28	2459666.75	12.376	12	22	33.3
29	2459667.75	12.442	12	26	29.8
30	2459668.75	12.507	12	30	26.4
31	2459669.75	12.573	12	34	22.9
Abr					
1	2459670.75	12.639	12	38	19.5
2	2459671.75	12.704	12	42	16.0
3	2459672.75	12.770	12	46	12.6
4	2459673.75	12.836	12	50	9.1
5	2459674.75	12.902	12	54	5.7
6	2459675.75	12.967	12	58	2.2
7	2459676.75	13.033	13	1	58.8
8	2459677.75	13.099	13	5	55.3
9	2459678.75	13.164	13	9	51.9
10	2459679.75	13.230	13	13	48.4
11	2459680.75	13.296	13	17	45.0
12	2459681.75	13.362	13	21	41.6
13	2459682.75	13.427	13	25	38.1
14	2459683.75	13.493	13	29	34.7
15	2459684.75	13.559	13	33	31.2
16	2459685.75	13.624	13	37	27.8
17	2459686.75	13.690	13	41	24.3
18	2459687.75	13.756	13	45	20.9
19	2459688.75	13.822	13	49	17.4
20	2459689.75	13.887	13	53	14.0
21	2459690.75	13.953	13	57	10.5
22	2459691.75	14.019	14	1	7.1
23	2459692.75	14.084	14	5	3.7
24	2459693.75	14.150	14	9	0.2
25	2459694.75	14.216	14	12	56.8
26	2459695.75	14.281	14	16	53.3
27	2459696.75	14.347	14	20	49.9
28	2459697.75	14.413	14	24	46.4
29	2459698.75	14.479	14	28	43.0
30	2459699.75	14.544	14	32	39.5
May					
1	2459700.75	14.610	14	36	36.1
2	2459701.75	14.676	14	40	32.6
3	2459702.75	14.741	14	44	29.2
4	2459703.75	14.807	14	48	25.7
5	2459704.75	14.873	14	52	22.3
6	2459705.75	14.939	14	56	18.9
7	2459706.75	15.004	15	0	15.4
8	2459707.75	15.070	15	4	12.0
9	2459708.75	15.136	15	8	8.5
10	2459709.75	15.201	15	12	5.1
11	2459710.75	15.267	15	16	1.6
12	2459711.75	15.333	15	19	58.2
13	2459712.75	15.399	15	23	54.7
14	2459713.75	15.464	15	27	51.3
15	2459714.75	15.530	15	31	47.8
16	2459715.75	15.596	15	35	44.4
17	2459716.75	15.661	15	39	41.0
18	2459717.75	15.727	15	43	37.5
19	2459718.75	15.793	15	47	34.1
20	2459719.75	15.859	15	51	30.7
21	2459720.75	15.924	15	55	27.2
22	2459721.75	15.990	15	59	23.8
23	2459722.75	16.056	16	3	20.3
24	2459723.75	16.121	16	7	16.9
25	2459724.75	16.187	16	11	13.4
26	2459725.75	16.253	16	15	10.0
27	2459726.75	16.318	16	19	6.6
28	2459727.75	16.384	16	23	3.1
29	2459728.75	16.450	16	26	59.7
30	2459729.75	16.516	16	30	56.2
31	2459730.75	16.581	16	34	52.8

Hora sideral, 2022

A las 0^h del meridiano 90° W.G.

d	dj	h	h	m	s
Jun					
1	2459731.75	16.647	16	38	49.3
2	2459732.75	16.713	16	42	45.9
3	2459733.75	16.778	16	46	42.5
4	2459734.75	16.844	16	50	39.0
5	2459735.75	16.910	16	54	35.6
6	2459736.75	16.976	16	58	32.2
7	2459737.75	17.041	17	2	28.7
8	2459738.75	17.107	17	6	25.2
9	2459739.75	17.173	17	10	21.8
10	2459740.75	17.238	17	14	18.4
11	2459741.75	17.304	17	18	14.9
12	2459742.75	17.370	17	22	11.5
13	2459743.75	17.436	17	26	8.0
14	2459744.75	17.501	17	30	4.6
15	2459745.75	17.567	17	34	1.2
16	2459746.75	17.633	17	37	57.7
17	2459747.75	17.698	17	41	54.3
18	2459748.75	17.764	17	45	50.9
19	2459749.75	17.830	17	49	47.4
20	2459750.75	17.896	17	53	44.0
21	2459751.75	17.961	17	57	40.5
22	2459752.75	18.027	18	1	37.1
23	2459753.75	18.093	18	5	33.6
24	2459754.75	18.158	18	9	30.2
25	2459755.75	18.224	18	13	26.7
26	2459756.75	18.290	18	17	23.3
27	2459757.75	18.356	18	21	19.9
28	2459758.75	18.421	18	25	16.4
29	2459759.75	18.487	18	29	13.0
30	2459760.75	18.553	18	33	9.5
Jul					
1	2459761.75	18.618	18	37	6.1
2	2459762.75	18.684	18	41	2.7
3	2459763.75	18.750	18	44	59.2
4	2459764.75	18.815	18	48	55.8
5	2459765.75	18.881	18	52	52.3
6	2459766.75	18.947	18	56	48.9
7	2459767.75	19.013	19	0	45.4
8	2459768.75	19.078	19	4	42.0
9	2459769.75	19.144	19	8	38.5
10	2459770.75	19.210	19	12	35.1
11	2459771.75	19.275	19	16	31.7
12	2459772.75	19.341	19	20	28.2
13	2459773.75	19.407	19	24	24.8
14	2459774.75	19.473	19	28	21.4
15	2459775.75	19.538	19	32	17.9
16	2459776.75	19.604	19	36	14.5
17	2459777.75	19.670	19	40	11.0
18	2459778.75	19.735	19	44	7.6
19	2459779.75	19.801	19	48	4.1
20	2459780.75	19.867	19	52	0.7
21	2459781.75	19.933	19	55	57.2
22	2459782.75	19.998	19	59	53.8
23	2459783.75	20.064	20	3	50.4
24	2459784.75	20.130	20	7	46.9
25	2459785.75	20.195	20	11	43.5
26	2459786.75	20.261	20	15	40.0
27	2459787.75	20.327	20	19	36.6
28	2459788.75	20.393	20	23	33.2
29	2459789.75	20.458	20	27	29.7
30	2459790.75	20.524	20	31	26.3
31	2459791.75	20.590	20	35	22.8
Ago					
1	2459792.75	20.655	20	39	19.4
2	2459793.75	20.721	20	43	15.9
3	2459794.75	20.787	20	47	12.5
4	2459795.75	20.853	20	51	9.0
5	2459796.75	20.918	20	55	5.6
6	2459797.75	20.984	20	59	2.1
7	2459798.75	21.050	21	2	58.7
8	2459799.75	21.115	21	6	55.3
9	2459800.75	21.181	21	10	51.8
10	2459801.75	21.247	21	14	48.4
11	2459802.75	21.312	21	18	45.0
12	2459803.75	21.378	21	22	41.5
13	2459804.75	21.444	21	26	38.1
14	2459805.75	21.510	21	30	34.6
15	2459806.75	21.575	21	34	31.2
16	2459807.75	21.641	21	38	27.7
17	2459808.75	21.707	21	42	24.3
18	2459809.75	21.772	21	46	20.8
19	2459810.75	21.838	21	50	17.4
20	2459811.75	21.904	21	54	13.9
21	2459812.75	21.970	21	58	10.5
22	2459813.75	22.035	22	2	7.1
23	2459814.75	22.101	22	6	3.6
24	2459815.75	22.167	22	10	0.2
25	2459816.75	22.232	22	13	56.7
26	2459817.75	22.298	22	17	53.3
27	2459818.75	22.364	22	21	49.8
28	2459819.75	22.430	22	25	46.4
29	2459820.75	22.495	22	29	42.9
30	2459821.75	22.561	22	33	39.5
31	2459822.75	22.627	22	37	36.0
Sep					
1	2459823.75	22.692	22	41	32.6
2	2459824.75	22.758	22	45	29.1
3	2459825.75	22.824	22	49	25.7
4	2459826.75	22.890	22	53	22.2
5	2459827.75	22.955	22	57	18.8
6	2459828.75	23.021	23	1	15.4
7	2459829.75	23.087	23	5	11.9
8	2459830.75	23.152	23	9	8.5
9	2459831.75	23.218	23	13	5.0
10	2459832.75	23.284	23	17	1.6
11	2459833.75	23.349	23	20	58.1
12	2459834.75	23.415	23	24	54.7
13	2459835.75	23.481	23	28	51.2
14	2459836.75	23.547	23	32	47.8
15	2459837.75	23.612	23	36	44.3
16	2459838.75	23.678	23	40	40.9
17	2459839.75	23.744	23	44	37.4
18	2459840.75	23.809	23	48	34.0
19	2459841.75	23.875	23	52	30.6
20	2459842.75	23.941	23	56	27.1
21	2459843.75	0.007	0	0	23.7
22	2459844.75	0.072	0	4	20.2
23	2459845.75	0.138	0	8	16.8
24	2459846.75	0.204	0	12	13.3
25	2459847.75	0.269	0	16	9.9
26	2459848.75	0.335	0	20	6.4
27	2459849.75	0.401	0	24	3.0
28	2459850.75	0.467	0	27	59.5
29	2459851.75	0.532	0	31	56.1
30	2459852.75	0.598	0	35	52.6
Oct					
1	2459853.75	0.664	0	39	49.2
2	2459854.75	0.729	0	43	45.7
3	2459855.75	0.795	0	47	42.3
4	2459856.75	0.861	0	51	38.9
5	2459857.75	0.927	0	55	35.4
6	2459858.75	0.992	0	59	32.0
7	2459859.75	1.058	1	3	28.5
8	2459860.75	1.124	1	7	25.1
9	2459861.75	1.189	1	11	21.6
10	2459862.75	1.255	1	15	18.2
11	2459863.75	1.321	1	19	14.7
12	2459864.75	1.386	1	23	11.3
13	2459865.75	1.452	1	27	7.8
14	2459866.75	1.518	1	31	4.4
15	2459867.75	1.584	1	35	0.9
16	2459868.75	1.649	1	38	57.5
17	2459869.75	1.715	1	42	54.1
18	2459870.75	1.781	1	46	50.6
19	2459871.75	1.846	1	50	47.2
20	2459872.75	1.912	1	54	43.7
21	2459873.75	1.978	1	58	40.3
22	2459874.75	2.044	2	2	36.8
23	2459875.75	2.109	2	6	33.4
24	2459876.75	2.175	2	10	29.9
25	2459877.75	2.241	2	14	26.5
26	2459878.75	2.306	2	18	23.0
27	2459879.75	2.372	2	22	19.6
28	2459880.75	2.438	2	26	16.1

Hora sideral, 2022

A las 0^h del meridiano 90º W.G.

d	dj	h	h	m	s
29	2459881.75	2.504	2	30	12.7
30	2459882.75	2.569	2	34	9.3
31	2459883.75	2.635	2	38	5.8
Nov					
1	2459884.75	2.701	2	42	2.4
2	2459885.75	2.766	2	45	59.0
3	2459886.75	2.832	2	49	55.5
4	2459887.75	2.898	2	53	52.1
5	2459888.75	2.964	2	57	48.6
6	2459889.75	3.029	3	1	45.2
7	2459890.75	3.095	3	5	41.7
8	2459891.75	3.161	3	9	38.3
9	2459892.75	3.226	3	13	34.8
10	2459893.75	3.292	3	17	31.4
11	2459894.75	3.358	3	21	27.9
12	2459895.75	3.423	3	25	24.5
13	2459896.75	3.489	3	29	21.1
14	2459897.75	3.555	3	33	17.6
15	2459898.75	3.621	3	37	14.2
16	2459899.75	3.686	3	41	10.7
17	2459900.75	3.752	3	45	7.3
18	2459901.75	3.818	3	49	3.8
19	2459902.75	3.883	3	53	0.4
20	2459903.75	3.949	3	56	56.9
21	2459904.75	4.015	4	0	53.5
22	2459905.75	4.081	4	4	50.0
23	2459906.75	4.146	4	8	46.6
24	2459907.75	4.212	4	12	43.2
25	2459908.75	4.278	4	16	39.7
26	2459909.75	4.343	4	20	36.3
27	2459910.75	4.409	4	24	32.9
28	2459911.75	4.475	4	28	29.4
29	2459912.75	4.541	4	32	26.0
30	2459913.75	4.606	4	36	22.5
31	2459914.75	4.672	4	40	19.1
Dic					
1	2459915.75	4.738	4	44	15.7
2	2459916.75	4.803	4	48	12.2
3	2459917.75	4.869	4	52	8.8
4	2459918.75	4.935	4	56	5.3
5	2459919.75	5.001	5	0	1.9
6	2459920.75	5.066	5	3	58.4
7	2459921.75	5.132	5	7	55.0
8	2459922.75	5.198	5	11	51.6
9	2459923.75	5.263	5	15	48.1
10	2459924.75	5.329	5	19	44.7
11	2459925.75	5.395	5	23	41.2
12	2459926.75	5.461	5	27	37.8
13	2459927.75	5.526	5	31	34.4
14	2459928.75	5.592	5	35	30.9
15	2459929.75	5.658	5	39	27.5
16	2459930.75	5.723	5	43	24.0
17	2459931.75	5.789	5	47	20.6
18	2459932.75	5.855	5	51	17.1
19	2459933.75	5.920	5	55	13.7
20	2459934.75	5.986	5	59	10.2
21	2459935.75	6.052	6	3	6.8
22	2459936.75	6.118	6	7	3.4
23	2459937.75	6.183	6	10	59.9
24	2459938.75	6.249	6	14	56.5
25	2459939.75	6.315	6	18	53.1
26	2459940.75	6.380	6	22	49.6
27	2459941.75	6.446	6	26	46.2
28	2459942.75	6.512	6	30	42.7
29	2459943.75	6.578	6	34	39.3
30	2459944.75	6.643	6	38	35.9
31	2459945.75	6.709	6	42	32.4
Ene					
1	2459946.75	6.775	6	46	29.0
2	2459947.75	6.840	6	50	25.5
3	2459948.75	6.906	6	54	22.1
4	2459949.75	6.972	6	58	18.7
5	2459950.75	7.038	7	2	15.2
6	2459951.75	7.103	7	6	11.8
7	2459952.75	7.169	7	10	8.3
8	2459953.75	7.235	7	14	4.9
9	2459954.75	7.300	7	18	1.5

Sol, 2022

Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	vh s	°	δ `	“	vh ”	dis UA	h	hp m	s
ene	1	2459580.75	18	46	54.67	11.0	-22	59	59.11	12.9	0.98335	12	3	25.2
ene	2	2459581.75	18	51	19.50	11.0	-22	54	48.70	14.1	0.98334	12	3	53.5
ene	3	2459582.75	18	55	43.97	11.0	-22	49	10.90	15.2	0.98334	12	4	21.4
ene	4	2459583.75	19	0	8.07	11.0	-22	43	5.87	16.3	0.98334	12	4	48.9
ene	5	2459584.75	19	4	31.75	11.0	-22	36	33.79	17.5	0.98334	12	5	16.0
ene	6	2459585.75	19	8	54.97	10.9	-22	29	34.83	18.6	0.98334	12	5	42.7
ene	7	2459586.75	19	13	17.70	10.9	-22	22	9.20	19.7	0.98335	12	6	8.9
ene	8	2459587.75	19	17	39.93	10.9	-22	14	17.13	20.8	0.98337	12	6	34.5
ene	9	2459588.75	19	22	1.62	10.9	-22	5	58.85	21.8	0.98339	12	6	59.7
ene	10	2459589.75	19	26	22.75	10.9	-21	57	14.62	22.9	0.98341	12	7	24.2
ene	11	2459590.75	19	30	43.29	10.8	-21	48	4.69	24.0	0.98344	12	7	48.2
ene	12	2459591.75	19	35	3.24	10.8	-21	38	29.34	25.0	0.98347	12	8	11.6
ene	13	2459592.75	19	39	22.56	10.8	-21	28	28.87	26.1	0.98351	12	8	34.4
ene	14	2459593.75	19	43	41.23	10.8	-21	18	3.57	27.1	0.98356	12	8	56.5
ene	15	2459594.75	19	47	59.25	10.7	-21	7	13.74	28.1	0.98361	12	9	17.9
ene	16	2459595.75	19	52	16.59	10.7	-20	55	59.69	29.1	0.98367	12	9	38.7
ene	17	2459596.75	19	56	33.23	10.7	-20	44	21.73	30.1	0.98373	12	9	58.8
ene	18	2459597.75	20	0	49.17	10.6	-20	32	20.19	31.0	0.98380	12	10	18.2
ene	19	2459598.75	20	5	4.39	10.6	-20	19	55.39	32.0	0.98388	12	10	36.9
ene	20	2459599.75	20	9	18.88	10.6	-20	7	7.65	32.9	0.98396	12	10	54.8
ene	21	2459600.75	20	13	32.63	10.5	-19	53	57.30	33.9	0.98405	12	11	12.0
ene	22	2459601.75	20	17	45.63	10.5	-19	40	24.66	34.8	0.98414	12	11	28.4
ene	23	2459602.75	20	21	57.87	10.5	-19	26	30.08	35.7	0.98424	12	11	44.2
ene	24	2459603.75	20	26	9.36	10.4	-19	12	13.89	36.6	0.98435	12	11	59.1
ene	25	2459604.75	20	30	20.08	10.4	-18	57	36.45	37.4	0.98446	12	12	13.2
ene	26	2459605.75	20	34	30.03	10.4	-18	42	38.10	38.3	0.98458	12	12	26.6
ene	27	2459606.75	20	38	39.21	10.3	-18	27	19.23	39.1	0.98470	12	12	39.2
ene	28	2459607.75	20	42	47.60	10.3	-18	11	40.22	39.9	0.98482	12	12	51.1
ene	29	2459608.75	20	46	55.21	10.3	-17	55	41.46	40.8	0.98495	12	13	2.1
ene	30	2459609.75	20	51	2.01	10.3	-17	39	23.37	41.5	0.98508	12	13	12.3
ene	31	2459610.75	20	55	8.02	10.2	-17	22	46.36	42.3	0.98521	12	13	21.8
feb	1	2459611.75	20	59	13.20	10.2	-17	5	50.85	43.1	0.98535	12	13	30.4
feb	2	2459612.75	21	3	17.56	10.1	-16	48	37.26	43.8	0.98549	12	13	38.3
feb	3	2459613.75	21	7	21.10	10.1	-16	31	5.99	44.5	0.98563	12	13	45.2
feb	4	2459614.75	21	11	23.81	10.1	-16	13	17.48	45.2	0.98578	12	13	51.4
feb	5	2459615.75	21	15	25.70	10.0	-15	55	12.14	45.9	0.98593	12	13	56.7
feb	6	2459616.75	21	19	26.76	10.0	-15	36	50.39	46.6	0.98608	12	14	1.3
feb	7	2459617.75	21	23	27.00	10.0	-15	18	12.68	47.2	0.98624	12	14	4.9
feb	8	2459618.75	21	27	26.43	9.9	-14	59	19.42	47.8	0.98640	12	14	7.8
feb	9	2459619.75	21	31	25.06	9.9	-14	40	11.05	48.5	0.98656	12	14	9.9
feb	10	2459620.75	21	35	22.89	9.9	-14	20	47.99	49.1	0.98673	12	14	11.1
feb	11	2459621.75	21	39	19.93	9.8	-14	1	10.68	49.6	0.98691	12	14	11.6
feb	12	2459622.75	21	43	16.19	9.8	-13	41	19.53	50.2	0.98708	12	14	11.3
feb	13	2459623.75	21	47	11.69	9.8	-13	21	14.96	50.7	0.98726	12	14	10.3
feb	14	2459624.75	21	51	6.43	9.7	-13	0	57.40	51.3	0.98745	12	14	8.4
feb	15	2459625.75	21	55	0.42	9.7	-12	40	27.24	51.8	0.98764	12	14	5.8

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Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	α s	vh s	δ °	δ `	δ “	vh ”	dis UA	hp h	hp m	hp s
feb	16	2459626.75	21	58	53.69	9.7	-12	19	44.90	52.3	0.98784	12	14	2.6
feb	17	2459627.75	22	2	46.24	9.7	-11	58	50.77	52.7	0.98804	12	13	58.5
feb	18	2459628.75	22	6	38.09	9.6	-11	37	45.24	53.2	0.98825	12	13	53.9
feb	19	2459629.75	22	10	29.26	9.6	-11	16	28.70	53.6	0.98846	12	13	48.5
feb	20	2459630.75	22	14	19.78	9.6	-10	55	1.51	54.1	0.98868	12	13	42.5
feb	21	2459631.75	22	18	9.65	9.6	-10	33	24.06	54.5	0.98890	12	13	35.7
feb	22	2459632.75	22	21	58.90	9.5	-10	11	36.73	54.9	0.98912	12	13	28.5
feb	23	2459633.75	22	25	47.54	9.5	-9	49	39.91	55.2	0.98935	12	13	20.5
feb	24	2459634.75	22	29	35.60	9.5	-9	27	33.98	55.6	0.98958	12	13	12.1
feb	25	2459635.75	22	33	23.09	9.5	-9	5	19.35	56.0	0.98982	12	13	3.0
feb	26	2459636.75	22	37	10.02	9.4	-8	42	56.43	56.3	0.99005	12	12	53.4
feb	27	2459637.75	22	40	56.41	9.4	-8	20	25.64	56.6	0.99029	12	12	43.2
feb	28	2459638.75	22	44	42.27	9.4	-7	57	47.40	56.9	0.99054	12	12	32.5
mar	1	2459639.75	22	48	27.60	9.4	-7	35	2.13	57.2	0.99078	12	12	21.3
mar	2	2459640.75	22	52	12.43	9.3	-7	12	10.25	57.4	0.99102	12	12	9.5
mar	3	2459641.75	22	55	56.78	9.3	-6	49	12.17	57.7	0.99127	12	11	57.4
mar	4	2459642.75	22	59	40.64	9.3	-6	26	8.31	57.9	0.99152	12	11	44.6
mar	5	2459643.75	23	3	24.05	9.3	-6	2	59.08	58.1	0.99176	12	11	31.5
mar	6	2459644.75	23	7	7.01	9.3	-5	39	44.90	58.3	0.99201	12	11	17.9
mar	7	2459645.75	23	10	49.55	9.3	-5	16	26.16	58.5	0.99226	12	11	4.0
mar	8	2459646.75	23	14	31.69	9.2	-4	53	3.27	58.6	0.99252	12	10	49.5
mar	9	2459647.75	23	18	13.44	9.2	-4	29	36.64	58.7	0.99277	12	10	34.7
mar	10	2459648.75	23	21	54.82	9.2	-4	6	6.66	58.9	0.99302	12	10	19.5
mar	11	2459649.75	23	25	35.85	9.2	-3	42	33.74	59.0	0.99328	12	10	4.1
mar	12	2459650.75	23	29	16.56	9.2	-3	18	58.24	59.1	0.99354	12	9	48.2
mar	13	2459651.75	23	32	56.95	9.2	-2	55	20.57	59.1	0.99380	12	9	32.0
mar	14	2459652.75	23	36	37.06	9.2	-2	31	41.09	59.2	0.99407	12	9	15.6
mar	15	2459653.75	23	40	16.89	9.1	-2	8	0.18	59.2	0.99434	12	8	58.8
mar	16	2459654.75	23	43	56.49	9.1	-1	44	18.19	59.3	0.99460	12	8	41.9
mar	17	2459655.75	23	47	35.86	9.1	-1	20	35.49	59.3	0.99488	12	8	24.7
mar	18	2459656.75	23	51	15.03	9.1	-0	56	52.40	59.3	0.99515	12	8	7.3
mar	19	2459657.75	23	54	54.03	9.1	-0	33	9.27	59.3	0.99543	12	7	49.7
mar	20	2459658.75	23	58	32.88	9.1	-0	9	26.42	59.3	0.99571	12	7	32.1
mar	21	2459659.75	0	2	11.62	9.1	+0	14	15.83	59.2	0.99599	12	7	14.2
mar	22	2459660.75	0	5	50.26	9.1	+0	37	57.15	59.2	0.99628	12	6	56.4
mar	23	2459661.75	0	9	28.83	9.1	+1	1	37.22	59.1	0.99657	12	6	38.3
mar	24	2459662.75	0	13	7.35	9.1	+1	25	15.69	59.0	0.99686	12	6	20.3
mar	25	2459663.75	0	16	45.84	9.1	+1	48	52.21	58.9	0.99715	12	6	2.2
mar	26	2459664.75	0	20	24.31	9.1	+2	12	26.43	58.8	0.99744	12	5	44.2
mar	27	2459665.75	0	24	2.80	9.1	+2	35	57.97	58.7	0.99773	12	5	26.1
mar	28	2459666.75	0	27	41.31	9.1	+2	59	26.47	58.5	0.99802	12	5	8.0
mar	29	2459667.75	0	31	19.86	9.1	+3	22	51.55	58.4	0.99831	12	4	50.1
mar	30	2459668.75	0	34	58.47	9.1	+3	46	12.83	58.2	0.99860	12	4	32.1
mar	31	2459669.75	0	38	37.15	9.1	+4	9	29.95	58.0	0.99889	12	4	14.2
abr	1	2459670.75	0	42	15.92	9.1	+4	32	42.54	57.8	0.99918	12	3	56.4
abr	2	2459671.75	0	45	54.81	9.1	+4	55	50.22	57.6	0.99947	12	3	38.8

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Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	vh s	°	δ `	“	vh ”	dis UA	h	hp m	s
abr	3	2459672.75	0	49	33.82	9.1	+5	18	52.62	57.4	0.99975	12	3	21.2
abr	4	2459673.75	0	53	12.97	9.1	+5	41	49.38	57.1	1.00004	12	3	3.9
abr	5	2459674.75	0	56	52.28	9.1	+6	4	40.13	56.8	1.00032	12	2	46.6
abr	6	2459675.75	1	0	31.76	9.2	+6	27	24.50	56.6	1.00060	12	2	29.6
abr	7	2459676.75	1	4	11.43	9.2	+6	50	2.13	56.3	1.00088	12	2	12.6
abr	8	2459677.75	1	7	51.31	9.2	+7	12	32.66	56.0	1.00116	12	1	56.0
abr	9	2459678.75	1	11	31.41	9.2	+7	34	55.73	55.6	1.00144	12	1	39.5
abr	10	2459679.75	1	15	11.75	9.2	+7	57	11.00	55.3	1.00172	12	1	23.4
abr	11	2459680.75	1	18	52.34	9.2	+8	19	18.12	54.9	1.00200	12	1	7.3
abr	12	2459681.75	1	22	33.21	9.2	+8	41	16.73	54.6	1.00228	12	0	51.6
abr	13	2459682.75	1	26	14.36	9.2	+9	3	6.52	54.2	1.00256	12	0	36.3
abr	14	2459683.75	1	29	55.82	9.2	+9	24	47.15	53.8	1.00284	12	0	21.1
abr	15	2459684.75	1	33	37.60	9.3	+9	46	18.31	53.4	1.00312	12	0	6.4
abr	16	2459685.75	1	37	19.74	9.3	+10	7	39.68	53.0	1.00340	11	59	51.9
abr	17	2459686.75	1	41	2.24	9.3	+10	28	50.98	52.5	1.00368	11	59	37.9
abr	18	2459687.75	1	44	45.12	9.3	+10	49	51.91	52.1	1.00396	11	59	24.2
abr	19	2459688.75	1	48	28.42	9.3	+11	10	42.18	51.6	1.00424	11	59	11.0
abr	20	2459689.75	1	52	12.14	9.3	+11	31	21.50	51.2	1.00452	11	58	58.1
abr	21	2459690.75	1	55	56.30	9.4	+11	51	49.56	50.7	1.00480	11	58	45.8
abr	22	2459691.75	1	59	40.91	9.4	+12	12	6.03	50.2	1.00508	11	58	33.8
abr	23	2459692.75	2	3	25.99	9.4	+12	32	10.58	49.7	1.00536	11	58	22.3
abr	24	2459693.75	2	7	11.55	9.4	+12	52	2.89	49.2	1.00563	11	58	11.3
abr	25	2459694.75	2	10	57.59	9.4	+13	11	42.59	48.6	1.00591	11	58	0.8
abr	26	2459695.75	2	14	44.13	9.5	+13	31	9.36	48.1	1.00618	11	57	50.8
abr	27	2459696.75	2	18	31.17	9.5	+13	50	22.86	47.5	1.00645	11	57	41.3
abr	28	2459697.75	2	22	18.73	9.5	+14	9	22.73	46.9	1.00672	11	57	32.3
abr	29	2459698.75	2	26	6.82	9.5	+14	28	8.64	46.3	1.00698	11	57	23.8
abr	30	2459699.75	2	29	55.43	9.5	+14	46	40.26	45.7	1.00724	11	57	15.9
may	1	2459700.75	2	33	44.58	9.6	+15	4	57.24	45.1	1.00750	11	57	8.5
may	2	2459701.75	2	37	34.26	9.6	+15	22	59.26	44.4	1.00775	11	57	1.7
may	3	2459702.75	2	41	24.49	9.6	+15	40	45.97	43.8	1.00800	11	56	55.3
may	4	2459703.75	2	45	15.25	9.6	+15	58	17.05	43.1	1.00825	11	56	49.6
may	5	2459704.75	2	49	6.57	9.7	+16	15	32.16	42.5	1.00849	11	56	44.3
may	6	2459705.75	2	52	58.43	9.7	+16	32	30.99	41.8	1.00873	11	56	39.5
may	7	2459706.75	2	56	50.84	9.7	+16	49	13.20	41.1	1.00896	11	56	35.4
may	8	2459707.75	3	0	43.80	9.7	+17	5	38.49	40.3	1.00920	11	56	31.8
may	9	2459708.75	3	4	37.31	9.8	+17	21	46.55	39.6	1.00943	11	56	28.8
may	10	2459709.75	3	8	31.37	9.8	+17	37	37.06	38.9	1.00965	11	56	26.3
may	11	2459710.75	3	12	25.98	9.8	+17	53	9.74	38.1	1.00988	11	56	24.4
may	12	2459711.75	3	16	21.14	9.8	+18	8	24.29	37.3	1.01010	11	56	22.9
may	13	2459712.75	3	20	16.86	9.8	+18	23	20.45	36.6	1.01032	11	56	22.2
may	14	2459713.75	3	24	13.14	9.9	+18	37	57.93	35.8	1.01054	11	56	21.8
may	15	2459714.75	3	28	9.98	9.9	+18	52	16.51	35.0	1.01076	11	56	22.2
may	16	2459715.75	3	32	7.39	9.9	+19	6	15.93	34.2	1.01097	11	56	23.0
may	17	2459716.75	3	36	5.37	9.9	+19	19	55.97	33.4	1.01119	11	56	24.4
may	18	2459717.75	3	40	3.91	10.0	+19	33	16.38	32.5	1.01140	11	56	26.4

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mes	día	dj	h	α m	s	vh s	°	δ `	“	vh ”	dis UA	h	hp m	s
may	19	2459718.75	3	44	3.01	10.0	+19	46	16.94	31.7	1.01161	11	56	28.9
may	20	2459719.75	3	48	2.68	10.0	+19	58	57.38	30.8	1.01182	11	56	32.0
may	21	2459720.75	3	52	2.89	10.0	+20	11	17.45	30.0	1.01202	11	56	35.7
may	22	2459721.75	3	56	3.66	10.1	+20	23	16.88	29.1	1.01222	11	56	39.9
may	23	2459722.75	4	0	4.96	10.1	+20	34	55.43	28.2	1.01242	11	56	44.7
may	24	2459723.75	4	4	6.80	10.1	+20	46	12.83	27.3	1.01262	11	56	49.9
may	25	2459724.75	4	8	9.16	10.1	+20	57	8.85	26.4	1.01281	11	56	55.8
may	26	2459725.75	4	12	12.03	10.1	+21	7	43.24	25.5	1.01299	11	57	2.0
may	27	2459726.75	4	16	15.40	10.2	+21	17	55.78	24.6	1.01317	11	57	8.8
may	28	2459727.75	4	20	19.25	10.2	+21	27	46.23	23.7	1.01335	11	57	16.1
may	29	2459728.75	4	24	23.57	10.2	+21	37	14.38	22.7	1.01352	11	57	23.9
may	30	2459729.75	4	28	28.34	10.2	+21	46	20.03	21.8	1.01369	11	57	32.1
may	31	2459730.75	4	32	33.54	10.2	+21	55	2.96	20.8	1.01385	11	57	40.7
jun	1	2459731.75	4	36	39.15	10.3	+22	3	22.98	19.9	1.01400	11	57	49.8
jun	2	2459732.75	4	40	45.15	10.3	+22	11	19.90	18.9	1.01416	11	57	59.2
jun	3	2459733.75	4	44	51.52	10.3	+22	18	53.54	17.9	1.01430	11	58	9.0
jun	4	2459734.75	4	48	58.24	10.3	+22	26	3.73	16.9	1.01444	11	58	19.2
jun	5	2459735.75	4	53	5.29	10.3	+22	32	50.30	15.9	1.01458	11	58	29.7
jun	6	2459736.75	4	57	12.64	10.3	+22	39	13.10	15.0	1.01471	11	58	40.4
jun	7	2459737.75	5	1	20.28	10.3	+22	45	11.98	14.0	1.01483	11	58	51.6
jun	8	2459738.75	5	5	28.18	10.3	+22	50	46.83	12.9	1.01495	11	59	3.0
jun	9	2459739.75	5	9	36.32	10.3	+22	55	57.51	11.9	1.01507	11	59	14.5
jun	10	2459740.75	5	13	44.69	10.4	+23	0	43.93	10.9	1.01519	11	59	26.3
jun	11	2459741.75	5	17	53.27	10.4	+23	5	5.99	9.9	1.01530	11	59	38.4
jun	12	2459742.75	5	22	2.04	10.4	+23	9	3.63	8.9	1.01540	11	59	50.5
jun	13	2459743.75	5	26	10.98	10.4	+23	12	36.80	7.9	1.01551	12	0	3.0
jun	14	2459744.75	5	30	20.07	10.4	+23	15	45.44	6.8	1.01561	12	0	15.5
jun	15	2459745.75	5	34	29.30	10.4	+23	18	29.53	5.8	1.01570	12	0	28.1
jun	16	2459746.75	5	38	38.65	10.4	+23	20	49.01	4.8	1.01580	12	0	40.9
jun	17	2459747.75	5	42	48.09	10.4	+23	22	43.84	3.8	1.01589	12	0	53.8
jun	18	2459748.75	5	46	57.60	10.4	+23	24	13.98	2.7	1.01598	12	1	6.7
jun	19	2459749.75	5	51	7.17	10.4	+23	25	19.38	1.7	1.01606	12	1	19.8
jun	20	2459750.75	5	55	16.78	10.4	+23	26	0.01	0.7	1.01614	12	1	32.8
jun	21	2459751.75	5	59	26.40	10.4	+23	26	15.84	-0.4	1.01622	12	1	45.9
jun	22	2459752.75	6	3	36.01	10.4	+23	26	6.87	-1.4	1.01629	12	1	58.9
jun	23	2459753.75	6	7	45.58	10.4	+23	25	33.10	-2.4	1.01636	12	2	12.0
jun	24	2459754.75	6	11	55.10	10.4	+23	24	34.55	-3.5	1.01642	12	2	24.9
jun	25	2459755.75	6	16	4.54	10.4	+23	23	11.25	-4.5	1.01648	12	2	37.8
jun	26	2459756.75	6	20	13.87	10.4	+23	21	23.24	-5.5	1.01653	12	2	50.6
jun	27	2459757.75	6	24	23.07	10.4	+23	19	10.57	-6.6	1.01657	12	3	3.2
jun	28	2459758.75	6	28	32.10	10.4	+23	16	33.30	-7.6	1.01661	12	3	15.7
jun	29	2459759.75	6	32	40.95	10.4	+23	13	31.51	-8.6	1.01664	12	3	27.9
jun	30	2459760.75	6	36	49.58	10.3	+23	10	5.27	-9.6	1.01667	12	3	40.1
jul	1	2459761.75	6	40	57.96	10.3	+23	6	14.67	-10.6	1.01669	12	3	51.9
jul	2	2459762.75	6	45	6.08	10.3	+23	1	59.81	-11.6	1.01670	12	4	3.4
jul	3	2459763.75	6	49	13.90	10.3	+22	57	20.80	-12.6	1.01671	12	4	14.7

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Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	vh s	°	δ `	“	vh ”	dis UA	h	hp m	s
jul	4	2459764.75	6	53	21.40	10.3	+22	52	17.75	-13.6	1.01672	12	4	25.6
jul	5	2459765.75	6	57	28.57	10.3	+22	46	50.80	-14.6	1.01671	12	4	36.3
jul	6	2459766.75	7	1	35.37	10.3	+22	41	0.07	-15.6	1.01671	12	4	46.5
jul	7	2459767.75	7	5	41.80	10.3	+22	34	45.73	-16.6	1.01669	12	4	56.4
jul	8	2459768.75	7	9	47.82	10.2	+22	28	7.93	-17.5	1.01667	12	5	5.8
jul	9	2459769.75	7	13	53.43	10.2	+22	21	6.84	-18.5	1.01665	12	5	14.9
jul	10	2459770.75	7	17	58.61	10.2	+22	13	42.65	-19.5	1.01663	12	5	23.5
jul	11	2459771.75	7	22	3.34	10.2	+22	5	55.55	-20.4	1.01660	12	5	31.6
jul	12	2459772.75	7	26	7.62	10.2	+21	57	45.75	-21.3	1.01656	12	5	39.4
jul	13	2459773.75	7	30	11.43	10.1	+21	49	13.45	-22.3	1.01653	12	5	46.6
jul	14	2459774.75	7	34	14.76	10.1	+21	40	18.85	-23.2	1.01649	12	5	53.4
jul	15	2459775.75	7	38	17.59	10.1	+21	31	2.14	-24.1	1.01644	12	5	59.7
jul	16	2459776.75	7	42	19.93	10.1	+21	21	23.50	-25.0	1.01640	12	6	5.4
jul	17	2459777.75	7	46	21.75	10.1	+21	11	23.12	-25.9	1.01635	12	6	10.8
jul	18	2459778.75	7	50	23.06	10.0	+21	1	1.19	-26.8	1.01630	12	6	15.5
jul	19	2459779.75	7	54	23.85	10.0	+20	50	17.93	-27.7	1.01624	12	6	19.8
jul	20	2459780.75	7	58	24.12	10.0	+20	39	13.54	-28.6	1.01618	12	6	23.4
jul	21	2459781.75	8	2	23.84	10.0	+20	27	48.25	-29.4	1.01611	12	6	26.6
jul	22	2459782.75	8	6	23.02	9.9	+20	16	2.32	-30.3	1.01604	12	6	29.2
jul	23	2459783.75	8	10	21.64	9.9	+20	3	55.99	-31.1	1.01596	12	6	31.2
jul	24	2459784.75	8	14	19.70	9.9	+19	51	29.50	-31.9	1.01588	12	6	32.8
jul	25	2459785.75	8	18	17.19	9.9	+19	38	43.14	-32.7	1.01580	12	6	33.7
jul	26	2459786.75	8	22	14.10	9.8	+19	25	37.17	-33.6	1.01571	12	6	34.1
jul	27	2459787.75	8	26	10.41	9.8	+19	12	11.85	-34.3	1.01561	12	6	33.8
jul	28	2459788.75	8	30	6.13	9.8	+18	58	27.48	-35.1	1.01550	12	6	32.9
jul	29	2459789.75	8	34	1.24	9.8	+18	44	24.32	-35.9	1.01540	12	6	31.5
jul	30	2459790.75	8	37	55.74	9.7	+18	30	2.68	-36.7	1.01528	12	6	29.4
jul	31	2459791.75	8	41	49.62	9.7	+18	15	22.84	-37.4	1.01516	12	6	26.8
ago	1	2459792.75	8	45	42.88	9.7	+18	0	25.09	-38.1	1.01504	12	6	23.5
ago	2	2459793.75	8	49	35.52	9.7	+17	45	9.73	-38.9	1.01490	12	6	19.6
ago	3	2459794.75	8	53	27.54	9.6	+17	29	37.06	-39.6	1.01477	12	6	15.0
ago	4	2459795.75	8	57	18.93	9.6	+17	13	47.39	-40.3	1.01463	12	6	9.9
ago	5	2459796.75	9	1	9.71	9.6	+16	57	41.03	-40.9	1.01448	12	6	4.1
ago	6	2459797.75	9	4	59.86	9.6	+16	41	18.29	-41.6	1.01433	12	5	57.8
ago	7	2459798.75	9	8	49.41	9.5	+16	24	39.48	-42.3	1.01418	12	5	50.7
ago	8	2459799.75	9	12	38.35	9.5	+16	7	44.93	-42.9	1.01402	12	5	43.0
ago	9	2459800.75	9	16	26.69	9.5	+15	50	34.96	-43.5	1.01386	12	5	34.9
ago	10	2459801.75	9	20	14.43	9.5	+15	33	9.88	-44.2	1.01370	12	5	26.0
ago	11	2459802.75	9	24	1.59	9.4	+15	15	29.99	-44.8	1.01353	12	5	16.6
ago	12	2459803.75	9	27	48.17	9.4	+14	57	35.57	-45.4	1.01336	12	5	6.7
ago	13	2459804.75	9	31	34.20	9.4	+14	39	26.91	-45.9	1.01319	12	4	56.1
ago	14	2459805.75	9	35	19.67	9.4	+14	21	4.26	-46.5	1.01302	12	4	45.1
ago	15	2459806.75	9	39	4.62	9.4	+14	2	27.91	-47.1	1.01284	12	4	33.4
ago	16	2459807.75	9	42	49.04	9.3	+13	43	38.12	-47.6	1.01267	12	4	21.3
ago	17	2459808.75	9	46	32.97	9.3	+13	24	35.20	-48.2	1.01248	12	4	8.7
ago	18	2459809.75	9	50	16.40	9.3	+13	5	19.45	-48.7	1.01230	12	3	55.6

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Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	vh s	°	δ `	"	vh "	dis UA	h	hp m	s
ago	19	2459810.75	9	53	59.35	9.3	+12	45	51.15	-49.2	1.01211	12	3	41.9
ago	20	2459811.75	9	57	41.83	9.3	+12	26	10.65	-49.7	1.01192	12	3	27.9
ago	21	2459812.75	10	1	23.86	9.2	+12	6	18.24	-50.2	1.01173	12	3	13.4
ago	22	2459813.75	10	5	5.43	9.2	+11	46	14.26	-50.6	1.01153	12	2	58.3
ago	23	2459814.75	10	8	46.57	9.2	+11	25	59.02	-51.1	1.01133	12	2	43.0
ago	24	2459815.75	10	12	27.29	9.2	+11	5	32.86	-51.5	1.01112	12	2	27.1
ago	25	2459816.75	10	16	7.58	9.2	+10	44	56.11	-52.0	1.01091	12	2	10.9
ago	26	2459817.75	10	19	47.47	9.1	+10	24	9.10	-52.4	1.01069	12	1	54.2
ago	27	2459818.75	10	23	26.97	9.1	+10	3	12.17	-52.8	1.01047	12	1	37.2
ago	28	2459819.75	10	27	6.08	9.1	+9	42	5.64	-53.2	1.01025	12	1	19.7
ago	29	2459820.75	10	30	44.83	9.1	+9	20	49.87	-53.5	1.01002	12	1	1.9
ago	30	2459821.75	10	34	23.22	9.1	+8	59	25.17	-53.9	1.00979	12	0	43.7
ago	31	2459822.75	10	38	1.27	9.1	+8	37	51.90	-54.2	1.00955	12	0	25.3
sep	1	2459823.75	10	41	38.99	9.1	+8	16	10.39	-54.6	1.00931	12	0	6.4
sep	2	2459824.75	10	45	16.40	9.0	+7	54	20.99	-54.9	1.00907	11	59	47.3
sep	3	2459825.75	10	48	53.51	9.0	+7	32	24.04	-55.2	1.00882	11	59	27.8
sep	4	2459826.75	10	52	30.35	9.0	+7	10	19.89	-55.5	1.00857	11	59	8.1
sep	5	2459827.75	10	56	6.92	9.0	+6	48	8.87	-55.7	1.00832	11	58	48.1
sep	6	2459828.75	10	59	43.25	9.0	+6	25	51.34	-56.0	1.00806	11	58	27.9
sep	7	2459829.75	11	3	19.35	9.0	+6	3	27.61	-56.2	1.00781	11	58	7.5
sep	8	2459830.75	11	6	55.25	9.0	+5	40	58.01	-56.5	1.00755	11	57	46.7
sep	9	2459831.75	11	10	30.95	9.0	+5	18	22.84	-56.7	1.00729	11	57	26.0
sep	10	2459832.75	11	14	6.50	9.0	+4	55	42.39	-56.9	1.00703	11	57	4.9
sep	11	2459833.75	11	17	41.91	9.0	+4	32	56.95	-57.1	1.00677	11	56	43.8
sep	12	2459834.75	11	21	17.20	9.0	+4	10	6.79	-57.3	1.00651	11	56	22.5
sep	13	2459835.75	11	24	52.41	9.0	+3	47	12.22	-57.4	1.00625	11	56	1.2
sep	14	2459836.75	11	28	27.56	9.0	+3	24	13.53	-57.6	1.00599	11	55	39.8
sep	15	2459837.75	11	32	2.67	9.0	+3	1	11.08	-57.7	1.00573	11	55	18.4
sep	16	2459838.75	11	35	37.75	9.0	+2	38	5.22	-57.9	1.00547	11	54	56.8
sep	17	2459839.75	11	39	12.81	9.0	+2	14	56.03	-58.0	1.00520	11	54	35.4
sep	18	2459840.75	11	42	47.91	9.0	+1	51	43.83	-58.1	1.00494	11	54	13.9
sep	19	2459841.75	11	46	23.05	9.0	+1	28	29.15	-58.2	1.00467	11	53	52.4
sep	20	2459842.75	11	49	58.25	9.0	+1	5	12.33	-58.3	1.00440	11	53	31.1
sep	21	2459843.75	11	53	33.52	9.0	+0	41	53.70	-58.3	1.00413	11	53	9.8
sep	22	2459844.75	11	57	8.88	9.0	+0	18	33.59	-58.4	1.00386	11	52	48.7
sep	23	2459845.75	12	0	44.36	9.0	-0	4	47.65	-58.4	1.00358	11	52	27.6
sep	24	2459846.75	12	4	19.97	9.0	-0	28	9.66	-58.4	1.00330	11	52	6.7
sep	25	2459847.75	12	7	55.73	9.0	-0	51	32.09	-58.4	1.00302	11	51	45.8
sep	26	2459848.75	12	11	31.65	9.0	-1	14	54.57	-58.4	1.00274	11	51	25.2
sep	27	2459849.75	12	15	7.75	9.0	-1	38	16.74	-58.4	1.00246	11	51	4.8
sep	28	2459850.75	12	18	44.06	9.0	-2	1	38.24	-58.4	1.00217	11	50	44.6
sep	29	2459851.75	12	22	20.59	9.0	-2	24	58.70	-58.3	1.00188	11	50	24.5
sep	30	2459852.75	12	25	57.36	9.0	-2	48	17.73	-58.2	1.00159	11	50	4.8
oct	1	2459853.75	12	29	34.38	9.1	-3	11	34.96	-58.1	1.00130	11	49	45.2
oct	2	2459854.75	12	33	11.68	9.1	-3	34	50.02	-58.0	1.00101	11	49	26.0
oct	3	2459855.75	12	36	49.26	9.1	-3	58	2.53	-57.9	1.00071	11	49	7.0

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Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	vh s	°	δ `	"	vh "	dis UA	h	hp m	s
oct	4	2459856.75	12	40	27.16	9.1	-4	21	12.11	-57.8	1.00042	11	48	48.3
oct	5	2459857.75	12	44	5.38	9.1	-4	44	18.39	-57.6	1.00013	11	48	30.0
oct	6	2459858.75	12	47	43.95	9.1	-5	7	21.03	-57.4	0.99983	11	48	12.0
oct	7	2459859.75	12	51	22.90	9.1	-5	30	19.67	-57.3	0.99954	11	47	54.4
oct	8	2459860.75	12	55	2.23	9.2	-5	53	13.98	-57.1	0.99925	11	47	37.1
oct	9	2459861.75	12	58	41.99	9.2	-6	16	3.64	-56.9	0.99896	11	47	20.4
oct	10	2459862.75	13	2	22.19	9.2	-6	38	48.31	-56.6	0.99868	11	47	4.0
oct	11	2459863.75	13	6	2.86	9.2	-7	1	27.69	-56.4	0.99839	11	46	48.2
oct	12	2459864.75	13	9	44.03	9.2	-7	24	1.41	-56.2	0.99811	11	46	32.7
oct	13	2459865.75	13	13	25.71	9.3	-7	46	29.16	-55.9	0.99783	11	46	17.9
oct	14	2459866.75	13	17	7.93	9.3	-8	8	50.56	-55.6	0.99755	11	46	3.5
oct	15	2459867.75	13	20	50.70	9.3	-8	31	5.25	-55.3	0.99727	11	45	49.8
oct	16	2459868.75	13	24	34.04	9.3	-8	53	12.87	-55.0	0.99699	11	45	36.5
oct	17	2459869.75	13	28	17.97	9.4	-9	15	13.03	-54.7	0.99671	11	45	23.9
oct	18	2459870.75	13	32	2.52	9.4	-9	37	5.35	-54.3	0.99644	11	45	11.9
oct	19	2459871.75	13	35	47.68	9.4	-9	58	49.44	-54.0	0.99616	11	45	0.5
oct	20	2459872.75	13	39	33.49	9.4	-10	20	24.90	-53.6	0.99589	11	44	49.8
oct	21	2459873.75	13	43	19.95	9.5	-10	41	51.33	-53.2	0.99561	11	44	39.6
oct	22	2459874.75	13	47	7.08	9.5	-11	3	8.33	-52.8	0.99534	11	44	30.3
oct	23	2459875.75	13	50	54.89	9.5	-11	24	15.49	-52.4	0.99507	11	44	21.5
oct	24	2459876.75	13	54	43.40	9.6	-11	45	12.39	-51.9	0.99480	11	44	13.5
oct	25	2459877.75	13	58	32.63	9.6	-12	5	58.63	-51.5	0.99452	11	44	6.1
oct	26	2459878.75	14	2	22.57	9.6	-12	26	33.78	-51.0	0.99425	11	43	59.6
oct	27	2459879.75	14	6	13.25	9.6	-12	46	57.42	-50.5	0.99398	11	43	53.6
oct	28	2459880.75	14	10	4.66	9.7	-13	7	9.14	-50.0	0.99371	11	43	48.6
oct	29	2459881.75	14	13	56.83	9.7	-13	27	8.49	-49.4	0.99344	11	43	44.1
oct	30	2459882.75	14	17	49.75	9.7	-13	46	55.05	-48.9	0.99317	11	43	40.4
oct	31	2459883.75	14	21	43.42	9.8	-14	6	28.40	-48.3	0.99290	11	43	37.6
nov	1	2459884.75	14	25	37.86	9.8	-14	25	48.09	-47.7	0.99263	11	43	35.5
nov	2	2459885.75	14	29	33.08	9.8	-14	44	53.72	-47.1	0.99237	11	43	34.1
nov	3	2459886.75	14	33	29.08	9.9	-15	3	44.89	-46.5	0.99210	11	43	33.6
nov	4	2459887.75	14	37	25.87	9.9	-15	22	21.19	-45.9	0.99185	11	43	33.8
nov	5	2459888.75	14	41	23.47	9.9	-15	40	42.26	-45.2	0.99159	11	43	34.9
nov	6	2459889.75	14	45	21.88	10.0	-15	58	47.70	-44.6	0.99134	11	43	36.7
nov	7	2459890.75	14	49	21.12	10.0	-16	16	37.15	-43.9	0.99109	11	43	39.4
nov	8	2459891.75	14	53	21.20	10.0	-16	34	10.24	-43.2	0.99084	11	43	42.9
nov	9	2459892.75	14	57	22.13	10.1	-16	51	26.61	-42.5	0.99060	11	43	47.3
nov	10	2459893.75	15	1	23.90	10.1	-17	8	25.88	-41.7	0.99037	11	43	52.5
nov	11	2459894.75	15	5	26.53	10.1	-17	25	7.66	-41.0	0.99013	11	43	58.6
nov	12	2459895.75	15	9	30.02	10.2	-17	41	31.58	-40.2	0.98990	11	44	5.5
nov	13	2459896.75	15	13	34.37	10.2	-17	57	37.25	-39.5	0.98968	11	44	13.3
nov	14	2459897.75	15	17	39.58	10.3	-18	13	24.27	-38.7	0.98946	11	44	22.0
nov	15	2459898.75	15	21	45.66	10.3	-18	28	52.26	-37.9	0.98924	11	44	31.5
nov	16	2459899.75	15	25	52.59	10.3	-18	44	0.82	-37.0	0.98903	11	44	41.9
nov	17	2459900.75	15	30	0.37	10.4	-18	58	49.56	-36.2	0.98882	11	44	53.1
nov	18	2459901.75	15	34	9.01	10.4	-19	13	18.09	-35.3	0.98861	11	45	5.2

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mes	día	dj	h	α m	s	vh s	°	δ `	“	vh ”	dis UA	h	hp m	s
nov	19	2459902.75	15	38	18.49	10.4	-19	27	26.03	-34.5	0.98841	11	45	18.1
nov	20	2459903.75	15	42	28.81	10.5	-19	41	12.98	-33.6	0.98820	11	45	31.9
nov	21	2459904.75	15	46	39.96	10.5	-19	54	38.57	-32.7	0.98801	11	45	46.5
nov	22	2459905.75	15	50	51.93	10.5	-20	7	42.42	-31.7	0.98781	11	46	1.9
nov	23	2459906.75	15	55	4.70	10.6	-20	20	24.16	-30.8	0.98761	11	46	18.1
nov	24	2459907.75	15	59	18.27	10.6	-20	32	43.43	-29.9	0.98742	11	46	35.1
nov	25	2459908.75	16	3	32.61	10.6	-20	44	39.87	-28.9	0.98723	11	46	52.9
nov	26	2459909.75	16	7	47.70	10.7	-20	56	13.13	-27.9	0.98705	11	47	11.4
nov	27	2459910.75	16	12	3.52	10.7	-21	7	22.84	-26.9	0.98686	11	47	30.6
nov	28	2459911.75	16	16	20.04	10.7	-21	18	8.68	-25.9	0.98668	11	47	50.6
nov	29	2459912.75	16	20	37.25	10.7	-21	28	30.29	-24.9	0.98650	11	48	11.2
nov	30	2459913.75	16	24	55.11	10.8	-21	38	27.37	-23.8	0.98633	11	48	32.6
dic	1	2459914.75	16	29	13.62	10.8	-21	47	59.62	-22.8	0.98615	11	48	54.5
dic	2	2459915.75	16	33	32.75	10.8	-21	57	6.76	-21.7	0.98599	11	49	17.1
dic	3	2459916.75	16	37	52.49	10.8	-22	5	48.53	-20.7	0.98583	11	49	40.3
dic	4	2459917.75	16	42	12.82	10.9	-22	14	4.68	-19.6	0.98567	11	50	4.0
dic	5	2459918.75	16	46	33.71	10.9	-22	21	54.98	-18.5	0.98552	11	50	28.4
dic	6	2459919.75	16	50	55.14	10.9	-22	29	19.22	-17.4	0.98537	11	50	53.2
dic	7	2459920.75	16	55	17.10	10.9	-22	36	17.17	-16.3	0.98523	11	51	18.7
dic	8	2459921.75	16	59	39.56	11.0	-22	42	48.65	-15.2	0.98510	11	51	44.6
dic	9	2459922.75	17	4	2.49	11.0	-22	48	53.46	-14.1	0.98497	11	52	10.9
dic	10	2459923.75	17	8	25.87	11.0	-22	54	31.39	-13.0	0.98485	11	52	37.8
dic	11	2459924.75	17	12	49.68	11.0	-22	59	42.29	-11.8	0.98473	11	53	5.0
dic	12	2459925.75	17	17	13.88	11.0	-23	4	25.96	-10.7	0.98462	11	53	32.7
dic	13	2459926.75	17	21	38.44	11.0	-23	8	42.25	-9.5	0.98451	11	54	0.6
dic	14	2459927.75	17	26	3.34	11.1	-23	12	31.01	-8.4	0.98441	11	54	28.9
dic	15	2459928.75	17	30	28.55	11.1	-23	15	52.09	-7.2	0.98431	11	54	57.7
dic	16	2459929.75	17	34	54.04	11.1	-23	18	45.36	-6.1	0.98422	11	55	26.5
dic	17	2459930.75	17	39	19.78	11.1	-23	21	10.71	-4.9	0.98414	11	55	55.8
dic	18	2459931.75	17	43	45.73	11.1	-23	23	8.04	-3.7	0.98406	11	56	25.1
dic	19	2459932.75	17	48	11.86	11.1	-23	24	37.26	-2.5	0.98398	11	56	54.8
dic	20	2459933.75	17	52	38.14	11.1	-23	25	38.30	-1.4	0.98391	11	57	24.4
dic	21	2459934.75	17	57	4.54	11.1	-23	26	11.12	-0.2	0.98384	11	57	54.3
dic	22	2459935.75	18	1	31.01	11.1	-23	26	15.68	1.0	0.98377	11	58	24.2
dic	23	2459936.75	18	5	57.52	11.1	-23	25	51.98	2.2	0.98371	11	58	54.1
dic	24	2459937.75	18	10	24.02	11.1	-23	25	0.02	3.3	0.98365	11	59	24.1
dic	25	2459938.75	18	14	50.47	11.1	-23	23	39.80	4.5	0.98360	11	59	54.0
dic	26	2459939.75	18	19	16.82	11.1	-23	21	51.35	5.7	0.98355	12	0	23.7
dic	27	2459940.75	18	23	43.04	11.1	-23	19	34.71	6.9	0.98350	12	0	53.4
dic	28	2459941.75	18	28	9.10	11.1	-23	16	49.94	8.0	0.98346	12	1	22.9
dic	29	2459942.75	18	32	34.94	11.1	-23	13	37.10	9.2	0.98342	12	1	52.2
dic	30	2459943.75	18	37	0.55	11.1	-23	9	56.31	10.4	0.98338	12	2	21.3
dic	31	2459944.75	18	41	25.90	11.0	-23	5	47.68	11.5	0.98335	12	2	50.0
ene	1	2459945.75	18	45	50.95	11.0	-23	1	11.35	12.7	0.98333	12	3	18.6

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Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis DT	sed ´	pax ´	fase	hp h
ene	1	2459580.75	17	12	37.4	-24	36	17.8	56.2	16.7	61.2	3.37	10.5
ene	2	2459581.75	18	19	33.6	-26	12	12.3	56.1	16.7	61.2	0.37	11.5
ene	3	2459582.75	19	27	1.2	-25	50	37.5	56.4	16.6	61.0	0.39	12.6
ene	4	2459583.75	20	32	7.2	-23	37	3.3	56.9	16.5	60.4	3.36	13.6
ene	5	2459584.75	21	32	53.3	-19	52	25.4	57.7	16.2	59.6	8.93	14.6
ene	6	2459585.75	22	28	44.5	-15	4	25.4	58.6	16.0	58.7	16.54	15.4
ene	7	2459586.75	23	20	10.7	-9	39	33.9	59.5	15.7	57.7	25.55	16.2
ene	8	2459587.75	0	8	14.4	-3	59	19.4	60.5	15.5	56.8	35.36	17.0
ene	9	2459588.75	0	54	7.4	+1	40	5.8	61.4	15.2	56.0	45.46	17.7
ene	10	2459589.75	1	38	59.3	+7	6	28.1	62.2	15.1	55.3	55.42	18.3
ene	11	2459590.75	2	23	52.7	+12	9	48.6	62.8	14.9	54.7	64.93	19.0
ene	12	2459591.75	3	9	40.8	+16	40	59.3	63.3	14.8	54.3	73.72	19.7
ene	13	2459592.75	3	57	4.3	+20	30	45.9	63.5	14.7	54.1	81.56	20.4
ene	14	2459593.75	4	46	26.1	+23	29	30.1	63.6	14.7	54.0	88.26	21.2
ene	15	2459594.75	5	37	44.9	+25	27	40.6	63.6	14.7	54.1	93.62	22.0
ene	16	2459595.75	6	30	32.9	+26	17	15.3	63.4	14.8	54.2	97.45	22.8
ene	17	2459596.75	7	23	59.5	+25	53	19.9	63.1	14.8	54.5	99.59	23.6
ene	18	2459597.75	8	17	5.3	+24	15	32.1	62.8	14.9	54.8	99.89	0.4
ene	19	2459598.75	9	9	0.2	+21	28	22.4	62.4	15.0	55.1	98.27	1.2
ene	20	2459599.75	9	59	17.5	+17	40	15.6	61.9	15.1	55.5	94.70	2.0
ene	21	2459600.75	10	47	58.4	+13	2	9.3	61.4	15.3	56.0	89.24	2.8
ene	22	2459601.75	11	35	28.9	+7	46	10.4	60.8	15.4	56.5	82.03	3.5
ene	23	2459602.75	12	22	33.8	+2	4	59.7	60.2	15.5	57.1	73.29	4.2
ene	24	2459603.75	13	10	11.2	-3	48	0.7	59.6	15.7	57.7	63.34	4.9
ene	25	2459604.75	13	59	27.6	-9	38	2.4	59.0	15.9	58.3	52.55	5.7
ene	26	2459605.75	14	51	31.5	-15	7	40.6	58.3	16.1	59.0	41.41	6.5
ene	27	2459606.75	15	47	22.3	-19	56	2.1	57.7	16.2	59.5	30.46	7.4
ene	28	2459607.75	16	47	28.8	-23	38	58.9	57.2	16.4	60.1	20.33	8.3
ene	29	2459608.75	17	51	22.3	-25	52	15.1	56.9	16.5	60.4	11.67	9.3
ene	30	2459609.75	18	57	20.5	-26	17	41.2	56.8	16.5	60.5	5.12	10.3
ene	31	2459610.75	20	2	51.3	-24	50	22.5	56.9	16.5	60.4	1.14	11.4
feb	1	2459611.75	21	5	32.1	-21	41	18.2	57.3	16.4	60.0	0.02	12.3
feb	2	2459612.75	22	4	2.5	-17	13	18.4	57.8	16.2	59.4	1.72	13.2
feb	3	2459613.75	22	58	13.0	-11	53	28.2	58.6	16.0	58.7	5.96	14.1
feb	4	2459614.75	23	48	42.5	-6	7	5.2	59.5	15.7	57.8	12.29	14.9
feb	5	2459615.75	0	36	32.3	-0	14	52.9	60.4	15.5	56.9	20.17	15.6
feb	6	2459616.75	1	22	49.0	+5	27	13.4	61.3	15.3	56.1	29.08	16.3
feb	7	2459617.75	2	8	35.3	+10	46	54.0	62.0	15.1	55.4	38.56	17.0
feb	8	2459618.75	2	54	47.0	+15	34	2.2	62.7	14.9	54.8	48.22	17.7
feb	9	2459619.75	3	42	8.7	+19	39	32.8	63.1	14.8	54.4	57.76	18.4
feb	10	2459620.75	4	31	10.4	+22	54	33.3	63.4	14.8	54.2	66.91	19.2
feb	11	2459621.75	5	22	1.2	+25	10	21.6	63.5	14.8	54.2	75.43	19.9
feb	12	2459622.75	6	14	26.2	+26	19	7.2	63.4	14.8	54.3	83.07	20.8
feb	13	2459623.75	7	7	46.8	+26	15	11.2	63.1	14.8	54.5	89.60	21.6
feb	14	2459624.75	8	1	10.6	+24	56	31.1	62.7	14.9	54.8	94.75	22.4
feb	15	2459625.75	8	53	46.8	+22	25	30.4	62.2	15.0	55.3	98.26	23.2

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Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	α h	α m	α s	δ °	δ `	δ “	dis DT	sed ´	pax ´	fas fase	hp h
feb	16	2459626.75	9	45	0.9	+18	48	54.7	61.7	15.2	55.7	99.90	0.0
feb	17	2459627.75	10	34	43.5	+14	16	56.2	61.1	15.3	56.2	99.49	0.8
feb	18	2459628.75	11	23	10.0	+9	2	5.3	60.6	15.5	56.7	96.91	1.5
feb	19	2459629.75	12	10	55.8	+3	18	17.9	60.1	15.6	57.2	92.19	2.2
feb	20	2459630.75	12	58	50.6	-2	39	26.6	59.6	15.7	57.7	85.44	3.0
feb	21	2459631.75	13	47	52.9	-8	35	3.2	59.2	15.8	58.1	76.93	3.7
feb	22	2459632.75	14	39	4.0	-14	10	56.0	58.8	15.9	58.5	67.00	4.5
feb	23	2459633.75	15	33	18.7	-19	7	31.4	58.4	16.0	58.9	56.11	5.3
feb	24	2459634.75	16	31	9.7	-23	3	33.7	58.1	16.1	59.2	44.78	6.2
feb	25	2459635.75	17	32	26.8	-25	37	52.3	57.8	16.2	59.4	33.60	7.2
feb	26	2459636.75	18	36	1.7	-26	33	22.4	57.7	16.2	59.6	23.17	8.2
feb	27	2459637.75	19	39	56.7	-25	42	15.4	57.7	16.2	59.6	14.13	9.2
feb	28	2459638.75	20	42	5.3	-23	9	15.8	57.8	16.2	59.5	7.03	10.2
mar	1	2459639.75	21	40	59.0	-19	10	31.9	58.1	16.1	59.2	2.29	11.1
mar	2	2459640.75	22	36	7.2	-14	8	47.1	58.5	16.0	58.7	0.13	11.9
mar	3	2459641.75	23	27	48.7	-8	28	14.9	59.1	15.8	58.2	0.58	12.7
mar	4	2459642.75	0	16	50.4	-2	31	7.0	59.8	15.7	57.5	3.43	13.5
mar	5	2459643.75	1	4	10.2	+3	23	50.2	60.6	15.5	56.7	8.34	14.2
mar	6	2459644.75	1	50	46.4	+9	1	13.6	61.4	15.3	56.0	14.92	14.9
mar	7	2459645.75	2	37	31.8	+14	8	28.4	62.1	15.1	55.4	22.73	15.6
mar	8	2459646.75	3	25	9.9	+18	34	53.2	62.6	14.9	54.9	31.41	16.4
mar	9	2459647.75	4	14	11.4	+22	11	1.5	63.1	14.8	54.5	40.61	17.1
mar	10	2459648.75	5	4	49.0	+24	48	16.4	63.3	14.8	54.3	50.04	17.9
mar	11	2459649.75	5	56	53.8	+26	19	12.5	63.4	14.8	54.2	59.43	18.7
mar	12	2459650.75	6	49	56.0	+26	38	21.2	63.2	14.8	54.4	68.52	19.5
mar	13	2459651.75	7	43	11.6	+25	43	5.9	62.9	14.9	54.7	77.05	20.3
mar	14	2459652.75	8	35	54.9	+23	34	26.7	62.4	15.0	55.1	84.70	21.1
mar	15	2459653.75	9	27	32.3	+20	17	8.1	61.8	15.2	55.7	91.17	21.9
mar	16	2459654.75	10	17	51.3	+15	59	17.1	61.1	15.3	56.3	96.09	22.7
mar	17	2459655.75	11	7	2.3	+10	51	45.2	60.4	15.5	56.9	99.12	23.5
mar	18	2459656.75	11	55	35.1	+5	7	44.6	59.7	15.7	57.5	99.98	0.2
mar	19	2459657.75	12	44	14.6	-0	57	24.2	59.2	15.8	58.1	98.47	1.0
mar	20	2459658.75	13	33	54.6	-7	6	14.4	58.7	16.0	58.6	94.53	1.7
mar	21	2459659.75	14	25	32.0	-12	59	13.5	58.3	16.1	58.9	88.29	2.5
mar	22	2459660.75	15	19	57.2	-18	14	55.0	58.1	16.1	59.2	80.03	3.4
mar	23	2459661.75	16	17	39.6	-22	30	54.8	58.0	16.1	59.3	70.16	4.2
mar	24	2459662.75	17	18	28.3	-25	26	1.1	58.0	16.2	59.3	59.22	5.2
mar	25	2459663.75	18	21	19.5	-26	43	53.8	58.0	16.1	59.2	47.79	6.2
mar	26	2459664.75	19	24	25.8	-26	17	16.6	58.2	16.1	59.1	36.49	7.2
mar	27	2459665.75	20	25	51.4	-24	10	8.8	58.4	16.0	58.9	25.94	8.1
mar	28	2459666.75	21	24	13.6	-20	36	25.9	58.7	16.0	58.6	16.69	9.0
mar	29	2459667.75	22	19	2.7	-15	55	53.7	59.0	15.9	58.3	9.21	9.9
mar	30	2459668.75	23	10	34.3	-10	30	1.7	59.5	15.8	57.8	3.84	10.7
mar	31	2459669.75	23	59	32.1	-4	39	21.6	60.0	15.6	57.3	0.77	11.4
abr	1	2459670.75	0	46	50.8	+1	17	39.2	60.5	15.5	56.8	0.04	12.1
abr	2	2459671.75	1	33	26.6	+7	4	46.5	61.2	15.3	56.2	1.51	12.9

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Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis DT	sed ´	pax ´	fase	hp h
abr	3	2459672.75	2	20	10.9	+12	27	48.3	61.8	15.2	55.7	4.99	13.6
abr	4	2459673.75	3	7	46.5	+17	14	9.3	62.3	15.0	55.2	10.18	14.3
abr	5	2459674.75	3	56	42.9	+21	12	39.1	62.8	14.9	54.7	16.80	15.0
abr	6	2459675.75	4	47	12.7	+24	13	30.9	63.2	14.8	54.4	24.54	15.8
abr	7	2459676.75	5	39	7.3	+26	8	41.9	63.4	14.8	54.2	33.12	16.6
abr	8	2459677.75	6	31	57.5	+26	52	32.2	63.4	14.8	54.2	42.27	17.4
abr	9	2459678.75	7	25	0.6	+26	22	21.0	63.2	14.8	54.4	51.74	18.3
abr	10	2459679.75	8	17	32.3	+24	38	55.2	62.8	14.9	54.7	61.25	19.1
abr	11	2459680.75	9	9	0.2	+21	46	12.4	62.2	15.0	55.2	70.52	19.9
abr	12	2459681.75	9	59	12.0	+17	50	49.5	61.5	15.2	55.9	79.20	20.6
abr	13	2459682.75	10	48	17.6	+13	1	32.2	60.7	15.4	56.6	86.90	21.4
abr	14	2459683.75	11	36	46.9	+7	29	7.9	59.9	15.6	57.4	93.20	22.1
abr	15	2459684.75	12	25	25.0	+1	26	43.3	59.1	15.8	58.2	97.64	22.9
abr	16	2459685.75	13	15	7.2	-4	49	35.1	58.4	16.0	58.9	99.83	23.6
abr	17	2459686.75	14	6	53.3	-11	0	7.5	57.8	16.2	59.5	99.46	0.4
abr	18	2459687.75	15	1	38.4	-16	41	42.3	57.4	16.3	59.9	96.40	1.3
abr	19	2459688.75	15	59	57.2	-21	28	39.6	57.3	16.4	60.0	90.76	2.2
abr	20	2459689.75	17	1	41.3	-24	55	47.2	57.3	16.3	60.0	82.84	3.1
abr	21	2459690.75	18	5	43.2	-26	43	11.8	57.5	16.3	59.8	73.14	4.1
abr	22	2459691.75	19	10	3.3	-26	41	41.4	57.8	16.2	59.5	62.26	5.1
abr	23	2459692.75	20	12	30.7	-24	55	16.3	58.2	16.1	59.1	50.86	6.1
abr	24	2459693.75	21	11	32.7	-21	38	56.6	58.7	16.0	58.6	39.59	7.0
abr	25	2459694.75	22	6	37.1	-17	13	26.4	59.2	15.8	58.1	29.03	7.9
abr	26	2459695.75	22	58	3.0	-12	0	15.8	59.7	15.7	57.5	19.67	8.7
abr	27	2459696.75	23	46	39.1	-6	19	4.3	60.3	15.5	57.0	11.88	9.4
abr	28	2459697.75	0	33	25.6	-0	27	4.1	60.8	15.4	56.5	5.95	10.1
abr	29	2459698.75	1	19	23.0	+5	20	37.7	61.4	15.3	56.0	2.03	10.8
abr	30	2459699.75	2	5	26.8	+10	50	15.8	61.9	15.1	55.6	0.17	11.5
may	1	2459700.75	2	52	23.5	+15	48	59.8	62.4	15.0	55.1	0.34	12.3
may	2	2459701.75	3	40	46.5	+20	4	43.1	62.8	14.9	54.7	2.42	13.0
may	3	2459702.75	4	30	51.0	+23	26	18.3	63.2	14.8	54.4	6.25	13.8
may	4	2459703.75	5	22	30.0	+25	44	14.1	63.4	14.8	54.2	11.64	14.6
may	5	2459704.75	6	15	12.9	+26	51	38.3	63.5	14.7	54.1	18.37	15.4
may	6	2459705.75	7	8	13.2	+26	45	11.1	63.5	14.7	54.1	26.22	16.2
may	7	2459706.75	8	0	40.7	+25	25	26.7	63.3	14.8	54.3	34.95	17.0
may	8	2459707.75	8	51	57.3	+22	56	27.3	62.9	14.9	54.7	44.33	17.8
may	9	2459708.75	9	41	46.6	+19	24	46.9	62.3	15.0	55.2	54.08	18.6
may	10	2459709.75	10	30	16.5	+14	58	28.4	61.5	15.2	55.9	63.91	19.3
may	11	2459710.75	11	17	56.6	+9	46	41.1	60.7	15.4	56.7	73.44	20.0
may	12	2459711.75	12	5	33.1	+3	59	55.7	59.7	15.7	57.5	82.23	20.8
may	13	2459712.75	12	54	4.3	-2	9	2.3	58.8	15.9	58.5	89.80	21.5
may	14	2459713.75	13	44	36.6	-8	23	51.5	57.9	16.2	59.3	95.60	22.3
may	15	2459714.75	14	38	16.7	-14	23	23.7	57.2	16.4	60.1	99.11	23.1
may	16	2459715.75	15	35	57.9	-19	41	32.4	56.7	16.5	60.6	99.94	0.0
may	17	2459716.75	16	37	54.9	-23	49	9.4	56.5	16.6	60.8	97.86	1.0
may	18	2459717.75	17	43	15.9	-26	19	25.1	56.5	16.6	60.8	92.95	2.0

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Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	α h	α m	α s	δ °	δ `	δ “	dis DT	sed ´	pax ´	fas fase	hp h
may	19	2459718.75	18	49	54.8	-26	55	38.1	56.8	16.5	60.5	85.54	3.0
may	20	2459719.75	19	55	9.5	-25	37	2.9	57.3	16.3	60.0	76.19	4.1
may	21	2459720.75	20	56	49.0	-22	38	22.2	57.9	16.2	59.4	65.58	5.0
may	22	2459721.75	21	53	55.5	-18	23	2.0	58.6	16.0	58.6	54.41	5.9
may	23	2459722.75	22	46	39.8	-13	15	50.7	59.4	15.8	57.9	43.32	6.7
may	24	2459723.75	23	35	53.6	-7	38	37.1	60.1	15.6	57.2	32.84	7.5
may	25	2459724.75	0	22	44.6	-1	49	16.1	60.8	15.4	56.5	23.40	8.2
may	26	2459725.75	1	8	21.4	+3	57	32.1	61.4	15.2	56.0	15.31	8.9
may	27	2459726.75	1	53	47.1	+9	29	6.9	62.0	15.1	55.5	8.81	9.6
may	28	2459727.75	2	39	55.5	+14	33	39.0	62.5	15.0	55.0	4.04	10.3
may	29	2459728.75	3	27	27.8	+18	59	36.6	62.9	14.9	54.7	1.10	11.0
may	30	2459729.75	4	16	47.3	+22	35	41.7	63.2	14.8	54.4	0.01	11.8
may	31	2459730.75	5	7	54.0	+25	11	32.6	63.5	14.7	54.1	0.75	12.6
jun	1	2459731.75	6	0	21.5	+26	38	51.7	63.6	14.7	54.0	3.27	13.4
jun	2	2459732.75	6	53	21.8	+26	52	52.5	63.7	14.7	54.0	7.45	14.2
jun	3	2459733.75	7	45	58.2	+25	53	10.0	63.6	14.7	54.1	13.15	15.0
jun	4	2459734.75	8	37	22.0	+23	43	32.2	63.3	14.8	54.3	20.21	15.8
jun	5	2459735.75	9	27	6.8	+20	30	54.2	62.9	14.9	54.6	28.43	16.5
jun	6	2459736.75	10	15	12.9	+16	23	51.6	62.4	15.0	55.1	37.59	17.3
jun	7	2459737.75	11	2	4.7	+11	31	39.9	61.6	15.2	55.8	47.43	18.0
jun	8	2459738.75	11	48	25.6	+6	3	55.7	60.8	15.4	56.6	57.63	18.7
jun	9	2459739.75	12	35	13.2	+0	11	9.7	59.8	15.6	57.4	67.82	19.4
jun	10	2459740.75	13	23	35.1	-5	53	52.8	58.9	15.9	58.4	77.52	20.2
jun	11	2459741.75	14	14	45.3	-11	54	37.4	57.9	16.2	59.3	86.19	20.9
jun	12	2459742.75	15	9	54.7	-17	29	8.3	57.1	16.4	60.2	93.20	21.8
jun	13	2459743.75	16	9	50.8	-22	9	48.0	56.5	16.6	60.9	97.96	22.7
jun	14	2459744.75	17	14	25.3	-25	26	14.9	56.1	16.7	61.3	99.96	23.7
jun	15	2459745.75	18	22	4.8	-26	52	39.1	56.0	16.7	61.3	98.93	0.8
jun	16	2459746.75	19	29	60.0	-26	17	21.3	56.3	16.6	61.1	94.90	1.9
jun	17	2459747.75	20	35	13.4	-23	47	58.0	56.8	16.5	60.6	88.23	2.9
jun	18	2459748.75	21	35	52.9	-19	47	14.7	57.5	16.3	59.8	79.51	3.8
jun	19	2459749.75	22	31	34.5	-14	43	46.0	58.3	16.1	58.9	69.45	4.7
jun	20	2459750.75	23	22	57.6	-9	4	12.7	59.2	15.8	58.1	58.73	5.5
jun	21	2459751.75	0	11	10.9	-3	10	8.1	60.1	15.6	57.2	47.96	6.2
jun	22	2459752.75	0	57	29.2	+2	41	53.2	61.0	15.4	56.4	37.63	6.9
jun	23	2459753.75	1	43	3.1	+8	18	47.0	61.7	15.2	55.7	28.11	7.6
jun	24	2459754.75	2	28	54.4	+13	29	23.5	62.4	15.0	55.1	19.68	8.3
jun	25	2459755.75	3	15	52.4	+18	3	13.2	62.9	14.9	54.7	12.57	9.0
jun	26	2459756.75	4	4	30.2	+21	49	53.6	63.3	14.8	54.3	6.93	9.8
jun	27	2459757.75	4	54	58.4	+24	39	17.9	63.5	14.7	54.1	2.90	10.6
jun	28	2459758.75	5	47	0.9	+26	22	36.6	63.7	14.7	54.0	0.59	11.4
jun	29	2459759.75	6	39	55.3	+26	53	47.3	63.7	14.7	53.9	0.03	12.2
jun	30	2459760.75	7	32	44.0	+26	10	56.1	63.7	14.7	54.0	1.27	13.0
jul	1	2459761.75	8	24	30.8	+24	16	46.6	63.5	14.7	54.1	4.26	13.8
jul	2	2459762.75	9	14	37.7	+21	17	59.0	63.2	14.8	54.4	8.94	14.6
jul	3	2459763.75	10	2	53.4	+17	23	42.0	62.8	14.9	54.7	15.20	15.3

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Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	δ °	`	"	dis DT	sed ´	pax ´	fase	hp h
jul	4	2459764.75	10	49	33.3	+12	44	2.4	62.3	15.0	55.2	22.87	16.0
jul	5	2459765.75	11	35	13.4	+7	29	16.0	61.7	15.2	55.8	31.74	16.7
jul	6	2459766.75	12	20	45.7	+1	49	48.1	60.9	15.4	56.5	41.56	17.4
jul	7	2459767.75	13	7	13.5	-4	3	6.1	60.0	15.6	57.3	52.01	18.1
jul	8	2459768.75	13	55	48.6	-9	56	2.6	59.1	15.8	58.2	62.69	18.9
jul	9	2459769.75	14	47	46.2	-15	31	45.7	58.2	16.1	59.1	73.10	19.7
jul	10	2459770.75	15	44	12.3	-20	27	49.2	57.4	16.3	59.9	82.65	20.5
jul	11	2459771.75	16	45	39.1	-24	16	48.5	56.7	16.5	60.7	90.67	21.5
jul	12	2459772.75	17	51	29.8	-26	30	16.2	56.2	16.7	61.2	96.50	22.5
jul	13	2459773.75	18	59	38.8	-26	47	0.9	56.0	16.7	61.4	99.59	23.6
jul	14	2459774.75	20	7	2.9	-25	2	20.7	56.1	16.7	61.3	99.63	0.6
jul	15	2459775.75	21	11	1.3	-21	30	42.1	56.5	16.6	60.8	96.64	1.6
jul	16	2459776.75	22	10	13.8	-16	39	18.4	57.2	16.4	60.1	90.96	2.6
jul	17	2459777.75	23	4	43.9	-10	58	34.7	58.0	16.1	59.2	83.16	3.4
jul	18	2459778.75	23	55	24.9	-4	55	21.0	59.0	15.9	58.3	73.92	4.2
jul	19	2459779.75	0	43	29.6	+1	9	16.6	60.0	15.6	57.3	63.88	4.9
jul	20	2459780.75	1	30	11.5	+6	59	23.3	60.9	15.4	56.5	53.57	5.6
jul	21	2459781.75	2	16	37.4	+12	22	38.5	61.7	15.2	55.7	43.46	6.3
jul	22	2459782.75	3	3	42.6	+17	8	36.0	62.4	15.0	55.1	33.87	7.1
jul	23	2459783.75	3	52	7.8	+21	7	38.1	63.0	14.9	54.6	25.08	7.8
jul	24	2459784.75	4	42	13.1	+24	10	29.4	63.4	14.8	54.2	17.32	8.6
jul	25	2459785.75	5	33	53.9	+26	8	44.3	63.6	14.7	54.1	10.78	9.4
jul	26	2459786.75	6	26	38.5	+26	55	55.1	63.7	14.7	54.0	5.65	10.2
jul	27	2459787.75	7	19	35.4	+26	29	1.4	63.7	14.7	54.0	2.10	11.0
jul	28	2459788.75	8	11	47.8	+24	49	21.4	63.5	14.7	54.1	0.25	11.8
jul	29	2459789.75	9	2	30.9	+22	2	31.6	63.3	14.8	54.3	0.21	12.6
jul	30	2459790.75	9	51	23.6	+18	17	19.8	62.9	14.9	54.6	2.03	13.3
jul	31	2459791.75	10	38	30.7	+13	44	21.4	62.5	15.0	55.0	5.71	14.1
ago	1	2459792.75	11	24	19.5	+8	34	51.5	62.0	15.1	55.5	11.17	14.8
ago	2	2459793.75	12	9	33.9	+3	0	15.3	61.4	15.2	56.0	18.29	15.4
ago	3	2459794.75	12	55	10.2	-2	47	43.3	60.8	15.4	56.6	26.86	16.1
ago	4	2459795.75	13	42	13.0	-8	36	15.7	60.0	15.6	57.3	36.62	16.9
ago	5	2459796.75	14	31	52.2	-14	10	20.3	59.3	15.8	58.0	47.23	17.6
ago	6	2459797.75	15	25	14.8	-19	11	23.8	58.5	16.0	58.8	58.26	18.4
ago	7	2459798.75	16	23	8.9	-23	16	47.1	57.8	16.2	59.5	69.19	19.3
ago	8	2459799.75	17	25	36.3	-26	1	8.8	57.2	16.4	60.2	79.39	20.3
ago	9	2459800.75	18	31	25.5	-27	1	29.2	56.7	16.5	60.6	88.16	21.3
ago	10	2459801.75	19	38	13.8	-26	4	59.0	56.4	16.6	60.9	94.84	22.4
ago	11	2459802.75	20	43	18.1	-23	15	11.3	56.5	16.6	60.9	98.88	23.4
ago	12	2459803.75	21	44	41.4	-18	51	19.9	56.7	16.5	60.6	99.97	0.4
ago	13	2459804.75	22	41	44.3	-13	21	31.8	57.3	16.4	60.0	98.13	1.3
ago	14	2459805.75	23	34	51.4	-7	15	0.8	58.0	16.1	59.3	93.66	2.1
ago	15	2459806.75	0	25	0.6	-0	57	24.5	58.9	15.9	58.4	87.04	2.8
ago	16	2459807.75	1	13	20.5	+5	10	53.0	59.8	15.6	57.5	78.87	3.6
ago	17	2459808.75	2	0	57.3	+10	54	7.0	60.8	15.4	56.6	69.70	4.3
ago	18	2459809.75	2	48	48.0	+15	59	52.7	61.6	15.2	55.8	60.00	5.0

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Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	α h	α m	α s	δ °	δ `	δ “	dis DT	sed ´	pax ´	fas fase	hp h
ago	19	2459810.75	3	37	36.4	+20	17	52.3	62.4	15.0	55.1	50.18	5.8
ago	20	2459811.75	4	27	48.2	+23	38	59.7	62.9	14.9	54.6	40.57	6.6
ago	21	2459812.75	5	19	26.2	+25	55	20.8	63.3	14.8	54.3	31.44	7.4
ago	22	2459813.75	6	12	8.1	+27	0	46.7	63.5	14.7	54.1	23.04	8.2
ago	23	2459814.75	7	5	11.1	+26	51	54.3	63.6	14.7	54.1	15.60	9.0
ago	24	2459815.75	7	57	43.4	+25	29	4.8	63.4	14.8	54.2	9.35	9.8
ago	25	2459816.75	8	48	59.9	+22	56	36.6	63.2	14.8	54.4	4.54	10.6
ago	26	2459817.75	9	38	34.8	+19	22	9.3	62.8	14.9	54.7	1.37	11.3
ago	27	2459818.75	10	26	26.3	+14	55	43.4	62.4	15.0	55.1	0.03	12.1
ago	28	2459819.75	11	12	54.4	+9	48	44.3	61.9	15.1	55.5	0.67	12.8
ago	29	2459820.75	11	58	36.3	+4	13	18.6	61.4	15.3	56.0	3.33	13.5
ago	30	2459821.75	12	44	21.3	-1	37	42.8	60.8	15.4	56.5	8.01	14.2
ago	31	2459822.75	13	31	7.5	-7	30	34.0	60.3	15.5	57.0	14.59	14.9
sep	1	2459823.75	14	19	57.0	-13	9	56.6	59.7	15.7	57.6	22.88	15.6
sep	2	2459824.75	15	11	50.6	-18	18	11.4	59.2	15.8	58.1	32.58	16.4
sep	3	2459825.75	16	7	35.5	-22	35	0.8	58.6	16.0	58.6	43.31	17.3
sep	4	2459826.75	17	7	24.5	-25	38	20.3	58.1	16.1	59.1	54.59	18.2
sep	5	2459827.75	18	10	34.1	-27	7	20.4	57.7	16.2	59.6	65.85	19.2
sep	6	2459828.75	19	15	19.1	-26	47	59.2	57.4	16.3	59.9	76.45	20.2
sep	7	2459829.75	20	19	21.8	-24	38	22.5	57.2	16.4	60.1	85.71	21.2
sep	8	2459830.75	21	20	45.7	-20	50	9.6	57.2	16.4	60.1	92.99	22.2
sep	9	2459831.75	22	18	32.6	-15	45	13.8	57.4	16.3	59.9	97.81	23.1
sep	10	2459832.75	23	12	45.0	-9	49	53.7	57.8	16.2	59.5	99.91	23.9
sep	11	2459833.75	0	4	4.6	-3	30	8.1	58.4	16.0	58.9	99.28	0.7
sep	12	2459834.75	0	53	30.5	+2	50	59.8	59.1	15.8	58.1	96.14	1.5
sep	13	2459835.75	1	42	4.4	+8	54	13.2	60.0	15.6	57.3	90.89	2.2
sep	14	2459836.75	2	30	41.4	+14	23	48.6	60.8	15.4	56.5	83.97	3.0
sep	15	2459837.75	3	20	5.4	+19	6	53.8	61.6	15.2	55.8	75.83	3.7
sep	16	2459838.75	4	10	42.7	+22	52	54.4	62.3	15.0	55.2	66.89	4.5
sep	17	2459839.75	5	2	38.5	+25	33	17.8	62.9	14.9	54.7	57.50	5.3
sep	18	2459840.75	5	55	34.0	+27	1	47.6	63.2	14.8	54.4	47.97	6.1
sep	19	2459841.75	6	48	50.6	+27	15	4.1	63.4	14.8	54.2	38.58	6.9
sep	20	2459842.75	7	41	40.2	+26	13	15.6	63.4	14.8	54.2	29.60	7.8
sep	21	2459843.75	8	33	19.8	+24	0	0.7	63.2	14.8	54.4	21.30	8.5
sep	22	2459844.75	9	23	23.5	+20	41	55.1	62.8	14.9	54.7	13.96	9.3
sep	23	2459845.75	10	11	47.8	+16	27	49.2	62.3	15.0	55.2	7.87	10.1
sep	24	2459846.75	10	58	50.1	+11	28	1.2	61.8	15.2	55.7	3.35	10.8
sep	25	2459847.75	11	45	4.8	+5	54	4.9	61.2	15.3	56.2	0.66	11.5
sep	26	2459848.75	12	31	18.4	-0	1	11.0	60.6	15.5	56.8	0.05	12.2
sep	27	2459849.75	13	18	25.5	-6	3	16.2	60.0	15.6	57.3	1.67	12.9
sep	28	2459850.75	14	7	24.8	-11	55	39.8	59.5	15.7	57.8	5.55	13.7
sep	29	2459851.75	14	59	12.8	-17	19	31.5	59.1	15.9	58.2	11.61	14.5
sep	30	2459852.75	15	54	32.4	-21	53	47.1	58.7	16.0	58.6	19.63	15.3
oct	1	2459853.75	16	53	35.0	-25	16	29.3	58.4	16.0	58.9	29.27	16.2
oct	2	2459854.75	17	55	41.1	-27	7	45.7	58.2	16.1	59.1	40.08	17.2
oct	3	2459855.75	18	59	16.0	-27	14	23.8	58.0	16.1	59.3	51.49	18.2

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mes	día	dj	h	α m	s	°	δ `	“	dis DT	sed ´	pax ´	fase	hp h
oct	4	2459856.75	20	2	15.3	-25	33	59.0	57.9	16.2	59.4	62.90	19.2
oct	5	2459857.75	21	2	50.9	-22	15	52.8	57.9	16.2	59.4	73.67	20.1
oct	6	2459858.75	22	0	6.1	-17	38	17.2	58.0	16.1	59.2	83.16	21.0
oct	7	2459859.75	22	53	59.4	-12	3	42.8	58.3	16.1	59.0	90.84	21.8
oct	8	2459860.75	23	45	7.9	-5	55	18.5	58.6	16.0	58.6	96.31	22.6
oct	9	2459861.75	0	34	27.1	+0	25	5.8	59.1	15.8	58.1	99.34	23.4
oct	10	2459862.75	1	22	57.1	+6	37	44.5	59.7	15.7	57.6	99.92	0.1
oct	11	2459863.75	2	11	33.3	+12	25	6.2	60.4	15.5	56.9	98.17	0.9
oct	12	2459864.75	3	1	0.4	+17	31	49.1	61.1	15.3	56.2	94.35	1.6
oct	13	2459865.75	3	51	46.2	+21	44	43.3	61.8	15.1	55.6	88.79	2.4
oct	14	2459866.75	4	43	56.8	+24	53	1.8	62.4	15.0	55.1	81.82	3.2
oct	15	2459867.75	5	37	13.1	+26	48	58.4	62.9	14.9	54.6	73.77	4.0
oct	16	2459868.75	6	30	54.0	+27	28	24.2	63.2	14.8	54.4	64.96	4.9
oct	17	2459869.75	7	24	8.4	+26	51	11.4	63.4	14.8	54.2	55.68	5.7
oct	18	2459870.75	8	16	9.8	+25	0	58.2	63.3	14.8	54.3	46.20	6.5
oct	19	2459871.75	9	6	30.3	+22	4	14.0	63.1	14.9	54.5	36.78	7.3
oct	20	2459872.75	9	55	5.1	+18	9	13.2	62.6	15.0	54.9	27.73	8.0
oct	21	2459873.75	10	42	12.2	+13	25	6.0	62.0	15.1	55.4	19.36	8.7
oct	22	2459874.75	11	28	26.9	+8	1	52.5	61.3	15.3	56.1	12.04	9.4
oct	23	2459875.75	12	14	37.2	+2	10	44.1	60.6	15.5	56.8	6.14	10.1
oct	24	2459876.75	13	1	39.9	-3	55	12.5	59.8	15.7	57.5	2.05	10.9
oct	25	2459877.75	13	50	36.4	-9	59	55.0	59.1	15.8	58.1	0.12	11.6
oct	26	2459878.75	14	42	27.2	-15	43	48.6	58.6	16.0	58.7	0.61	12.4
oct	27	2459879.75	15	37	59.9	-20	43	52.3	58.1	16.1	59.1	3.64	13.3
oct	28	2459880.75	16	37	29.9	-24	35	15.1	57.9	16.2	59.4	9.14	14.2
oct	29	2459881.75	17	40	17.6	-26	55	2.2	57.7	16.2	59.5	16.88	15.2
oct	30	2459882.75	18	44	41.2	-27	27	52.3	57.8	16.2	59.5	26.41	16.2
oct	31	2459883.75	19	48	23.8	-26	10	44.5	57.9	16.2	59.4	37.19	17.2
nov	1	2459884.75	20	49	26.3	-23	13	35.5	58.1	16.1	59.2	48.60	18.1
nov	2	2459885.75	21	46	46.8	-18	55	18.5	58.4	16.0	58.9	59.97	19.0
nov	3	2459886.75	22	40	24.3	-13	38	12.7	58.7	15.9	58.5	70.71	19.8
nov	4	2459887.75	23	31	0.1	-7	44	9.9	59.1	15.8	58.1	80.28	20.6
nov	5	2459888.75	0	19	34.5	-1	33	3.4	59.6	15.7	57.7	88.23	21.4
nov	6	2459889.75	1	7	12.5	+4	37	8.6	60.0	15.6	57.3	94.26	22.1
nov	7	2459890.75	1	54	54.6	+10	29	58.1	60.6	15.5	56.8	98.17	22.8
nov	8	2459891.75	2	43	31.6	+15	50	2.0	61.1	15.3	56.2	99.90	23.6
nov	9	2459892.75	3	33	38.3	+20	22	58.4	61.7	15.2	55.7	99.50	0.3
nov	10	2459893.75	4	25	26.9	+23	55	59.7	62.2	15.0	55.2	97.12	1.1
nov	11	2459894.75	5	18	41.6	+26	18	52.1	62.7	14.9	54.8	92.94	2.0
nov	12	2459895.75	6	12	40.3	+27	25	14.8	63.1	14.8	54.5	87.20	2.8
nov	13	2459896.75	7	6	24.4	+27	13	34.1	63.4	14.8	54.2	80.17	3.6
nov	14	2459897.75	7	58	57.0	+25	46	60.0	63.5	14.8	54.2	72.10	4.4
nov	15	2459898.75	8	49	39.7	+23	12	16.1	63.4	14.8	54.2	63.24	5.2
nov	16	2459899.75	9	38	21.1	+19	38	6.3	63.1	14.8	54.5	53.84	6.0
nov	17	2459900.75	10	25	15.9	+15	13	50.6	62.6	15.0	54.9	44.19	6.7
nov	18	2459901.75	11	10	58.9	+10	8	43.0	62.0	15.1	55.5	34.57	7.4

Luna, 2022

Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	α h	α m	α s	δ °	δ `	δ “	dis DT	sed ´	pax ´	fas fase	hp h
nov	19	2459902.75	11	56	19.9	+4	32	13.6	61.2	15.3	56.2	25.33	8.1
nov	20	2459903.75	12	42	18.4	-1	25	3.0	60.3	15.5	57.0	16.86	8.8
nov	21	2459904.75	13	30	1.6	-7	30	2.3	59.4	15.8	57.9	9.63	9.5
nov	22	2459905.75	14	20	39.3	-13	25	44.0	58.5	16.0	58.7	4.12	10.3
nov	23	2459906.75	15	15	15.1	-18	50	2.8	57.8	16.2	59.5	0.80	11.1
nov	24	2459907.75	16	14	26.5	-23	16	16.6	57.3	16.4	60.0	0.08	12.0
nov	25	2459908.75	17	17	55.4	-26	16	22.4	57.0	16.4	60.4	2.15	13.0
nov	26	2459909.75	18	24	5.4	-27	27	52.3	56.9	16.5	60.4	7.00	14.1
nov	27	2459910.75	19	30	18.4	-26	41	40.6	57.0	16.4	60.3	14.32	15.1
nov	28	2459911.75	20	33	57.0	-24	5	35.4	57.4	16.3	59.9	23.60	16.1
nov	29	2459912.75	21	33	25.7	-20	0	15.7	57.8	16.2	59.4	34.18	17.0
nov	30	2459913.75	22	28	28.1	-14	51	20.7	58.4	16.0	58.9	45.40	17.9
dic	1	2459914.75	23	19	43.7	-9	3	24.6	59.0	15.9	58.2	56.59	18.7
dic	2	2459915.75	0	8	19.3	-2	57	23.5	59.6	15.7	57.6	67.20	19.4
dic	3	2459916.75	0	55	27.7	+3	9	18.5	60.3	15.5	57.1	76.78	20.1
dic	4	2459917.75	1	42	17.8	+9	1	42.4	60.8	15.4	56.5	84.98	20.8
dic	5	2459918.75	2	29	49.1	+14	25	58.6	61.4	15.3	56.0	91.54	21.6
dic	6	2459919.75	3	18	46.8	+19	8	52.4	61.9	15.1	55.6	96.28	22.3
dic	7	2459920.75	4	9	34.9	+22	57	36.3	62.4	15.0	55.1	99.11	23.1
dic	8	2459921.75	5	2	9.3	+25	40	47.7	62.8	14.9	54.8	*****	23.9
dic	9	2459922.75	5	55	55.0	+27	9	59.0	63.1	14.8	54.4	98.98	0.7
dic	10	2459923.75	6	49	52.9	+27	21	14.7	63.4	14.8	54.2	96.16	1.6
dic	11	2459924.75	7	42	56.8	+26	16	0.8	63.6	14.7	54.1	91.69	2.4
dic	12	2459925.75	8	34	13.9	+24	0	26.1	63.6	14.7	54.0	85.73	3.2
dic	13	2459926.75	9	23	19.1	+20	43	41.3	63.5	14.7	54.1	78.49	3.9
dic	14	2459927.75	10	10	16.4	+16	35	59.9	63.2	14.8	54.4	70.19	4.6
dic	15	2459928.75	10	55	34.7	+11	47	24.6	62.7	14.9	54.8	61.06	5.3
dic	16	2459929.75	11	39	60.0	+6	27	22.9	62.1	15.1	55.4	51.36	6.0
dic	17	2459930.75	12	24	30.3	+0	45	15.4	61.3	15.3	56.1	41.37	6.7
dic	18	2459931.75	13	10	13.0	-5	8	35.9	60.4	15.5	57.0	31.45	7.4
dic	19	2459932.75	13	58	21.9	-11	1	8.4	59.4	15.8	57.9	22.02	8.1
dic	20	2459933.75	14	50	12.9	-16	34	52.3	58.4	16.0	58.9	13.58	8.9
dic	21	2459934.75	15	46	50.2	-21	26	25.6	57.5	16.3	59.8	6.72	9.8
dic	22	2459935.75	16	48	38.7	-25	7	20.6	56.8	16.5	60.5	2.04	10.8
dic	23	2459936.75	17	54	48.5	-27	8	46.7	56.3	16.6	61.0	0.05	11.8
dic	24	2459937.75	19	2	58.5	-27	10	38.8	56.2	16.7	61.2	1.05	12.9
dic	25	2459938.75	20	9	59.6	-25	10	35.3	56.3	16.6	61.1	5.04	13.9
dic	26	2459939.75	21	13	17.5	-21	25	8.4	56.7	16.5	60.7	11.71	14.9
dic	27	2459940.75	22	11	46.0	-16	22	15.6	57.3	16.3	60.0	20.47	15.8
dic	28	2459941.75	23	5	40.5	-10	31	48.3	58.0	16.1	59.2	30.62	16.6
dic	29	2459942.75	23	56	2.6	-4	19	40.8	58.9	15.9	58.4	41.45	17.4
dic	30	2459943.75	0	44	9.0	+1	53	37.6	59.7	15.7	57.6	52.34	18.2
dic	31	2459944.75	1	31	16.0	+7	52	4.3	60.5	15.5	56.8	62.79	18.9
ene	1	2459945.75	2	18	30.9	+13	22	23.8	61.2	15.3	56.1	72.42	19.6
ene	2	2459946.75	3	18	41.5	+19	4	58.3	64.2	14.6	53.6	80.90	20.5

Mercurio, 2022

Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
ene	1	2459580.75	20	4	11.77	-22	12	39.70	1.1363	13.1
ene	2	2459581.75	20	9	59.19	-21	48	53.65	1.1140	13.2
ene	3	2459582.75	20	15	33.26	-21	24	9.08	1.0909	13.2
ene	4	2459583.75	20	20	52.00	-20	58	34.82	1.0670	13.2
ene	5	2459584.75	20	25	53.21	-20	32	21.29	1.0423	13.2
ene	6	2459585.75	20	30	34.48	-20	5	40.69	1.0170	13.3
ene	7	2459586.75	20	34	53.12	-19	38	47.06	0.9911	13.3
ene	8	2459587.75	20	38	46.23	-19	11	56.45	0.9648	13.3
ene	9	2459588.75	20	42	10.72	-18	45	26.83	0.9381	13.3
ene	10	2459589.75	20	45	3.33	-18	19	38.04	0.9113	13.2
ene	11	2459590.75	20	47	20.75	-17	54	51.49	0.8845	13.2
ene	12	2459591.75	20	48	59.71	-17	31	29.77	0.8580	13.2
ene	13	2459592.75	20	49	57.16	-17	9	55.97	0.8321	13.1
ene	14	2459593.75	20	50	10.46	-16	50	32.87	0.8069	13.1
ene	15	2459594.75	20	49	37.66	-16	33	41.79	0.7829	13.0
ene	16	2459595.75	20	48	17.72	-16	19	41.45	0.7603	12.9
ene	17	2459596.75	20	46	10.83	-16	8	46.56	0.7394	12.8
ene	18	2459597.75	20	43	18.66	-16	1	6.70	0.7206	12.7
ene	19	2459598.75	20	39	44.56	-15	56	45.21	0.7040	12.6
ene	20	2459599.75	20	35	33.59	-15	55	38.73	0.6899	12.4
ene	21	2459600.75	20	30	52.48	-15	57	37.20	0.6785	12.3
ene	22	2459601.75	20	25	49.31	-16	2	24.54	0.6699	12.1
ene	23	2459602.75	20	20	33.13	-16	9	39.95	0.6642	12.0
ene	24	2459603.75	20	15	13.41	-16	18	59.52	0.6613	11.8
ene	25	2459604.75	20	9	59.40	-16	29	58.09	0.6610	11.7
ene	26	2459605.75	20	4	59.63	-16	42	10.85	0.6634	11.5
ene	27	2459606.75	20	0	21.47	-16	55	14.64	0.6682	11.4
ene	28	2459607.75	19	56	10.84	-17	8	48.71	0.6751	11.2
ene	29	2459608.75	19	52	32.12	-17	22	35.17	0.6839	11.1
ene	30	2459609.75	19	49	28.22	-17	36	18.90	0.6945	11.0
ene	31	2459610.75	19	47	0.66	-17	49	47.38	0.7065	10.9
feb	1	2459611.75	19	45	9.86	-18	2	50.31	0.7197	10.8
feb	2	2459612.75	19	43	55.34	-18	15	19.25	0.7340	10.7
feb	3	2459613.75	19	43	15.96	-18	27	7.25	0.7491	10.6
feb	4	2459614.75	19	43	10.09	-18	38	8.54	0.7648	10.6
feb	5	2459615.75	19	43	35.84	-18	48	18.34	0.7811	10.5
feb	6	2459616.75	19	44	31.15	-18	57	32.61	0.7977	10.5
feb	7	2459617.75	19	45	53.89	-19	5	47.92	0.8146	10.4
feb	8	2459618.75	19	47	41.95	-19	13	1.35	0.8317	10.4
feb	9	2459619.75	19	49	53.30	-19	19	10.41	0.8488	10.3
feb	10	2459620.75	19	52	26.01	-19	24	12.94	0.8659	10.3
feb	11	2459621.75	19	55	18.23	-19	28	7.08	0.8830	10.3
feb	12	2459622.75	19	58	28.28	-19	30	51.23	0.9000	10.3
feb	13	2459623.75	20	1	54.60	-19	32	24.02	0.9168	10.3
feb	14	2459624.75	20	5	35.75	-19	32	44.28	0.9334	10.3
feb	15	2459625.75	20	9	30.41	-19	31	50.98	0.9499	10.3

Mercurio, 2022

Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
feb	16	2459626.75	20	13	37.39	-19	29	43.28	0.9661	10.3
feb	17	2459627.75	20	17	55.60	-19	26	20.45	0.9821	10.3
feb	18	2459628.75	20	22	24.05	-19	21	41.88	0.9978	10.3
feb	19	2459629.75	20	27	1.86	-19	15	47.08	1.0132	10.3
feb	20	2459630.75	20	31	48.21	-19	8	35.63	1.0283	10.3
feb	21	2459631.75	20	36	42.38	-19	0	7.23	1.0431	10.3
feb	22	2459632.75	20	41	43.69	-18	50	21.63	1.0577	10.4
feb	23	2459633.75	20	46	51.55	-18	39	18.69	1.0719	10.4
feb	24	2459634.75	20	52	5.43	-18	26	58.31	1.0859	10.4
feb	25	2459635.75	20	57	24.82	-18	13	20.46	1.0995	10.4
feb	26	2459636.75	21	2	49.29	-17	58	25.16	1.1128	10.4
feb	27	2459637.75	21	8	18.43	-17	42	12.48	1.1258	10.5
feb	28	2459638.75	21	13	51.90	-17	24	42.51	1.1385	10.5
mar	1	2459639.75	21	19	29.36	-17	5	55.40	1.1509	10.5
mar	2	2459640.75	21	25	10.54	-16	45	51.29	1.1630	10.6
mar	3	2459641.75	21	30	55.19	-16	24	30.36	1.1747	10.6
mar	4	2459642.75	21	36	43.08	-16	1	52.83	1.1862	10.6
mar	5	2459643.75	21	42	34.04	-15	37	58.90	1.1973	10.6
mar	6	2459644.75	21	48	27.90	-15	12	48.82	1.2082	10.7
mar	7	2459645.75	21	54	24.53	-14	46	22.86	1.2187	10.7
mar	8	2459646.75	22	0	23.81	-14	18	41.29	1.2289	10.7
mar	9	2459647.75	22	6	25.65	-13	49	44.40	1.2388	10.8
mar	10	2459648.75	22	12	29.98	-13	19	32.51	1.2484	10.8
mar	11	2459649.75	22	18	36.76	-12	48	5.94	1.2576	10.9
mar	12	2459650.75	22	24	45.94	-12	15	25.04	1.2665	10.9
mar	13	2459651.75	22	30	57.53	-11	41	30.17	1.2750	10.9
mar	14	2459652.75	22	37	11.53	-11	6	21.73	1.2832	11.0
mar	15	2459653.75	22	43	27.95	-10	30	0.14	1.2911	11.0
mar	16	2459654.75	22	49	46.84	-9	52	25.86	1.2986	11.0
mar	17	2459655.75	22	56	8.25	-9	13	39.38	1.3056	11.1
mar	18	2459656.75	23	2	32.25	-8	33	41.28	1.3123	11.1
mar	19	2459657.75	23	8	58.92	-7	52	32.16	1.3185	11.2
mar	20	2459658.75	23	15	28.36	-7	10	12.76	1.3243	11.2
mar	21	2459659.75	23	22	0.68	-6	26	43.89	1.3296	11.3
mar	22	2459660.75	23	28	35.98	-5	42	6.50	1.3344	11.3
mar	23	2459661.75	23	35	14.40	-4	56	21.71	1.3387	11.3
mar	24	2459662.75	23	41	56.05	-4	9	30.85	1.3424	11.4
mar	25	2459663.75	23	48	41.06	-3	21	35.46	1.3456	11.4
mar	26	2459664.75	23	55	29.55	-2	32	37.37	1.3480	11.5
mar	27	2459665.75	0	2	21.64	-1	42	38.70	1.3498	11.5
mar	28	2459666.75	0	9	17.44	-0	51	41.96	1.3508	11.6
mar	29	2459667.75	0	16	17.05	+0	0	9.89	1.3511	11.6
mar	30	2459668.75	0	23	20.53	+0	52	53.44	1.3505	11.7
mar	31	2459669.75	0	30	27.94	+1	46	24.68	1.3490	11.7
abr	1	2459670.75	0	37	39.29	+2	40	38.96	1.3466	11.8
abr	2	2459671.75	0	44	54.52	+3	35	30.89	1.3431	11.8

Mercurio, 2022

Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
abr	3	2459672.75	0	52	13.57	+4	30	54.38	1.3385	11.9
abr	4	2459673.75	0	59	36.23	+5	26	42.41	1.3328	12.0
abr	5	2459674.75	1	7	2.27	+6	22	46.90	1.3259	12.0
abr	6	2459675.75	1	14	31.34	+7	18	59.00	1.3177	12.1
abr	7	2459676.75	1	22	3.01	+8	15	8.87	1.3083	12.1
abr	8	2459677.75	1	29	36.70	+9	11	5.75	1.2975	12.2
abr	9	2459678.75	1	37	11.75	+10	6	38.07	1.2853	12.3
abr	10	2459679.75	1	44	47.35	+11	1	33.58	1.2718	12.3
abr	11	2459680.75	1	52	22.59	+11	55	39.52	1.2569	12.4
abr	12	2459681.75	1	59	56.45	+12	48	42.89	1.2407	12.4
abr	13	2459682.75	2	7	27.82	+13	40	30.71	1.2232	12.5
abr	14	2459683.75	2	14	55.52	+14	30	50.34	1.2045	12.6
abr	15	2459684.75	2	22	18.28	+15	19	29.72	1.1847	12.6
abr	16	2459685.75	2	29	34.85	+16	6	17.70	1.1639	12.7
abr	17	2459686.75	2	36	43.95	+16	51	4.24	1.1421	12.7
abr	18	2459687.75	2	43	44.31	+17	33	40.61	1.1195	12.8
abr	19	2459688.75	2	50	34.70	+18	13	59.44	1.0963	12.8
abr	20	2459689.75	2	57	13.95	+18	51	54.81	1.0725	12.9
abr	21	2459690.75	3	3	40.93	+19	27	22.15	1.0483	12.9
abr	22	2459691.75	3	9	54.60	+20	0	18.24	1.0239	12.9
abr	23	2459692.75	3	15	53.97	+20	30	41.02	0.9993	13.0
abr	24	2459693.75	3	21	38.12	+20	58	29.45	0.9747	13.0
abr	25	2459694.75	3	27	6.20	+21	23	43.39	0.9502	13.0
abr	26	2459695.75	3	32	17.43	+21	46	23.42	0.9258	13.1
abr	27	2459696.75	3	37	11.07	+22	6	30.65	0.9018	13.1
abr	28	2459697.75	3	41	46.44	+22	24	6.62	0.8780	13.1
abr	29	2459698.75	3	46	2.91	+22	39	13.17	0.8548	13.1
abr	30	2459699.75	3	49	59.89	+22	51	52.31	0.8320	13.1
may	1	2459700.75	3	53	36.86	+23	2	6.16	0.8098	13.1
may	2	2459701.75	3	56	53.32	+23	9	56.87	0.7883	13.1
may	3	2459702.75	3	59	48.85	+23	15	26.62	0.7674	13.1
may	4	2459703.75	4	2	23.10	+23	18	37.57	0.7472	13.0
may	5	2459704.75	4	4	35.79	+23	19	31.89	0.7278	13.0
may	6	2459705.75	4	6	26.74	+23	18	11.80	0.7093	13.0
may	7	2459706.75	4	7	55.87	+23	14	39.65	0.6916	12.9
may	8	2459707.75	4	9	3.23	+23	8	57.98	0.6748	12.9
may	9	2459708.75	4	9	49.02	+23	1	9.65	0.6589	12.8
may	10	2459709.75	4	10	13.60	+22	51	17.99	0.6440	12.8
may	11	2459710.75	4	10	17.54	+22	39	26.96	0.6301	12.7
may	12	2459711.75	4	10	1.56	+22	25	41.29	0.6173	12.6
may	13	2459712.75	4	9	26.64	+22	10	6.70	0.6054	12.6
may	14	2459713.75	4	8	33.97	+21	52	50.02	0.5947	12.5
may	15	2459714.75	4	7	24.97	+21	33	59.40	0.5851	12.4
may	16	2459715.75	4	6	1.26	+21	13	44.38	0.5767	12.3
may	17	2459716.75	4	4	24.69	+20	52	15.95	0.5694	12.2
may	18	2459717.75	4	2	37.30	+20	29	46.54	0.5632	12.1

Mercurio, 2022

Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
may	19	2459718.75	4	0	41.25	+20	6	29.90	0.5583	12.0
may	20	2459719.75	3	58	38.83	+19	42	40.98	0.5545	11.9
may	21	2459720.75	3	56	32.42	+19	18	35.66	0.5519	11.8
may	22	2459721.75	3	54	24.40	+18	54	30.43	0.5504	11.7
may	23	2459722.75	3	52	17.12	+18	30	42.04	0.5502	11.6
may	24	2459723.75	3	50	12.88	+18	7	27.16	0.5511	11.5
may	25	2459724.75	3	48	13.85	+17	45	1.89	0.5531	11.4
may	26	2459725.75	3	46	22.07	+17	23	41.49	0.5562	11.3
may	27	2459726.75	3	44	39.36	+17	3	39.99	0.5604	11.2
may	28	2459727.75	3	43	7.40	+16	45	9.93	0.5656	11.1
may	29	2459728.75	3	41	47.61	+16	28	22.18	0.5718	11.0
may	30	2459729.75	3	40	41.22	+16	13	25.81	0.5790	11.0
may	31	2459730.75	3	39	49.26	+16	0	28.04	0.5872	10.9
jun	1	2459731.75	3	39	12.56	+15	49	34.25	0.5962	10.8
jun	2	2459732.75	3	38	51.74	+15	40	48.09	0.6061	10.7
jun	3	2459733.75	3	38	47.29	+15	34	11.55	0.6169	10.7
jun	4	2459734.75	3	38	59.54	+15	29	45.13	0.6284	10.6
jun	5	2459735.75	3	39	28.69	+15	27	28.00	0.6407	10.6
jun	6	2459736.75	3	40	14.86	+15	27	18.18	0.6537	10.5
jun	7	2459737.75	3	41	18.05	+15	29	12.69	0.6674	10.5
jun	8	2459738.75	3	42	38.23	+15	33	7.68	0.6817	10.4
jun	9	2459739.75	3	44	15.30	+15	38	58.66	0.6967	10.4
jun	10	2459740.75	3	46	9.15	+15	46	40.52	0.7123	10.3
jun	11	2459741.75	3	48	19.61	+15	56	7.74	0.7285	10.3
jun	12	2459742.75	3	50	46.55	+16	7	14.39	0.7452	10.3
jun	13	2459743.75	3	53	29.80	+16	19	54.28	0.7625	10.3
jun	14	2459744.75	3	56	29.22	+16	34	0.94	0.7802	10.2
jun	15	2459745.75	3	59	44.68	+16	49	27.71	0.7985	10.2
jun	16	2459746.75	4	3	16.05	+17	6	7.72	0.8171	10.2
jun	17	2459747.75	4	7	3.24	+17	23	53.91	0.8362	10.2
jun	18	2459748.75	4	11	6.18	+17	42	39.06	0.8557	10.2
jun	19	2459749.75	4	15	24.83	+18	2	15.78	0.8756	10.2
jun	20	2459750.75	4	19	59.14	+18	22	36.46	0.8958	10.2
jun	21	2459751.75	4	24	49.14	+18	43	33.32	0.9163	10.3
jun	22	2459752.75	4	29	54.83	+19	4	58.33	0.9371	10.3
jun	23	2459753.75	4	35	16.26	+19	26	43.18	0.9581	10.3
jun	24	2459754.75	4	40	53.46	+19	48	39.25	0.9793	10.3
jun	25	2459755.75	4	46	46.47	+20	10	37.59	1.0006	10.4
jun	26	2459756.75	4	52	55.34	+20	32	28.85	1.0220	10.4
jun	27	2459757.75	4	59	20.07	+20	54	3.28	1.0433	10.4
jun	28	2459758.75	5	6	0.65	+21	15	10.67	1.0647	10.5
jun	29	2459759.75	5	12	57.00	+21	35	40.41	1.0859	10.5
jun	30	2459760.75	5	20	8.98	+21	55	21.46	1.1068	10.6
jul	1	2459761.75	5	27	36.36	+22	14	2.38	1.1275	10.6
jul	2	2459762.75	5	35	18.81	+22	31	31.46	1.1477	10.7
jul	3	2459763.75	5	43	15.86	+22	47	36.78	1.1674	10.8

Mercurio, 2022

Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
jul	4	2459764.75	5	51	26.89	+23	2	6.39	1.1865	10.8
jul	5	2459765.75	5	59	51.12	+23	14	48.50	1.2048	10.9
jul	6	2459766.75	6	8	27.62	+23	25	31.72	1.2223	11.0
jul	7	2459767.75	6	17	15.24	+23	34	5.30	1.2389	11.1
jul	8	2459768.75	6	26	12.68	+23	40	19.47	1.2543	11.2
jul	9	2459769.75	6	35	18.50	+23	44	5.68	1.2686	11.2
jul	10	2459770.75	6	44	31.10	+23	45	16.85	1.2816	11.3
jul	11	2459771.75	6	53	48.78	+23	43	47.64	1.2934	11.4
jul	12	2459772.75	7	3	9.79	+23	39	34.58	1.3037	11.5
jul	13	2459773.75	7	12	32.37	+23	32	36.13	1.3127	11.6
jul	14	2459774.75	7	21	54.76	+23	22	52.67	1.3202	11.7
jul	15	2459775.75	7	31	15.31	+23	10	26.45	1.3263	11.8
jul	16	2459776.75	7	40	32.45	+22	55	21.38	1.3310	11.9
jul	17	2459777.75	7	49	44.78	+22	37	42.77	1.3344	12.0
jul	18	2459778.75	7	58	51.03	+22	17	37.25	1.3364	12.0
jul	19	2459779.75	8	7	50.12	+21	55	12.41	1.3372	12.1
jul	20	2459780.75	8	16	41.15	+21	30	36.50	1.3368	12.2
jul	21	2459781.75	8	25	23.37	+21	3	58.21	1.3353	12.3
jul	22	2459782.75	8	33	56.22	+20	35	26.50	1.3327	12.4
jul	23	2459783.75	8	42	19.25	+20	5	10.33	1.3292	12.4
jul	24	2459784.75	8	50	32.17	+19	33	18.59	1.3248	12.5
jul	25	2459785.75	8	58	34.80	+18	59	59.92	1.3196	12.6
jul	26	2459786.75	9	6	27.04	+18	25	22.70	1.3136	12.6
jul	27	2459787.75	9	14	8.90	+17	49	34.89	1.3069	12.7
jul	28	2459788.75	9	21	40.43	+17	12	44.09	1.2996	12.8
jul	29	2459789.75	9	29	1.75	+16	34	57.47	1.2917	12.8
jul	30	2459790.75	9	36	13.02	+15	56	21.79	1.2832	12.9
jul	31	2459791.75	9	43	14.42	+15	17	3.38	1.2743	12.9
ago	1	2459792.75	9	50	6.16	+14	37	8.20	1.2650	13.0
ago	2	2459793.75	9	56	48.46	+13	56	41.80	1.2552	13.0
ago	3	2459794.75	10	3	21.55	+13	15	49.43	1.2451	13.1
ago	4	2459795.75	10	9	45.66	+12	34	35.96	1.2346	13.1
ago	5	2459796.75	10	16	1.03	+11	53	6.01	1.2238	13.2
ago	6	2459797.75	10	22	7.86	+11	11	23.93	1.2127	13.2
ago	7	2459798.75	10	28	6.36	+10	29	33.80	1.2013	13.2
ago	8	2459799.75	10	33	56.75	+9	47	39.52	1.1897	13.3
ago	9	2459800.75	10	39	39.19	+9	5	44.81	1.1778	13.3
ago	10	2459801.75	10	45	13.84	+8	23	53.19	1.1658	13.3
ago	11	2459802.75	10	50	40.86	+7	42	8.07	1.1535	13.3
ago	12	2459803.75	10	56	0.37	+7	0	32.72	1.1410	13.4
ago	13	2459804.75	11	1	12.48	+6	19	10.31	1.1283	13.4
ago	14	2459805.75	11	6	17.27	+5	38	3.93	1.1154	13.4
ago	15	2459806.75	11	11	14.79	+4	57	16.63	1.1024	13.4
ago	16	2459807.75	11	16	5.10	+4	16	51.45	1.0892	13.4
ago	17	2459808.75	11	20	48.18	+3	36	51.44	1.0758	13.4
ago	18	2459809.75	11	25	24.01	+2	57	19.67	1.0623	13.5

Mercurio, 2022

Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
ago	19	2459810.75	11	29	52.54	+2	18	19.30	1.0486	13.5
ago	20	2459811.75	11	34	13.67	+1	39	53.54	1.0348	13.5
ago	21	2459812.75	11	38	27.28	+1	2	5.75	1.0208	13.5
ago	22	2459813.75	11	42	33.19	+0	24	59.39	1.0067	13.5
ago	23	2459814.75	11	46	31.21	-0	11	21.88	0.9925	13.5
ago	24	2459815.75	11	50	21.07	-0	46	54.22	0.9781	13.5
ago	25	2459816.75	11	54	2.50	-1	21	33.54	0.9636	13.5
ago	26	2459817.75	11	57	35.14	-1	55	15.49	0.9490	13.5
ago	27	2459818.75	12	0	58.61	-2	27	55.41	0.9343	13.5
ago	28	2459819.75	12	4	12.44	-2	59	28.26	0.9195	13.4
ago	29	2459820.75	12	7	16.15	-3	29	48.62	0.9046	13.4
ago	30	2459821.75	12	10	9.17	-3	58	50.60	0.8897	13.4
ago	31	2459822.75	12	12	50.87	-4	26	27.81	0.8747	13.4
sep	1	2459823.75	12	15	20.56	-4	52	33.31	0.8597	13.4
sep	2	2459824.75	12	17	37.48	-5	16	59.53	0.8447	13.3
sep	3	2459825.75	12	19	40.83	-5	39	38.24	0.8298	13.3
sep	4	2459826.75	12	21	29.72	-6	0	20.48	0.8149	13.3
sep	5	2459827.75	12	23	3.21	-6	18	56.57	0.8002	13.2
sep	6	2459828.75	12	24	20.33	-6	35	16.05	0.7856	13.2
sep	7	2459829.75	12	25	20.07	-6	49	7.71	0.7712	13.1
sep	8	2459830.75	12	26	1.39	-7	0	19.64	0.7571	13.1
sep	9	2459831.75	12	26	23.29	-7	8	39.35	0.7433	13.0
sep	10	2459832.75	12	26	24.81	-7	13	53.92	0.7300	13.0
sep	11	2459833.75	12	26	5.09	-7	15	50.26	0.7171	12.9
sep	12	2459834.75	12	25	23.42	-7	14	15.50	0.7050	12.8
sep	13	2459835.75	12	24	19.28	-7	8	57.51	0.6935	12.7
sep	14	2459836.75	12	22	52.47	-6	59	45.53	0.6829	12.6
sep	15	2459837.75	12	21	3.15	-6	46	31.09	0.6733	12.5
sep	16	2459838.75	12	18	51.96	-6	29	8.93	0.6648	12.4
sep	17	2459839.75	12	16	20.08	-6	7	38.24	0.6576	12.3
sep	18	2459840.75	12	13	29.34	-5	42	3.78	0.6519	12.2
sep	19	2459841.75	12	10	22.27	-5	12	37.05	0.6478	12.1
sep	20	2459842.75	12	7	2.11	-4	39	37.25	0.6454	12.0
sep	21	2459843.75	12	3	32.82	-4	3	31.75	0.6450	11.9
sep	22	2459844.75	11	59	58.99	-3	24	56.18	0.6466	11.7
sep	23	2459845.75	11	56	25.72	-2	44	33.72	0.6504	11.6
sep	24	2459846.75	11	52	58.43	-2	3	13.73	0.6565	11.5
sep	25	2459847.75	11	49	42.68	-1	21	49.75	0.6649	11.4
sep	26	2459848.75	11	46	43.88	-0	41	17.07	0.6757	11.2
sep	27	2459849.75	11	44	7.11	-0	2	30.10	0.6887	11.1
sep	28	2459850.75	11	41	56.87	+0	33	40.10	0.7041	11.0
sep	29	2459851.75	11	40	16.92	+1	6	27.98	0.7216	10.9
sep	30	2459852.75	11	39	10.19	+1	35	15.05	0.7412	10.9
oct	1	2459853.75	11	38	38.69	+1	59	30.80	0.7627	10.8
oct	2	2459854.75	11	38	43.52	+2	18	53.09	0.7858	10.7
oct	3	2459855.75	11	39	24.93	+2	33	8.00	0.8105	10.7

Mercurio, 2022

Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
oct	4	2459856.75	11	40	42.39	+2	42	9.22	0.8363	10.6
oct	5	2459857.75	11	42	34.69	+2	45	57.34	0.8632	10.6
oct	6	2459858.75	11	45	0.08	+2	44	38.86	0.8907	10.6
oct	7	2459859.75	11	47	56.36	+2	38	25.20	0.9188	10.5
oct	8	2459860.75	11	51	21.08	+2	27	31.69	0.9471	10.5
oct	9	2459861.75	11	55	11.58	+2	12	16.65	0.9754	10.5
oct	10	2459862.75	11	59	25.13	+1	53	0.43	1.0034	10.5
oct	11	2459863.75	12	3	59.04	+1	30	4.64	1.0311	10.5
oct	12	2459864.75	12	8	50.70	+1	3	51.44	1.0583	10.6
oct	13	2459865.75	12	13	57.64	+0	34	42.91	1.0847	10.6
oct	14	2459866.75	12	19	17.58	+0	3	0.58	1.1104	10.6
oct	15	2459867.75	12	24	48.48	-0	30	54.92	1.1351	10.6
oct	16	2459868.75	12	30	28.49	-1	6	44.19	1.1589	10.7
oct	17	2459869.75	12	36	16.00	-1	44	9.18	1.1816	10.7
oct	18	2459870.75	12	42	9.61	-2	22	53.32	1.2033	10.7
oct	19	2459871.75	12	48	8.13	-3	2	41.52	1.2239	10.8
oct	20	2459872.75	12	54	10.55	-3	43	20.15	1.2435	10.8
oct	21	2459873.75	13	0	16.04	-4	24	36.98	1.2619	10.8
oct	22	2459874.75	13	6	23.89	-5	6	21.13	1.2794	10.9
oct	23	2459875.75	13	12	33.55	-5	48	22.87	1.2957	10.9
oct	24	2459876.75	13	18	44.57	-6	30	33.64	1.3111	10.9
oct	25	2459877.75	13	24	56.61	-7	12	45.83	1.3255	11.0
oct	26	2459878.75	13	31	9.38	-7	54	52.74	1.3389	11.0
oct	27	2459879.75	13	37	22.69	-8	36	48.44	1.3514	11.1
oct	28	2459880.75	13	43	36.39	-9	18	27.69	1.3630	11.1
oct	29	2459881.75	13	49	50.39	-9	59	45.85	1.3737	11.1
oct	30	2459882.75	13	56	4.63	-10	40	38.80	1.3836	11.2
oct	31	2459883.75	14	2	19.09	-11	21	2.88	1.3927	11.2
nov	1	2459884.75	14	8	33.75	-12	0	54.82	1.4010	11.2
nov	2	2459885.75	14	14	48.66	-12	40	11.69	1.4085	11.3
nov	3	2459886.75	14	21	3.84	-13	18	50.87	1.4153	11.3
nov	4	2459887.75	14	27	19.37	-13	56	49.95	1.4214	11.4
nov	5	2459888.75	14	33	35.30	-14	34	6.78	1.4267	11.4
nov	6	2459889.75	14	39	51.71	-15	10	39.37	1.4314	11.4
nov	7	2459890.75	14	46	8.68	-15	46	25.86	1.4355	11.5
nov	8	2459891.75	14	52	26.28	-16	21	24.34	1.4389	11.5
nov	9	2459892.75	14	58	44.68	-16	55	34.06	1.4417	11.6
nov	10	2459893.75	15	5	3.81	-17	28	52.37	1.4438	11.6
nov	11	2459894.75	15	11	23.83	-18	1	18.25	1.4454	11.6
nov	12	2459895.75	15	17	44.82	-18	32	50.25	1.4464	11.7
nov	13	2459896.75	15	24	6.84	-19	3	26.98	1.4467	11.7
nov	14	2459897.75	15	30	29.95	-19	33	7.04	1.4466	11.8
nov	15	2459898.75	15	36	54.21	-20	1	49.09	1.4458	11.8
nov	16	2459899.75	15	43	19.67	-20	29	31.79	1.4445	11.8
nov	17	2459900.75	15	49	46.39	-20	56	13.79	1.4426	11.9
nov	18	2459901.75	15	56	14.38	-21	21	53.76	1.4401	11.9

Mercurio, 2022

Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
nov	19	2459902.75	16	2	43.68	-21	46	30.36	1.4371	12.0
nov	20	2459903.75	16	9	14.29	-22	10	2.26	1.4335	12.0
nov	21	2459904.75	16	15	46.23	-22	32	28.11	1.4294	12.1
nov	22	2459905.75	16	22	19.49	-22	53	46.56	1.4247	12.1
nov	23	2459906.75	16	28	54.03	-23	13	56.27	1.4195	12.1
nov	24	2459907.75	16	35	29.81	-23	32	55.86	1.4136	12.2
nov	25	2459908.75	16	42	6.77	-23	50	43.99	1.4072	12.2
nov	26	2459909.75	16	48	44.84	-24	7	19.28	1.4003	12.3
nov	27	2459910.75	16	55	23.91	-24	22	40.36	1.3927	12.3
nov	28	2459911.75	17	2	3.85	-24	36	45.87	1.3846	12.4
nov	29	2459912.75	17	8	44.54	-24	49	34.44	1.3758	12.4
nov	30	2459913.75	17	15	25.79	-25	1	4.76	1.3665	12.5
dic	1	2459914.75	17	22	7.42	-25	11	15.50	1.3565	12.5
dic	2	2459915.75	17	28	49.20	-25	20	5.43	1.3459	12.5
dic	3	2459916.75	17	35	30.89	-25	27	33.33	1.3347	12.6
dic	4	2459917.75	17	42	12.19	-25	33	38.09	1.3228	12.6
dic	5	2459918.75	17	48	52.77	-25	38	18.65	1.3102	12.7
dic	6	2459919.75	17	55	32.25	-25	41	34.07	1.2970	12.7
dic	7	2459920.75	18	2	10.20	-25	43	23.54	1.2831	12.8
dic	8	2459921.75	18	8	46.12	-25	43	46.38	1.2685	12.8
dic	9	2459922.75	18	15	19.48	-25	42	42.11	1.2531	12.9
dic	10	2459923.75	18	21	49.62	-25	40	10.45	1.2370	12.9
dic	11	2459924.75	18	28	15.86	-25	36	11.39	1.2202	12.9
dic	12	2459925.75	18	34	37.37	-25	30	45.23	1.2027	13.0
dic	13	2459926.75	18	40	53.26	-25	23	52.65	1.1843	13.0
dic	14	2459927.75	18	47	2.48	-25	15	34.76	1.1653	13.1
dic	15	2459928.75	18	53	3.88	-25	5	53.19	1.1454	13.1
dic	16	2459929.75	18	58	56.13	-24	54	50.18	1.1248	13.1
dic	17	2459930.75	19	4	37.74	-24	42	28.65	1.1034	13.2
dic	18	2459931.75	19	10	7.04	-24	28	52.36	1.0813	13.2
dic	19	2459932.75	19	15	22.11	-24	14	5.99	1.0585	13.2
dic	20	2459933.75	19	20	20.85	-23	58	15.24	1.0350	13.2
dic	21	2459934.75	19	25	0.86	-23	41	27.02	1.0109	13.2
dic	22	2459935.75	19	29	19.50	-23	23	49.48	0.9863	13.2
dic	23	2459936.75	19	33	13.87	-23	5	32.12	0.9613	13.2
dic	24	2459937.75	19	36	40.79	-22	46	45.88	0.9359	13.2
dic	25	2459938.75	19	39	36.88	-22	27	43.03	0.9103	13.2
dic	26	2459939.75	19	41	58.57	-22	8	37.13	0.8847	13.2
dic	27	2459940.75	19	43	42.24	-21	49	42.82	0.8593	13.2
dic	28	2459941.75	19	44	44.34	-21	31	15.42	0.8343	13.1
dic	29	2459942.75	19	45	1.60	-21	13	30.53	0.8100	13.0
dic	30	2459943.75	19	44	31.30	-20	56	43.31	0.7866	13.0
dic	31	2459944.75	19	43	11.56	-20	41	7.82	0.7646	12.9
ene	1	2459945.75	19	41	1.73	-20	26	56.22	0.7442	12.8
ene	2	2459946.75	19	38	2.75	-20	14	18.05	0.7258	12.7
ene	3	2459947.75	19	34	24.28	-20	3	27.96	0.7037	12.5
ene	4	2459948.75	19	40	6.30	-19	37	24.54	0.7708	12.6

Venus, 2022

Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
ene	1	2459580.75	19	37	56.91	-18	32	23.18	0.2732	12.7
ene	2	2459581.75	19	35	39.76	-18	21	58.89	0.2713	12.6
ene	3	2459582.75	19	33	16.58	-18	11	50.54	0.2697	12.5
ene	4	2459583.75	19	30	48.23	-18	1	59.23	0.2683	12.4
ene	5	2459584.75	19	28	15.60	-17	52	26.09	0.2673	12.3
ene	6	2459585.75	19	25	39.68	-17	43	12.27	0.2665	12.2
ene	7	2459586.75	19	23	1.46	-17	34	18.97	0.2660	12.1
ene	8	2459587.75	19	20	22.01	-17	25	47.42	0.2658	12.0
ene	9	2459588.75	19	17	42.39	-17	17	38.82	0.2659	11.8
ene	10	2459589.75	19	15	3.67	-17	9	54.38	0.2663	11.7
ene	11	2459590.75	19	12	26.92	-17	2	35.24	0.2670	11.6
ene	12	2459591.75	19	9	53.19	-16	55	42.49	0.2680	11.5
ene	13	2459592.75	19	7	23.49	-16	49	17.10	0.2693	11.4
ene	14	2459593.75	19	4	58.76	-16	43	19.95	0.2709	11.3
ene	15	2459594.75	19	2	39.90	-16	37	51.75	0.2727	11.2
ene	16	2459595.75	19	0	27.74	-16	32	53.05	0.2749	11.1
ene	17	2459596.75	18	58	23.03	-16	28	24.22	0.2773	11.0
ene	18	2459597.75	18	56	26.45	-16	24	25.44	0.2800	10.9
ene	19	2459598.75	18	54	38.57	-16	20	56.67	0.2829	10.8
ene	20	2459599.75	18	52	59.90	-16	17	57.68	0.2861	10.7
ene	21	2459600.75	18	51	30.86	-16	15	28.03	0.2895	10.6
ene	22	2459601.75	18	50	11.78	-16	13	27.07	0.2931	10.5
ene	23	2459602.75	18	49	2.92	-16	11	53.98	0.2970	10.4
ene	24	2459603.75	18	48	4.46	-16	10	47.76	0.3011	10.4
ene	25	2459604.75	18	47	16.51	-16	10	7.28	0.3054	10.3
ene	26	2459605.75	18	46	39.12	-16	9	51.23	0.3099	10.2
ene	27	2459606.75	18	46	12.29	-16	9	58.22	0.3145	10.1
ene	28	2459607.75	18	45	55.93	-16	10	26.75	0.3194	10.1
ene	29	2459608.75	18	45	49.95	-16	11	15.26	0.3244	10.0
ene	30	2459609.75	18	45	54.19	-16	12	22.10	0.3296	9.9
ene	31	2459610.75	18	46	8.46	-16	13	45.58	0.3349	9.9
feb	1	2459611.75	18	46	32.57	-16	15	23.97	0.3403	9.8
feb	2	2459612.75	18	47	6.28	-16	17	15.53	0.3460	9.8
feb	3	2459613.75	18	47	49.36	-16	19	18.49	0.3517	9.7
feb	4	2459614.75	18	48	41.56	-16	21	31.10	0.3576	9.7
feb	5	2459615.75	18	49	42.65	-16	23	51.59	0.3635	9.6
feb	6	2459616.75	18	50	52.35	-16	26	18.24	0.3696	9.6
feb	7	2459617.75	18	52	10.42	-16	28	49.31	0.3758	9.5
feb	8	2459618.75	18	53	36.61	-16	31	23.12	0.3821	9.5
feb	9	2459619.75	18	55	10.65	-16	33	58.00	0.3885	9.4
feb	10	2459620.75	18	56	52.28	-16	36	32.29	0.3950	9.4
feb	11	2459621.75	18	58	41.25	-16	39	4.40	0.4016	9.4
feb	12	2459622.75	19	0	37.31	-16	41	32.75	0.4083	9.3
feb	13	2459623.75	19	2	40.21	-16	43	55.81	0.4150	9.3
feb	14	2459624.75	19	4	49.70	-16	46	12.11	0.4218	9.3
feb	15	2459625.75	19	7	5.55	-16	48	20.18	0.4287	9.2

Venus, 2022

Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
feb	16	2459626.75	19	9	27.50	-16	50	18.62	0.4356	9.2
feb	17	2459627.75	19	11	55.35	-16	52	6.09	0.4426	9.2
feb	18	2459628.75	19	14	28.85	-16	53	41.27	0.4497	9.2
feb	19	2459629.75	19	17	7.80	-16	55	2.90	0.4568	9.1
feb	20	2459630.75	19	19	51.96	-16	56	9.77	0.4640	9.1
feb	21	2459631.75	19	22	41.14	-16	57	0.74	0.4712	9.1
feb	22	2459632.75	19	25	35.13	-16	57	34.72	0.4785	9.1
feb	23	2459633.75	19	28	33.71	-16	57	50.70	0.4858	9.1
feb	24	2459634.75	19	31	36.70	-16	57	47.71	0.4931	9.1
feb	25	2459635.75	19	34	43.88	-16	57	24.87	0.5005	9.0
feb	26	2459636.75	19	37	55.08	-16	56	41.33	0.5079	9.0
feb	27	2459637.75	19	41	10.08	-16	55	36.32	0.5154	9.0
feb	28	2459638.75	19	44	28.72	-16	54	9.12	0.5229	9.0
mar	1	2459639.75	19	47	50.81	-16	52	19.04	0.5304	9.0
mar	2	2459640.75	19	51	16.18	-16	50	5.48	0.5379	9.0
mar	3	2459641.75	19	54	44.67	-16	47	27.84	0.5455	9.0
mar	4	2459642.75	19	58	16.13	-16	44	25.60	0.5531	9.0
mar	5	2459643.75	20	1	50.40	-16	40	58.28	0.5607	9.0
mar	6	2459644.75	20	5	27.36	-16	37	5.43	0.5683	9.0
mar	7	2459645.75	20	9	6.86	-16	32	46.67	0.5760	9.0
mar	8	2459646.75	20	12	48.78	-16	28	1.64	0.5836	9.0
mar	9	2459647.75	20	16	33.00	-16	22	50.00	0.5913	9.0
mar	10	2459648.75	20	20	19.38	-16	17	11.48	0.5990	8.9
mar	11	2459649.75	20	24	7.83	-16	11	5.82	0.6067	8.9
mar	12	2459650.75	20	27	58.22	-16	4	32.80	0.6145	8.9
mar	13	2459651.75	20	31	50.46	-15	57	32.23	0.6222	8.9
mar	14	2459652.75	20	35	44.43	-15	50	3.96	0.6300	8.9
mar	15	2459653.75	20	39	40.04	-15	42	7.86	0.6377	8.9
mar	16	2459654.75	20	43	37.20	-15	33	43.82	0.6455	8.9
mar	17	2459655.75	20	47	35.81	-15	24	51.78	0.6533	8.9
mar	18	2459656.75	20	51	35.79	-15	15	31.68	0.6611	8.9
mar	19	2459657.75	20	55	37.06	-15	5	43.51	0.6689	8.9
mar	20	2459658.75	20	59	39.53	-14	55	27.29	0.6767	8.9
mar	21	2459659.75	21	3	43.14	-14	44	43.08	0.6845	8.9
mar	22	2459660.75	21	7	47.80	-14	33	30.95	0.6924	9.0
mar	23	2459661.75	21	11	53.43	-14	21	51.06	0.7002	9.0
mar	24	2459662.75	21	15	59.97	-14	9	43.57	0.7080	9.0
mar	25	2459663.75	21	20	7.34	-13	57	8.69	0.7158	9.0
mar	26	2459664.75	21	24	15.47	-13	44	6.68	0.7237	9.0
mar	27	2459665.75	21	28	24.29	-13	30	37.80	0.7315	9.0
mar	28	2459666.75	21	32	33.74	-13	16	42.35	0.7393	9.0
mar	29	2459667.75	21	36	43.75	-13	2	20.64	0.7471	9.0
mar	30	2459668.75	21	40	54.26	-12	47	33.03	0.7549	9.0
mar	31	2459669.75	21	45	5.22	-12	32	19.86	0.7628	9.0
abr	1	2459670.75	21	49	16.59	-12	16	41.51	0.7706	9.0
abr	2	2459671.75	21	53	28.33	-12	0	38.38	0.7784	9.0

Venus, 2022

Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
abr	3	2459672.75	21	57	40.38	-11	44	10.88	0.7862	9.0
abr	4	2459673.75	22	1	52.71	-11	27	19.43	0.7940	9.0
abr	5	2459674.75	22	6	5.30	-11	10	4.47	0.8017	9.0
abr	6	2459675.75	22	10	18.10	-10	52	26.46	0.8095	9.0
abr	7	2459676.75	22	14	31.09	-10	34	25.85	0.8173	9.0
abr	8	2459677.75	22	18	44.25	-10	16	3.10	0.8251	9.0
abr	9	2459678.75	22	22	57.54	-9	57	18.71	0.8328	9.0
abr	10	2459679.75	22	27	10.96	-9	38	13.14	0.8406	9.0
abr	11	2459680.75	22	31	24.48	-9	18	46.89	0.8483	9.0
abr	12	2459681.75	22	35	38.10	-8	59	0.45	0.8561	9.0
abr	13	2459682.75	22	39	51.79	-8	38	54.32	0.8638	9.0
abr	14	2459683.75	22	44	5.54	-8	18	29.01	0.8715	9.0
abr	15	2459684.75	22	48	19.37	-7	57	45.00	0.8792	9.0
abr	16	2459685.75	22	52	33.25	-7	36	42.81	0.8869	9.1
abr	17	2459686.75	22	56	47.19	-7	15	22.95	0.8946	9.1
abr	18	2459687.75	23	1	1.20	-6	53	45.95	0.9023	9.1
abr	19	2459688.75	23	5	15.26	-6	31	52.34	0.9099	9.1
abr	20	2459689.75	23	9	29.38	-6	9	42.70	0.9176	9.1
abr	21	2459690.75	23	13	43.56	-5	47	17.60	0.9252	9.1
abr	22	2459691.75	23	17	57.80	-5	24	37.66	0.9329	9.1
abr	23	2459692.75	23	22	12.09	-5	1	43.48	0.9405	9.1
abr	24	2459693.75	23	26	26.44	-4	38	35.69	0.9481	9.1
abr	25	2459694.75	23	30	40.85	-4	15	14.91	0.9556	9.1
abr	26	2459695.75	23	34	55.32	-3	51	41.77	0.9632	9.1
abr	27	2459696.75	23	39	9.86	-3	27	56.91	0.9707	9.1
abr	28	2459697.75	23	43	24.49	-3	4	0.97	0.9783	9.1
abr	29	2459698.75	23	47	39.20	-2	39	54.58	0.9858	9.1
abr	30	2459699.75	23	51	54.01	-2	15	38.37	0.9933	9.1
may	1	2459700.75	23	56	8.94	-1	51	13.00	1.0007	9.1
may	2	2459701.75	0	0	24.00	-1	26	39.11	1.0082	9.1
may	3	2459702.75	0	4	39.20	-1	1	57.34	1.0156	9.1
may	4	2459703.75	0	8	54.56	-0	37	8.33	1.0230	9.1
may	5	2459704.75	0	13	10.10	-0	12	12.73	1.0304	9.1
may	6	2459705.75	0	17	25.84	+0	12	48.82	1.0378	9.2
may	7	2459706.75	0	21	41.79	+0	37	55.68	1.0451	9.2
may	8	2459707.75	0	25	57.98	+1	3	7.21	1.0524	9.2
may	9	2459708.75	0	30	14.43	+1	28	22.77	1.0597	9.2
may	10	2459709.75	0	34	31.16	+1	53	41.72	1.0670	9.2
may	11	2459710.75	0	38	48.20	+2	19	3.45	1.0743	9.2
may	12	2459711.75	0	43	5.58	+2	44	27.32	1.0815	9.2
may	13	2459712.75	0	47	23.32	+3	9	52.71	1.0888	9.2
may	14	2459713.75	0	51	41.46	+3	35	19.01	1.0960	9.2
may	15	2459714.75	0	56	0.02	+4	0	45.60	1.1031	9.2
may	16	2459715.75	1	0	19.03	+4	26	11.87	1.1103	9.2
may	17	2459716.75	1	4	38.53	+4	51	37.20	1.1174	9.2
may	18	2459717.75	1	8	58.53	+5	17	0.94	1.1245	9.2

Venus, 2022

Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
may	19	2459718.75	1	13	19.07	+5	42	22.43	1.1316	9.2
may	20	2459719.75	1	17	40.18	+6	7	41.01	1.1386	9.2
may	21	2459720.75	1	22	1.86	+6	32	55.98	1.1457	9.2
may	22	2459721.75	1	26	24.15	+6	58	6.66	1.1527	9.3
may	23	2459722.75	1	30	47.08	+7	23	12.36	1.1596	9.3
may	24	2459723.75	1	35	10.66	+7	48	12.40	1.1666	9.3
may	25	2459724.75	1	39	34.92	+8	13	6.07	1.1735	9.3
may	26	2459725.75	1	43	59.89	+8	37	52.68	1.1804	9.3
may	27	2459726.75	1	48	25.59	+9	2	31.55	1.1872	9.3
may	28	2459727.75	1	52	52.04	+9	27	1.98	1.1941	9.3
may	29	2459728.75	1	57	19.28	+9	51	23.27	1.2009	9.3
may	30	2459729.75	2	1	47.31	+10	15	34.73	1.2076	9.3
may	31	2459730.75	2	6	16.16	+10	39	35.65	1.2143	9.3
jun	1	2459731.75	2	10	45.85	+11	3	25.34	1.2210	9.3
jun	2	2459732.75	2	15	16.41	+11	27	3.09	1.2277	9.3
jun	3	2459733.75	2	19	47.85	+11	50	28.22	1.2343	9.4
jun	4	2459734.75	2	24	20.19	+12	13	40.01	1.2409	9.4
jun	5	2459735.75	2	28	53.46	+12	36	37.78	1.2475	9.4
jun	6	2459736.75	2	33	27.67	+12	59	20.82	1.2540	9.4
jun	7	2459737.75	2	38	2.85	+13	21	48.45	1.2606	9.4
jun	8	2459738.75	2	42	39.01	+13	43	59.97	1.2670	9.4
jun	9	2459739.75	2	47	16.17	+14	5	54.71	1.2735	9.4
jun	10	2459740.75	2	51	54.35	+14	27	31.99	1.2799	9.4
jun	11	2459741.75	2	56	33.58	+14	48	51.15	1.2862	9.4
jun	12	2459742.75	3	1	13.87	+15	9	51.51	1.2926	9.5
jun	13	2459743.75	3	5	55.24	+15	30	32.41	1.2989	9.5
jun	14	2459744.75	3	10	37.70	+15	50	53.21	1.3051	9.5
jun	15	2459745.75	3	15	21.27	+16	10	53.22	1.3114	9.5
jun	16	2459746.75	3	20	5.95	+16	30	31.77	1.3175	9.5
jun	17	2459747.75	3	24	51.75	+16	49	48.17	1.3237	9.5
jun	18	2459748.75	3	29	38.67	+17	8	41.71	1.3298	9.5
jun	19	2459749.75	3	34	26.73	+17	27	11.71	1.3359	9.5
jun	20	2459750.75	3	39	15.92	+17	45	17.46	1.3420	9.6
jun	21	2459751.75	3	44	6.25	+18	2	58.30	1.3480	9.6
jun	22	2459752.75	3	48	57.71	+18	20	13.53	1.3539	9.6
jun	23	2459753.75	3	53	50.29	+18	37	2.51	1.3598	9.6
jun	24	2459754.75	3	58	44.01	+18	53	24.56	1.3657	9.6
jun	25	2459755.75	4	3	38.83	+19	9	19.04	1.3716	9.6
jun	26	2459756.75	4	8	34.77	+19	24	45.30	1.3774	9.7
jun	27	2459757.75	4	13	31.79	+19	39	42.71	1.3831	9.7
jun	28	2459758.75	4	18	29.88	+19	54	10.66	1.3888	9.7
jun	29	2459759.75	4	23	29.03	+20	8	8.51	1.3945	9.7
jun	30	2459760.75	4	28	29.22	+20	21	35.68	1.4001	9.7
jul	1	2459761.75	4	33	30.42	+20	34	31.56	1.4057	9.7
jul	2	2459762.75	4	38	32.61	+20	46	55.60	1.4113	9.8
jul	3	2459763.75	4	43	35.77	+20	58	47.22	1.4168	9.8

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Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
jul	4	2459764.75	4	48	39.87	+21	10	5.88	1.4222	9.8
jul	5	2459765.75	4	53	44.88	+21	20	51.06	1.4276	9.8
jul	6	2459766.75	4	58	50.78	+21	31	2.25	1.4330	9.8
jul	7	2459767.75	5	3	57.53	+21	40	38.96	1.4383	9.9
jul	8	2459768.75	5	9	5.11	+21	49	40.74	1.4436	9.9
jul	9	2459769.75	5	14	13.48	+21	58	7.14	1.4488	9.9
jul	10	2459770.75	5	19	22.61	+22	5	57.76	1.4540	9.9
jul	11	2459771.75	5	24	32.47	+22	13	12.20	1.4592	9.9
jul	12	2459772.75	5	29	43.02	+22	19	50.09	1.4643	10.0
jul	13	2459773.75	5	34	54.21	+22	25	51.09	1.4693	10.0
jul	14	2459774.75	5	40	6.01	+22	31	14.85	1.4743	10.0
jul	15	2459775.75	5	45	18.37	+22	36	1.03	1.4793	10.0
jul	16	2459776.75	5	50	31.24	+22	40	9.32	1.4842	10.0
jul	17	2459777.75	5	55	44.60	+22	43	39.42	1.4891	10.1
jul	18	2459778.75	6	0	58.38	+22	46	31.08	1.4939	10.1
jul	19	2459779.75	6	6	12.54	+22	48	44.05	1.4987	10.1
jul	20	2459780.75	6	11	27.04	+22	50	18.13	1.5034	10.1
jul	21	2459781.75	6	16	41.82	+22	51	13.16	1.5081	10.1
jul	22	2459782.75	6	21	56.83	+22	51	28.99	1.5127	10.2
jul	23	2459783.75	6	27	12.02	+22	51	5.50	1.5173	10.2
jul	24	2459784.75	6	32	27.34	+22	50	2.62	1.5218	10.2
jul	25	2459785.75	6	37	42.73	+22	48	20.29	1.5263	10.2
jul	26	2459786.75	6	42	58.13	+22	45	58.47	1.5308	10.3
jul	27	2459787.75	6	48	13.49	+22	42	57.17	1.5351	10.3
jul	28	2459788.75	6	53	28.76	+22	39	16.42	1.5395	10.3
jul	29	2459789.75	6	58	43.88	+22	34	56.26	1.5437	10.3
jul	30	2459790.75	7	3	58.81	+22	29	56.79	1.5480	10.3
jul	31	2459791.75	7	9	13.48	+22	24	18.10	1.5521	10.4
ago	1	2459792.75	7	14	27.85	+22	18	0.34	1.5563	10.4
ago	2	2459793.75	7	19	41.87	+22	11	3.68	1.5603	10.4
ago	3	2459794.75	7	24	55.49	+22	3	28.30	1.5643	10.4
ago	4	2459795.75	7	30	8.68	+21	55	14.43	1.5683	10.5
ago	5	2459796.75	7	35	21.38	+21	46	22.33	1.5722	10.5
ago	6	2459797.75	7	40	33.56	+21	36	52.27	1.5761	10.5
ago	7	2459798.75	7	45	45.18	+21	26	44.56	1.5799	10.5
ago	8	2459799.75	7	50	56.19	+21	15	59.54	1.5837	10.5
ago	9	2459800.75	7	56	6.57	+21	4	37.56	1.5874	10.6
ago	10	2459801.75	8	1	16.28	+20	52	38.99	1.5910	10.6
ago	11	2459802.75	8	6	25.29	+20	40	4.22	1.5946	10.6
ago	12	2459803.75	8	11	33.55	+20	26	53.63	1.5982	10.6
ago	13	2459804.75	8	16	41.06	+20	13	7.63	1.6017	10.6
ago	14	2459805.75	8	21	47.78	+19	58	46.64	1.6052	10.7
ago	15	2459806.75	8	26	53.70	+19	43	51.10	1.6086	10.7
ago	16	2459807.75	8	31	58.78	+19	28	21.48	1.6119	10.7
ago	17	2459808.75	8	37	3.02	+19	12	18.27	1.6152	10.7
ago	18	2459809.75	8	42	6.39	+18	55	41.99	1.6185	10.7

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Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
ago	19	2459810.75	8	47	8.88	+18	38	33.17	1.6217	10.8
ago	20	2459811.75	8	52	10.47	+18	20	52.36	1.6248	10.8
ago	21	2459812.75	8	57	11.15	+18	2	40.14	1.6279	10.8
ago	22	2459813.75	9	2	10.90	+17	43	57.08	1.6309	10.8
ago	23	2459814.75	9	7	9.71	+17	24	43.79	1.6339	10.8
ago	24	2459815.75	9	12	7.58	+17	5	0.86	1.6368	10.8
ago	25	2459816.75	9	17	4.49	+16	44	48.91	1.6397	10.9
ago	26	2459817.75	9	22	0.45	+16	24	8.59	1.6425	10.9
ago	27	2459818.75	9	26	55.45	+16	3	0.51	1.6453	10.9
ago	28	2459819.75	9	31	49.50	+15	41	25.33	1.6480	10.9
ago	29	2459820.75	9	36	42.58	+15	19	23.71	1.6506	10.9
ago	30	2459821.75	9	41	34.72	+14	56	56.30	1.6532	10.9
ago	31	2459822.75	9	46	25.91	+14	34	3.77	1.6558	10.9
sep	1	2459823.75	9	51	16.18	+14	10	46.80	1.6582	11.0
sep	2	2459824.75	9	56	5.52	+13	47	6.08	1.6607	11.0
sep	3	2459825.75	10	0	53.96	+13	23	2.31	1.6631	11.0
sep	4	2459826.75	10	5	41.50	+12	58	36.17	1.6654	11.0
sep	5	2459827.75	10	10	28.17	+12	33	48.38	1.6677	11.0
sep	6	2459828.75	10	15	13.99	+12	8	39.64	1.6699	11.0
sep	7	2459829.75	10	19	58.96	+11	43	10.65	1.6721	11.0
sep	8	2459830.75	10	24	43.12	+11	17	22.11	1.6742	11.1
sep	9	2459831.75	10	29	26.49	+10	51	14.71	1.6762	11.1
sep	10	2459832.75	10	34	9.09	+10	24	49.13	1.6783	11.1
sep	11	2459833.75	10	38	50.96	+9	58	6.05	1.6802	11.1
sep	12	2459834.75	10	43	32.12	+9	31	6.15	1.6821	11.1
sep	13	2459835.75	10	48	12.61	+9	3	50.13	1.6840	11.1
sep	14	2459836.75	10	52	52.46	+8	36	18.67	1.6858	11.1
sep	15	2459837.75	10	57	31.70	+8	8	32.50	1.6876	11.1
sep	16	2459838.75	11	2	10.36	+7	40	32.31	1.6893	11.2
sep	17	2459839.75	11	6	48.47	+7	12	18.84	1.6909	11.2
sep	18	2459840.75	11	11	26.07	+6	43	52.81	1.6925	11.2
sep	19	2459841.75	11	16	3.18	+6	15	14.94	1.6941	11.2
sep	20	2459842.75	11	20	39.85	+5	46	25.96	1.6956	11.2
sep	21	2459843.75	11	25	16.09	+5	17	26.60	1.6970	11.2
sep	22	2459844.75	11	29	51.96	+4	48	17.61	1.6984	11.2
sep	23	2459845.75	11	34	27.48	+4	18	59.71	1.6998	11.2
sep	24	2459846.75	11	39	2.69	+3	49	33.63	1.7011	11.2
sep	25	2459847.75	11	43	37.62	+3	20	0.12	1.7023	11.3
sep	26	2459848.75	11	48	12.32	+2	50	19.91	1.7035	11.3
sep	27	2459849.75	11	52	46.82	+2	20	33.74	1.7046	11.3
sep	28	2459850.75	11	57	21.16	+1	50	42.35	1.7057	11.3
sep	29	2459851.75	12	1	55.38	+1	20	46.49	1.7067	11.3
sep	30	2459852.75	12	6	29.51	+0	50	46.89	1.7077	11.3
oct	1	2459853.75	12	11	3.61	+0	20	44.30	1.7087	11.3
oct	2	2459854.75	12	15	37.70	-0	9	20.52	1.7095	11.3
oct	3	2459855.75	12	20	11.82	-0	39	26.81	1.7104	11.3

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Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
oct	4	2459856.75	12	24	46.02	-1	9	33.84	1.7111	11.4
oct	5	2459857.75	12	29	20.33	-1	39	40.84	1.7119	11.4
oct	6	2459858.75	12	33	54.79	-2	9	47.08	1.7126	11.4
oct	7	2459859.75	12	38	29.45	-2	39	51.82	1.7132	11.4
oct	8	2459860.75	12	43	4.35	-3	9	54.33	1.7138	11.4
oct	9	2459861.75	12	47	39.54	-3	39	53.90	1.7143	11.4
oct	10	2459862.75	12	52	15.06	-4	9	49.79	1.7148	11.4
oct	11	2459863.75	12	56	50.96	-4	39	41.29	1.7153	11.4
oct	12	2459864.75	13	1	27.27	-5	9	27.64	1.7157	11.4
oct	13	2459865.75	13	6	4.05	-5	39	8.12	1.7160	11.5
oct	14	2459866.75	13	10	41.33	-6	8	41.97	1.7163	11.5
oct	15	2459867.75	13	15	19.14	-6	38	8.43	1.7166	11.5
oct	16	2459868.75	13	19	57.54	-7	7	26.73	1.7168	11.5
oct	17	2459869.75	13	24	36.56	-7	36	36.09	1.7170	11.5
oct	18	2459870.75	13	29	16.24	-8	5	35.75	1.7171	11.5
oct	19	2459871.75	13	33	56.61	-8	34	24.91	1.7172	11.5
oct	20	2459872.75	13	38	37.70	-9	3	2.80	1.7172	11.5
oct	21	2459873.75	13	43	19.57	-9	31	28.62	1.7172	11.5
oct	22	2459874.75	13	48	2.24	-9	59	41.59	1.7171	11.6
oct	23	2459875.75	13	52	45.74	-10	27	40.92	1.7170	11.6
oct	24	2459876.75	13	57	30.11	-10	55	25.81	1.7168	11.6
oct	25	2459877.75	14	2	15.39	-11	22	55.46	1.7166	11.6
oct	26	2459878.75	14	7	1.59	-11	50	9.04	1.7164	11.6
oct	27	2459879.75	14	11	48.76	-12	17	5.76	1.7161	11.6
oct	28	2459880.75	14	16	36.92	-12	43	44.79	1.7157	11.6
oct	29	2459881.75	14	21	26.09	-13	10	5.33	1.7153	11.7
oct	30	2459882.75	14	26	16.30	-13	36	6.57	1.7149	11.7
oct	31	2459883.75	14	31	7.57	-14	1	47.67	1.7144	11.7
nov	1	2459884.75	14	35	59.91	-14	27	7.82	1.7139	11.7
nov	2	2459885.75	14	40	53.36	-14	52	6.21	1.7133	11.7
nov	3	2459886.75	14	45	47.93	-15	16	42.04	1.7127	11.7
nov	4	2459887.75	14	50	43.64	-15	40	54.49	1.7121	11.8
nov	5	2459888.75	14	55	40.52	-16	4	42.79	1.7114	11.8
nov	6	2459889.75	15	0	38.57	-16	28	6.14	1.7107	11.8
nov	7	2459890.75	15	5	37.82	-16	51	3.79	1.7099	11.8
nov	8	2459891.75	15	10	38.28	-17	13	34.94	1.7091	11.8
nov	9	2459892.75	15	15	39.96	-17	35	38.85	1.7082	11.8
nov	10	2459893.75	15	20	42.87	-17	57	14.72	1.7073	11.9
nov	11	2459894.75	15	25	47.02	-18	18	21.80	1.7064	11.9
nov	12	2459895.75	15	30	52.41	-18	38	59.31	1.7054	11.9
nov	13	2459896.75	15	35	59.03	-18	59	6.50	1.7044	11.9
nov	14	2459897.75	15	41	6.89	-19	18	42.59	1.7033	11.9
nov	15	2459898.75	15	46	15.97	-19	37	46.83	1.7022	12.0
nov	16	2459899.75	15	51	26.28	-19	56	18.49	1.7011	12.0
nov	17	2459900.75	15	56	37.80	-20	14	16.81	1.6999	12.0
nov	18	2459901.75	16	1	50.51	-20	31	41.07	1.6987	12.0

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Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
nov	19	2459902.75	16	7	4.41	-20	48	30.56	1.6974	12.0
nov	20	2459903.75	16	12	19.47	-21	4	44.57	1.6961	12.1
nov	21	2459904.75	16	17	35.67	-21	20	22.43	1.6948	12.1
nov	22	2459905.75	16	22	52.99	-21	35	23.46	1.6934	12.1
nov	23	2459906.75	16	28	11.40	-21	49	47.02	1.6920	12.1
nov	24	2459907.75	16	33	30.87	-22	3	32.49	1.6905	12.1
nov	25	2459908.75	16	38	51.35	-22	16	39.25	1.6890	12.2
nov	26	2459909.75	16	44	12.82	-22	29	6.74	1.6874	12.2
nov	27	2459910.75	16	49	35.22	-22	40	54.37	1.6859	12.2
nov	28	2459911.75	16	54	58.51	-22	52	1.59	1.6842	12.2
nov	29	2459912.75	17	0	22.64	-23	2	27.87	1.6826	12.3
nov	30	2459913.75	17	5	47.56	-23	12	12.73	1.6809	12.3
dic	1	2459914.75	17	11	13.22	-23	21	15.68	1.6791	12.3
dic	2	2459915.75	17	16	39.57	-23	29	36.31	1.6773	12.3
dic	3	2459916.75	17	22	6.57	-23	37	14.22	1.6755	12.4
dic	4	2459917.75	17	27	34.15	-23	44	9.05	1.6737	12.4
dic	5	2459918.75	17	33	2.27	-23	50	20.47	1.6718	12.4
dic	6	2459919.75	17	38	30.87	-23	55	48.19	1.6698	12.4
dic	7	2459920.75	17	43	59.89	-24	0	31.94	1.6679	12.5
dic	8	2459921.75	17	49	29.26	-24	4	31.50	1.6659	12.5
dic	9	2459922.75	17	54	58.93	-24	7	46.66	1.6638	12.5
dic	10	2459923.75	18	0	28.84	-24	10	17.25	1.6617	12.5
dic	11	2459924.75	18	5	58.91	-24	12	3.14	1.6596	12.6
dic	12	2459925.75	18	11	29.08	-24	13	4.19	1.6575	12.6
dic	13	2459926.75	18	16	59.30	-24	13	20.35	1.6553	12.6
dic	14	2459927.75	18	22	29.49	-24	12	51.57	1.6531	12.7
dic	15	2459928.75	18	27	59.59	-24	11	37.83	1.6508	12.7
dic	16	2459929.75	18	33	29.53	-24	9	39.16	1.6485	12.7
dic	17	2459930.75	18	38	59.26	-24	6	55.61	1.6462	12.7
dic	18	2459931.75	18	44	28.70	-24	3	27.29	1.6438	12.8
dic	19	2459932.75	18	49	57.80	-23	59	14.31	1.6414	12.8
dic	20	2459933.75	18	55	26.49	-23	54	16.86	1.6390	12.8
dic	21	2459934.75	19	0	54.72	-23	48	35.14	1.6365	12.8
dic	22	2459935.75	19	6	22.41	-23	42	9.40	1.6340	12.9
dic	23	2459936.75	19	11	49.50	-23	34	59.92	1.6315	12.9
dic	24	2459937.75	19	17	15.94	-23	27	7.03	1.6289	12.9
dic	25	2459938.75	19	22	41.65	-23	18	31.07	1.6262	12.9
dic	26	2459939.75	19	28	6.58	-23	9	12.41	1.6236	13.0
dic	27	2459940.75	19	33	30.67	-22	59	11.44	1.6209	13.0
dic	28	2459941.75	19	38	53.87	-22	48	28.59	1.6181	13.0
dic	29	2459942.75	19	44	16.13	-22	37	4.30	1.6153	13.0
dic	30	2459943.75	19	49	37.40	-22	24	59.08	1.6125	13.1
dic	31	2459944.75	19	54	57.65	-22	12	13.42	1.6097	13.1
ene	1	2459945.75	20	0	16.84	-21	58	47.87	1.6068	13.1
ene	2	2459946.75	20	5	34.92	-21	44	43.00	1.6039	13.1
ene	3	2459947.75	20	10	45.14	-21	30	19.24	1.5874	13.1
ene	4	2459948.75	20	26	51.37	-20	36	59.11	1.7688	13.3

Marte, 2022

Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
ene	1	2459580.75	16	47	23.94	-22	31	29.38	2.3398	9.9
ene	2	2459581.75	16	50	27.12	-22	37	19.68	2.3346	9.9
ene	3	2459582.75	16	53	30.73	-22	42	57.46	2.3293	9.8
ene	4	2459583.75	16	56	34.73	-22	48	22.60	2.3239	9.8
ene	5	2459584.75	16	59	39.12	-22	53	34.99	2.3186	9.8
ene	6	2459585.75	17	2	43.89	-22	58	34.49	2.3132	9.8
ene	7	2459586.75	17	5	49.03	-23	3	21.01	2.3078	9.8
ene	8	2459587.75	17	8	54.54	-23	7	54.45	2.3023	9.8
ene	9	2459588.75	17	12	0.40	-23	12	14.70	2.2968	9.8
ene	10	2459589.75	17	15	6.61	-23	16	21.70	2.2913	9.7
ene	11	2459590.75	17	18	13.17	-23	20	15.36	2.2858	9.7
ene	12	2459591.75	17	21	20.06	-23	23	55.60	2.2802	9.7
ene	13	2459592.75	17	24	27.28	-23	27	22.35	2.2747	9.7
ene	14	2459593.75	17	27	34.82	-23	30	35.55	2.2691	9.7
ene	15	2459594.75	17	30	42.66	-23	33	35.12	2.2634	9.7
ene	16	2459595.75	17	33	50.81	-23	36	21.00	2.2578	9.7
ene	17	2459596.75	17	36	59.24	-23	38	53.10	2.2521	9.6
ene	18	2459597.75	17	40	7.95	-23	41	11.38	2.2464	9.6
ene	19	2459598.75	17	43	16.92	-23	43	15.76	2.2407	9.6
ene	20	2459599.75	17	46	26.15	-23	45	6.16	2.2350	9.6
ene	21	2459600.75	17	49	35.63	-23	46	42.53	2.2292	9.6
ene	22	2459601.75	17	52	45.35	-23	48	4.80	2.2235	9.6
ene	23	2459602.75	17	55	55.29	-23	49	12.91	2.2177	9.6
ene	24	2459603.75	17	59	5.45	-23	50	6.81	2.2119	9.6
ene	25	2459604.75	18	2	15.81	-23	50	46.44	2.2060	9.5
ene	26	2459605.75	18	5	26.37	-23	51	11.77	2.2002	9.5
ene	27	2459606.75	18	8	37.11	-23	51	22.77	2.1943	9.5
ene	28	2459607.75	18	11	48.02	-23	51	19.40	2.1884	9.5
ene	29	2459608.75	18	14	59.09	-23	51	1.66	2.1825	9.5
ene	30	2459609.75	18	18	10.29	-23	50	29.51	2.1766	9.5
ene	31	2459610.75	18	21	21.61	-23	49	42.94	2.1707	9.5
feb	1	2459611.75	18	24	33.02	-23	48	41.92	2.1647	9.5
feb	2	2459612.75	18	27	44.52	-23	47	26.42	2.1587	9.4
feb	3	2459613.75	18	30	56.09	-23	45	56.43	2.1527	9.4
feb	4	2459614.75	18	34	7.72	-23	44	11.92	2.1467	9.4
feb	5	2459615.75	18	37	19.39	-23	42	12.91	2.1407	9.4
feb	6	2459616.75	18	40	31.10	-23	39	59.38	2.1347	9.4
feb	7	2459617.75	18	43	42.83	-23	37	31.36	2.1287	9.4
feb	8	2459618.75	18	46	54.58	-23	34	48.87	2.1226	9.4
feb	9	2459619.75	18	50	6.33	-23	31	51.93	2.1166	9.4
feb	10	2459620.75	18	53	18.07	-23	28	40.57	2.1105	9.3
feb	11	2459621.75	18	56	29.79	-23	25	14.82	2.1044	9.3
feb	12	2459622.75	18	59	41.48	-23	21	34.70	2.0983	9.3
feb	13	2459623.75	19	2	53.12	-23	17	40.27	2.0922	9.3
feb	14	2459624.75	19	6	4.71	-23	13	31.54	2.0861	9.3
feb	15	2459625.75	19	9	16.24	-23	9	8.56	2.0800	9.3

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Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
feb	16	2459626.75	19	12	27.69	-23	4	31.36	2.0739	9.3
feb	17	2459627.75	19	15	39.05	-22	59	39.97	2.0678	9.3
feb	18	2459628.75	19	18	50.32	-22	54	34.44	2.0617	9.2
feb	19	2459629.75	19	22	1.49	-22	49	14.80	2.0555	9.2
feb	20	2459630.75	19	25	12.54	-22	43	41.10	2.0494	9.2
feb	21	2459631.75	19	28	23.47	-22	37	53.38	2.0433	9.2
feb	22	2459632.75	19	31	34.28	-22	31	51.72	2.0371	9.2
feb	23	2459633.75	19	34	44.94	-22	25	36.18	2.0310	9.2
feb	24	2459634.75	19	37	55.46	-22	19	6.84	2.0248	9.2
feb	25	2459635.75	19	41	5.81	-22	12	23.79	2.0186	9.1
feb	26	2459636.75	19	44	15.99	-22	5	27.11	2.0125	9.1
feb	27	2459637.75	19	47	25.97	-21	58	16.90	2.0063	9.1
feb	28	2459638.75	19	50	35.76	-21	50	53.26	2.0001	9.1
mar	1	2459639.75	19	53	45.32	-21	43	16.26	1.9940	9.1
mar	2	2459640.75	19	56	54.66	-21	35	26.00	1.9878	9.1
mar	3	2459641.75	20	0	3.75	-21	27	22.57	1.9816	9.1
mar	4	2459642.75	20	3	12.60	-21	19	6.07	1.9754	9.1
mar	5	2459643.75	20	6	21.19	-21	10	36.59	1.9692	9.0
mar	6	2459644.75	20	9	29.52	-21	1	54.26	1.9631	9.0
mar	7	2459645.75	20	12	37.58	-20	52	59.18	1.9569	9.0
mar	8	2459646.75	20	15	45.37	-20	43	51.48	1.9507	9.0
mar	9	2459647.75	20	18	52.88	-20	34	31.28	1.9445	9.0
mar	10	2459648.75	20	22	0.10	-20	24	58.70	1.9384	9.0
mar	11	2459649.75	20	25	7.03	-20	15	13.88	1.9322	9.0
mar	12	2459650.75	20	28	13.66	-20	5	16.94	1.9260	8.9
mar	13	2459651.75	20	31	19.98	-19	55	8.01	1.9199	8.9
mar	14	2459652.75	20	34	26.00	-19	44	47.20	1.9137	8.9
mar	15	2459653.75	20	37	31.71	-19	34	14.66	1.9076	8.9
mar	16	2459654.75	20	40	37.10	-19	23	30.49	1.9014	8.9
mar	17	2459655.75	20	43	42.17	-19	12	34.82	1.8953	8.9
mar	18	2459656.75	20	46	46.92	-19	1	27.77	1.8891	8.9
mar	19	2459657.75	20	49	51.36	-18	50	9.46	1.8830	8.8
mar	20	2459658.75	20	52	55.47	-18	38	40.01	1.8769	8.8
mar	21	2459659.75	20	55	59.26	-18	26	59.55	1.8708	8.8
mar	22	2459660.75	20	59	2.73	-18	15	8.23	1.8647	8.8
mar	23	2459661.75	21	2	5.88	-18	3	6.19	1.8586	8.8
mar	24	2459662.75	21	5	8.70	-17	50	53.59	1.8525	8.8
mar	25	2459663.75	21	8	11.18	-17	38	30.61	1.8464	8.8
mar	26	2459664.75	21	11	13.32	-17	25	57.40	1.8403	8.7
mar	27	2459665.75	21	14	15.12	-17	13	14.13	1.8342	8.7
mar	28	2459666.75	21	17	16.57	-17	0	20.98	1.8281	8.7
mar	29	2459667.75	21	20	17.66	-16	47	18.09	1.8221	8.7
mar	30	2459668.75	21	23	18.39	-16	34	5.65	1.8160	8.7
mar	31	2459669.75	21	26	18.76	-16	20	43.81	1.8099	8.7
abr	1	2459670.75	21	29	18.77	-16	7	12.73	1.8039	8.7
abr	2	2459671.75	21	32	18.41	-15	53	32.59	1.7979	8.6

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Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
abr	3	2459672.75	21	35	17.69	-15	39	43.55	1.7918	8.6
abr	4	2459673.75	21	38	16.61	-15	25	45.80	1.7858	8.6
abr	5	2459674.75	21	41	15.17	-15	11	39.52	1.7798	8.6
abr	6	2459675.75	21	44	13.37	-14	57	24.88	1.7738	8.6
abr	7	2459676.75	21	47	11.21	-14	43	2.06	1.7678	8.6
abr	8	2459677.75	21	50	8.69	-14	28	31.23	1.7618	8.5
abr	9	2459678.75	21	53	5.81	-14	13	52.57	1.7559	8.5
abr	10	2459679.75	21	56	2.58	-13	59	6.26	1.7499	8.5
abr	11	2459680.75	21	58	58.99	-13	44	12.46	1.7440	8.5
abr	12	2459681.75	22	1	55.06	-13	29	11.34	1.7380	8.5
abr	13	2459682.75	22	4	50.78	-13	14	3.06	1.7321	8.5
abr	14	2459683.75	22	7	46.15	-12	58	47.78	1.7262	8.4
abr	15	2459684.75	22	10	41.20	-12	43	25.65	1.7203	8.4
abr	16	2459685.75	22	13	35.91	-12	27	56.83	1.7144	8.4
abr	17	2459686.75	22	16	30.30	-12	12	21.46	1.7085	8.4
abr	18	2459687.75	22	19	24.37	-11	56	39.70	1.7027	8.4
abr	19	2459688.75	22	22	18.14	-11	40	51.73	1.6968	8.4
abr	20	2459689.75	22	25	11.60	-11	24	57.73	1.6910	8.3
abr	21	2459690.75	22	28	4.75	-11	8	57.87	1.6852	8.3
abr	22	2459691.75	22	30	57.59	-10	52	52.37	1.6794	8.3
abr	23	2459692.75	22	33	50.13	-10	36	41.41	1.6736	8.3
abr	24	2459693.75	22	36	42.37	-10	20	25.19	1.6678	8.3
abr	25	2459694.75	22	39	34.30	-10	4	3.91	1.6620	8.2
abr	26	2459695.75	22	42	25.92	-9	47	37.76	1.6562	8.2
abr	27	2459696.75	22	45	17.24	-9	31	6.92	1.6504	8.2
abr	28	2459697.75	22	48	8.27	-9	14	31.58	1.6447	8.2
abr	29	2459698.75	22	50	59.00	-8	57	51.94	1.6389	8.2
abr	30	2459699.75	22	53	49.44	-8	41	8.19	1.6332	8.2
may	1	2459700.75	22	56	39.59	-8	24	20.53	1.6275	8.1
may	2	2459701.75	22	59	29.46	-8	7	29.13	1.6218	8.1
may	3	2459702.75	23	2	19.04	-7	50	34.21	1.6161	8.1
may	4	2459703.75	23	5	8.35	-7	33	35.94	1.6104	8.1
may	5	2459704.75	23	7	57.39	-7	16	34.53	1.6047	8.1
may	6	2459705.75	23	10	46.16	-6	59	30.16	1.5990	8.0
may	7	2459706.75	23	13	34.67	-6	42	23.02	1.5934	8.0
may	8	2459707.75	23	16	22.91	-6	25	13.29	1.5878	8.0
may	9	2459708.75	23	19	10.90	-6	8	1.14	1.5821	8.0
may	10	2459709.75	23	21	58.65	-5	50	46.75	1.5765	8.0
may	11	2459710.75	23	24	46.15	-5	33	30.28	1.5709	7.9
may	12	2459711.75	23	27	33.42	-5	16	11.90	1.5653	7.9
may	13	2459712.75	23	30	20.46	-4	58	51.76	1.5597	7.9
may	14	2459713.75	23	33	7.29	-4	41	30.01	1.5542	7.9
may	15	2459714.75	23	35	53.91	-4	24	6.80	1.5486	7.9
may	16	2459715.75	23	38	40.33	-4	6	42.29	1.5431	7.9
may	17	2459716.75	23	41	26.56	-3	49	16.62	1.5376	7.8
may	18	2459717.75	23	44	12.60	-3	31	49.98	1.5320	7.8

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Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
may	19	2459718.75	23	46	58.46	-3	14	22.56	1.5265	7.8
may	20	2459719.75	23	49	44.14	-2	56	54.55	1.5210	7.8
may	21	2459720.75	23	52	29.63	-2	39	26.14	1.5155	7.8
may	22	2459721.75	23	55	14.95	-2	21	57.53	1.5101	7.7
may	23	2459722.75	23	58	0.08	-2	4	28.91	1.5046	7.7
may	24	2459723.75	0	0	45.04	-1	47	0.47	1.4991	7.7
may	25	2459724.75	0	3	29.83	-1	29	32.40	1.4937	7.7
may	26	2459725.75	0	6	14.46	-1	12	4.88	1.4882	7.7
may	27	2459726.75	0	8	58.91	-0	54	38.10	1.4828	7.6
may	28	2459727.75	0	11	43.21	-0	37	12.25	1.4773	7.6
may	29	2459728.75	0	14	27.34	-0	19	47.51	1.4719	7.6
may	30	2459729.75	0	17	11.31	-0	2	24.07	1.4665	7.6
may	31	2459730.75	0	19	55.13	+0	14	57.88	1.4611	7.6
jun	1	2459731.75	0	22	38.80	+0	32	18.16	1.4557	7.5
jun	2	2459732.75	0	25	22.31	+0	49	36.58	1.4503	7.5
jun	3	2459733.75	0	28	5.68	+1	6	52.98	1.4449	7.5
jun	4	2459734.75	0	30	48.89	+1	24	7.18	1.4395	7.5
jun	5	2459735.75	0	33	31.97	+1	41	19.00	1.4341	7.5
jun	6	2459736.75	0	36	14.90	+1	58	28.29	1.4288	7.4
jun	7	2459737.75	0	38	57.70	+2	15	34.89	1.4234	7.4
jun	8	2459738.75	0	41	40.37	+2	32	38.64	1.4181	7.4
jun	9	2459739.75	0	44	22.92	+2	49	39.41	1.4127	7.4
jun	10	2459740.75	0	47	5.34	+3	6	37.05	1.4074	7.3
jun	11	2459741.75	0	49	47.66	+3	23	31.44	1.4021	7.3
jun	12	2459742.75	0	52	29.87	+3	40	22.46	1.3967	7.3
jun	13	2459743.75	0	55	11.98	+3	57	9.96	1.3914	7.3
jun	14	2459744.75	0	57	54.00	+4	13	53.84	1.3861	7.3
jun	15	2459745.75	1	0	35.92	+4	30	33.92	1.3808	7.2
jun	16	2459746.75	1	3	17.76	+4	47	10.07	1.3755	7.2
jun	17	2459747.75	1	5	59.50	+5	3	42.10	1.3702	7.2
jun	18	2459748.75	1	8	41.14	+5	20	9.85	1.3649	7.2
jun	19	2459749.75	1	11	22.69	+5	36	33.14	1.3596	7.2
jun	20	2459750.75	1	14	4.15	+5	52	51.82	1.3543	7.1
jun	21	2459751.75	1	16	45.51	+6	9	5.71	1.3490	7.1
jun	22	2459752.75	1	19	26.77	+6	25	14.65	1.3437	7.1
jun	23	2459753.75	1	22	7.93	+6	41	18.50	1.3385	7.1
jun	24	2459754.75	1	24	48.99	+6	57	17.08	1.3332	7.1
jun	25	2459755.75	1	27	29.95	+7	13	10.23	1.3279	7.0
jun	26	2459756.75	1	30	10.80	+7	28	57.82	1.3226	7.0
jun	27	2459757.75	1	32	51.55	+7	44	39.66	1.3173	7.0
jun	28	2459758.75	1	35	32.17	+8	0	15.63	1.3120	7.0
jun	29	2459759.75	1	38	12.69	+8	15	45.55	1.3067	7.0
jun	30	2459760.75	1	40	53.07	+8	31	9.29	1.3014	6.9
jul	1	2459761.75	1	43	33.34	+8	46	26.71	1.2961	6.9
jul	2	2459762.75	1	46	13.48	+9	1	37.66	1.2909	6.9
jul	3	2459763.75	1	48	53.48	+9	16	42.01	1.2856	6.9

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Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
jul	4	2459764.75	1	51	33.35	+9	31	39.64	1.2803	6.8
jul	5	2459765.75	1	54	13.09	+9	46	30.44	1.2750	6.8
jul	6	2459766.75	1	56	52.69	+10	1	14.29	1.2697	6.8
jul	7	2459767.75	1	59	32.15	+10	15	51.09	1.2644	6.8
jul	8	2459768.75	2	2	11.48	+10	30	20.76	1.2591	6.8
jul	9	2459769.75	2	4	50.67	+10	44	43.20	1.2538	6.7
jul	10	2459770.75	2	7	29.73	+10	58	58.35	1.2485	6.7
jul	11	2459771.75	2	10	8.65	+11	13	6.13	1.2432	6.7
jul	12	2459772.75	2	12	47.43	+11	27	6.45	1.2379	6.7
jul	13	2459773.75	2	15	26.06	+11	40	59.23	1.2326	6.7
jul	14	2459774.75	2	18	4.55	+11	54	44.36	1.2273	6.6
jul	15	2459775.75	2	20	42.88	+12	8	21.73	1.2220	6.6
jul	16	2459776.75	2	23	21.04	+12	21	51.22	1.2167	6.6
jul	17	2459777.75	2	25	59.03	+12	35	12.74	1.2114	6.6
jul	18	2459778.75	2	28	36.84	+12	48	26.15	1.2060	6.5
jul	19	2459779.75	2	31	14.46	+13	1	31.37	1.2007	6.5
jul	20	2459780.75	2	33	51.88	+13	14	28.30	1.1954	6.5
jul	21	2459781.75	2	36	29.09	+13	27	16.83	1.1900	6.5
jul	22	2459782.75	2	39	6.09	+13	39	56.87	1.1847	6.5
jul	23	2459783.75	2	41	42.85	+13	52	28.33	1.1793	6.4
jul	24	2459784.75	2	44	19.36	+14	4	51.12	1.1739	6.4
jul	25	2459785.75	2	46	55.62	+14	17	5.15	1.1685	6.4
jul	26	2459786.75	2	49	31.60	+14	29	10.34	1.1631	6.4
jul	27	2459787.75	2	52	7.30	+14	41	6.60	1.1578	6.3
jul	28	2459788.75	2	54	42.69	+14	52	53.87	1.1523	6.3
jul	29	2459789.75	2	57	17.77	+15	4	32.08	1.1469	6.3
jul	30	2459790.75	2	59	52.53	+15	16	1.16	1.1415	6.3
jul	31	2459791.75	3	2	26.94	+15	27	21.05	1.1361	6.3
ago	1	2459792.75	3	5	1.00	+15	38	31.71	1.1306	6.2
ago	2	2459793.75	3	7	34.69	+15	49	33.11	1.1252	6.2
ago	3	2459794.75	3	10	8.00	+16	0	25.21	1.1197	6.2
ago	4	2459795.75	3	12	40.93	+16	11	8.01	1.1143	6.2
ago	5	2459796.75	3	15	13.46	+16	21	41.49	1.1088	6.1
ago	6	2459797.75	3	17	45.59	+16	32	5.67	1.1033	6.1
ago	7	2459798.75	3	20	17.29	+16	42	20.54	1.0978	6.1
ago	8	2459799.75	3	22	48.57	+16	52	26.14	1.0923	6.1
ago	9	2459800.75	3	25	19.40	+17	2	22.45	1.0868	6.0
ago	10	2459801.75	3	27	49.77	+17	12	9.49	1.0813	6.0
ago	11	2459802.75	3	30	19.67	+17	21	47.25	1.0758	6.0
ago	12	2459803.75	3	32	49.07	+17	31	15.72	1.0703	6.0
ago	13	2459804.75	3	35	17.97	+17	40	34.89	1.0647	5.9
ago	14	2459805.75	3	37	46.34	+17	49	44.73	1.0592	5.9
ago	15	2459806.75	3	40	14.16	+17	58	45.26	1.0536	5.9
ago	16	2459807.75	3	42	41.42	+18	7	36.46	1.0480	5.9
ago	17	2459808.75	3	45	8.09	+18	16	18.36	1.0424	5.8
ago	18	2459809.75	3	47	34.15	+18	24	50.95	1.0368	5.8

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Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
ago	19	2459810.75	3	49	59.58	+18	33	14.25	1.0312	5.8
ago	20	2459811.75	3	52	24.34	+18	41	28.30	1.0256	5.8
ago	21	2459812.75	3	54	48.42	+18	49	33.09	1.0200	5.7
ago	22	2459813.75	3	57	11.78	+18	57	28.67	1.0143	5.7
ago	23	2459814.75	3	59	34.39	+19	5	15.06	1.0086	5.7
ago	24	2459815.75	4	1	56.23	+19	12	52.31	1.0030	5.7
ago	25	2459816.75	4	4	17.28	+19	20	20.44	0.9973	5.6
ago	26	2459817.75	4	6	37.49	+19	27	39.52	0.9916	5.6
ago	27	2459818.75	4	8	56.85	+19	34	49.59	0.9859	5.6
ago	28	2459819.75	4	11	15.33	+19	41	50.73	0.9802	5.6
ago	29	2459820.75	4	13	32.90	+19	48	43.01	0.9745	5.5
ago	30	2459821.75	4	15	49.54	+19	55	26.51	0.9687	5.5
ago	31	2459822.75	4	18	5.22	+20	2	1.34	0.9630	5.5
sep	1	2459823.75	4	20	19.91	+20	8	27.60	0.9572	5.4
sep	2	2459824.75	4	22	33.60	+20	14	45.41	0.9515	5.4
sep	3	2459825.75	4	24	46.25	+20	20	54.91	0.9457	5.4
sep	4	2459826.75	4	26	57.84	+20	26	56.23	0.9399	5.4
sep	5	2459827.75	4	29	8.35	+20	32	49.51	0.9342	5.3
sep	6	2459828.75	4	31	17.75	+20	38	34.88	0.9284	5.3
sep	7	2459829.75	4	33	26.01	+20	44	12.46	0.9226	5.3
sep	8	2459830.75	4	35	33.10	+20	49	42.37	0.9168	5.2
sep	9	2459831.75	4	37	38.98	+20	55	4.75	0.9110	5.2
sep	10	2459832.75	4	39	43.63	+21	0	19.69	0.9052	5.2
sep	11	2459833.75	4	41	47.02	+21	5	27.32	0.8993	5.1
sep	12	2459834.75	4	43	49.11	+21	10	27.78	0.8935	5.1
sep	13	2459835.75	4	45	49.87	+21	15	21.19	0.8877	5.1
sep	14	2459836.75	4	47	49.25	+21	20	7.70	0.8819	5.1
sep	15	2459837.75	4	49	47.21	+21	24	47.47	0.8760	5.0
sep	16	2459838.75	4	51	43.71	+21	29	20.63	0.8702	5.0
sep	17	2459839.75	4	53	38.71	+21	33	47.34	0.8643	5.0
sep	18	2459840.75	4	55	32.16	+21	38	7.75	0.8585	4.9
sep	19	2459841.75	4	57	24.02	+21	42	22.04	0.8526	4.9
sep	20	2459842.75	4	59	14.23	+21	46	30.35	0.8468	4.8
sep	21	2459843.75	5	1	2.75	+21	50	32.87	0.8409	4.8
sep	22	2459844.75	5	2	49.53	+21	54	29.75	0.8351	4.8
sep	23	2459845.75	5	4	34.52	+21	58	21.17	0.8292	4.7
sep	24	2459846.75	5	6	17.68	+22	2	7.33	0.8234	4.7
sep	25	2459847.75	5	7	58.96	+22	5	48.40	0.8175	4.7
sep	26	2459848.75	5	9	38.32	+22	9	24.58	0.8117	4.6
sep	27	2459849.75	5	11	15.69	+22	12	56.08	0.8058	4.6
sep	28	2459850.75	5	12	51.06	+22	16	23.12	0.8000	4.6
sep	29	2459851.75	5	14	24.36	+22	19	45.91	0.7942	4.5
sep	30	2459852.75	5	15	55.55	+22	23	4.70	0.7884	4.5
oct	1	2459853.75	5	17	24.59	+22	26	19.73	0.7826	4.4
oct	2	2459854.75	5	18	51.43	+22	29	31.21	0.7768	4.4
oct	3	2459855.75	5	20	16.03	+22	32	39.38	0.7711	4.3

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Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
oct	4	2459856.75	5	21	38.34	+22	35	44.46	0.7653	4.3
oct	5	2459857.75	5	22	58.30	+22	38	46.66	0.7596	4.3
oct	6	2459858.75	5	24	15.88	+22	41	46.17	0.7539	4.2
oct	7	2459859.75	5	25	31.02	+22	44	43.20	0.7482	4.2
oct	8	2459860.75	5	26	43.67	+22	47	37.92	0.7426	4.1
oct	9	2459861.75	5	27	53.78	+22	50	30.53	0.7369	4.1
oct	10	2459862.75	5	29	1.28	+22	53	21.22	0.7313	4.0
oct	11	2459863.75	5	30	6.13	+22	56	10.18	0.7257	4.0
oct	12	2459864.75	5	31	8.26	+22	58	57.60	0.7201	3.9
oct	13	2459865.75	5	32	7.61	+23	1	43.67	0.7146	3.9
oct	14	2459866.75	5	33	4.11	+23	4	28.56	0.7091	3.8
oct	15	2459867.75	5	33	57.70	+23	7	12.45	0.7037	3.8
oct	16	2459868.75	5	34	48.31	+23	9	55.50	0.6982	3.7
oct	17	2459869.75	5	35	35.87	+23	12	37.86	0.6928	3.7
oct	18	2459870.75	5	36	20.32	+23	15	19.68	0.6875	3.6
oct	19	2459871.75	5	37	1.59	+23	18	1.10	0.6822	3.6
oct	20	2459872.75	5	37	39.62	+23	20	42.24	0.6769	3.5
oct	21	2459873.75	5	38	14.34	+23	23	23.21	0.6717	3.5
oct	22	2459874.75	5	38	45.70	+23	26	4.13	0.6666	3.4
oct	23	2459875.75	5	39	13.63	+23	28	45.09	0.6615	3.3
oct	24	2459876.75	5	39	38.09	+23	31	26.18	0.6564	3.3
oct	25	2459877.75	5	39	59.02	+23	34	7.47	0.6514	3.2
oct	26	2459878.75	5	40	16.37	+23	36	49.04	0.6465	3.2
oct	27	2459879.75	5	40	30.10	+23	39	30.95	0.6417	3.1
oct	28	2459880.75	5	40	40.18	+23	42	13.25	0.6369	3.0
oct	29	2459881.75	5	40	46.55	+23	44	55.96	0.6322	3.0
oct	30	2459882.75	5	40	49.20	+23	47	39.08	0.6276	2.9
oct	31	2459883.75	5	40	48.08	+23	50	22.58	0.6231	2.8
nov	1	2459884.75	5	40	43.18	+23	53	6.41	0.6186	2.8
nov	2	2459885.75	5	40	34.46	+23	55	50.47	0.6143	2.7
nov	3	2459886.75	5	40	21.92	+23	58	34.64	0.6100	2.6
nov	4	2459887.75	5	40	5.54	+24	1	18.78	0.6059	2.6
nov	5	2459888.75	5	39	45.30	+24	4	2.73	0.6018	2.5
nov	6	2459889.75	5	39	21.19	+24	6	46.29	0.5979	2.4
nov	7	2459890.75	5	38	53.22	+24	9	29.26	0.5940	2.4
nov	8	2459891.75	5	38	21.38	+24	12	11.41	0.5903	2.3
nov	9	2459892.75	5	37	45.68	+24	14	52.49	0.5866	2.2
nov	10	2459893.75	5	37	6.13	+24	17	32.23	0.5831	2.1
nov	11	2459894.75	5	36	22.74	+24	20	10.33	0.5798	2.1
nov	12	2459895.75	5	35	35.54	+24	22	46.47	0.5765	2.0
nov	13	2459896.75	5	34	44.56	+24	25	20.29	0.5734	1.9
nov	14	2459897.75	5	33	49.84	+24	27	51.44	0.5704	1.8
nov	15	2459898.75	5	32	51.45	+24	30	19.54	0.5676	1.7
nov	16	2459899.75	5	31	49.44	+24	32	44.19	0.5649	1.6
nov	17	2459900.75	5	30	43.90	+24	35	4.99	0.5623	1.6
nov	18	2459901.75	5	29	34.90	+24	37	21.54	0.5599	1.5

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Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
nov	19	2459902.75	5	28	22.55	+24	39	33.42	0.5577	1.4
nov	20	2459903.75	5	27	6.98	+24	41	40.22	0.5556	1.3
nov	21	2459904.75	5	25	48.29	+24	43	41.56	0.5537	1.2
nov	22	2459905.75	5	24	26.64	+24	45	37.04	0.5519	1.1
nov	23	2459906.75	5	23	2.19	+24	47	26.32	0.5504	1.0
nov	24	2459907.75	5	21	35.09	+24	49	9.07	0.5490	1.0
nov	25	2459908.75	5	20	5.54	+24	50	44.98	0.5478	0.9
nov	26	2459909.75	5	18	33.71	+24	52	13.77	0.5467	0.8
nov	27	2459910.75	5	16	59.80	+24	53	35.18	0.5459	0.7
nov	28	2459911.75	5	15	24.03	+24	54	48.96	0.5453	0.6
nov	29	2459912.75	5	13	46.61	+24	55	54.90	0.5448	0.5
nov	30	2459913.75	5	12	7.74	+24	56	52.82	0.5445	0.4
dic	1	2459914.75	5	10	27.66	+24	57	42.59	0.5445	0.3
dic	2	2459915.75	5	8	46.59	+24	58	24.10	0.5446	0.2
dic	3	2459916.75	5	7	4.76	+24	58	57.31	0.5449	0.1
dic	4	2459917.75	5	5	22.38	+24	59	22.21	0.5455	0.0
dic	5	2459918.75	5	3	39.69	+24	59	38.85	0.5462	23.9
dic	6	2459919.75	5	1	56.90	+24	59	47.33	0.5471	23.8
dic	7	2459920.75	5	0	14.25	+24	59	47.78	0.5482	23.7
dic	8	2459921.75	4	58	31.95	+24	59	40.38	0.5496	23.6
dic	9	2459922.75	4	56	50.21	+24	59	25.36	0.5511	23.6
dic	10	2459923.75	4	55	9.25	+24	59	2.97	0.5529	23.5
dic	11	2459924.75	4	53	29.29	+24	58	33.53	0.5548	23.4
dic	12	2459925.75	4	51	50.52	+24	57	57.37	0.5569	23.3
dic	13	2459926.75	4	50	13.15	+24	57	14.89	0.5593	23.2
dic	14	2459927.75	4	48	37.38	+24	56	26.48	0.5618	23.1
dic	15	2459928.75	4	47	3.39	+24	55	32.61	0.5646	23.0
dic	16	2459929.75	4	45	31.37	+24	54	33.76	0.5675	22.9
dic	17	2459930.75	4	44	1.50	+24	53	30.42	0.5707	22.8
dic	18	2459931.75	4	42	33.94	+24	52	23.14	0.5740	22.7
dic	19	2459932.75	4	41	8.86	+24	51	12.46	0.5775	22.6
dic	20	2459933.75	4	39	46.41	+24	49	58.96	0.5812	22.5
dic	21	2459934.75	4	38	26.74	+24	48	43.23	0.5852	22.5
dic	22	2459935.75	4	37	9.98	+24	47	25.87	0.5893	22.4
dic	23	2459936.75	4	35	56.26	+24	46	7.47	0.5935	22.3
dic	24	2459937.75	4	34	45.68	+24	44	48.62	0.5980	22.2
dic	25	2459938.75	4	33	38.36	+24	43	29.87	0.6027	22.1
dic	26	2459939.75	4	32	34.37	+24	42	11.74	0.6075	22.0
dic	27	2459940.75	4	31	33.79	+24	40	54.74	0.6125	21.9
dic	28	2459941.75	4	30	36.69	+24	39	39.32	0.6176	21.9
dic	29	2459942.75	4	29	43.12	+24	38	25.95	0.6230	21.8
dic	30	2459943.75	4	28	53.11	+24	37	15.02	0.6284	21.7
dic	31	2459944.75	4	28	6.71	+24	36	6.95	0.6341	21.6
ene	1	2459945.75	4	27	23.92	+24	35	2.07	0.6399	21.6
ene	2	2459946.75	4	26	44.76	+24	34	0.73	0.6458	21.5
ene	3	2459947.75	4	26	11.20	+24	33	6.05	0.6463	21.4
ene	4	2459948.75	4	36	29.93	+24	50	38.08	0.7292	21.5

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Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
ene	1	2459580.75	22	12	4.10	-12	11	36.26	5.5704	15.3
ene	2	2459581.75	22	12	49.12	-12	7	21.13	5.5823	15.2
ene	3	2459582.75	22	13	34.46	-12	3	3.73	5.5940	15.2
ene	4	2459583.75	22	14	20.13	-11	58	44.11	5.6056	15.1
ene	5	2459584.75	22	15	6.11	-11	54	22.30	5.6170	15.1
ene	6	2459585.75	22	15	52.39	-11	49	58.33	5.6283	15.0
ene	7	2459586.75	22	16	38.97	-11	45	32.24	5.6395	15.0
ene	8	2459587.75	22	17	25.84	-11	41	4.04	5.6505	14.9
ene	9	2459588.75	22	18	12.99	-11	36	33.77	5.6613	14.9
ene	10	2459589.75	22	19	0.42	-11	32	1.44	5.6719	14.8
ene	11	2459590.75	22	19	48.13	-11	27	27.10	5.6824	14.8
ene	12	2459591.75	22	20	36.10	-11	22	50.77	5.6927	14.7
ene	13	2459592.75	22	21	24.33	-11	18	12.49	5.7029	14.6
ene	14	2459593.75	22	22	12.81	-11	13	32.30	5.7129	14.6
ene	15	2459594.75	22	23	1.54	-11	8	50.23	5.7227	14.5
ene	16	2459595.75	22	23	50.51	-11	4	6.32	5.7324	14.5
ene	17	2459596.75	22	24	39.71	-10	59	20.61	5.7419	14.4
ene	18	2459597.75	22	25	29.14	-10	54	33.14	5.7512	14.4
ene	19	2459598.75	22	26	18.79	-10	49	43.92	5.7603	14.3
ene	20	2459599.75	22	27	8.65	-10	44	53.01	5.7693	14.3
ene	21	2459600.75	22	27	58.71	-10	40	0.41	5.7780	14.2
ene	22	2459601.75	22	28	48.98	-10	35	6.15	5.7866	14.2
ene	23	2459602.75	22	29	39.45	-10	30	10.26	5.7951	14.1
ene	24	2459603.75	22	30	30.11	-10	25	12.74	5.8033	14.1
ene	25	2459604.75	22	31	20.96	-10	20	13.63	5.8114	14.0
ene	26	2459605.75	22	32	12.00	-10	15	12.93	5.8192	14.0
ene	27	2459606.75	22	33	3.23	-10	10	10.68	5.8269	13.9
ene	28	2459607.75	22	33	54.62	-10	5	6.91	5.8344	13.9
ene	29	2459608.75	22	34	46.19	-10	0	1.67	5.8417	13.8
ene	30	2459609.75	22	35	37.93	-9	54	54.99	5.8489	13.8
ene	31	2459610.75	22	36	29.81	-9	49	46.94	5.8558	13.7
feb	1	2459611.75	22	37	21.85	-9	44	37.55	5.8625	13.7
feb	2	2459612.75	22	38	14.02	-9	39	26.86	5.8690	13.6
feb	3	2459613.75	22	39	6.32	-9	34	14.91	5.8754	13.6
feb	4	2459614.75	22	39	58.75	-9	29	1.72	5.8815	13.5
feb	5	2459615.75	22	40	51.30	-9	23	47.32	5.8875	13.5
feb	6	2459616.75	22	41	43.97	-9	18	31.74	5.8932	13.4
feb	7	2459617.75	22	42	36.75	-9	13	15.01	5.8988	13.4
feb	8	2459618.75	22	43	29.64	-9	7	57.17	5.9041	13.3
feb	9	2459619.75	22	44	22.64	-9	2	38.25	5.9093	13.3
feb	10	2459620.75	22	45	15.73	-8	57	18.29	5.9142	13.2
feb	11	2459621.75	22	46	8.91	-8	51	57.34	5.9190	13.2
feb	12	2459622.75	22	47	2.19	-8	46	35.43	5.9235	13.1
feb	13	2459623.75	22	47	55.54	-8	41	12.61	5.9279	13.1
feb	14	2459624.75	22	48	48.96	-8	35	48.90	5.9320	13.0
feb	15	2459625.75	22	49	42.46	-8	30	24.35	5.9360	12.9

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Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
feb	16	2459626.75	22	50	36.02	-8	24	58.99	5.9397	12.9
feb	17	2459627.75	22	51	29.64	-8	19	32.85	5.9433	12.8
feb	18	2459628.75	22	52	23.31	-8	14	5.96	5.9466	12.8
feb	19	2459629.75	22	53	17.04	-8	8	38.34	5.9497	12.7
feb	20	2459630.75	22	54	10.82	-8	3	10.00	5.9527	12.7
feb	21	2459631.75	22	55	4.64	-7	57	40.97	5.9554	12.6
feb	22	2459632.75	22	55	58.51	-7	52	11.27	5.9579	12.6
feb	23	2459633.75	22	56	52.42	-7	46	40.93	5.9602	12.5
feb	24	2459634.75	22	57	46.36	-7	41	9.98	5.9623	12.5
feb	25	2459635.75	22	58	40.34	-7	35	38.46	5.9642	12.4
feb	26	2459636.75	22	59	34.34	-7	30	6.42	5.9659	12.4
feb	27	2459637.75	23	0	28.37	-7	24	33.90	5.9674	12.3
feb	28	2459638.75	23	1	22.40	-7	19	0.95	5.9687	12.3
mar	1	2459639.75	23	2	16.44	-7	13	27.62	5.9698	12.2
mar	2	2459640.75	23	3	10.48	-7	7	53.95	5.9707	12.2
mar	3	2459641.75	23	4	4.52	-7	2	19.99	5.9713	12.1
mar	4	2459642.75	23	4	58.54	-6	56	45.79	5.9718	12.1
mar	5	2459643.75	23	5	52.55	-6	51	11.46	5.9720	12.0
mar	6	2459644.75	23	6	46.53	-6	45	36.76	5.9721	12.0
mar	7	2459645.75	23	7	40.49	-6	40	1.68	5.9719	11.9
mar	8	2459646.75	23	8	34.44	-6	34	26.51	5.9715	11.9
mar	9	2459647.75	23	9	28.36	-6	28	51.27	5.9709	11.8
mar	10	2459648.75	23	10	22.24	-6	23	15.99	5.9701	11.8
mar	11	2459649.75	23	11	16.09	-6	17	40.69	5.9691	11.7
mar	12	2459650.75	23	12	9.88	-6	12	5.40	5.9679	11.7
mar	13	2459651.75	23	13	3.63	-6	6	30.18	5.9665	11.6
mar	14	2459652.75	23	13	57.33	-6	0	55.05	5.9649	11.6
mar	15	2459653.75	23	14	50.96	-5	55	20.06	5.9631	11.5
mar	16	2459654.75	23	15	44.53	-5	49	45.23	5.9611	11.5
mar	17	2459655.75	23	16	38.04	-5	44	10.60	5.9589	11.4
mar	18	2459656.75	23	17	31.47	-5	38	36.19	5.9565	11.4
mar	19	2459657.75	23	18	24.83	-5	33	2.02	5.9539	11.3
mar	20	2459658.75	23	19	18.11	-5	27	28.11	5.9511	11.3
mar	21	2459659.75	23	20	11.32	-5	21	54.48	5.9480	11.2
mar	22	2459660.75	23	21	4.45	-5	16	21.16	5.9448	11.2
mar	23	2459661.75	23	21	57.49	-5	10	48.18	5.9414	11.1
mar	24	2459662.75	23	22	50.45	-5	5	15.57	5.9378	11.1
mar	25	2459663.75	23	23	43.32	-4	59	43.39	5.9340	11.0
mar	26	2459664.75	23	24	36.08	-4	54	11.68	5.9300	11.0
mar	27	2459665.75	23	25	28.75	-4	48	40.48	5.9258	10.9
mar	28	2459666.75	23	26	21.30	-4	43	9.85	5.9214	10.9
mar	29	2459667.75	23	27	13.73	-4	37	39.82	5.9168	10.8
mar	30	2459668.75	23	28	6.04	-4	32	10.43	5.9120	10.8
mar	31	2459669.75	23	28	58.23	-4	26	41.72	5.9070	10.7
abr	1	2459670.75	23	29	50.28	-4	21	13.71	5.9018	10.7
abr	2	2459671.75	23	30	42.20	-4	15	46.44	5.8965	10.6

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Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
abr	3	2459672.75	23	31	33.99	-4	10	19.94	5.8909	10.6
abr	4	2459673.75	23	32	25.64	-4	4	54.25	5.8851	10.5
abr	5	2459674.75	23	33	17.14	-3	59	29.40	5.8792	10.5
abr	6	2459675.75	23	34	8.49	-3	54	5.46	5.8731	10.4
abr	7	2459676.75	23	34	59.69	-3	48	42.44	5.8667	10.4
abr	8	2459677.75	23	35	50.72	-3	43	20.40	5.8602	10.3
abr	9	2459678.75	23	36	41.59	-3	37	59.39	5.8535	10.2
abr	10	2459679.75	23	37	32.29	-3	32	39.43	5.8467	10.2
abr	11	2459680.75	23	38	22.82	-3	27	20.57	5.8396	10.1
abr	12	2459681.75	23	39	13.16	-3	22	2.85	5.8324	10.1
abr	13	2459682.75	23	40	3.32	-3	16	46.29	5.8250	10.0
abr	14	2459683.75	23	40	53.29	-3	11	30.94	5.8174	10.0
abr	15	2459684.75	23	41	43.07	-3	6	16.81	5.8096	9.9
abr	16	2459685.75	23	42	32.66	-3	1	3.93	5.8017	9.9
abr	17	2459686.75	23	43	22.06	-2	55	52.30	5.7936	9.8
abr	18	2459687.75	23	44	11.26	-2	50	41.96	5.7853	9.8
abr	19	2459688.75	23	45	0.26	-2	45	32.94	5.7768	9.7
abr	20	2459689.75	23	45	49.05	-2	40	25.25	5.7682	9.7
abr	21	2459690.75	23	46	37.64	-2	35	18.96	5.7594	9.6
abr	22	2459691.75	23	47	26.01	-2	30	14.11	5.7505	9.6
abr	23	2459692.75	23	48	14.15	-2	25	10.75	5.7413	9.5
abr	24	2459693.75	23	49	2.07	-2	20	8.93	5.7321	9.5
abr	25	2459694.75	23	49	49.75	-2	15	8.69	5.7226	9.4
abr	26	2459695.75	23	50	37.19	-2	10	10.07	5.7130	9.4
abr	27	2459696.75	23	51	24.38	-2	5	13.11	5.7032	9.3
abr	28	2459697.75	23	52	11.33	-2	0	17.84	5.6933	9.3
abr	29	2459698.75	23	52	58.02	-1	55	24.29	5.6832	9.2
abr	30	2459699.75	23	53	44.45	-1	50	32.50	5.6729	9.2
may	1	2459700.75	23	54	30.63	-1	45	42.50	5.6625	9.1
may	2	2459701.75	23	55	16.53	-1	40	54.34	5.6520	9.0
may	3	2459702.75	23	56	2.16	-1	36	8.06	5.6413	9.0
may	4	2459703.75	23	56	47.51	-1	31	23.71	5.6304	8.9
may	5	2459704.75	23	57	32.58	-1	26	41.32	5.6194	8.9
may	6	2459705.75	23	58	17.36	-1	22	0.94	5.6083	8.8
may	7	2459706.75	23	59	1.84	-1	17	22.61	5.5970	8.8
may	8	2459707.75	23	59	46.02	-1	12	46.39	5.5855	8.7
may	9	2459708.75	0	0	29.89	-1	8	12.29	5.5740	8.7
may	10	2459709.75	0	1	13.45	-1	3	40.38	5.5623	8.6
may	11	2459710.75	0	1	56.69	-0	59	10.66	5.5504	8.6
may	12	2459711.75	0	2	39.62	-0	54	43.18	5.5385	8.5
may	13	2459712.75	0	3	22.21	-0	50	17.96	5.5264	8.5
may	14	2459713.75	0	4	4.48	-0	45	55.02	5.5142	8.4
may	15	2459714.75	0	4	46.43	-0	41	34.38	5.5018	8.4
may	16	2459715.75	0	5	28.04	-0	37	16.06	5.4894	8.3
may	17	2459716.75	0	6	9.31	-0	33	0.09	5.4768	8.2
may	18	2459717.75	0	6	50.24	-0	28	46.52	5.4641	8.2

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Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
may	19	2459718.75	0	7	30.82	-0	24	35.38	5.4512	8.1
may	20	2459719.75	0	8	11.03	-0	20	26.74	5.4383	8.1
may	21	2459720.75	0	8	50.89	-0	16	20.65	5.4252	8.0
may	22	2459721.75	0	9	30.37	-0	12	17.15	5.4121	8.0
may	23	2459722.75	0	10	9.47	-0	8	16.29	5.3988	7.9
may	24	2459723.75	0	10	48.19	-0	4	18.11	5.3854	7.9
may	25	2459724.75	0	11	26.51	-0	0	22.63	5.3719	7.8
may	26	2459725.75	0	12	4.44	+0	3	30.10	5.3583	7.8
may	27	2459726.75	0	12	41.97	+0	7	20.05	5.3446	7.7
may	28	2459727.75	0	13	19.10	+0	11	7.18	5.3308	7.6
may	29	2459728.75	0	13	55.81	+0	14	51.45	5.3169	7.6
may	30	2459729.75	0	14	32.11	+0	18	32.82	5.3030	7.5
may	31	2459730.75	0	15	7.98	+0	22	11.24	5.2889	7.5
jun	1	2459731.75	0	15	43.41	+0	25	46.66	5.2747	7.4
jun	2	2459732.75	0	16	18.41	+0	29	19.05	5.2605	7.4
jun	3	2459733.75	0	16	52.97	+0	32	48.35	5.2462	7.3
jun	4	2459734.75	0	17	27.07	+0	36	14.53	5.2318	7.2
jun	5	2459735.75	0	18	0.71	+0	39	37.53	5.2173	7.2
jun	6	2459736.75	0	18	33.88	+0	42	57.33	5.2027	7.1
jun	7	2459737.75	0	19	6.59	+0	46	13.89	5.1881	7.1
jun	8	2459738.75	0	19	38.82	+0	49	27.17	5.1734	7.0
jun	9	2459739.75	0	20	10.57	+0	52	37.15	5.1587	7.0
jun	10	2459740.75	0	20	41.83	+0	55	43.80	5.1439	6.9
jun	11	2459741.75	0	21	12.61	+0	58	47.11	5.1290	6.9
jun	12	2459742.75	0	21	42.90	+1	1	47.06	5.1141	6.8
jun	13	2459743.75	0	22	12.69	+1	4	43.62	5.0991	6.7
jun	14	2459744.75	0	22	41.98	+1	7	36.76	5.0841	6.7
jun	15	2459745.75	0	23	10.76	+1	10	26.43	5.0690	6.6
jun	16	2459746.75	0	23	39.02	+1	13	12.59	5.0539	6.6
jun	17	2459747.75	0	24	6.76	+1	15	55.18	5.0387	6.5
jun	18	2459748.75	0	24	33.96	+1	18	34.15	5.0235	6.4
jun	19	2459749.75	0	25	0.62	+1	21	9.46	5.0083	6.4
jun	20	2459750.75	0	25	26.73	+1	23	41.07	4.9930	6.3
jun	21	2459751.75	0	25	52.29	+1	26	8.95	4.9777	6.3
jun	22	2459752.75	0	26	17.29	+1	28	33.05	4.9624	6.2
jun	23	2459753.75	0	26	41.72	+1	30	53.36	4.9471	6.2
jun	24	2459754.75	0	27	5.58	+1	33	9.82	4.9317	6.1
jun	25	2459755.75	0	27	28.87	+1	35	22.42	4.9163	6.0
jun	26	2459756.75	0	27	51.57	+1	37	31.10	4.9009	6.0
jun	27	2459757.75	0	28	13.68	+1	39	35.83	4.8855	5.9
jun	28	2459758.75	0	28	35.20	+1	41	36.57	4.8701	5.9
jun	29	2459759.75	0	28	56.11	+1	43	33.27	4.8547	5.8
jun	30	2459760.75	0	29	16.40	+1	45	25.89	4.8392	5.7
jul	1	2459761.75	0	29	36.08	+1	47	14.40	4.8238	5.7
jul	2	2459762.75	0	29	55.14	+1	48	58.76	4.8084	5.6
jul	3	2459763.75	0	30	13.56	+1	50	38.94	4.7930	5.6

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Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
jul	4	2459764.75	0	30	31.35	+1	52	14.91	4.7777	5.5
jul	5	2459765.75	0	30	48.49	+1	53	46.64	4.7623	5.4
jul	6	2459766.75	0	31	4.99	+1	55	14.12	4.7470	5.4
jul	7	2459767.75	0	31	20.85	+1	56	37.33	4.7317	5.3
jul	8	2459768.75	0	31	36.05	+1	57	56.25	4.7164	5.3
jul	9	2459769.75	0	31	50.60	+1	59	10.88	4.7012	5.2
jul	10	2459770.75	0	32	4.50	+2	0	21.21	4.6860	5.1
jul	11	2459771.75	0	32	17.73	+2	1	27.22	4.6709	5.1
jul	12	2459772.75	0	32	30.30	+2	2	28.90	4.6558	5.0
jul	13	2459773.75	0	32	42.20	+2	3	26.20	4.6407	4.9
jul	14	2459774.75	0	32	53.41	+2	4	19.09	4.6257	4.9
jul	15	2459775.75	0	33	3.95	+2	5	7.54	4.6108	4.8
jul	16	2459776.75	0	33	13.79	+2	5	51.50	4.5959	4.8
jul	17	2459777.75	0	33	22.93	+2	6	30.96	4.5811	4.7
jul	18	2459778.75	0	33	31.38	+2	7	5.90	4.5664	4.6
jul	19	2459779.75	0	33	39.12	+2	7	36.30	4.5517	4.6
jul	20	2459780.75	0	33	46.16	+2	8	2.15	4.5371	4.5
jul	21	2459781.75	0	33	52.49	+2	8	23.44	4.5226	4.4
jul	22	2459782.75	0	33	58.10	+2	8	40.15	4.5081	4.4
jul	23	2459783.75	0	34	3.01	+2	8	52.26	4.4938	4.3
jul	24	2459784.75	0	34	7.19	+2	8	59.77	4.4796	4.2
jul	25	2459785.75	0	34	10.65	+2	9	2.66	4.4654	4.2
jul	26	2459786.75	0	34	13.39	+2	9	0.90	4.4514	4.1
jul	27	2459787.75	0	34	15.39	+2	8	54.50	4.4374	4.0
jul	28	2459788.75	0	34	16.67	+2	8	43.44	4.4236	4.0
jul	29	2459789.75	0	34	17.22	+2	8	27.72	4.4099	3.9
jul	30	2459790.75	0	34	17.03	+2	8	7.33	4.3963	3.9
jul	31	2459791.75	0	34	16.10	+2	7	42.28	4.3828	3.8
ago	1	2459792.75	0	34	14.44	+2	7	12.59	4.3695	3.7
ago	2	2459793.75	0	34	12.06	+2	6	38.26	4.3563	3.7
ago	3	2459794.75	0	34	8.94	+2	5	59.33	4.3433	3.6
ago	4	2459795.75	0	34	5.09	+2	5	15.82	4.3303	3.5
ago	5	2459796.75	0	34	0.53	+2	4	27.77	4.3176	3.5
ago	6	2459797.75	0	33	55.24	+2	3	35.20	4.3050	3.4
ago	7	2459798.75	0	33	49.24	+2	2	38.15	4.2925	3.3
ago	8	2459799.75	0	33	42.53	+2	1	36.65	4.2802	3.2
ago	9	2459800.75	0	33	35.10	+2	0	30.72	4.2681	3.2
ago	10	2459801.75	0	33	26.97	+1	59	20.37	4.2561	3.1
ago	11	2459802.75	0	33	18.12	+1	58	5.63	4.2443	3.0
ago	12	2459803.75	0	33	8.57	+1	56	46.51	4.2327	3.0
ago	13	2459804.75	0	32	58.31	+1	55	23.03	4.2212	2.9
ago	14	2459805.75	0	32	47.36	+1	53	55.24	4.2100	2.8
ago	15	2459806.75	0	32	35.71	+1	52	23.17	4.1989	2.8
ago	16	2459807.75	0	32	23.38	+1	50	46.87	4.1880	2.7
ago	17	2459808.75	0	32	10.37	+1	49	6.39	4.1774	2.6
ago	18	2459809.75	0	31	56.68	+1	47	21.79	4.1669	2.6

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Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
ago	19	2459810.75	0	31	42.33	+1	45	33.10	4.1566	2.5
ago	20	2459811.75	0	31	27.31	+1	43	40.39	4.1465	2.4
ago	21	2459812.75	0	31	11.65	+1	41	43.71	4.1367	2.4
ago	22	2459813.75	0	30	55.34	+1	39	43.10	4.1270	2.3
ago	23	2459814.75	0	30	38.39	+1	37	38.64	4.1176	2.2
ago	24	2459815.75	0	30	20.81	+1	35	30.39	4.1084	2.1
ago	25	2459816.75	0	30	2.62	+1	33	18.41	4.0995	2.1
ago	26	2459817.75	0	29	43.81	+1	31	2.78	4.0907	2.0
ago	27	2459818.75	0	29	24.41	+1	28	43.58	4.0822	1.9
ago	28	2459819.75	0	29	4.43	+1	26	20.91	4.0740	1.9
ago	29	2459820.75	0	28	43.88	+1	23	54.85	4.0660	1.8
ago	30	2459821.75	0	28	22.77	+1	21	25.52	4.0582	1.7
ago	31	2459822.75	0	28	1.13	+1	18	53.03	4.0507	1.6
sep	1	2459823.75	0	27	38.96	+1	16	17.49	4.0435	1.6
sep	2	2459824.75	0	27	16.29	+1	13	39.01	4.0365	1.5
sep	3	2459825.75	0	26	53.13	+1	10	57.72	4.0298	1.4
sep	4	2459826.75	0	26	29.49	+1	8	13.73	4.0233	1.4
sep	5	2459827.75	0	26	5.40	+1	5	27.15	4.0171	1.3
sep	6	2459828.75	0	25	40.87	+1	2	38.09	4.0112	1.2
sep	7	2459829.75	0	25	15.91	+0	59	46.63	4.0055	1.1
sep	8	2459830.75	0	24	50.54	+0	56	52.90	4.0001	1.1
sep	9	2459831.75	0	24	24.77	+0	53	56.99	3.9950	1.0
sep	10	2459832.75	0	23	58.62	+0	50	59.03	3.9902	0.9
sep	11	2459833.75	0	23	32.11	+0	47	59.14	3.9857	0.8
sep	12	2459834.75	0	23	5.26	+0	44	57.44	3.9814	0.8
sep	13	2459835.75	0	22	38.09	+0	41	54.09	3.9774	0.7
sep	14	2459836.75	0	22	10.62	+0	38	49.19	3.9737	0.6
sep	15	2459837.75	0	21	42.86	+0	35	42.90	3.9703	0.6
sep	16	2459838.75	0	21	14.85	+0	32	35.33	3.9672	0.5
sep	17	2459839.75	0	20	46.59	+0	29	26.62	3.9644	0.4
sep	18	2459840.75	0	20	18.11	+0	26	16.90	3.9619	0.3
sep	19	2459841.75	0	19	49.42	+0	23	6.30	3.9597	0.3
sep	20	2459842.75	0	19	20.55	+0	19	54.97	3.9578	0.2
sep	21	2459843.75	0	18	51.53	+0	16	43.04	3.9561	0.1
sep	22	2459844.75	0	18	22.36	+0	13	30.66	3.9548	0.0
sep	23	2459845.75	0	17	53.08	+0	10	17.97	3.9538	24.0
sep	24	2459846.75	0	17	23.70	+0	7	5.13	3.9531	23.9
sep	25	2459847.75	0	16	54.25	+0	3	52.29	3.9527	23.8
sep	26	2459848.75	0	16	24.76	+0	0	39.62	3.9526	23.7
sep	27	2459849.75	0	15	55.24	-0	2	32.72	3.9528	23.7
sep	28	2459850.75	0	15	25.74	-0	5	44.56	3.9533	23.6
sep	29	2459851.75	0	14	56.26	-0	8	55.74	3.9541	23.5
sep	30	2459852.75	0	14	26.83	-0	12	6.08	3.9552	23.4
oct	1	2459853.75	0	13	57.48	-0	15	15.45	3.9566	23.4
oct	2	2459854.75	0	13	28.24	-0	18	23.69	3.9583	23.3
oct	3	2459855.75	0	12	59.11	-0	21	30.67	3.9604	23.2

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Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
oct	4	2459856.75	0	12	30.12	-0	24	36.25	3.9627	23.2
oct	5	2459857.75	0	12	1.30	-0	27	40.31	3.9653	23.1
oct	6	2459858.75	0	11	32.65	-0	30	42.71	3.9683	23.0
oct	7	2459859.75	0	11	4.21	-0	33	43.33	3.9715	22.9
oct	8	2459860.75	0	10	35.99	-0	36	42.03	3.9750	22.9
oct	9	2459861.75	0	10	8.02	-0	39	38.66	3.9788	22.8
oct	10	2459862.75	0	9	40.31	-0	42	33.11	3.9829	22.7
oct	11	2459863.75	0	9	12.90	-0	45	25.23	3.9873	22.6
oct	12	2459864.75	0	8	45.79	-0	48	14.89	3.9920	22.6
oct	13	2459865.75	0	8	19.01	-0	51	1.98	3.9970	22.5
oct	14	2459866.75	0	7	52.57	-0	53	46.38	4.0023	22.4
oct	15	2459867.75	0	7	26.51	-0	56	27.97	4.0078	22.3
oct	16	2459868.75	0	7	0.82	-0	59	6.64	4.0137	22.3
oct	17	2459869.75	0	6	35.54	-1	1	42.29	4.0198	22.2
oct	18	2459870.75	0	6	10.68	-1	4	14.80	4.0262	22.1
oct	19	2459871.75	0	5	46.25	-1	6	44.06	4.0328	22.1
oct	20	2459872.75	0	5	22.28	-1	9	9.97	4.0398	22.0
oct	21	2459873.75	0	4	58.79	-1	11	32.42	4.0470	21.9
oct	22	2459874.75	0	4	35.78	-1	13	51.30	4.0545	21.8
oct	23	2459875.75	0	4	13.28	-1	16	6.49	4.0622	21.8
oct	24	2459876.75	0	3	51.31	-1	18	17.89	4.0702	21.7
oct	25	2459877.75	0	3	29.89	-1	20	25.39	4.0785	21.6
oct	26	2459878.75	0	3	9.03	-1	22	28.89	4.0870	21.5
oct	27	2459879.75	0	2	48.74	-1	24	28.27	4.0958	21.5
oct	28	2459880.75	0	2	29.06	-1	26	23.46	4.1048	21.4
oct	29	2459881.75	0	2	9.97	-1	28	14.38	4.1141	21.3
oct	30	2459882.75	0	1	51.51	-1	30	0.97	4.1236	21.3
oct	31	2459883.75	0	1	33.67	-1	31	43.17	4.1334	21.2
nov	1	2459884.75	0	1	16.47	-1	33	20.93	4.1433	21.1
nov	2	2459885.75	0	0	59.91	-1	34	54.19	4.1535	21.1
nov	3	2459886.75	0	0	44.01	-1	36	22.92	4.1640	21.0
nov	4	2459887.75	0	0	28.78	-1	37	47.05	4.1746	20.9
nov	5	2459888.75	0	0	14.22	-1	39	6.54	4.1855	20.8
nov	6	2459889.75	0	0	0.34	-1	40	21.33	4.1965	20.8
nov	7	2459890.75	23	59	47.16	-1	41	31.38	4.2078	20.7
nov	8	2459891.75	23	59	34.68	-1	42	36.65	4.2193	20.6
nov	9	2459892.75	23	59	22.90	-1	43	37.10	4.2310	20.6
nov	10	2459893.75	23	59	11.85	-1	44	32.71	4.2428	20.5
nov	11	2459894.75	23	59	1.51	-1	45	23.46	4.2549	20.4
nov	12	2459895.75	23	58	51.89	-1	46	9.32	4.2671	20.4
nov	13	2459896.75	23	58	43.01	-1	46	50.27	4.2795	20.3
nov	14	2459897.75	23	58	34.86	-1	47	26.31	4.2921	20.2
nov	15	2459898.75	23	58	27.44	-1	47	57.40	4.3049	20.2
nov	16	2459899.75	23	58	20.77	-1	48	23.55	4.3179	20.1
nov	17	2459900.75	23	58	14.84	-1	48	44.72	4.3310	20.0
nov	18	2459901.75	23	58	9.66	-1	49	0.90	4.3442	20.0

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Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
nov	19	2459902.75	23	58	5.24	-1	49	12.08	4.3576	19.9
nov	20	2459903.75	23	58	1.57	-1	49	18.23	4.3712	19.8
nov	21	2459904.75	23	57	58.66	-1	49	19.34	4.3849	19.8
nov	22	2459905.75	23	57	56.52	-1	49	15.38	4.3988	19.7
nov	23	2459906.75	23	57	55.15	-1	49	6.35	4.4128	19.6
nov	24	2459907.75	23	57	54.54	-1	48	52.23	4.4269	19.6
nov	25	2459908.75	23	57	54.71	-1	48	33.03	4.4411	19.5
nov	26	2459909.75	23	57	55.65	-1	48	8.78	4.4555	19.4
nov	27	2459910.75	23	57	57.36	-1	47	39.48	4.4700	19.4
nov	28	2459911.75	23	57	59.83	-1	47	5.19	4.4846	19.3
nov	29	2459912.75	23	58	3.06	-1	46	25.91	4.4993	19.2
nov	30	2459913.75	23	58	7.05	-1	45	41.69	4.5141	19.2
dic	1	2459914.75	23	58	11.79	-1	44	52.54	4.5290	19.1
dic	2	2459915.75	23	58	17.28	-1	43	58.48	4.5440	19.0
dic	3	2459916.75	23	58	23.53	-1	42	59.54	4.5590	19.0
dic	4	2459917.75	23	58	30.52	-1	41	55.72	4.5742	18.9
dic	5	2459918.75	23	58	38.26	-1	40	47.07	4.5894	18.8
dic	6	2459919.75	23	58	46.74	-1	39	33.61	4.6047	18.8
dic	7	2459920.75	23	58	55.97	-1	38	15.38	4.6201	18.7
dic	8	2459921.75	23	59	5.92	-1	36	52.41	4.6355	18.7
dic	9	2459922.75	23	59	16.60	-1	35	24.74	4.6510	18.6
dic	10	2459923.75	23	59	28.01	-1	33	52.41	4.6666	18.5
dic	11	2459924.75	23	59	40.14	-1	32	15.47	4.6822	18.5
dic	12	2459925.75	23	59	52.97	-1	30	33.95	4.6979	18.4
dic	13	2459926.75	0	0	6.52	-1	28	47.88	4.7135	18.3
dic	14	2459927.75	0	0	20.77	-1	26	57.32	4.7293	18.3
dic	15	2459928.75	0	0	35.72	-1	25	2.27	4.7450	18.2
dic	16	2459929.75	0	0	51.36	-1	23	2.79	4.7608	18.2
dic	17	2459930.75	0	1	7.69	-1	20	58.89	4.7767	18.1
dic	18	2459931.75	0	1	24.71	-1	18	50.61	4.7925	18.0
dic	19	2459932.75	0	1	42.42	-1	16	37.96	4.8084	18.0
dic	20	2459933.75	0	2	0.80	-1	14	20.98	4.8243	17.9
dic	21	2459934.75	0	2	19.87	-1	11	59.70	4.8402	17.9
dic	22	2459935.75	0	2	39.60	-1	9	34.14	4.8561	17.8
dic	23	2459936.75	0	2	59.99	-1	7	4.36	4.8720	17.7
dic	24	2459937.75	0	3	21.05	-1	4	30.42	4.8878	17.7
dic	25	2459938.75	0	3	42.74	-1	1	52.37	4.9037	17.6
dic	26	2459939.75	0	4	5.08	-0	59	10.29	4.9196	17.6
dic	27	2459940.75	0	4	28.05	-0	56	24.22	4.9355	17.5
dic	28	2459941.75	0	4	51.63	-0	53	34.22	4.9513	17.4
dic	29	2459942.75	0	5	15.83	-0	50	40.34	4.9671	17.4
dic	30	2459943.75	0	5	40.65	-0	47	42.61	4.9829	17.3
dic	31	2459944.75	0	6	6.06	-0	44	41.09	4.9986	17.3
ene	1	2459945.75	0	6	32.08	-0	41	35.82	5.0143	17.2
ene	2	2459946.75	0	6	58.68	-0	38	26.85	5.0300	17.1
ene	3	2459947.75	0	7	27.06	-0	35	6.98	5.0057	17.1
ene	4	2459948.75	0	16	11.63	+0	27	23.28	5.5627	17.2

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Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
ene	1	2459580.75	20	58	31.63	-18	0	11.24	10.7483	14.1
ene	2	2459581.75	20	58	58.00	-17	58	23.47	10.7567	14.0
ene	3	2459582.75	20	59	24.53	-17	56	34.90	10.7649	13.9
ene	4	2459583.75	20	59	51.19	-17	54	45.56	10.7729	13.9
ene	5	2459584.75	21	0	18.00	-17	52	55.46	10.7807	13.8
ene	6	2459585.75	21	0	44.93	-17	51	4.62	10.7882	13.8
ene	7	2459586.75	21	1	11.99	-17	49	13.04	10.7954	13.7
ene	8	2459587.75	21	1	39.18	-17	47	20.72	10.8025	13.6
ene	9	2459588.75	21	2	6.48	-17	45	27.69	10.8093	13.6
ene	10	2459589.75	21	2	33.90	-17	43	33.94	10.8158	13.5
ene	11	2459590.75	21	3	1.43	-17	41	39.51	10.8221	13.5
ene	12	2459591.75	21	3	29.07	-17	39	44.41	10.8282	13.4
ene	13	2459592.75	21	3	56.81	-17	37	48.67	10.8340	13.4
ene	14	2459593.75	21	4	24.65	-17	35	52.31	10.8396	13.3
ene	15	2459594.75	21	4	52.59	-17	33	55.35	10.8449	13.2
ene	16	2459595.75	21	5	20.61	-17	31	57.82	10.8500	13.2
ene	17	2459596.75	21	5	48.71	-17	29	59.74	10.8548	13.1
ene	18	2459597.75	21	6	16.89	-17	28	1.14	10.8594	13.1
ene	19	2459598.75	21	6	45.14	-17	26	2.03	10.8638	13.0
ene	20	2459599.75	21	7	13.46	-17	24	2.43	10.8678	13.0
ene	21	2459600.75	21	7	41.84	-17	22	2.34	10.8717	12.9
ene	22	2459601.75	21	8	10.28	-17	20	1.79	10.8752	12.8
ene	23	2459602.75	21	8	38.77	-17	18	0.78	10.8786	12.8
ene	24	2459603.75	21	9	7.32	-17	15	59.31	10.8816	12.7
ene	25	2459604.75	21	9	35.91	-17	13	57.41	10.8844	12.7
ene	26	2459605.75	21	10	4.55	-17	11	55.08	10.8870	12.6
ene	27	2459606.75	21	10	33.23	-17	9	52.34	10.8893	12.5
ene	28	2459607.75	21	11	1.95	-17	7	49.24	10.8913	12.5
ene	29	2459608.75	21	11	30.70	-17	5	45.79	10.8931	12.4
ene	30	2459609.75	21	11	59.48	-17	3	42.03	10.8946	12.4
ene	31	2459610.75	21	12	28.27	-17	1	38.01	10.8958	12.3
feb	1	2459611.75	21	12	57.08	-16	59	33.74	10.8968	12.3
feb	2	2459612.75	21	13	25.89	-16	57	29.26	10.8976	12.2
feb	3	2459613.75	21	13	54.70	-16	55	24.61	10.8980	12.1
feb	4	2459614.75	21	14	23.51	-16	53	19.92	10.8983	12.1
feb	5	2459615.75	21	14	52.27	-16	51	14.97	10.8982	12.0
feb	6	2459616.75	21	15	21.05	-16	49	9.46	10.8979	12.0
feb	7	2459617.75	21	15	49.81	-16	47	3.94	10.8973	11.9
feb	8	2459618.75	21	16	18.56	-16	44	58.34	10.8965	11.9
feb	9	2459619.75	21	16	47.29	-16	42	52.66	10.8954	11.8
feb	10	2459620.75	21	17	15.98	-16	40	46.91	10.8940	11.7
feb	11	2459621.75	21	17	44.65	-16	38	41.12	10.8924	11.7
feb	12	2459622.75	21	18	13.27	-16	36	35.32	10.8906	11.6
feb	13	2459623.75	21	18	41.85	-16	34	29.52	10.8884	11.6
feb	14	2459624.75	21	19	10.39	-16	32	23.77	10.8861	11.5
feb	15	2459625.75	21	19	38.87	-16	30	18.07	10.8834	11.4

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Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
feb	16	2459626.75	21	20	7.29	-16	28	12.45	10.8805	11.4
feb	17	2459627.75	21	20	35.65	-16	26	6.93	10.8774	11.3
feb	18	2459628.75	21	21	3.94	-16	24	1.52	10.8740	11.3
feb	19	2459629.75	21	21	32.17	-16	21	56.23	10.8704	11.2
feb	20	2459630.75	21	22	0.32	-16	19	51.08	10.8665	11.2
feb	21	2459631.75	21	22	28.39	-16	17	46.07	10.8623	11.1
feb	22	2459632.75	21	22	56.39	-16	15	41.22	10.8579	11.0
feb	23	2459633.75	21	23	24.31	-16	13	36.57	10.8533	11.0
feb	24	2459634.75	21	23	52.14	-16	11	32.13	10.8484	10.9
feb	25	2459635.75	21	24	19.89	-16	9	27.94	10.8433	10.9
feb	26	2459636.75	21	24	47.53	-16	7	24.04	10.8379	10.8
feb	27	2459637.75	21	25	15.08	-16	5	20.47	10.8323	10.8
feb	28	2459638.75	21	25	42.52	-16	3	17.25	10.8264	10.7
mar	1	2459639.75	21	26	9.84	-16	1	14.42	10.8203	10.6
mar	2	2459640.75	21	26	37.04	-15	59	11.99	10.8139	10.6
mar	3	2459641.75	21	27	4.12	-15	57	9.97	10.8073	10.5
mar	4	2459642.75	21	27	31.07	-15	55	8.38	10.8005	10.5
mar	5	2459643.75	21	27	57.88	-15	53	7.24	10.7934	10.4
mar	6	2459644.75	21	28	24.57	-15	51	6.57	10.7861	10.3
mar	7	2459645.75	21	28	51.11	-15	49	6.38	10.7785	10.3
mar	8	2459646.75	21	29	17.52	-15	47	6.72	10.7708	10.2
mar	9	2459647.75	21	29	43.78	-15	45	7.61	10.7628	10.2
mar	10	2459648.75	21	30	9.89	-15	43	9.07	10.7546	10.1
mar	11	2459649.75	21	30	35.85	-15	41	11.15	10.7461	10.1
mar	12	2459650.75	21	31	1.64	-15	39	13.87	10.7374	10.0
mar	13	2459651.75	21	31	27.28	-15	37	17.26	10.7286	9.9
mar	14	2459652.75	21	31	52.74	-15	35	21.34	10.7194	9.9
mar	15	2459653.75	21	32	18.04	-15	33	26.13	10.7101	9.8
mar	16	2459654.75	21	32	43.16	-15	31	31.67	10.7006	9.8
mar	17	2459655.75	21	33	8.09	-15	29	37.96	10.6909	9.7
mar	18	2459656.75	21	33	32.84	-15	27	45.02	10.6809	9.6
mar	19	2459657.75	21	33	57.41	-15	25	52.85	10.6708	9.6
mar	20	2459658.75	21	34	21.79	-15	24	1.48	10.6604	9.5
mar	21	2459659.75	21	34	45.97	-15	22	10.91	10.6498	9.5
mar	22	2459660.75	21	35	9.97	-15	20	21.17	10.6391	9.4
mar	23	2459661.75	21	35	33.77	-15	18	32.29	10.6281	9.3
mar	24	2459662.75	21	35	57.37	-15	16	44.29	10.6170	9.3
mar	25	2459663.75	21	36	20.77	-15	14	57.23	10.6056	9.2
mar	26	2459664.75	21	36	43.95	-15	13	11.13	10.5941	9.2
mar	27	2459665.75	21	37	6.92	-15	11	26.04	10.5824	9.1
mar	28	2459666.75	21	37	29.66	-15	9	41.96	10.5705	9.1
mar	29	2459667.75	21	37	52.17	-15	7	58.93	10.5584	9.0
mar	30	2459668.75	21	38	14.45	-15	6	16.97	10.5461	8.9
mar	31	2459669.75	21	38	36.50	-15	4	36.08	10.5337	8.9
abr	1	2459670.75	21	38	58.30	-15	2	56.29	10.5211	8.8
abr	2	2459671.75	21	39	19.87	-15	1	17.60	10.5083	8.8

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Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
abr	3	2459672.75	21	39	41.19	-14	59	40.05	10.4953	8.7
abr	4	2459673.75	21	40	2.27	-14	58	3.66	10.4822	8.6
abr	5	2459674.75	21	40	23.10	-14	56	28.45	10.4689	8.6
abr	6	2459675.75	21	40	43.67	-14	54	54.46	10.4555	8.5
abr	7	2459676.75	21	41	3.99	-14	53	21.72	10.4419	8.5
abr	8	2459677.75	21	41	24.04	-14	51	50.25	10.4282	8.4
abr	9	2459678.75	21	41	43.83	-14	50	20.08	10.4143	8.3
abr	10	2459679.75	21	42	3.35	-14	48	51.23	10.4003	8.3
abr	11	2459680.75	21	42	22.60	-14	47	23.73	10.3861	8.2
abr	12	2459681.75	21	42	41.56	-14	45	57.60	10.3718	8.2
abr	13	2459682.75	21	43	0.25	-14	44	32.85	10.3574	8.1
abr	14	2459683.75	21	43	18.65	-14	43	9.50	10.3428	8.0
abr	15	2459684.75	21	43	36.77	-14	41	47.55	10.3282	8.0
abr	16	2459685.75	21	43	54.59	-14	40	27.01	10.3133	7.9
abr	17	2459686.75	21	44	12.14	-14	39	7.89	10.2984	7.8
abr	18	2459687.75	21	44	29.39	-14	37	50.21	10.2834	7.8
abr	19	2459688.75	21	44	46.35	-14	36	33.98	10.2682	7.7
abr	20	2459689.75	21	45	3.01	-14	35	19.24	10.2530	7.7
abr	21	2459690.75	21	45	19.38	-14	34	6.03	10.2376	7.6
abr	22	2459691.75	21	45	35.44	-14	32	54.36	10.2222	7.5
abr	23	2459692.75	21	45	51.20	-14	31	44.29	10.2066	7.5
abr	24	2459693.75	21	46	6.63	-14	30	35.82	10.1909	7.4
abr	25	2459694.75	21	46	21.75	-14	29	28.99	10.1752	7.4
abr	26	2459695.75	21	46	36.54	-14	28	23.79	10.1593	7.3
abr	27	2459696.75	21	46	51.01	-14	27	20.24	10.1434	7.2
abr	28	2459697.75	21	47	5.15	-14	26	18.35	10.1274	7.2
abr	29	2459698.75	21	47	18.96	-14	25	18.14	10.1114	7.1
abr	30	2459699.75	21	47	32.44	-14	24	19.61	10.0952	7.1
may	1	2459700.75	21	47	45.59	-14	23	22.79	10.0790	7.0
may	2	2459701.75	21	47	58.41	-14	22	27.69	10.0627	6.9
may	3	2459702.75	21	48	10.88	-14	21	34.34	10.0464	6.9
may	4	2459703.75	21	48	23.02	-14	20	42.76	10.0300	6.8
may	5	2459704.75	21	48	34.81	-14	19	52.98	10.0136	6.7
may	6	2459705.75	21	48	46.26	-14	19	5.00	9.9971	6.7
may	7	2459706.75	21	48	57.36	-14	18	18.86	9.9806	6.6
may	8	2459707.75	21	49	8.10	-14	17	34.55	9.9640	6.6
may	9	2459708.75	21	49	18.49	-14	16	52.11	9.9475	6.5
may	10	2459709.75	21	49	28.52	-14	16	11.53	9.9309	6.4
may	11	2459710.75	21	49	38.20	-14	15	32.82	9.9142	6.4
may	12	2459711.75	21	49	47.51	-14	14	55.99	9.8976	6.3
may	13	2459712.75	21	49	56.46	-14	14	21.02	9.8809	6.2
may	14	2459713.75	21	50	5.06	-14	13	47.93	9.8642	6.2
may	15	2459714.75	21	50	13.29	-14	13	16.70	9.8476	6.1
may	16	2459715.75	21	50	21.17	-14	12	47.34	9.8309	6.0
may	17	2459716.75	21	50	28.68	-14	12	19.88	9.8142	6.0
may	18	2459717.75	21	50	35.83	-14	11	54.34	9.7975	5.9

Saturno, 2022

Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
may	19	2459718.75	21	50	42.62	-14	11	30.73	9.7809	5.9
may	20	2459719.75	21	50	49.03	-14	11	9.09	9.7642	5.8
may	21	2459720.75	21	50	55.07	-14	10	49.42	9.7476	5.7
may	22	2459721.75	21	51	0.73	-14	10	31.74	9.7310	5.7
may	23	2459722.75	21	51	6.01	-14	10	16.05	9.7144	5.6
may	24	2459723.75	21	51	10.91	-14	10	2.33	9.6979	5.5
may	25	2459724.75	21	51	15.43	-14	9	50.60	9.6814	5.5
may	26	2459725.75	21	51	19.57	-14	9	40.85	9.6649	5.4
may	27	2459726.75	21	51	23.33	-14	9	33.07	9.6485	5.3
may	28	2459727.75	21	51	26.71	-14	9	27.27	9.6321	5.3
may	29	2459728.75	21	51	29.71	-14	9	23.46	9.6158	5.2
may	30	2459729.75	21	51	32.33	-14	9	21.65	9.5995	5.1
may	31	2459730.75	21	51	34.57	-14	9	21.83	9.5833	5.1
jun	1	2459731.75	21	51	36.43	-14	9	24.02	9.5672	5.0
jun	2	2459732.75	21	51	37.90	-14	9	28.22	9.5512	5.0
jun	3	2459733.75	21	51	38.99	-14	9	34.44	9.5352	4.9
jun	4	2459734.75	21	51	39.69	-14	9	42.67	9.5193	4.8
jun	5	2459735.75	21	51	40.02	-14	9	52.91	9.5035	4.8
jun	6	2459736.75	21	51	39.95	-14	10	5.15	9.4878	4.7
jun	7	2459737.75	21	51	39.50	-14	10	19.38	9.4722	4.6
jun	8	2459738.75	21	51	38.68	-14	10	35.58	9.4567	4.6
jun	9	2459739.75	21	51	37.47	-14	10	53.74	9.4414	4.5
jun	10	2459740.75	21	51	35.88	-14	11	13.84	9.4261	4.4
jun	11	2459741.75	21	51	33.92	-14	11	35.85	9.4109	4.4
jun	12	2459742.75	21	51	31.59	-14	11	59.77	9.3959	4.3
jun	13	2459743.75	21	51	28.89	-14	12	25.58	9.3809	4.2
jun	14	2459744.75	21	51	25.83	-14	12	53.28	9.3662	4.2
jun	15	2459745.75	21	51	22.39	-14	13	22.87	9.3515	4.1
jun	16	2459746.75	21	51	18.59	-14	13	54.38	9.3370	4.0
jun	17	2459747.75	21	51	14.42	-14	14	27.78	9.3226	4.0
jun	18	2459748.75	21	51	9.87	-14	15	3.08	9.3083	3.9
jun	19	2459749.75	21	51	4.96	-14	15	40.25	9.2942	3.8
jun	20	2459750.75	21	50	59.68	-14	16	19.27	9.2803	3.8
jun	21	2459751.75	21	50	54.03	-14	17	0.12	9.2665	3.7
jun	22	2459752.75	21	50	48.02	-14	17	42.76	9.2529	3.6
jun	23	2459753.75	21	50	41.66	-14	18	27.18	9.2394	3.6
jun	24	2459754.75	21	50	34.94	-14	19	13.36	9.2261	3.5
jun	25	2459755.75	21	50	27.88	-14	20	1.28	9.2130	3.4
jun	26	2459756.75	21	50	20.46	-14	20	50.92	9.2001	3.4
jun	27	2459757.75	21	50	12.71	-14	21	42.28	9.1874	3.3
jun	28	2459758.75	21	50	4.61	-14	22	35.32	9.1748	3.2
jun	29	2459759.75	21	49	56.17	-14	23	30.04	9.1624	3.1
jun	30	2459760.75	21	49	47.40	-14	24	26.41	9.1502	3.1
jul	1	2459761.75	21	49	38.30	-14	25	24.41	9.1383	3.0
jul	2	2459762.75	21	49	28.87	-14	26	24.01	9.1265	2.9
jul	3	2459763.75	21	49	19.11	-14	27	25.19	9.1149	2.9

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Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
jul	4	2459764.75	21	49	9.04	-14	28	27.91	9.1036	2.8
jul	5	2459765.75	21	48	58.65	-14	29	32.12	9.0925	2.7
jul	6	2459766.75	21	48	47.95	-14	30	37.79	9.0815	2.7
jul	7	2459767.75	21	48	36.95	-14	31	44.88	9.0709	2.6
jul	8	2459768.75	21	48	25.66	-14	32	53.34	9.0604	2.5
jul	9	2459769.75	21	48	14.07	-14	34	3.14	9.0502	2.5
jul	10	2459770.75	21	48	2.21	-14	35	14.24	9.0401	2.4
jul	11	2459771.75	21	47	50.07	-14	36	26.60	9.0304	2.3
jul	12	2459772.75	21	47	37.67	-14	37	40.21	9.0208	2.3
jul	13	2459773.75	21	47	24.99	-14	38	55.05	9.0116	2.2
jul	14	2459774.75	21	47	12.05	-14	40	11.11	9.0025	2.1
jul	15	2459775.75	21	46	58.85	-14	41	28.34	8.9937	2.0
jul	16	2459776.75	21	46	45.40	-14	42	46.73	8.9852	2.0
jul	17	2459777.75	21	46	31.69	-14	44	6.21	8.9769	1.9
jul	18	2459778.75	21	46	17.73	-14	45	26.74	8.9688	1.8
jul	19	2459779.75	21	46	3.55	-14	46	48.27	8.9610	1.8
jul	20	2459780.75	21	45	49.13	-14	48	10.76	8.9535	1.7
jul	21	2459781.75	21	45	34.49	-14	49	34.16	8.9462	1.6
jul	22	2459782.75	21	45	19.64	-14	50	58.44	8.9393	1.6
jul	23	2459783.75	21	45	4.59	-14	52	23.55	8.9325	1.5
jul	24	2459784.75	21	44	49.34	-14	53	49.47	8.9261	1.4
jul	25	2459785.75	21	44	33.89	-14	55	16.16	8.9199	1.3
jul	26	2459786.75	21	44	18.27	-14	56	43.58	8.9140	1.3
jul	27	2459787.75	21	44	2.46	-14	58	11.69	8.9084	1.2
jul	28	2459788.75	21	43	46.49	-14	59	40.44	8.9031	1.1
jul	29	2459789.75	21	43	30.35	-15	1	9.80	8.8980	1.1
jul	30	2459790.75	21	43	14.06	-15	2	39.72	8.8932	1.0
jul	31	2459791.75	21	42	57.62	-15	4	10.14	8.8888	0.9
ago	1	2459792.75	21	42	41.05	-15	5	41.01	8.8846	0.9
ago	2	2459793.75	21	42	24.34	-15	7	12.27	8.8807	0.8
ago	3	2459794.75	21	42	7.52	-15	8	43.87	8.8771	0.7
ago	4	2459795.75	21	41	50.59	-15	10	15.75	8.8737	0.6
ago	5	2459796.75	21	41	33.57	-15	11	47.86	8.8707	0.6
ago	6	2459797.75	21	41	16.46	-15	13	20.14	8.8680	0.5
ago	7	2459798.75	21	40	59.27	-15	14	52.56	8.8656	0.4
ago	8	2459799.75	21	40	42.01	-15	16	25.07	8.8634	0.4
ago	9	2459800.75	21	40	24.69	-15	17	57.65	8.8616	0.3
ago	10	2459801.75	21	40	7.31	-15	19	30.26	8.8601	0.2
ago	11	2459802.75	21	39	49.89	-15	21	2.87	8.8588	0.2
ago	12	2459803.75	21	39	32.42	-15	22	35.43	8.8579	0.1
ago	13	2459804.75	21	39	14.91	-15	24	7.91	8.8573	0.0
ago	14	2459805.75	21	38	57.38	-15	25	40.23	8.8569	23.9
ago	15	2459806.75	21	38	39.83	-15	27	12.34	8.8569	23.9
ago	16	2459807.75	21	38	22.28	-15	28	44.20	8.8571	23.8
ago	17	2459808.75	21	38	4.73	-15	30	15.74	8.8577	23.7
ago	18	2459809.75	21	37	47.20	-15	31	46.94	8.8585	23.7

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Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
ago	19	2459810.75	21	37	29.69	-15	33	17.74	8.8597	23.6
ago	20	2459811.75	21	37	12.21	-15	34	48.11	8.8611	23.5
ago	21	2459812.75	21	36	54.78	-15	36	18.01	8.8629	23.4
ago	22	2459813.75	21	36	37.39	-15	37	47.41	8.8649	23.4
ago	23	2459814.75	21	36	20.07	-15	39	16.26	8.8673	23.3
ago	24	2459815.75	21	36	2.81	-15	40	44.53	8.8699	23.2
ago	25	2459816.75	21	35	45.63	-15	42	12.16	8.8729	23.2
ago	26	2459817.75	21	35	28.54	-15	43	39.13	8.8761	23.1
ago	27	2459818.75	21	35	11.53	-15	45	5.37	8.8796	23.0
ago	28	2459819.75	21	34	54.63	-15	46	30.84	8.8835	23.0
ago	29	2459820.75	21	34	37.85	-15	47	55.48	8.8876	22.9
ago	30	2459821.75	21	34	21.19	-15	49	19.25	8.8920	22.8
ago	31	2459822.75	21	34	4.66	-15	50	42.10	8.8967	22.7
sep	1	2459823.75	21	33	48.28	-15	52	3.97	8.9017	22.7
sep	2	2459824.75	21	33	32.05	-15	53	24.83	8.9070	22.6
sep	3	2459825.75	21	33	15.98	-15	54	44.64	8.9126	22.5
sep	4	2459826.75	21	33	0.09	-15	56	3.37	8.9184	22.5
sep	5	2459827.75	21	32	44.38	-15	57	21.00	8.9246	22.4
sep	6	2459828.75	21	32	28.86	-15	58	37.51	8.9310	22.3
sep	7	2459829.75	21	32	13.52	-15	59	52.88	8.9376	22.3
sep	8	2459830.75	21	31	58.39	-16	1	7.07	8.9446	22.2
sep	9	2459831.75	21	31	43.45	-16	2	20.05	8.9518	22.1
sep	10	2459832.75	21	31	28.73	-16	3	31.78	8.9593	22.0
sep	11	2459833.75	21	31	14.22	-16	4	42.22	8.9671	22.0
sep	12	2459834.75	21	30	59.94	-16	5	51.32	8.9751	21.9
sep	13	2459835.75	21	30	45.90	-16	6	59.06	8.9833	21.8
sep	14	2459836.75	21	30	32.10	-16	8	5.40	8.9919	21.8
sep	15	2459837.75	21	30	18.55	-16	9	10.31	9.0007	21.7
sep	16	2459838.75	21	30	5.26	-16	10	13.79	9.0097	21.6
sep	17	2459839.75	21	29	52.24	-16	11	15.80	9.0190	21.6
sep	18	2459840.75	21	29	39.49	-16	12	16.32	9.0285	21.5
sep	19	2459841.75	21	29	27.02	-16	13	15.35	9.0383	21.4
sep	20	2459842.75	21	29	14.83	-16	14	12.84	9.0483	21.3
sep	21	2459843.75	21	29	2.94	-16	15	8.79	9.0586	21.3
sep	22	2459844.75	21	28	51.33	-16	16	3.17	9.0691	21.2
sep	23	2459845.75	21	28	40.03	-16	16	55.94	9.0798	21.1
sep	24	2459846.75	21	28	29.04	-16	17	47.08	9.0907	21.1
sep	25	2459847.75	21	28	18.36	-16	18	36.56	9.1019	21.0
sep	26	2459848.75	21	28	8.00	-16	19	24.35	9.1133	20.9
sep	27	2459849.75	21	27	57.97	-16	20	10.41	9.1249	20.9
sep	28	2459850.75	21	27	48.27	-16	20	54.72	9.1367	20.8
sep	29	2459851.75	21	27	38.92	-16	21	37.25	9.1487	20.7
sep	30	2459852.75	21	27	29.91	-16	22	18.00	9.1609	20.7
oct	1	2459853.75	21	27	21.26	-16	22	56.95	9.1733	20.6
oct	2	2459854.75	21	27	12.96	-16	23	34.10	9.1859	20.5
oct	3	2459855.75	21	27	5.02	-16	24	9.46	9.1987	20.5

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Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
oct	4	2459856.75	21	26	57.44	-16	24	43.01	9.2117	20.4
oct	5	2459857.75	21	26	50.22	-16	25	14.76	9.2249	20.3
oct	6	2459858.75	21	26	43.37	-16	25	44.69	9.2382	20.3
oct	7	2459859.75	21	26	36.88	-16	26	12.78	9.2517	20.2
oct	8	2459860.75	21	26	30.75	-16	26	39.01	9.2654	20.1
oct	9	2459861.75	21	26	25.00	-16	27	3.37	9.2792	20.1
oct	10	2459862.75	21	26	19.63	-16	27	25.83	9.2932	20.0
oct	11	2459863.75	21	26	14.64	-16	27	46.39	9.3074	19.9
oct	12	2459864.75	21	26	10.04	-16	28	5.03	9.3217	19.9
oct	13	2459865.75	21	26	5.83	-16	28	21.77	9.3361	19.8
oct	14	2459866.75	21	26	2.00	-16	28	36.61	9.3507	19.7
oct	15	2459867.75	21	25	58.57	-16	28	49.53	9.3654	19.7
oct	16	2459868.75	21	25	55.54	-16	29	0.55	9.3803	19.6
oct	17	2459869.75	21	25	52.89	-16	29	9.67	9.3953	19.5
oct	18	2459870.75	21	25	50.65	-16	29	16.87	9.4104	19.5
oct	19	2459871.75	21	25	48.80	-16	29	22.16	9.4256	19.4
oct	20	2459872.75	21	25	47.35	-16	29	25.53	9.4409	19.3
oct	21	2459873.75	21	25	46.30	-16	29	26.97	9.4564	19.3
oct	22	2459874.75	21	25	45.65	-16	29	26.47	9.4719	19.2
oct	23	2459875.75	21	25	45.40	-16	29	24.02	9.4876	19.1
oct	24	2459876.75	21	25	45.56	-16	29	19.60	9.5033	19.1
oct	25	2459877.75	21	25	46.13	-16	29	13.21	9.5192	19.0
oct	26	2459878.75	21	25	47.11	-16	29	4.84	9.5351	18.9
oct	27	2459879.75	21	25	48.51	-16	28	54.48	9.5511	18.9
oct	28	2459880.75	21	25	50.31	-16	28	42.16	9.5671	18.8
oct	29	2459881.75	21	25	52.53	-16	28	27.88	9.5833	18.7
oct	30	2459882.75	21	25	55.16	-16	28	11.66	9.5995	18.7
oct	31	2459883.75	21	25	58.20	-16	27	53.52	9.6157	18.6
nov	1	2459884.75	21	26	1.64	-16	27	33.47	9.6320	18.5
nov	2	2459885.75	21	26	5.48	-16	27	11.52	9.6484	18.5
nov	3	2459886.75	21	26	9.72	-16	26	47.65	9.6648	18.4
nov	4	2459887.75	21	26	14.36	-16	26	21.88	9.6812	18.3
nov	5	2459888.75	21	26	19.40	-16	25	54.19	9.6977	18.3
nov	6	2459889.75	21	26	24.84	-16	25	24.58	9.7142	18.2
nov	7	2459890.75	21	26	30.68	-16	24	53.05	9.7307	18.1
nov	8	2459891.75	21	26	36.92	-16	24	19.62	9.7473	18.1
nov	9	2459892.75	21	26	43.55	-16	23	44.30	9.7638	18.0
nov	10	2459893.75	21	26	50.59	-16	23	7.09	9.7804	18.0
nov	11	2459894.75	21	26	58.02	-16	22	28.02	9.7970	17.9
nov	12	2459895.75	21	27	5.83	-16	21	47.10	9.8135	17.8
nov	13	2459896.75	21	27	14.04	-16	21	4.35	9.8301	17.8
nov	14	2459897.75	21	27	22.64	-16	20	19.77	9.8467	17.7
nov	15	2459898.75	21	27	31.62	-16	19	33.37	9.8632	17.6
nov	16	2459899.75	21	27	40.98	-16	18	45.16	9.8797	17.6
nov	17	2459900.75	21	27	50.72	-16	17	55.14	9.8963	17.5
nov	18	2459901.75	21	28	0.84	-16	17	3.33	9.9127	17.5

Saturno, 2022

Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
nov	19	2459902.75	21	28	11.33	-16	16	9.70	9.9292	17.4
nov	20	2459903.75	21	28	22.20	-16	15	14.28	9.9456	17.3
nov	21	2459904.75	21	28	33.44	-16	14	17.05	9.9620	17.3
nov	22	2459905.75	21	28	45.05	-16	13	18.01	9.9783	17.2
nov	23	2459906.75	21	28	57.04	-16	12	17.19	9.9946	17.1
nov	24	2459907.75	21	29	9.40	-16	11	14.58	10.0108	17.1
nov	25	2459908.75	21	29	22.12	-16	10	10.22	10.0270	17.0
nov	26	2459909.75	21	29	35.20	-16	9	4.13	10.0431	17.0
nov	27	2459910.75	21	29	48.64	-16	7	56.35	10.0591	16.9
nov	28	2459911.75	21	30	2.43	-16	6	46.89	10.0751	16.8
nov	29	2459912.75	21	30	16.57	-16	5	35.77	10.0909	16.8
nov	30	2459913.75	21	30	31.04	-16	4	23.00	10.1067	16.7
dic	1	2459914.75	21	30	45.85	-16	3	8.58	10.1224	16.6
dic	2	2459915.75	21	31	0.99	-16	1	52.53	10.1381	16.6
dic	3	2459916.75	21	31	16.46	-16	0	34.83	10.1536	16.5
dic	4	2459917.75	21	31	32.26	-15	59	15.51	10.1690	16.5
dic	5	2459918.75	21	31	48.39	-15	57	54.58	10.1843	16.4
dic	6	2459919.75	21	32	4.84	-15	56	32.05	10.1995	16.3
dic	7	2459920.75	21	32	21.61	-15	55	7.96	10.2146	16.3
dic	8	2459921.75	21	32	38.69	-15	53	42.31	10.2296	16.2
dic	9	2459922.75	21	32	56.08	-15	52	15.14	10.2444	16.2
dic	10	2459923.75	21	33	13.78	-15	50	46.46	10.2592	16.1
dic	11	2459924.75	21	33	31.79	-15	49	16.30	10.2738	16.0
dic	12	2459925.75	21	33	50.08	-15	47	44.66	10.2883	16.0
dic	13	2459926.75	21	34	8.67	-15	46	11.57	10.3026	15.9
dic	14	2459927.75	21	34	27.55	-15	44	37.04	10.3168	15.9
dic	15	2459928.75	21	34	46.71	-15	43	1.07	10.3309	15.8
dic	16	2459929.75	21	35	6.15	-15	41	23.68	10.3449	15.7
dic	17	2459930.75	21	35	25.87	-15	39	44.86	10.3586	15.7
dic	18	2459931.75	21	35	45.86	-15	38	4.64	10.3723	15.6
dic	19	2459932.75	21	36	6.13	-15	36	23.01	10.3858	15.5
dic	20	2459933.75	21	36	26.66	-15	34	39.98	10.3991	15.5
dic	21	2459934.75	21	36	47.46	-15	32	55.58	10.4122	15.4
dic	22	2459935.75	21	37	8.53	-15	31	9.82	10.4252	15.4
dic	23	2459936.75	21	37	29.85	-15	29	22.74	10.4380	15.3
dic	24	2459937.75	21	37	51.43	-15	27	34.38	10.4507	15.3
dic	25	2459938.75	21	38	13.24	-15	25	44.76	10.4632	15.2
dic	26	2459939.75	21	38	35.30	-15	23	53.92	10.4755	15.1
dic	27	2459940.75	21	38	57.58	-15	22	1.86	10.4876	15.1
dic	28	2459941.75	21	39	20.08	-15	20	8.61	10.4995	15.0
dic	29	2459942.75	21	39	42.81	-15	18	14.17	10.5112	15.0
dic	30	2459943.75	21	40	5.76	-15	16	18.54	10.5228	14.9
dic	31	2459944.75	21	40	28.92	-15	14	21.74	10.5341	14.8
ene	1	2459945.75	21	40	52.29	-15	12	23.79	10.5453	14.8
ene	2	2459946.75	21	41	15.87	-15	10	24.72	10.5562	14.7
ene	3	2459947.75	21	41	40.46	-15	8	21.07	10.4924	14.7
ene	4	2459948.75	21	50	2.34	-14	23	12.15	11.4977	14.7

Urano, 2022

Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
ene	1	2459580.75	2	34	37.12	+14	43	31.69	19.2104	19.7
ene	2	2459581.75	2	34	33.69	+14	43	17.12	19.2253	19.6
ene	3	2459582.75	2	34	30.46	+14	43	3.48	19.2404	19.5
ene	4	2459583.75	2	34	27.41	+14	42	50.79	19.2556	19.5
ene	5	2459584.75	2	34	24.56	+14	42	39.03	19.2709	19.4
ene	6	2459585.75	2	34	21.90	+14	42	28.19	19.2864	19.3
ene	7	2459586.75	2	34	19.43	+14	42	18.28	19.3020	19.3
ene	8	2459587.75	2	34	17.17	+14	42	9.30	19.3177	19.2
ene	9	2459588.75	2	34	15.10	+14	42	1.26	19.3336	19.1
ene	10	2459589.75	2	34	13.24	+14	41	54.19	19.3495	19.1
ene	11	2459590.75	2	34	11.58	+14	41	48.07	19.3656	19.0
ene	12	2459591.75	2	34	10.13	+14	41	42.94	19.3817	18.9
ene	13	2459592.75	2	34	8.88	+14	41	38.79	19.3980	18.9
ene	14	2459593.75	2	34	7.84	+14	41	35.63	19.4144	18.8
ene	15	2459594.75	2	34	7.01	+14	41	33.45	19.4308	18.7
ene	16	2459595.75	2	34	6.38	+14	41	32.27	19.4473	18.7
ene	17	2459596.75	2	34	5.96	+14	41	32.08	19.4639	18.6
ene	18	2459597.75	2	34	5.74	+14	41	32.87	19.4806	18.5
ene	19	2459598.75	2	34	5.72	+14	41	34.64	19.4973	18.5
ene	20	2459599.75	2	34	5.91	+14	41	37.38	19.5141	18.4
ene	21	2459600.75	2	34	6.30	+14	41	41.08	19.5310	18.3
ene	22	2459601.75	2	34	6.90	+14	41	45.74	19.5479	18.3
ene	23	2459602.75	2	34	7.70	+14	41	51.37	19.5648	18.2
ene	24	2459603.75	2	34	8.71	+14	41	57.96	19.5818	18.1
ene	25	2459604.75	2	34	9.92	+14	42	5.52	19.5989	18.1
ene	26	2459605.75	2	34	11.35	+14	42	14.07	19.6159	18.0
ene	27	2459606.75	2	34	12.98	+14	42	23.61	19.6330	17.9
ene	28	2459607.75	2	34	14.83	+14	42	34.16	19.6501	17.9
ene	29	2459608.75	2	34	16.89	+14	42	45.71	19.6672	17.8
ene	30	2459609.75	2	34	19.15	+14	42	58.27	19.6844	17.7
ene	31	2459610.75	2	34	21.62	+14	43	11.81	19.7015	17.7
feb	1	2459611.75	2	34	24.30	+14	43	26.33	19.7186	17.6
feb	2	2459612.75	2	34	27.17	+14	43	41.80	19.7358	17.5
feb	3	2459613.75	2	34	30.24	+14	43	58.20	19.7529	17.5
feb	4	2459614.75	2	34	33.51	+14	44	15.54	19.7700	17.4
feb	5	2459615.75	2	34	36.99	+14	44	33.81	19.7870	17.4
feb	6	2459616.75	2	34	40.67	+14	44	53.02	19.8041	17.3
feb	7	2459617.75	2	34	44.54	+14	45	13.16	19.8211	17.2
feb	8	2459618.75	2	34	48.63	+14	45	34.24	19.8380	17.2
feb	9	2459619.75	2	34	52.91	+14	45	56.26	19.8550	17.1
feb	10	2459620.75	2	34	57.39	+14	46	19.22	19.8718	17.0
feb	11	2459621.75	2	35	2.07	+14	46	43.09	19.8886	17.0
feb	12	2459622.75	2	35	6.94	+14	47	7.89	19.9054	16.9
feb	13	2459623.75	2	35	12.01	+14	47	33.60	19.9221	16.8
feb	14	2459624.75	2	35	17.26	+14	48	0.20	19.9387	16.8
feb	15	2459625.75	2	35	22.71	+14	48	27.67	19.9553	16.7

Urano, 2022

Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
feb	16	2459626.75	2	35	28.34	+14	48	56.02	19.9717	16.6
feb	17	2459627.75	2	35	34.15	+14	49	25.21	19.9881	16.6
feb	18	2459628.75	2	35	40.15	+14	49	55.23	20.0044	16.5
feb	19	2459629.75	2	35	46.33	+14	50	26.09	20.0206	16.5
feb	20	2459630.75	2	35	52.70	+14	50	57.77	20.0367	16.4
feb	21	2459631.75	2	35	59.24	+14	51	30.26	20.0528	16.3
feb	22	2459632.75	2	36	5.97	+14	52	3.59	20.0687	16.3
feb	23	2459633.75	2	36	12.88	+14	52	37.74	20.0845	16.2
feb	24	2459634.75	2	36	19.98	+14	53	12.72	20.1002	16.1
feb	25	2459635.75	2	36	27.25	+14	53	48.52	20.1157	16.1
feb	26	2459636.75	2	36	34.70	+14	54	25.14	20.1312	16.0
feb	27	2459637.75	2	36	42.32	+14	55	2.56	20.1465	15.9
feb	28	2459638.75	2	36	50.11	+14	55	40.75	20.1617	15.9
mar	1	2459639.75	2	36	58.06	+14	56	19.70	20.1768	15.8
mar	2	2459640.75	2	37	6.18	+14	56	59.38	20.1917	15.8
mar	3	2459641.75	2	37	14.46	+14	57	39.77	20.2065	15.7
mar	4	2459642.75	2	37	22.90	+14	58	20.86	20.2211	15.6
mar	5	2459643.75	2	37	31.50	+14	59	2.66	20.2355	15.6
mar	6	2459644.75	2	37	40.26	+14	59	45.15	20.2499	15.5
mar	7	2459645.75	2	37	49.17	+15	0	28.34	20.2640	15.4
mar	8	2459646.75	2	37	58.25	+15	1	12.21	20.2780	15.4
mar	9	2459647.75	2	38	7.48	+15	1	56.76	20.2918	15.3
mar	10	2459648.75	2	38	16.86	+15	2	41.98	20.3055	15.2
mar	11	2459649.75	2	38	26.39	+15	3	27.86	20.3189	15.2
mar	12	2459650.75	2	38	36.06	+15	4	14.37	20.3322	15.1
mar	13	2459651.75	2	38	45.88	+15	5	1.51	20.3453	15.1
mar	14	2459652.75	2	38	55.83	+15	5	49.26	20.3583	15.0
mar	15	2459653.75	2	39	5.92	+15	6	37.58	20.3710	14.9
mar	16	2459654.75	2	39	16.14	+15	7	26.48	20.3835	14.9
mar	17	2459655.75	2	39	26.49	+15	8	15.92	20.3959	14.8
mar	18	2459656.75	2	39	36.96	+15	9	5.89	20.4080	14.7
mar	19	2459657.75	2	39	47.57	+15	9	56.38	20.4200	14.7
mar	20	2459658.75	2	39	58.30	+15	10	47.39	20.4317	14.6
mar	21	2459659.75	2	40	9.16	+15	11	38.91	20.4433	14.6
mar	22	2459660.75	2	40	20.15	+15	12	30.95	20.4546	14.5
mar	23	2459661.75	2	40	31.25	+15	13	23.51	20.4657	14.4
mar	24	2459662.75	2	40	42.48	+15	14	16.57	20.4766	14.4
mar	25	2459663.75	2	40	53.83	+15	15	10.13	20.4873	14.3
mar	26	2459664.75	2	41	5.29	+15	16	4.16	20.4978	14.2
mar	27	2459665.75	2	41	16.85	+15	16	58.66	20.5081	14.2
mar	28	2459666.75	2	41	28.53	+15	17	53.58	20.5181	14.1
mar	29	2459667.75	2	41	40.30	+15	18	48.90	20.5279	14.1
mar	30	2459668.75	2	41	52.17	+15	19	44.62	20.5374	14.0
mar	31	2459669.75	2	42	4.14	+15	20	40.70	20.5468	13.9
abr	1	2459670.75	2	42	16.20	+15	21	37.15	20.5559	13.9
abr	2	2459671.75	2	42	28.36	+15	22	33.95	20.5647	13.8

Urano, 2022

Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
abr	3	2459672.75	2	42	40.62	+15	23	31.10	20.5733	13.7
abr	4	2459673.75	2	42	52.97	+15	24	28.60	20.5817	13.7
abr	5	2459674.75	2	43	5.40	+15	25	26.44	20.5899	13.6
abr	6	2459675.75	2	43	17.93	+15	26	24.60	20.5977	13.6
abr	7	2459676.75	2	43	30.53	+15	27	23.07	20.6054	13.5
abr	8	2459677.75	2	43	43.21	+15	28	21.84	20.6127	13.4
abr	9	2459678.75	2	43	55.97	+15	29	20.89	20.6199	13.4
abr	10	2459679.75	2	44	8.80	+15	30	20.19	20.6268	13.3
abr	11	2459680.75	2	44	21.70	+15	31	19.74	20.6334	13.2
abr	12	2459681.75	2	44	34.66	+15	32	19.50	20.6398	13.2
abr	13	2459682.75	2	44	47.68	+15	33	19.47	20.6459	13.1
abr	14	2459683.75	2	45	0.76	+15	34	19.61	20.6517	13.1
abr	15	2459684.75	2	45	13.90	+15	35	19.93	20.6573	13.0
abr	16	2459685.75	2	45	27.09	+15	36	20.40	20.6627	12.9
abr	17	2459686.75	2	45	40.34	+15	37	21.03	20.6677	12.9
abr	18	2459687.75	2	45	53.65	+15	38	21.82	20.6726	12.8
abr	19	2459688.75	2	46	7.01	+15	39	22.77	20.6771	12.7
abr	20	2459689.75	2	46	20.42	+15	40	23.88	20.6814	12.7
abr	21	2459690.75	2	46	33.88	+15	41	25.13	20.6854	12.6
abr	22	2459691.75	2	46	47.38	+15	42	26.51	20.6892	12.6
abr	23	2459692.75	2	47	0.92	+15	43	28.00	20.6927	12.5
abr	24	2459693.75	2	47	14.49	+15	44	29.57	20.6959	12.4
abr	25	2459694.75	2	47	28.09	+15	45	31.20	20.6989	12.4
abr	26	2459695.75	2	47	41.71	+15	46	32.86	20.7016	12.3
abr	27	2459696.75	2	47	55.37	+15	47	34.54	20.7040	12.3
abr	28	2459697.75	2	48	9.04	+15	48	36.24	20.7062	12.2
abr	29	2459698.75	2	48	22.74	+15	49	37.94	20.7080	12.1
abr	30	2459699.75	2	48	36.47	+15	50	39.65	20.7097	12.1
may	1	2459700.75	2	48	50.21	+15	51	41.35	20.7110	12.0
may	2	2459701.75	2	49	3.97	+15	52	43.04	20.7121	11.9
may	3	2459702.75	2	49	17.75	+15	53	44.70	20.7128	11.9
may	4	2459703.75	2	49	31.55	+15	54	46.29	20.7134	11.8
may	5	2459704.75	2	49	45.34	+15	55	46.79	20.7136	11.8
may	6	2459705.75	2	49	59.07	+15	56	49.13	20.7136	11.7
may	7	2459706.75	2	50	12.87	+15	57	50.76	20.7133	11.6
may	8	2459707.75	2	50	26.66	+15	58	52.16	20.7127	11.6
may	9	2459708.75	2	50	40.44	+15	59	53.42	20.7119	11.5
may	10	2459709.75	2	50	54.21	+16	0	54.53	20.7108	11.4
may	11	2459710.75	2	51	7.96	+16	1	55.49	20.7094	11.4
may	12	2459711.75	2	51	21.70	+16	2	56.28	20.7078	11.3
may	13	2459712.75	2	51	35.41	+16	3	56.89	20.7059	11.3
may	14	2459713.75	2	51	49.12	+16	4	57.32	20.7037	11.2
may	15	2459714.75	2	52	2.80	+16	5	57.57	20.7013	11.1
may	16	2459715.75	2	52	16.46	+16	6	57.65	20.6986	11.1
may	17	2459716.75	2	52	30.11	+16	7	57.56	20.6956	11.0
may	18	2459717.75	2	52	43.73	+16	8	57.28	20.6924	11.0

Urano, 2022

Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
may	19	2459718.75	2	52	57.31	+16	9	56.82	20.6889	10.9
may	20	2459719.75	2	53	10.87	+16	10	56.15	20.6851	10.8
may	21	2459720.75	2	53	24.38	+16	11	55.25	20.6811	10.8
may	22	2459721.75	2	53	37.85	+16	12	54.08	20.6768	10.7
may	23	2459722.75	2	53	51.28	+16	13	52.64	20.6723	10.6
may	24	2459723.75	2	54	4.66	+16	14	50.90	20.6675	10.6
may	25	2459724.75	2	54	17.99	+16	15	48.86	20.6624	10.5
may	26	2459725.75	2	54	31.27	+16	16	46.51	20.6571	10.5
may	27	2459726.75	2	54	44.50	+16	17	43.86	20.6516	10.4
may	28	2459727.75	2	54	57.68	+16	18	40.89	20.6458	10.3
may	29	2459728.75	2	55	10.81	+16	19	37.60	20.6397	10.3
may	30	2459729.75	2	55	23.87	+16	20	33.99	20.6334	10.2
may	31	2459730.75	2	55	36.88	+16	21	30.05	20.6268	10.1
jun	1	2459731.75	2	55	49.82	+16	22	25.76	20.6200	10.1
jun	2	2459732.75	2	56	2.70	+16	23	21.12	20.6129	10.0
jun	3	2459733.75	2	56	15.50	+16	24	16.11	20.6056	10.0
jun	4	2459734.75	2	56	28.22	+16	25	10.71	20.5981	9.9
jun	5	2459735.75	2	56	40.87	+16	26	4.90	20.5903	9.8
jun	6	2459736.75	2	56	53.43	+16	26	58.67	20.5822	9.8
jun	7	2459737.75	2	57	5.92	+16	27	52.01	20.5740	9.7
jun	8	2459738.75	2	57	18.31	+16	28	44.91	20.5655	9.7
jun	9	2459739.75	2	57	30.62	+16	29	37.34	20.5568	9.6
jun	10	2459740.75	2	57	42.84	+16	30	29.31	20.5478	9.5
jun	11	2459741.75	2	57	54.97	+16	31	20.83	20.5386	9.5
jun	12	2459742.75	2	58	7.01	+16	32	11.88	20.5292	9.4
jun	13	2459743.75	2	58	18.97	+16	33	2.48	20.5196	9.3
jun	14	2459744.75	2	58	30.83	+16	33	52.64	20.5098	9.3
jun	15	2459745.75	2	58	42.59	+16	34	42.34	20.4997	9.2
jun	16	2459746.75	2	58	54.25	+16	35	31.57	20.4895	9.2
jun	17	2459747.75	2	59	5.81	+16	36	20.31	20.4790	9.1
jun	18	2459748.75	2	59	17.25	+16	37	8.54	20.4683	9.0
jun	19	2459749.75	2	59	28.58	+16	37	56.23	20.4574	9.0
jun	20	2459750.75	2	59	39.80	+16	38	43.37	20.4463	8.9
jun	21	2459751.75	2	59	50.90	+16	39	29.95	20.4350	8.8
jun	22	2459752.75	3	0	1.89	+16	40	15.97	20.4235	8.8
jun	23	2459753.75	3	0	12.76	+16	41	1.43	20.4118	8.7
jun	24	2459754.75	3	0	23.51	+16	41	46.32	20.3999	8.7
jun	25	2459755.75	3	0	34.14	+16	42	30.66	20.3878	8.6
jun	26	2459756.75	3	0	44.65	+16	43	14.42	20.3756	8.5
jun	27	2459757.75	3	0	55.03	+16	43	57.62	20.3631	8.5
jun	28	2459758.75	3	1	5.29	+16	44	40.24	20.3505	8.4
jun	29	2459759.75	3	1	15.41	+16	45	22.26	20.3376	8.3
jun	30	2459760.75	3	1	25.40	+16	46	3.69	20.3246	8.3
jul	1	2459761.75	3	1	35.25	+16	46	44.50	20.3115	8.2
jul	2	2459762.75	3	1	44.95	+16	47	24.68	20.2981	8.1
jul	3	2459763.75	3	1	54.52	+16	48	4.22	20.2846	8.1

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Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
jul	4	2459764.75	3	2	3.93	+16	48	43.10	20.2710	8.0
jul	5	2459765.75	3	2	13.20	+16	49	21.32	20.2571	8.0
jul	6	2459766.75	3	2	22.33	+16	49	58.86	20.2432	7.9
jul	7	2459767.75	3	2	31.30	+16	50	35.73	20.2290	7.8
jul	8	2459768.75	3	2	40.12	+16	51	11.92	20.2148	7.8
jul	9	2459769.75	3	2	48.80	+16	51	47.44	20.2004	7.7
jul	10	2459770.75	3	2	57.32	+16	52	22.29	20.1858	7.6
jul	11	2459771.75	3	3	5.70	+16	52	56.49	20.1711	7.6
jul	12	2459772.75	3	3	13.92	+16	53	30.03	20.1563	7.5
jul	13	2459773.75	3	3	21.98	+16	54	2.92	20.1414	7.5
jul	14	2459774.75	3	3	29.88	+16	54	35.12	20.1263	7.4
jul	15	2459775.75	3	3	37.61	+16	55	6.63	20.1111	7.3
jul	16	2459776.75	3	3	45.18	+16	55	37.41	20.0958	7.3
jul	17	2459777.75	3	3	52.57	+16	56	7.46	20.0804	7.2
jul	18	2459778.75	3	3	59.80	+16	56	36.76	20.0648	7.1
jul	19	2459779.75	3	4	6.85	+16	57	5.32	20.0492	7.1
jul	20	2459780.75	3	4	13.73	+16	57	33.13	20.0334	7.0
jul	21	2459781.75	3	4	20.45	+16	58	0.20	20.0176	6.9
jul	22	2459782.75	3	4	26.99	+16	58	26.54	20.0017	6.9
jul	23	2459783.75	3	4	33.36	+16	58	52.15	19.9856	6.8
jul	24	2459784.75	3	4	39.55	+16	59	17.01	19.9695	6.8
jul	25	2459785.75	3	4	45.57	+16	59	41.13	19.9533	6.7
jul	26	2459786.75	3	4	51.41	+17	0	4.51	19.9370	6.6
jul	27	2459787.75	3	4	57.06	+17	0	27.13	19.9207	6.6
jul	28	2459788.75	3	5	2.52	+17	0	48.98	19.9042	6.5
jul	29	2459789.75	3	5	7.80	+17	1	10.05	19.8878	6.4
jul	30	2459790.75	3	5	12.89	+17	1	30.34	19.8712	6.4
jul	31	2459791.75	3	5	17.79	+17	1	49.82	19.8546	6.3
ago	1	2459792.75	3	5	22.50	+17	2	8.51	19.8379	6.2
ago	2	2459793.75	3	5	27.01	+17	2	26.38	19.8212	6.2
ago	3	2459794.75	3	5	31.34	+17	2	43.44	19.8045	6.1
ago	4	2459795.75	3	5	35.47	+17	2	59.69	19.7877	6.0
ago	5	2459796.75	3	5	39.41	+17	3	15.14	19.7709	6.0
ago	6	2459797.75	3	5	43.17	+17	3	29.79	19.7541	5.9
ago	7	2459798.75	3	5	46.73	+17	3	43.67	19.7372	5.8
ago	8	2459799.75	3	5	50.10	+17	3	56.77	19.7203	5.8
ago	9	2459800.75	3	5	53.28	+17	4	9.10	19.7034	5.7
ago	10	2459801.75	3	5	56.27	+17	4	20.64	19.6865	5.7
ago	11	2459802.75	3	5	59.05	+17	4	31.40	19.6696	5.6
ago	12	2459803.75	3	6	1.63	+17	4	41.33	19.6527	5.5
ago	13	2459804.75	3	6	4.02	+17	4	50.44	19.6358	5.5
ago	14	2459805.75	3	6	6.19	+17	4	58.71	19.6189	5.4
ago	15	2459806.75	3	6	8.17	+17	5	6.14	19.6020	5.3
ago	16	2459807.75	3	6	9.95	+17	5	12.74	19.5851	5.3
ago	17	2459808.75	3	6	11.53	+17	5	18.52	19.5683	5.2
ago	18	2459809.75	3	6	12.92	+17	5	23.48	19.5515	5.1

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Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
ago	19	2459810.75	3	6	14.11	+17	5	27.64	19.5347	5.1
ago	20	2459811.75	3	6	15.09	+17	5	30.99	19.5179	5.0
ago	21	2459812.75	3	6	15.88	+17	5	33.53	19.5012	4.9
ago	22	2459813.75	3	6	16.47	+17	5	35.27	19.4845	4.9
ago	23	2459814.75	3	6	16.85	+17	5	36.19	19.4679	4.8
ago	24	2459815.75	3	6	17.03	+17	5	36.31	19.4513	4.7
ago	25	2459816.75	3	6	17.01	+17	5	35.60	19.4348	4.7
ago	26	2459817.75	3	6	16.78	+17	5	34.06	19.4183	4.6
ago	27	2459818.75	3	6	16.35	+17	5	31.70	19.4020	4.5
ago	28	2459819.75	3	6	15.71	+17	5	28.49	19.3856	4.5
ago	29	2459820.75	3	6	14.87	+17	5	24.45	19.3694	4.4
ago	30	2459821.75	3	6	13.83	+17	5	19.58	19.3533	4.3
ago	31	2459822.75	3	6	12.59	+17	5	13.88	19.3372	4.3
sep	1	2459823.75	3	6	11.15	+17	5	7.36	19.3213	4.2
sep	2	2459824.75	3	6	9.52	+17	5	0.05	19.3054	4.1
sep	3	2459825.75	3	6	7.69	+17	4	51.95	19.2897	4.1
sep	4	2459826.75	3	6	5.67	+17	4	43.08	19.2740	4.0
sep	5	2459827.75	3	6	3.46	+17	4	33.44	19.2585	3.9
sep	6	2459828.75	3	6	1.05	+17	4	23.04	19.2431	3.9
sep	7	2459829.75	3	5	58.45	+17	4	11.87	19.2278	3.8
sep	8	2459830.75	3	5	55.65	+17	3	59.92	19.2127	3.7
sep	9	2459831.75	3	5	52.65	+17	3	47.19	19.1976	3.7
sep	10	2459832.75	3	5	49.47	+17	3	33.66	19.1828	3.6
sep	11	2459833.75	3	5	46.09	+17	3	19.33	19.1680	3.5
sep	12	2459834.75	3	5	42.52	+17	3	4.23	19.1534	3.5
sep	13	2459835.75	3	5	38.77	+17	2	48.35	19.1389	3.4
sep	14	2459836.75	3	5	34.83	+17	2	31.72	19.1246	3.3
sep	15	2459837.75	3	5	30.72	+17	2	14.34	19.1105	3.3
sep	16	2459838.75	3	5	26.42	+17	1	56.24	19.0965	3.2
sep	17	2459839.75	3	5	21.95	+17	1	37.42	19.0827	3.1
sep	18	2459840.75	3	5	17.30	+17	1	17.88	19.0690	3.1
sep	19	2459841.75	3	5	12.46	+17	0	57.63	19.0556	3.0
sep	20	2459842.75	3	5	7.46	+17	0	36.67	19.0423	2.9
sep	21	2459843.75	3	5	2.27	+17	0	15.00	19.0292	2.9
sep	22	2459844.75	3	4	56.91	+16	59	52.62	19.0162	2.8
sep	23	2459845.75	3	4	51.38	+16	59	29.53	19.0035	2.7
sep	24	2459846.75	3	4	45.67	+16	59	5.73	18.9910	2.7
sep	25	2459847.75	3	4	39.80	+16	58	41.24	18.9787	2.6
sep	26	2459848.75	3	4	33.77	+16	58	16.05	18.9665	2.5
sep	27	2459849.75	3	4	27.57	+16	57	50.18	18.9546	2.5
sep	28	2459850.75	3	4	21.22	+16	57	23.66	18.9429	2.4
sep	29	2459851.75	3	4	14.71	+16	56	56.49	18.9315	2.3
sep	30	2459852.75	3	4	8.06	+16	56	28.71	18.9202	2.3
oct	1	2459853.75	3	4	1.26	+16	56	0.34	18.9092	2.2
oct	2	2459854.75	3	3	54.31	+16	55	31.39	18.8984	2.1
oct	3	2459855.75	3	3	47.22	+16	55	1.87	18.8878	2.1

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Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
oct	4	2459856.75	3	3	39.99	+16	54	31.78	18.8775	2.0
oct	5	2459857.75	3	3	32.62	+16	54	1.12	18.8674	1.9
oct	6	2459858.75	3	3	25.11	+16	53	29.90	18.8576	1.9
oct	7	2459859.75	3	3	17.47	+16	52	58.10	18.8480	1.8
oct	8	2459860.75	3	3	9.69	+16	52	25.75	18.8387	1.7
oct	9	2459861.75	3	3	1.79	+16	51	52.85	18.8296	1.7
oct	10	2459862.75	3	2	53.76	+16	51	19.42	18.8207	1.6
oct	11	2459863.75	3	2	45.62	+16	50	45.49	18.8122	1.5
oct	12	2459864.75	3	2	37.36	+16	50	11.07	18.8038	1.5
oct	13	2459865.75	3	2	29.00	+16	49	36.19	18.7958	1.4
oct	14	2459866.75	3	2	20.53	+16	49	0.87	18.7880	1.3
oct	15	2459867.75	3	2	11.95	+16	48	25.12	18.7805	1.3
oct	16	2459868.75	3	2	3.27	+16	47	48.94	18.7733	1.2
oct	17	2459869.75	3	1	54.49	+16	47	12.35	18.7663	1.1
oct	18	2459870.75	3	1	45.61	+16	46	35.35	18.7596	1.1
oct	19	2459871.75	3	1	36.64	+16	45	57.97	18.7532	1.0
oct	20	2459872.75	3	1	27.58	+16	45	20.19	18.7471	0.9
oct	21	2459873.75	3	1	18.42	+16	44	42.03	18.7412	0.8
oct	22	2459874.75	3	1	9.19	+16	44	3.51	18.7357	0.8
oct	23	2459875.75	3	0	59.88	+16	43	24.64	18.7304	0.7
oct	24	2459876.75	3	0	50.49	+16	42	45.44	18.7255	0.6
oct	25	2459877.75	3	0	41.04	+16	42	5.92	18.7208	0.6
oct	26	2459878.75	3	0	31.53	+16	41	26.13	18.7164	0.5
oct	27	2459879.75	3	0	21.96	+16	40	46.09	18.7124	0.4
oct	28	2459880.75	3	0	12.34	+16	40	5.82	18.7086	0.4
oct	29	2459881.75	3	0	2.67	+16	39	25.36	18.7051	0.3
oct	30	2459882.75	2	59	52.96	+16	38	44.72	18.7020	0.2
oct	31	2459883.75	2	59	43.20	+16	38	3.91	18.6991	0.2
nov	1	2459884.75	2	59	33.40	+16	37	22.93	18.6965	0.1
nov	2	2459885.75	2	59	23.57	+16	36	41.79	18.6943	0.0
nov	3	2459886.75	2	59	13.70	+16	36	0.50	18.6924	24.0
nov	4	2459887.75	2	59	3.80	+16	35	19.07	18.6907	23.9
nov	5	2459888.75	2	58	53.88	+16	34	37.52	18.6894	23.8
nov	6	2459889.75	2	58	43.95	+16	33	55.87	18.6884	23.8
nov	7	2459890.75	2	58	34.00	+16	33	14.15	18.6877	23.7
nov	8	2459891.75	2	58	24.05	+16	32	32.38	18.6873	23.6
nov	9	2459892.75	2	58	14.10	+16	31	50.59	18.6872	23.5
nov	10	2459893.75	2	58	4.15	+16	31	8.81	18.6874	23.5
nov	11	2459894.75	2	57	54.21	+16	30	27.04	18.6879	23.4
nov	12	2459895.75	2	57	44.27	+16	29	45.32	18.6888	23.3
nov	13	2459896.75	2	57	34.35	+16	29	3.65	18.6899	23.3
nov	14	2459897.75	2	57	24.45	+16	28	22.05	18.6914	23.2
nov	15	2459898.75	2	57	14.56	+16	27	40.53	18.6931	23.1
nov	16	2459899.75	2	57	4.69	+16	26	59.09	18.6952	23.1
nov	17	2459900.75	2	56	54.86	+16	26	17.76	18.6976	23.0
nov	18	2459901.75	2	56	45.05	+16	25	36.54	18.7003	22.9

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Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
nov	19	2459902.75	2	56	35.28	+16	24	55.46	18.7033	22.9
nov	20	2459903.75	2	56	25.55	+16	24	14.53	18.7066	22.8
nov	21	2459904.75	2	56	15.88	+16	23	33.78	18.7102	22.7
nov	22	2459905.75	2	56	6.25	+16	22	53.24	18.7141	22.7
nov	23	2459906.75	2	55	56.69	+16	22	12.93	18.7183	22.6
nov	24	2459907.75	2	55	47.19	+16	21	32.90	18.7229	22.5
nov	25	2459908.75	2	55	37.76	+16	20	53.17	18.7277	22.5
nov	26	2459909.75	2	55	28.41	+16	20	13.76	18.7328	22.4
nov	27	2459910.75	2	55	19.12	+16	19	34.69	18.7382	22.3
nov	28	2459911.75	2	55	9.92	+16	18	55.95	18.7440	22.2
nov	29	2459912.75	2	55	0.79	+16	18	17.56	18.7500	22.2
nov	30	2459913.75	2	54	51.74	+16	17	39.52	18.7563	22.1
dic	1	2459914.75	2	54	42.78	+16	17	1.83	18.7629	22.0
dic	2	2459915.75	2	54	33.91	+16	16	24.53	18.7698	22.0
dic	3	2459916.75	2	54	25.14	+16	15	47.62	18.7769	21.9
dic	4	2459917.75	2	54	16.48	+16	15	11.14	18.7844	21.8
dic	5	2459918.75	2	54	7.92	+16	14	35.11	18.7921	21.8
dic	6	2459919.75	2	53	59.47	+16	13	59.56	18.8001	21.7
dic	7	2459920.75	2	53	51.14	+16	13	24.50	18.8084	21.6
dic	8	2459921.75	2	53	42.93	+16	12	49.96	18.8170	21.6
dic	9	2459922.75	2	53	34.84	+16	12	15.95	18.8258	21.5
dic	10	2459923.75	2	53	26.87	+16	11	42.48	18.8349	21.4
dic	11	2459924.75	2	53	19.03	+16	11	9.57	18.8442	21.4
dic	12	2459925.75	2	53	11.31	+16	10	37.21	18.8538	21.3
dic	13	2459926.75	2	53	3.72	+16	10	5.43	18.8637	21.2
dic	14	2459927.75	2	52	56.27	+16	9	34.22	18.8738	21.2
dic	15	2459928.75	2	52	48.95	+16	9	3.61	18.8841	21.1
dic	16	2459929.75	2	52	41.78	+16	8	33.59	18.8947	21.0
dic	17	2459930.75	2	52	34.74	+16	8	4.19	18.9056	21.0
dic	18	2459931.75	2	52	27.86	+16	7	35.43	18.9167	20.9
dic	19	2459932.75	2	52	21.13	+16	7	7.32	18.9280	20.8
dic	20	2459933.75	2	52	14.56	+16	6	39.89	18.9396	20.8
dic	21	2459934.75	2	52	8.16	+16	6	13.17	18.9514	20.7
dic	22	2459935.75	2	52	1.92	+16	5	47.19	18.9634	20.6
dic	23	2459936.75	2	51	55.84	+16	5	21.96	18.9756	20.6
dic	24	2459937.75	2	51	49.94	+16	4	57.49	18.9881	20.5
dic	25	2459938.75	2	51	44.20	+16	4	33.79	19.0007	20.4
dic	26	2459939.75	2	51	38.63	+16	4	10.85	19.0136	20.3
dic	27	2459940.75	2	51	33.23	+16	3	48.66	19.0267	20.3
dic	28	2459941.75	2	51	28.01	+16	3	27.22	19.0399	20.2
dic	29	2459942.75	2	51	22.96	+16	3	6.55	19.0534	20.1
dic	30	2459943.75	2	51	18.09	+16	2	46.66	19.0671	20.1
dic	31	2459944.75	2	51	13.41	+16	2	27.57	19.0809	20.0
ene	1	2459945.75	2	51	8.91	+16	2	9.30	19.0949	19.9
ene	2	2459946.75	2	51	4.60	+16	1	51.86	19.1091	19.9
ene	3	2459947.75	2	51	2.53	+16	1	44.33	19.0225	19.8
ene	4	2459948.75	2	57	10.66	+16	31	28.20	20.3730	19.8

Neptuno, 2022

Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
ene	1	2459580.75	23	27	30.91	-4	44	19.88	30.2441	16.5
ene	2	2459581.75	23	27	34.78	-4	43	53.27	30.2604	16.5
ene	3	2459582.75	23	27	38.77	-4	43	25.92	30.2765	16.4
ene	4	2459583.75	23	27	42.87	-4	42	57.87	30.2925	16.3
ene	5	2459584.75	23	27	47.07	-4	42	29.14	30.3085	16.3
ene	6	2459585.75	23	27	51.39	-4	41	59.72	30.3242	16.2
ene	7	2459586.75	23	27	55.82	-4	41	29.62	30.3399	16.1
ene	8	2459587.75	23	28	0.35	-4	40	58.84	30.3554	16.1
ene	9	2459588.75	23	28	5.00	-4	40	27.38	30.3708	16.0
ene	10	2459589.75	23	28	9.75	-4	39	55.24	30.3861	16.0
ene	11	2459590.75	23	28	14.61	-4	39	22.42	30.4012	15.9
ene	12	2459591.75	23	28	19.58	-4	38	48.93	30.4161	15.8
ene	13	2459592.75	23	28	24.65	-4	38	14.78	30.4310	15.8
ene	14	2459593.75	23	28	29.84	-4	37	39.97	30.4456	15.7
ene	15	2459594.75	23	28	35.12	-4	37	4.52	30.4601	15.6
ene	16	2459595.75	23	28	40.51	-4	36	28.46	30.4744	15.6
ene	17	2459596.75	23	28	45.99	-4	35	51.78	30.4885	15.5
ene	18	2459597.75	23	28	51.57	-4	35	14.51	30.5025	15.4
ene	19	2459598.75	23	28	57.25	-4	34	36.65	30.5163	15.4
ene	20	2459599.75	23	29	3.02	-4	33	58.24	30.5299	15.3
ene	21	2459600.75	23	29	8.88	-4	33	19.26	30.5433	15.2
ene	22	2459601.75	23	29	14.83	-4	32	39.72	30.5566	15.2
ene	23	2459602.75	23	29	20.87	-4	31	59.64	30.5696	15.1
ene	24	2459603.75	23	29	27.00	-4	31	19.01	30.5825	15.1
ene	25	2459604.75	23	29	33.21	-4	30	37.82	30.5951	15.0
ene	26	2459605.75	23	29	39.52	-4	29	56.09	30.6076	14.9
ene	27	2459606.75	23	29	45.92	-4	29	13.80	30.6198	14.9
ene	28	2459607.75	23	29	52.41	-4	28	30.98	30.6318	14.8
ene	29	2459608.75	23	29	58.98	-4	27	47.64	30.6436	14.7
ene	30	2459609.75	23	30	5.63	-4	27	3.80	30.6552	14.7
ene	31	2459610.75	23	30	12.37	-4	26	19.49	30.6666	14.6
feb	1	2459611.75	23	30	19.17	-4	25	34.73	30.6778	14.5
feb	2	2459612.75	23	30	26.05	-4	24	49.55	30.6887	14.5
feb	3	2459613.75	23	30	33.00	-4	24	3.94	30.6994	14.4
feb	4	2459614.75	23	30	40.02	-4	23	17.91	30.7098	14.4
feb	5	2459615.75	23	30	47.11	-4	22	31.47	30.7200	14.3
feb	6	2459616.75	23	30	54.26	-4	21	44.62	30.7300	14.2
feb	7	2459617.75	23	31	1.48	-4	20	57.36	30.7397	14.2
feb	8	2459618.75	23	31	8.77	-4	20	9.70	30.7492	14.1
feb	9	2459619.75	23	31	16.13	-4	19	21.64	30.7584	14.0
feb	10	2459620.75	23	31	23.55	-4	18	33.22	30.7674	14.0
feb	11	2459621.75	23	31	31.03	-4	17	44.44	30.7762	13.9
feb	12	2459622.75	23	31	38.56	-4	16	55.31	30.7846	13.8
feb	13	2459623.75	23	31	46.16	-4	16	5.86	30.7928	13.8
feb	14	2459624.75	23	31	53.80	-4	15	16.11	30.8008	13.7
feb	15	2459625.75	23	32	1.50	-4	14	26.07	30.8085	13.7

Neptuno, 2022

Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
feb	16	2459626.75	23	32	9.24	-4	13	35.75	30.8160	13.6
feb	17	2459627.75	23	32	17.03	-4	12	45.18	30.8231	13.5
feb	18	2459628.75	23	32	24.87	-4	11	54.35	30.8300	13.5
feb	19	2459629.75	23	32	32.75	-4	11	3.28	30.8367	13.4
feb	20	2459630.75	23	32	40.67	-4	10	11.96	30.8431	13.3
feb	21	2459631.75	23	32	48.63	-4	9	20.40	30.8492	13.3
feb	22	2459632.75	23	32	56.63	-4	8	28.60	30.8550	13.2
feb	23	2459633.75	23	33	4.68	-4	7	36.57	30.8606	13.1
feb	24	2459634.75	23	33	12.77	-4	6	44.31	30.8658	13.1
feb	25	2459635.75	23	33	20.89	-4	5	51.85	30.8709	13.0
feb	26	2459636.75	23	33	29.05	-4	4	59.20	30.8756	13.0
feb	27	2459637.75	23	33	37.24	-4	4	6.39	30.8800	12.9
feb	28	2459638.75	23	33	45.45	-4	3	13.44	30.8842	12.8
mar	1	2459639.75	23	33	53.69	-4	2	20.39	30.8881	12.8
mar	2	2459640.75	23	34	1.95	-4	1	27.23	30.8917	12.7
mar	3	2459641.75	23	34	10.23	-4	0	33.99	30.8950	12.6
mar	4	2459642.75	23	34	18.53	-3	59	40.65	30.8980	12.6
mar	5	2459643.75	23	34	26.84	-3	58	47.23	30.9008	12.5
mar	6	2459644.75	23	34	35.18	-3	57	53.73	30.9032	12.4
mar	7	2459645.75	23	34	43.53	-3	57	0.16	30.9054	12.4
mar	8	2459646.75	23	34	51.89	-3	56	6.53	30.9073	12.3
mar	9	2459647.75	23	35	0.27	-3	55	12.85	30.9089	12.3
mar	10	2459648.75	23	35	8.66	-3	54	19.14	30.9102	12.2
mar	11	2459649.75	23	35	17.06	-3	53	25.44	30.9112	12.1
mar	12	2459650.75	23	35	25.46	-3	52	31.80	30.9120	12.1
mar	13	2459651.75	23	35	33.86	-3	51	38.33	30.9124	12.0
mar	14	2459652.75	23	35	42.24	-3	50	44.69	30.9126	11.9
mar	15	2459653.75	23	35	50.64	-3	49	50.94	30.9125	11.9
mar	16	2459654.75	23	35	59.03	-3	48	57.34	30.9121	11.8
mar	17	2459655.75	23	36	7.42	-3	48	3.86	30.9114	11.8
mar	18	2459656.75	23	36	15.80	-3	47	10.48	30.9104	11.7
mar	19	2459657.75	23	36	24.17	-3	46	17.20	30.9092	11.6
mar	20	2459658.75	23	36	32.53	-3	45	24.02	30.9077	11.6
mar	21	2459659.75	23	36	40.88	-3	44	30.94	30.9058	11.5
mar	22	2459660.75	23	36	49.22	-3	43	37.95	30.9037	11.4
mar	23	2459661.75	23	36	57.55	-3	42	45.07	30.9014	11.4
mar	24	2459662.75	23	37	5.87	-3	41	52.31	30.8987	11.3
mar	25	2459663.75	23	37	14.17	-3	40	59.70	30.8958	11.2
mar	26	2459664.75	23	37	22.45	-3	40	7.26	30.8925	11.2
mar	27	2459665.75	23	37	30.71	-3	39	15.00	30.8891	11.1
mar	28	2459666.75	23	37	38.93	-3	38	22.96	30.8853	11.1
mar	29	2459667.75	23	37	47.13	-3	37	31.15	30.8812	11.0
mar	30	2459668.75	23	37	55.30	-3	36	39.57	30.8769	10.9
mar	31	2459669.75	23	38	3.43	-3	35	48.24	30.8723	10.9
abr	1	2459670.75	23	38	11.54	-3	34	57.15	30.8674	10.8
abr	2	2459671.75	23	38	19.61	-3	34	6.30	30.8623	10.7

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Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
abr	3	2459672.75	23	38	27.64	-3	33	15.71	30.8569	10.7
abr	4	2459673.75	23	38	35.64	-3	32	25.37	30.8512	10.6
abr	5	2459674.75	23	38	43.60	-3	31	35.31	30.8452	10.5
abr	6	2459675.75	23	38	51.53	-3	30	45.54	30.8390	10.5
abr	7	2459676.75	23	38	59.41	-3	29	56.07	30.8325	10.4
abr	8	2459677.75	23	39	7.25	-3	29	6.91	30.8258	10.4
abr	9	2459678.75	23	39	15.04	-3	28	18.10	30.8188	10.3
abr	10	2459679.75	23	39	22.78	-3	27	29.63	30.8116	10.2
abr	11	2459680.75	23	39	30.47	-3	26	41.54	30.8041	10.2
abr	12	2459681.75	23	39	38.11	-3	25	53.83	30.7963	10.1
abr	13	2459682.75	23	39	45.69	-3	25	6.50	30.7883	10.0
abr	14	2459683.75	23	39	53.22	-3	24	19.58	30.7801	10.0
abr	15	2459684.75	23	40	0.69	-3	23	33.06	30.7716	9.9
abr	16	2459685.75	23	40	8.10	-3	22	46.94	30.7629	9.8
abr	17	2459686.75	23	40	15.45	-3	22	1.23	30.7539	9.8
abr	18	2459687.75	23	40	22.75	-3	21	15.90	30.7447	9.7
abr	19	2459688.75	23	40	29.99	-3	20	30.99	30.7353	9.7
abr	20	2459689.75	23	40	37.17	-3	19	46.48	30.7257	9.6
abr	21	2459690.75	23	40	44.29	-3	19	2.41	30.7158	9.5
abr	22	2459691.75	23	40	51.34	-3	18	18.79	30.7057	9.5
abr	23	2459692.75	23	40	58.32	-3	17	35.66	30.6953	9.4
abr	24	2459693.75	23	41	5.23	-3	16	53.02	30.6848	9.3
abr	25	2459694.75	23	41	12.07	-3	16	10.90	30.6740	9.3
abr	26	2459695.75	23	41	18.83	-3	15	29.30	30.6630	9.2
abr	27	2459696.75	23	41	25.52	-3	14	48.22	30.6518	9.1
abr	28	2459697.75	23	41	32.12	-3	14	7.66	30.6404	9.1
abr	29	2459698.75	23	41	38.65	-3	13	27.63	30.6288	9.0
abr	30	2459699.75	23	41	45.11	-3	12	48.12	30.6170	9.0
may	1	2459700.75	23	41	51.48	-3	12	9.15	30.6050	8.9
may	2	2459701.75	23	41	57.78	-3	11	30.71	30.5928	8.8
may	3	2459702.75	23	42	3.99	-3	10	52.83	30.5804	8.8
may	4	2459703.75	23	42	10.13	-3	10	15.51	30.5678	8.7
may	5	2459704.75	23	42	16.17	-3	9	38.76	30.5550	8.6
may	6	2459705.75	23	42	22.13	-3	9	2.60	30.5421	8.6
may	7	2459706.75	23	42	28.01	-3	8	27.05	30.5289	8.5
may	8	2459707.75	23	42	33.79	-3	7	52.12	30.5156	8.4
may	9	2459708.75	23	42	39.48	-3	7	17.81	30.5022	8.4
may	10	2459709.75	23	42	45.07	-3	6	44.14	30.4885	8.3
may	11	2459710.75	23	42	50.57	-3	6	11.11	30.4747	8.3
may	12	2459711.75	23	42	55.97	-3	5	38.72	30.4608	8.2
may	13	2459712.75	23	43	1.28	-3	5	6.98	30.4467	8.1
may	14	2459713.75	23	43	6.49	-3	4	35.87	30.4324	8.1
may	15	2459714.75	23	43	11.61	-3	4	5.39	30.4180	8.0
may	16	2459715.75	23	43	16.64	-3	3	35.54	30.4035	7.9
may	17	2459716.75	23	43	21.57	-3	3	6.32	30.3888	7.9
may	18	2459717.75	23	43	26.40	-3	2	37.74	30.3740	7.8

Neptuno, 2022

Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
may	19	2459718.75	23	43	31.14	-3	2	9.83	30.3591	7.7
may	20	2459719.75	23	43	35.77	-3	1	42.61	30.3440	7.7
may	21	2459720.75	23	43	40.30	-3	1	16.09	30.3288	7.6
may	22	2459721.75	23	43	44.72	-3	0	50.28	30.3135	7.5
may	23	2459722.75	23	43	49.03	-3	0	25.20	30.2981	7.5
may	24	2459723.75	23	43	53.24	-3	0	0.84	30.2825	7.4
may	25	2459724.75	23	43	57.33	-2	59	37.20	30.2669	7.3
may	26	2459725.75	23	44	1.32	-2	59	14.27	30.2511	7.3
may	27	2459726.75	23	44	5.20	-2	58	52.05	30.2353	7.2
may	28	2459727.75	23	44	8.97	-2	58	30.54	30.2194	7.2
may	29	2459728.75	23	44	12.63	-2	58	9.75	30.2033	7.1
may	30	2459729.75	23	44	16.18	-2	57	49.68	30.1872	7.0
may	31	2459730.75	23	44	19.63	-2	57	30.34	30.1710	7.0
jun	1	2459731.75	23	44	22.96	-2	57	11.74	30.1547	6.9
jun	2	2459732.75	23	44	26.18	-2	56	53.88	30.1384	6.8
jun	3	2459733.75	23	44	29.29	-2	56	36.79	30.1220	6.8
jun	4	2459734.75	23	44	32.27	-2	56	20.45	30.1055	6.7
jun	5	2459735.75	23	44	35.15	-2	56	4.89	30.0890	6.6
jun	6	2459736.75	23	44	37.90	-2	55	50.11	30.0724	6.6
jun	7	2459737.75	23	44	40.53	-2	55	36.11	30.0558	6.5
jun	8	2459738.75	23	44	43.05	-2	55	22.88	30.0392	6.4
jun	9	2459739.75	23	44	45.45	-2	55	10.43	30.0225	6.4
jun	10	2459740.75	23	44	47.73	-2	54	58.74	30.0057	6.3
jun	11	2459741.75	23	44	49.90	-2	54	47.81	29.9890	6.2
jun	12	2459742.75	23	44	51.95	-2	54	37.62	29.9722	6.2
jun	13	2459743.75	23	44	53.89	-2	54	28.17	29.9554	6.1
jun	14	2459744.75	23	44	55.71	-2	54	19.46	29.9386	6.1
jun	15	2459745.75	23	44	57.42	-2	54	11.51	29.9218	6.0
jun	16	2459746.75	23	44	59.02	-2	54	4.33	29.9049	5.9
jun	17	2459747.75	23	45	0.49	-2	53	57.95	29.8881	5.9
jun	18	2459748.75	23	45	1.83	-2	53	52.36	29.8713	5.8
jun	19	2459749.75	23	45	3.06	-2	53	47.58	29.8544	5.7
jun	20	2459750.75	23	45	4.16	-2	53	43.59	29.8376	5.7
jun	21	2459751.75	23	45	5.13	-2	53	40.40	29.8208	5.6
jun	22	2459752.75	23	45	5.99	-2	53	37.99	29.8040	5.5
jun	23	2459753.75	23	45	6.73	-2	53	36.34	29.7873	5.5
jun	24	2459754.75	23	45	7.35	-2	53	35.47	29.7706	5.4
jun	25	2459755.75	23	45	7.85	-2	53	35.35	29.7539	5.3
jun	26	2459756.75	23	45	8.23	-2	53	36.00	29.7372	5.3
jun	27	2459757.75	23	45	8.49	-2	53	37.42	29.7206	5.2
jun	28	2459758.75	23	45	8.64	-2	53	39.60	29.7041	5.1
jun	29	2459759.75	23	45	8.66	-2	53	42.56	29.6876	5.1
jun	30	2459760.75	23	45	8.57	-2	53	46.29	29.6711	5.0
jul	1	2459761.75	23	45	8.35	-2	53	50.80	29.6548	4.9
jul	2	2459762.75	23	45	8.02	-2	53	56.10	29.6385	4.9
jul	3	2459763.75	23	45	7.56	-2	54	2.17	29.6222	4.8

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Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
jul	4	2459764.75	23	45	6.98	-2	54	9.03	29.6061	4.7
jul	5	2459765.75	23	45	6.28	-2	54	16.65	29.5900	4.7
jul	6	2459766.75	23	45	5.46	-2	54	25.03	29.5740	4.6
jul	7	2459767.75	23	45	4.52	-2	54	34.17	29.5581	4.5
jul	8	2459768.75	23	45	3.47	-2	54	44.04	29.5424	4.5
jul	9	2459769.75	23	45	2.30	-2	54	54.62	29.5267	4.4
jul	10	2459770.75	23	45	1.02	-2	55	5.92	29.5111	4.3
jul	11	2459771.75	23	44	59.64	-2	55	17.91	29.4956	4.3
jul	12	2459772.75	23	44	58.14	-2	55	30.61	29.4803	4.2
jul	13	2459773.75	23	44	56.53	-2	55	44.01	29.4650	4.1
jul	14	2459774.75	23	44	54.81	-2	55	58.13	29.4499	4.1
jul	15	2459775.75	23	44	52.97	-2	56	12.99	29.4350	4.0
jul	16	2459776.75	23	44	51.01	-2	56	28.58	29.4201	3.9
jul	17	2459777.75	23	44	48.94	-2	56	44.89	29.4054	3.9
jul	18	2459778.75	23	44	46.76	-2	57	1.92	29.3908	3.8
jul	19	2459779.75	23	44	44.47	-2	57	19.64	29.3764	3.7
jul	20	2459780.75	23	44	42.07	-2	57	38.03	29.3621	3.7
jul	21	2459781.75	23	44	39.56	-2	57	57.09	29.3480	3.6
jul	22	2459782.75	23	44	36.95	-2	58	16.80	29.3340	3.5
jul	23	2459783.75	23	44	34.23	-2	58	37.16	29.3202	3.5
jul	24	2459784.75	23	44	31.41	-2	58	58.16	29.3065	3.4
jul	25	2459785.75	23	44	28.49	-2	59	19.81	29.2930	3.3
jul	26	2459786.75	23	44	25.47	-2	59	42.09	29.2797	3.3
jul	27	2459787.75	23	44	22.35	-3	0	5.01	29.2666	3.2
jul	28	2459788.75	23	44	19.12	-3	0	28.56	29.2536	3.1
jul	29	2459789.75	23	44	15.79	-3	0	52.74	29.2409	3.1
jul	30	2459790.75	23	44	12.36	-3	1	17.55	29.2283	3.0
jul	31	2459791.75	23	44	8.83	-3	1	42.97	29.2159	2.9
ago	1	2459792.75	23	44	5.21	-3	2	8.99	29.2038	2.9
ago	2	2459793.75	23	44	1.49	-3	2	35.60	29.1918	2.8
ago	3	2459794.75	23	43	57.67	-3	3	2.78	29.1800	2.7
ago	4	2459795.75	23	43	53.77	-3	3	30.50	29.1685	2.7
ago	5	2459796.75	23	43	49.78	-3	3	58.76	29.1571	2.6
ago	6	2459797.75	23	43	45.70	-3	4	27.53	29.1460	2.5
ago	7	2459798.75	23	43	41.55	-3	4	56.79	29.1351	2.5
ago	8	2459799.75	23	43	37.31	-3	5	26.54	29.1244	2.4
ago	9	2459800.75	23	43	32.99	-3	5	56.77	29.1140	2.3
ago	10	2459801.75	23	43	28.59	-3	6	27.50	29.1037	2.3
ago	11	2459802.75	23	43	24.11	-3	6	58.72	29.0937	2.2
ago	12	2459803.75	23	43	19.55	-3	7	30.44	29.0840	2.1
ago	13	2459804.75	23	43	14.90	-3	8	2.64	29.0745	2.1
ago	14	2459805.75	23	43	10.18	-3	8	35.30	29.0652	2.0
ago	15	2459806.75	23	43	5.38	-3	9	8.42	29.0561	1.9
ago	16	2459807.75	23	43	0.51	-3	9	41.95	29.0473	1.9
ago	17	2459808.75	23	42	55.57	-3	10	15.89	29.0388	1.8
ago	18	2459809.75	23	42	50.56	-3	10	50.21	29.0305	1.7

Neptuno, 2022

Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
ago	19	2459810.75	23	42	45.49	-3	11	24.91	29.0224	1.7
ago	20	2459811.75	23	42	40.36	-3	11	59.97	29.0147	1.6
ago	21	2459812.75	23	42	35.17	-3	12	35.38	29.0071	1.5
ago	22	2459813.75	23	42	29.91	-3	13	11.14	28.9999	1.5
ago	23	2459814.75	23	42	24.60	-3	13	47.24	28.9929	1.4
ago	24	2459815.75	23	42	19.23	-3	14	23.67	28.9862	1.3
ago	25	2459816.75	23	42	13.81	-3	15	0.42	28.9797	1.3
ago	26	2459817.75	23	42	8.32	-3	15	37.49	28.9735	1.2
ago	27	2459818.75	23	42	2.79	-3	16	14.86	28.9676	1.1
ago	28	2459819.75	23	41	57.20	-3	16	52.51	28.9620	1.1
ago	29	2459820.75	23	41	51.57	-3	17	30.42	28.9566	1.0
ago	30	2459821.75	23	41	45.89	-3	18	8.58	28.9516	0.9
ago	31	2459822.75	23	41	40.17	-3	18	46.95	28.9468	0.9
sep	1	2459823.75	23	41	34.41	-3	19	25.52	28.9423	0.8
sep	2	2459824.75	23	41	28.61	-3	20	4.25	28.9381	0.7
sep	3	2459825.75	23	41	22.79	-3	20	43.14	28.9342	0.7
sep	4	2459826.75	23	41	16.94	-3	21	22.17	28.9305	0.6
sep	5	2459827.75	23	41	11.06	-3	22	1.32	28.9272	0.5
sep	6	2459828.75	23	41	5.15	-3	22	40.61	28.9241	0.5
sep	7	2459829.75	23	40	59.22	-3	23	20.02	28.9214	0.4
sep	8	2459830.75	23	40	53.26	-3	23	59.55	28.9189	0.3
sep	9	2459831.75	23	40	47.27	-3	24	39.20	28.9167	0.3
sep	10	2459832.75	23	40	41.26	-3	25	18.95	28.9148	0.2
sep	11	2459833.75	23	40	35.23	-3	25	58.77	28.9132	0.1
sep	12	2459834.75	23	40	29.18	-3	26	38.64	28.9120	0.1
sep	13	2459835.75	23	40	23.13	-3	27	18.53	28.9110	24.0
sep	14	2459836.75	23	40	17.06	-3	27	58.42	28.9103	23.9
sep	15	2459837.75	23	40	10.99	-3	28	38.30	28.9098	23.9
sep	16	2459838.75	23	40	4.91	-3	29	18.14	28.9097	23.8
sep	17	2459839.75	23	39	58.83	-3	29	57.95	28.9099	23.7
sep	18	2459840.75	23	39	52.76	-3	30	37.71	28.9104	23.7
sep	19	2459841.75	23	39	46.68	-3	31	17.41	28.9112	23.6
sep	20	2459842.75	23	39	40.61	-3	31	57.04	28.9123	23.5
sep	21	2459843.75	23	39	34.54	-3	32	36.60	28.9137	23.5
sep	22	2459844.75	23	39	28.48	-3	33	16.07	28.9154	23.4
sep	23	2459845.75	23	39	22.42	-3	33	55.43	28.9174	23.3
sep	24	2459846.75	23	39	16.38	-3	34	34.67	28.9197	23.3
sep	25	2459847.75	23	39	10.35	-3	35	13.77	28.9223	23.2
sep	26	2459848.75	23	39	4.33	-3	35	52.72	28.9251	23.1
sep	27	2459849.75	23	38	58.34	-3	36	31.47	28.9283	23.1
sep	28	2459850.75	23	38	52.37	-3	37	10.00	28.9318	23.0
sep	29	2459851.75	23	38	46.44	-3	37	48.30	28.9356	22.9
sep	30	2459852.75	23	38	40.53	-3	38	26.34	28.9397	22.8
oct	1	2459853.75	23	38	34.66	-3	39	4.11	28.9440	22.8
oct	2	2459854.75	23	38	28.82	-3	39	41.60	28.9487	22.7
oct	3	2459855.75	23	38	23.02	-3	40	18.80	28.9536	22.6

Neptuno, 2022

Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
oct	4	2459856.75	23	38	17.25	-3	40	55.72	28.9589	22.6
oct	5	2459857.75	23	38	11.53	-3	41	32.35	28.9644	22.5
oct	6	2459858.75	23	38	5.84	-3	42	8.69	28.9702	22.4
oct	7	2459859.75	23	38	0.19	-3	42	44.71	28.9763	22.4
oct	8	2459860.75	23	37	54.59	-3	43	20.41	28.9827	22.3
oct	9	2459861.75	23	37	49.03	-3	43	55.75	28.9893	22.2
oct	10	2459862.75	23	37	43.52	-3	44	30.70	28.9962	22.2
oct	11	2459863.75	23	37	38.07	-3	45	5.26	29.0035	22.1
oct	12	2459864.75	23	37	32.67	-3	45	39.40	29.0109	22.0
oct	13	2459865.75	23	37	27.33	-3	46	13.11	29.0187	22.0
oct	14	2459866.75	23	37	22.06	-3	46	46.38	29.0267	21.9
oct	15	2459867.75	23	37	16.85	-3	47	19.20	29.0350	21.8
oct	16	2459868.75	23	37	11.70	-3	47	51.57	29.0435	21.8
oct	17	2459869.75	23	37	6.61	-3	48	23.48	29.0524	21.7
oct	18	2459870.75	23	37	1.60	-3	48	54.92	29.0614	21.6
oct	19	2459871.75	23	36	56.65	-3	49	25.89	29.0708	21.6
oct	20	2459872.75	23	36	51.76	-3	49	56.36	29.0804	21.5
oct	21	2459873.75	23	36	46.95	-3	50	26.34	29.0902	21.4
oct	22	2459874.75	23	36	42.22	-3	50	55.80	29.1003	21.4
oct	23	2459875.75	23	36	37.55	-3	51	24.73	29.1107	21.3
oct	24	2459876.75	23	36	32.97	-3	51	53.10	29.1212	21.2
oct	25	2459877.75	23	36	28.47	-3	52	20.90	29.1321	21.2
oct	26	2459878.75	23	36	24.06	-3	52	48.09	29.1431	21.1
oct	27	2459879.75	23	36	19.74	-3	53	14.67	29.1544	21.0
oct	28	2459880.75	23	36	15.51	-3	53	40.62	29.1660	21.0
oct	29	2459881.75	23	36	11.37	-3	54	5.93	29.1777	20.9
oct	30	2459882.75	23	36	7.33	-3	54	30.61	29.1897	20.8
oct	31	2459883.75	23	36	3.37	-3	54	54.66	29.2019	20.8
nov	1	2459884.75	23	35	59.51	-3	55	18.08	29.2143	20.7
nov	2	2459885.75	23	35	55.74	-3	55	40.88	29.2270	20.6
nov	3	2459886.75	23	35	52.07	-3	56	3.03	29.2398	20.6
nov	4	2459887.75	23	35	48.49	-3	56	24.54	29.2528	20.5
nov	5	2459888.75	23	35	45.01	-3	56	45.37	29.2661	20.4
nov	6	2459889.75	23	35	41.63	-3	57	5.52	29.2795	20.4
nov	7	2459890.75	23	35	38.36	-3	57	24.96	29.2931	20.3
nov	8	2459891.75	23	35	35.19	-3	57	43.68	29.3069	20.2
nov	9	2459892.75	23	35	32.13	-3	58	1.67	29.3209	20.2
nov	10	2459893.75	23	35	29.18	-3	58	18.93	29.3350	20.1
nov	11	2459894.75	23	35	26.34	-3	58	35.45	29.3494	20.0
nov	12	2459895.75	23	35	23.61	-3	58	51.24	29.3639	20.0
nov	13	2459896.75	23	35	20.99	-3	59	6.30	29.3785	19.9
nov	14	2459897.75	23	35	18.48	-3	59	20.62	29.3934	19.8
nov	15	2459898.75	23	35	16.08	-3	59	34.20	29.4084	19.8
nov	16	2459899.75	23	35	13.79	-3	59	47.04	29.4235	19.7
nov	17	2459900.75	23	35	11.62	-3	59	59.13	29.4388	19.6
nov	18	2459901.75	23	35	9.56	-4	0	10.47	29.4542	19.6

Neptuno, 2022

Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
nov	19	2459902.75	23	35	7.62	-4	0	21.04	29.4698	19.5
nov	20	2459903.75	23	35	5.79	-4	0	30.83	29.4855	19.4
nov	21	2459904.75	23	35	4.09	-4	0	39.83	29.5013	19.4
nov	22	2459905.75	23	35	2.50	-4	0	48.01	29.5173	19.3
nov	23	2459906.75	23	35	1.04	-4	0	55.37	29.5333	19.2
nov	24	2459907.75	23	34	59.71	-4	1	1.90	29.5495	19.2
nov	25	2459908.75	23	34	58.51	-4	1	7.59	29.5658	19.1
nov	26	2459909.75	23	34	57.43	-4	1	12.46	29.5822	19.0
nov	27	2459910.75	23	34	56.48	-4	1	16.51	29.5987	19.0
nov	28	2459911.75	23	34	55.65	-4	1	19.76	29.6153	18.9
nov	29	2459912.75	23	34	54.94	-4	1	22.22	29.6320	18.8
nov	30	2459913.75	23	34	54.35	-4	1	23.88	29.6487	18.8
dic	1	2459914.75	23	34	53.89	-4	1	24.75	29.6655	18.7
dic	2	2459915.75	23	34	53.55	-4	1	24.79	29.6824	18.6
dic	3	2459916.75	23	34	53.33	-4	1	24.02	29.6994	18.6
dic	4	2459917.75	23	34	53.25	-4	1	22.41	29.7164	18.5
dic	5	2459918.75	23	34	53.29	-4	1	19.96	29.7335	18.4
dic	6	2459919.75	23	34	53.46	-4	1	16.67	29.7506	18.4
dic	7	2459920.75	23	34	53.76	-4	1	12.53	29.7678	18.3
dic	8	2459921.75	23	34	54.20	-4	1	7.56	29.7850	18.3
dic	9	2459922.75	23	34	54.76	-4	1	1.76	29.8022	18.2
dic	10	2459923.75	23	34	55.45	-4	0	55.13	29.8195	18.1
dic	11	2459924.75	23	34	56.26	-4	0	47.69	29.8368	18.1
dic	12	2459925.75	23	34	57.20	-4	0	39.44	29.8541	18.0
dic	13	2459926.75	23	34	58.27	-4	0	30.38	29.8714	17.9
dic	14	2459927.75	23	34	59.46	-4	0	20.52	29.8888	17.9
dic	15	2459928.75	23	35	0.78	-4	0	9.85	29.9061	17.8
dic	16	2459929.75	23	35	2.22	-3	59	58.38	29.9234	17.7
dic	17	2459930.75	23	35	3.79	-3	59	46.09	29.9408	17.7
dic	18	2459931.75	23	35	5.49	-3	59	32.99	29.9581	17.6
dic	19	2459932.75	23	35	7.32	-3	59	19.06	29.9754	17.5
dic	20	2459933.75	23	35	9.27	-3	59	4.30	29.9927	17.5
dic	21	2459934.75	23	35	11.36	-3	58	48.70	30.0099	17.4
dic	22	2459935.75	23	35	13.57	-3	58	32.26	30.0271	17.3
dic	23	2459936.75	23	35	15.92	-3	58	15.00	30.0443	17.3
dic	24	2459937.75	23	35	18.40	-3	57	56.93	30.0615	17.2
dic	25	2459938.75	23	35	20.99	-3	57	38.08	30.0785	17.1
dic	26	2459939.75	23	35	23.71	-3	57	18.46	30.0956	17.1
dic	27	2459940.75	23	35	26.55	-3	56	58.09	30.1125	17.0
dic	28	2459941.75	23	35	29.50	-3	56	36.96	30.1294	16.9
dic	29	2459942.75	23	35	32.58	-3	56	15.07	30.1462	16.9
dic	30	2459943.75	23	35	35.77	-3	55	52.42	30.1630	16.8
dic	31	2459944.75	23	35	39.09	-3	55	29.00	30.1797	16.8
ene	1	2459945.75	23	35	42.53	-3	55	4.81	30.1962	16.7
ene	2	2459946.75	23	35	46.08	-3	54	39.85	30.2127	16.6
ene	3	2459947.75	23	35	51.84	-3	54	1.07	30.1344	16.6
ene	4	2459948.75	23	39	6.30	-3	31	10.27	31.3513	16.5

Plutón (planeta enano), 2022

Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
ene	1	2459580.75	19	53	7.96	-22	39	17.07	35.3817	13.0
ene	2	2459581.75	19	53	16.25	-22	38	59.53	35.3867	12.9
ene	3	2459582.75	19	53	24.56	-22	38	41.96	35.3915	12.8
ene	4	2459583.75	19	53	32.91	-22	38	24.38	35.3960	12.8
ene	5	2459584.75	19	53	41.27	-22	38	6.78	35.4002	12.7
ene	6	2459585.75	19	53	49.65	-22	37	49.16	35.4041	12.6
ene	7	2459586.75	19	53	58.05	-22	37	31.50	35.4077	12.6
ene	8	2459587.75	19	54	6.47	-22	37	13.81	35.4110	12.5
ene	9	2459588.75	19	54	14.90	-22	36	56.09	35.4141	12.5
ene	10	2459589.75	19	54	23.34	-22	36	38.33	35.4168	12.4
ene	11	2459590.75	19	54	31.80	-22	36	20.54	35.4192	12.3
ene	12	2459591.75	19	54	40.27	-22	36	2.74	35.4214	12.3
ene	13	2459592.75	19	54	48.76	-22	35	44.94	35.4233	12.2
ene	14	2459593.75	19	54	57.25	-22	35	27.17	35.4248	12.1
ene	15	2459594.75	19	55	5.75	-22	35	9.45	35.4261	12.1
ene	16	2459595.75	19	55	14.25	-22	34	51.79	35.4271	12.0
ene	17	2459596.75	19	55	22.74	-22	34	34.07	35.4278	11.9
ene	18	2459597.75	19	55	31.24	-22	34	16.32	35.4282	11.9
ene	19	2459598.75	19	55	39.74	-22	33	58.65	35.4283	11.8
ene	20	2459599.75	19	55	48.23	-22	33	41.05	35.4281	11.8
ene	21	2459600.75	19	55	56.71	-22	33	23.52	35.4276	11.7
ene	22	2459601.75	19	56	5.17	-22	33	6.04	35.4268	11.6
ene	23	2459602.75	19	56	13.63	-22	32	48.62	35.4258	11.6
ene	24	2459603.75	19	56	22.07	-22	32	31.24	35.4244	11.5
ene	25	2459604.75	19	56	30.50	-22	32	13.90	35.4228	11.4
ene	26	2459605.75	19	56	38.91	-22	31	56.62	35.4208	11.4
ene	27	2459606.75	19	56	47.31	-22	31	39.39	35.4186	11.3
ene	28	2459607.75	19	56	55.70	-22	31	22.24	35.4161	11.3
ene	29	2459608.75	19	57	4.06	-22	31	5.19	35.4133	11.2
ene	30	2459609.75	19	57	12.40	-22	30	48.25	35.4102	11.1
ene	31	2459610.75	19	57	20.72	-22	30	31.45	35.4068	11.1
feb	1	2459611.75	19	57	29.00	-22	30	14.78	35.4031	11.0
feb	2	2459612.75	19	57	37.25	-22	29	58.24	35.3992	10.9
feb	3	2459613.75	19	57	45.46	-22	29	41.83	35.3949	10.9
feb	4	2459614.75	19	57	53.63	-22	29	25.54	35.3904	10.8
feb	5	2459615.75	19	58	1.76	-22	29	9.37	35.3856	10.7
feb	6	2459616.75	19	58	9.85	-22	28	53.30	35.3806	10.7
feb	7	2459617.75	19	58	17.90	-22	28	37.37	35.3752	10.6
feb	8	2459618.75	19	58	25.91	-22	28	21.56	35.3696	10.6
feb	9	2459619.75	19	58	33.87	-22	28	5.89	35.3637	10.5
feb	10	2459620.75	19	58	41.80	-22	27	50.38	35.3575	10.4
feb	11	2459621.75	19	58	49.67	-22	27	35.04	35.3511	10.4
feb	12	2459622.75	19	58	57.50	-22	27	19.88	35.3444	10.3
feb	13	2459623.75	19	59	5.28	-22	27	4.90	35.3375	10.2
feb	14	2459624.75	19	59	13.00	-22	26	50.12	35.3303	10.2
feb	15	2459625.75	19	59	20.67	-22	26	35.54	35.3228	10.1

Plutón (planeta enano), 2022

Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
feb	16	2459626.75	19	59	28.27	-22	26	21.17	35.3151	10.0
feb	17	2459627.75	19	59	35.82	-22	26	7.00	35.3071	10.0
feb	18	2459628.75	19	59	43.30	-22	25	53.03	35.2989	9.9
feb	19	2459629.75	19	59	50.71	-22	25	39.25	35.2904	9.9
feb	20	2459630.75	19	59	58.07	-22	25	25.67	35.2817	9.8
feb	21	2459631.75	20	0	5.35	-22	25	12.27	35.2727	9.7
feb	22	2459632.75	20	0	12.58	-22	24	59.07	35.2635	9.7
feb	23	2459633.75	20	0	19.73	-22	24	46.07	35.2541	9.6
feb	24	2459634.75	20	0	26.83	-22	24	33.28	35.2444	9.5
feb	25	2459635.75	20	0	33.85	-22	24	20.73	35.2345	9.5
feb	26	2459636.75	20	0	40.81	-22	24	8.43	35.2244	9.4
feb	27	2459637.75	20	0	47.69	-22	23	56.40	35.2141	9.3
feb	28	2459638.75	20	0	54.49	-22	23	44.64	35.2035	9.3
mar	1	2459639.75	20	1	1.20	-22	23	33.16	35.1927	9.2
mar	2	2459640.75	20	1	7.83	-22	23	21.95	35.1817	9.2
mar	3	2459641.75	20	1	14.38	-22	23	11.00	35.1705	9.1
mar	4	2459642.75	20	1	20.84	-22	23	0.30	35.1590	9.0
mar	5	2459643.75	20	1	27.21	-22	22	49.85	35.1474	9.0
mar	6	2459644.75	20	1	33.50	-22	22	39.66	35.1356	8.9
mar	7	2459645.75	20	1	39.70	-22	22	29.72	35.1235	8.8
mar	8	2459646.75	20	1	45.82	-22	22	20.06	35.1113	8.8
mar	9	2459647.75	20	1	51.84	-22	22	10.67	35.0989	8.7
mar	10	2459648.75	20	1	57.78	-22	22	1.58	35.0863	8.6
mar	11	2459649.75	20	2	3.62	-22	21	52.79	35.0735	8.6
mar	12	2459650.75	20	2	9.38	-22	21	44.31	35.0606	8.5
mar	13	2459651.75	20	2	15.03	-22	21	36.15	35.0475	8.5
mar	14	2459652.75	20	2	20.59	-22	21	28.31	35.0342	8.4
mar	15	2459653.75	20	2	26.05	-22	21	20.79	35.0207	8.3
mar	16	2459654.75	20	2	31.40	-22	21	13.60	35.0071	8.3
mar	17	2459655.75	20	2	36.66	-22	21	6.73	34.9933	8.2
mar	18	2459656.75	20	2	41.81	-22	21	0.17	34.9794	8.1
mar	19	2459657.75	20	2	46.85	-22	20	53.91	34.9654	8.1
mar	20	2459658.75	20	2	51.80	-22	20	47.95	34.9512	8.0
mar	21	2459659.75	20	2	56.64	-22	20	42.29	34.9368	7.9
mar	22	2459660.75	20	3	1.38	-22	20	36.93	34.9223	7.9
mar	23	2459661.75	20	3	6.02	-22	20	31.90	34.9077	7.8
mar	24	2459662.75	20	3	10.55	-22	20	27.19	34.8930	7.7
mar	25	2459663.75	20	3	14.98	-22	20	22.83	34.8781	7.7
mar	26	2459664.75	20	3	19.30	-22	20	18.84	34.8631	7.6
mar	27	2459665.75	20	3	23.51	-22	20	15.21	34.8480	7.5
mar	28	2459666.75	20	3	27.61	-22	20	11.95	34.8328	7.5
mar	29	2459667.75	20	3	31.59	-22	20	9.06	34.8175	7.4
mar	30	2459668.75	20	3	35.45	-22	20	6.51	34.8021	7.4
mar	31	2459669.75	20	3	39.19	-22	20	4.31	34.7866	7.3
abr	1	2459670.75	20	3	42.82	-22	20	2.45	34.7710	7.2
abr	2	2459671.75	20	3	46.33	-22	20	0.91	34.7553	7.2

Plutón (planeta enano), 2022

Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
abr	3	2459672.75	20	3	49.72	-22	19	59.72	34.7396	7.1
abr	4	2459673.75	20	3	53.01	-22	19	58.86	34.7237	7.0
abr	5	2459674.75	20	3	56.18	-22	19	58.36	34.7078	7.0
abr	6	2459675.75	20	3	59.23	-22	19	58.21	34.6919	6.9
abr	7	2459676.75	20	4	2.16	-22	19	58.43	34.6758	6.8
abr	8	2459677.75	20	4	4.98	-22	19	59.03	34.6598	6.8
abr	9	2459678.75	20	4	7.68	-22	20	0.00	34.6436	6.7
abr	10	2459679.75	20	4	10.26	-22	20	1.36	34.6274	6.6
abr	11	2459680.75	20	4	12.71	-22	20	3.10	34.6112	6.6
abr	12	2459681.75	20	4	15.05	-22	20	5.21	34.5950	6.5
abr	13	2459682.75	20	4	17.26	-22	20	7.70	34.5787	6.4
abr	14	2459683.75	20	4	19.34	-22	20	10.55	34.5624	6.4
abr	15	2459684.75	20	4	21.31	-22	20	13.76	34.5461	6.3
abr	16	2459685.75	20	4	23.15	-22	20	17.30	34.5297	6.3
abr	17	2459686.75	20	4	24.87	-22	20	21.19	34.5134	6.2
abr	18	2459687.75	20	4	26.47	-22	20	25.40	34.4970	6.1
abr	19	2459688.75	20	4	27.96	-22	20	29.97	34.4807	6.1
abr	20	2459689.75	20	4	29.33	-22	20	34.89	34.4643	6.0
abr	21	2459690.75	20	4	30.58	-22	20	40.18	34.4479	5.9
abr	22	2459691.75	20	4	31.71	-22	20	45.86	34.4316	5.9
abr	23	2459692.75	20	4	32.72	-22	20	51.92	34.4153	5.8
abr	24	2459693.75	20	4	33.60	-22	20	58.38	34.3990	5.7
abr	25	2459694.75	20	4	34.35	-22	21	5.21	34.3827	5.7
abr	26	2459695.75	20	4	34.98	-22	21	12.41	34.3664	5.6
abr	27	2459696.75	20	4	35.48	-22	21	19.96	34.3502	5.5
abr	28	2459697.75	20	4	35.86	-22	21	27.85	34.3341	5.5
abr	29	2459698.75	20	4	36.11	-22	21	36.08	34.3179	5.4
abr	30	2459699.75	20	4	36.24	-22	21	44.64	34.3019	5.3
may	1	2459700.75	20	4	36.25	-22	21	53.53	34.2859	5.3
may	2	2459701.75	20	4	36.15	-22	22	2.77	34.2699	5.2
may	3	2459702.75	20	4	35.92	-22	22	12.35	34.2540	5.1
may	4	2459703.75	20	4	35.58	-22	22	22.27	34.2382	5.1
may	5	2459704.75	20	4	35.12	-22	22	32.56	34.2225	5.0
may	6	2459705.75	20	4	34.54	-22	22	43.19	34.2068	4.9
may	7	2459706.75	20	4	33.84	-22	22	54.19	34.1913	4.9
may	8	2459707.75	20	4	33.01	-22	23	5.54	34.1758	4.8
may	9	2459708.75	20	4	32.07	-22	23	17.23	34.1604	4.7
may	10	2459709.75	20	4	31.01	-22	23	29.26	34.1451	4.7
may	11	2459710.75	20	4	29.83	-22	23	41.63	34.1300	4.6
may	12	2459711.75	20	4	28.53	-22	23	54.30	34.1149	4.5
may	13	2459712.75	20	4	27.11	-22	24	7.28	34.0999	4.5
may	14	2459713.75	20	4	25.58	-22	24	20.55	34.0851	4.4
may	15	2459714.75	20	4	23.94	-22	24	34.11	34.0704	4.3
may	16	2459715.75	20	4	22.19	-22	24	47.94	34.0558	4.3
may	17	2459716.75	20	4	20.33	-22	25	2.07	34.0414	4.2
may	18	2459717.75	20	4	18.37	-22	25	16.51	34.0271	4.1

Plutón (planeta enano), 2022

Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	"	dis UA	hp h
may	19	2459718.75	20	4	16.30	-22	25	31.26	34.0129	4.1
may	20	2459719.75	20	4	14.12	-22	25	46.33	33.9988	4.0
may	21	2459720.75	20	4	11.83	-22	26	1.73	33.9849	3.9
may	22	2459721.75	20	4	9.42	-22	26	17.43	33.9712	3.9
may	23	2459722.75	20	4	6.91	-22	26	33.42	33.9576	3.8
may	24	2459723.75	20	4	4.28	-22	26	49.69	33.9442	3.7
may	25	2459724.75	20	4	1.54	-22	27	6.22	33.9309	3.7
may	26	2459725.75	20	3	58.70	-22	27	23.00	33.9178	3.6
may	27	2459726.75	20	3	55.76	-22	27	40.02	33.9049	3.5
may	28	2459727.75	20	3	52.72	-22	27	57.29	33.8922	3.5
may	29	2459728.75	20	3	49.58	-22	28	14.79	33.8796	3.4
may	30	2459729.75	20	3	46.34	-22	28	32.54	33.8672	3.3
may	31	2459730.75	20	3	43.01	-22	28	50.54	33.8551	3.3
jun	1	2459731.75	20	3	39.58	-22	29	8.78	33.8431	3.2
jun	2	2459732.75	20	3	36.06	-22	29	27.28	33.8313	3.2
jun	3	2459733.75	20	3	32.44	-22	29	46.02	33.8197	3.1
jun	4	2459734.75	20	3	28.73	-22	30	4.99	33.8083	3.0
jun	5	2459735.75	20	3	24.93	-22	30	24.21	33.7971	2.9
jun	6	2459736.75	20	3	21.03	-22	30	43.64	33.7861	2.9
jun	7	2459737.75	20	3	17.04	-22	31	3.28	33.7754	2.8
jun	8	2459738.75	20	3	12.97	-22	31	23.12	33.7648	2.7
jun	9	2459739.75	20	3	8.81	-22	31	43.15	33.7545	2.7
jun	10	2459740.75	20	3	4.57	-22	32	3.33	33.7444	2.6
jun	11	2459741.75	20	3	0.25	-22	32	23.67	33.7346	2.5
jun	12	2459742.75	20	2	55.85	-22	32	44.16	33.7249	2.5
jun	13	2459743.75	20	2	51.38	-22	33	4.80	33.7155	2.4
jun	14	2459744.75	20	2	46.84	-22	33	25.60	33.7063	2.3
jun	15	2459745.75	20	2	42.23	-22	33	46.57	33.6974	2.3
jun	16	2459746.75	20	2	37.54	-22	34	7.72	33.6887	2.2
jun	17	2459747.75	20	2	32.78	-22	34	29.04	33.6803	2.1
jun	18	2459748.75	20	2	27.95	-22	34	50.54	33.6720	2.1
jun	19	2459749.75	20	2	23.05	-22	35	12.18	33.6641	2.0
jun	20	2459750.75	20	2	18.07	-22	35	33.94	33.6564	1.9
jun	21	2459751.75	20	2	13.02	-22	35	55.82	33.6489	1.9
jun	22	2459752.75	20	2	7.92	-22	36	17.79	33.6417	1.8
jun	23	2459753.75	20	2	2.75	-22	36	39.85	33.6348	1.7
jun	24	2459754.75	20	1	57.52	-22	37	2.00	33.6281	1.7
jun	25	2459755.75	20	1	52.24	-22	37	24.22	33.6217	1.6
jun	26	2459756.75	20	1	46.91	-22	37	46.52	33.6155	1.5
jun	27	2459757.75	20	1	41.52	-22	38	8.91	33.6096	1.5
jun	28	2459758.75	20	1	36.09	-22	38	31.38	33.6040	1.4
jun	29	2459759.75	20	1	30.61	-22	38	53.93	33.5987	1.3
jun	30	2459760.75	20	1	25.08	-22	39	16.56	33.5936	1.3
jul	1	2459761.75	20	1	19.51	-22	39	39.26	33.5888	1.2
jul	2	2459762.75	20	1	13.89	-22	40	2.03	33.5843	1.1
jul	3	2459763.75	20	1	8.23	-22	40	24.85	33.5801	1.1

Plutón (planeta enano), 2022

Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
jul	4	2459764.75	20	1	2.52	-22	40	47.70	33.5761	1.0
jul	5	2459765.75	20	0	56.78	-22	41	10.59	33.5724	0.9
jul	6	2459766.75	20	0	51.01	-22	41	33.48	33.5691	0.9
jul	7	2459767.75	20	0	45.20	-22	41	56.37	33.5659	0.8
jul	8	2459768.75	20	0	39.36	-22	42	19.23	33.5631	0.7
jul	9	2459769.75	20	0	33.50	-22	42	42.08	33.5606	0.7
jul	10	2459770.75	20	0	27.62	-22	43	4.89	33.5583	0.6
jul	11	2459771.75	20	0	21.72	-22	43	27.68	33.5564	0.5
jul	12	2459772.75	20	0	15.80	-22	43	50.45	33.5547	0.5
jul	13	2459773.75	20	0	9.87	-22	44	13.22	33.5533	0.4
jul	14	2459774.75	20	0	3.92	-22	44	35.98	33.5522	0.3
jul	15	2459775.75	19	59	57.96	-22	44	58.74	33.5514	0.3
jul	16	2459776.75	19	59	51.97	-22	45	21.47	33.5509	0.2
jul	17	2459777.75	19	59	45.97	-22	45	44.15	33.5507	0.1
jul	18	2459778.75	19	59	39.96	-22	46	6.77	33.5507	0.1
jul	19	2459779.75	19	59	33.94	-22	46	29.30	33.5511	24.0
jul	20	2459780.75	19	59	27.91	-22	46	51.74	33.5517	23.9
jul	21	2459781.75	19	59	21.89	-22	47	14.08	33.5527	23.9
jul	22	2459782.75	19	59	15.86	-22	47	36.32	33.5539	23.8
jul	23	2459783.75	19	59	9.85	-22	47	58.46	33.5554	23.7
jul	24	2459784.75	19	59	3.84	-22	48	20.51	33.5572	23.7
jul	25	2459785.75	19	58	57.84	-22	48	42.46	33.5593	23.6
jul	26	2459786.75	19	58	51.85	-22	49	4.30	33.5617	23.5
jul	27	2459787.75	19	58	45.87	-22	49	26.05	33.5644	23.5
jul	28	2459788.75	19	58	39.91	-22	49	47.70	33.5674	23.4
jul	29	2459789.75	19	58	33.96	-22	50	9.23	33.5706	23.3
jul	30	2459790.75	19	58	28.02	-22	50	30.64	33.5742	23.3
jul	31	2459791.75	19	58	22.11	-22	50	51.92	33.5781	23.2
ago	1	2459792.75	19	58	16.21	-22	51	13.05	33.5822	23.1
ago	2	2459793.75	19	58	10.34	-22	51	34.02	33.5866	23.1
ago	3	2459794.75	19	58	4.50	-22	51	54.81	33.5913	23.0
ago	4	2459795.75	19	57	58.69	-22	52	15.42	33.5963	22.9
ago	5	2459796.75	19	57	52.91	-22	52	35.83	33.6016	22.8
ago	6	2459797.75	19	57	47.18	-22	52	56.05	33.6072	22.8
ago	7	2459798.75	19	57	41.48	-22	53	16.06	33.6130	22.7
ago	8	2459799.75	19	57	35.83	-22	53	35.89	33.6191	22.6
ago	9	2459800.75	19	57	30.22	-22	53	55.55	33.6255	22.6
ago	10	2459801.75	19	57	24.66	-22	54	15.03	33.6322	22.5
ago	11	2459802.75	19	57	19.13	-22	54	34.34	33.6391	22.4
ago	12	2459803.75	19	57	13.66	-22	54	53.47	33.6463	22.4
ago	13	2459804.75	19	57	8.22	-22	55	12.41	33.6538	22.3
ago	14	2459805.75	19	57	2.83	-22	55	31.12	33.6615	22.2
ago	15	2459806.75	19	56	57.49	-22	55	49.60	33.6695	22.2
ago	16	2459807.75	19	56	52.20	-22	56	7.82	33.6778	22.1
ago	17	2459808.75	19	56	46.98	-22	56	25.80	33.6863	22.0
ago	18	2459809.75	19	56	41.81	-22	56	43.52	33.6951	22.0

Plutón (planeta enano), 2022

Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
ago	19	2459810.75	19	56	36.71	-22	57	0.99	33.7042	21.9
ago	20	2459811.75	19	56	31.67	-22	57	18.21	33.7135	21.8
ago	21	2459812.75	19	56	26.70	-22	57	35.19	33.7230	21.8
ago	22	2459813.75	19	56	21.79	-22	57	51.93	33.7328	21.7
ago	23	2459814.75	19	56	16.96	-22	58	8.43	33.7429	21.6
ago	24	2459815.75	19	56	12.19	-22	58	24.68	33.7532	21.6
ago	25	2459816.75	19	56	7.50	-22	58	40.69	33.7638	21.5
ago	26	2459817.75	19	56	2.88	-22	58	56.44	33.7745	21.4
ago	27	2459818.75	19	55	58.33	-22	59	11.93	33.7856	21.4
ago	28	2459819.75	19	55	53.86	-22	59	27.14	33.7968	21.3
ago	29	2459820.75	19	55	49.46	-22	59	42.06	33.8083	21.2
ago	30	2459821.75	19	55	45.15	-22	59	56.68	33.8200	21.2
ago	31	2459822.75	19	55	40.92	-23	0	10.99	33.8320	21.1
sep	1	2459823.75	19	55	36.78	-23	0	24.98	33.8441	21.0
sep	2	2459824.75	19	55	32.73	-23	0	38.66	33.8565	21.0
sep	3	2459825.75	19	55	28.77	-23	0	52.02	33.8691	20.9
sep	4	2459826.75	19	55	24.91	-23	1	5.08	33.8819	20.8
sep	5	2459827.75	19	55	21.14	-23	1	17.85	33.8949	20.8
sep	6	2459828.75	19	55	17.46	-23	1	30.33	33.9081	20.7
sep	7	2459829.75	19	55	13.88	-23	1	42.53	33.9215	20.6
sep	8	2459830.75	19	55	10.39	-23	1	54.44	33.9351	20.6
sep	9	2459831.75	19	55	6.99	-23	2	6.06	33.9489	20.5
sep	10	2459832.75	19	55	3.69	-23	2	17.37	33.9629	20.4
sep	11	2459833.75	19	55	0.48	-23	2	28.34	33.9770	20.4
sep	12	2459834.75	19	54	57.37	-23	2	38.97	33.9914	20.3
sep	13	2459835.75	19	54	54.37	-23	2	49.26	34.0059	20.2
sep	14	2459836.75	19	54	51.46	-23	2	59.20	34.0206	20.2
sep	15	2459837.75	19	54	48.67	-23	3	8.80	34.0354	20.1
sep	16	2459838.75	19	54	45.99	-23	3	18.06	34.0504	20.0
sep	17	2459839.75	19	54	43.41	-23	3	27.00	34.0656	20.0
sep	18	2459840.75	19	54	40.94	-23	3	35.61	34.0809	19.9
sep	19	2459841.75	19	54	38.59	-23	3	43.91	34.0964	19.8
sep	20	2459842.75	19	54	36.34	-23	3	51.89	34.1120	19.8
sep	21	2459843.75	19	54	34.21	-23	3	59.55	34.1278	19.7
sep	22	2459844.75	19	54	32.18	-23	4	6.88	34.1437	19.6
sep	23	2459845.75	19	54	30.27	-23	4	13.89	34.1598	19.6
sep	24	2459846.75	19	54	28.47	-23	4	20.56	34.1760	19.5
sep	25	2459847.75	19	54	26.78	-23	4	26.88	34.1923	19.4
sep	26	2459848.75	19	54	25.20	-23	4	32.84	34.2087	19.4
sep	27	2459849.75	19	54	23.75	-23	4	38.44	34.2252	19.3
sep	28	2459850.75	19	54	22.41	-23	4	43.67	34.2419	19.2
sep	29	2459851.75	19	54	21.20	-23	4	48.52	34.2587	19.2
sep	30	2459852.75	19	54	20.11	-23	4	53.02	34.2755	19.1
oct	1	2459853.75	19	54	19.14	-23	4	57.16	34.2925	19.0
oct	2	2459854.75	19	54	18.30	-23	5	0.96	34.3095	19.0
oct	3	2459855.75	19	54	17.58	-23	5	4.43	34.3266	18.9

Plutón (planeta enano), 2022

Efemérides a las 0^h del meridiano 90º W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
oct	4	2459856.75	19	54	16.99	-23	5	7.59	34.3439	18.8
oct	5	2459857.75	19	54	16.51	-23	5	10.42	34.3611	18.8
oct	6	2459858.75	19	54	16.15	-23	5	12.92	34.3785	18.7
oct	7	2459859.75	19	54	15.91	-23	5	15.09	34.3959	18.6
oct	8	2459860.75	19	54	15.79	-23	5	16.90	34.4134	18.6
oct	9	2459861.75	19	54	15.79	-23	5	18.35	34.4309	18.5
oct	10	2459862.75	19	54	15.91	-23	5	19.44	34.4485	18.5
oct	11	2459863.75	19	54	16.16	-23	5	20.15	34.4662	18.4
oct	12	2459864.75	19	54	16.54	-23	5	20.50	34.4838	18.3
oct	13	2459865.75	19	54	17.04	-23	5	20.49	34.5016	18.3
oct	14	2459866.75	19	54	17.67	-23	5	20.15	34.5193	18.2
oct	15	2459867.75	19	54	18.43	-23	5	19.47	34.5371	18.1
oct	16	2459868.75	19	54	19.31	-23	5	18.46	34.5549	18.1
oct	17	2459869.75	19	54	20.32	-23	5	17.13	34.5727	18.0
oct	18	2459870.75	19	54	21.45	-23	5	15.47	34.5905	17.9
oct	19	2459871.75	19	54	22.70	-23	5	13.50	34.6084	17.9
oct	20	2459872.75	19	54	24.08	-23	5	11.19	34.6262	17.8
oct	21	2459873.75	19	54	25.58	-23	5	8.56	34.6440	17.7
oct	22	2459874.75	19	54	27.20	-23	5	5.59	34.6619	17.7
oct	23	2459875.75	19	54	28.95	-23	5	2.28	34.6797	17.6
oct	24	2459876.75	19	54	30.82	-23	4	58.62	34.6975	17.5
oct	25	2459877.75	19	54	32.81	-23	4	54.59	34.7153	17.5
oct	26	2459878.75	19	54	34.94	-23	4	50.21	34.7330	17.4
oct	27	2459879.75	19	54	37.19	-23	4	45.49	34.7507	17.3
oct	28	2459880.75	19	54	39.57	-23	4	40.42	34.7684	17.3
oct	29	2459881.75	19	54	42.08	-23	4	35.04	34.7860	17.2
oct	30	2459882.75	19	54	44.71	-23	4	29.36	34.8036	17.1
oct	31	2459883.75	19	54	47.46	-23	4	23.38	34.8212	17.1
nov	1	2459884.75	19	54	50.34	-23	4	17.11	34.8386	17.0
nov	2	2459885.75	19	54	53.33	-23	4	10.55	34.8560	17.0
nov	3	2459886.75	19	54	56.43	-23	4	3.69	34.8733	16.9
nov	4	2459887.75	19	54	59.65	-23	3	56.51	34.8906	16.8
nov	5	2459888.75	19	55	2.99	-23	3	49.01	34.9078	16.8
nov	6	2459889.75	19	55	6.44	-23	3	41.19	34.9248	16.7
nov	7	2459890.75	19	55	10.01	-23	3	33.04	34.9418	16.6
nov	8	2459891.75	19	55	13.70	-23	3	24.58	34.9588	16.6
nov	9	2459892.75	19	55	17.51	-23	3	15.80	34.9756	16.5
nov	10	2459893.75	19	55	21.44	-23	3	6.73	34.9923	16.4
nov	11	2459894.75	19	55	25.48	-23	2	57.37	35.0089	16.4
nov	12	2459895.75	19	55	29.64	-23	2	47.74	35.0253	16.3
nov	13	2459896.75	19	55	33.90	-23	2	37.84	35.0417	16.2
nov	14	2459897.75	19	55	38.29	-23	2	27.67	35.0580	16.2
nov	15	2459898.75	19	55	42.77	-23	2	17.25	35.0741	16.1
nov	16	2459899.75	19	55	47.37	-23	2	6.56	35.0901	16.0
nov	17	2459900.75	19	55	52.07	-23	1	55.61	35.1059	16.0
nov	18	2459901.75	19	55	56.88	-23	1	44.39	35.1217	15.9

Plutón (planeta enano), 2022

Efemérides a las 0^h del meridiano 90° W.G.

mes	día	dj	h	α m	s	°	δ `	“	dis UA	hp h
nov	19	2459902.75	19	56	1.79	-23	1	32.89	35.1372	15.9
nov	20	2459903.75	19	56	6.81	-23	1	21.12	35.1527	15.8
nov	21	2459904.75	19	56	11.93	-23	1	9.07	35.1679	15.7
nov	22	2459905.75	19	56	17.16	-23	0	56.74	35.1831	15.7
nov	23	2459906.75	19	56	22.49	-23	0	44.13	35.1980	15.6
nov	24	2459907.75	19	56	27.93	-23	0	31.25	35.2128	15.5
nov	25	2459908.75	19	56	33.47	-23	0	18.13	35.2274	15.5
nov	26	2459909.75	19	56	39.12	-23	0	4.78	35.2419	15.4
nov	27	2459910.75	19	56	44.86	-22	59	51.22	35.2561	15.3
nov	28	2459911.75	19	56	50.70	-22	59	37.46	35.2702	15.3
nov	29	2459912.75	19	56	56.62	-22	59	23.50	35.2841	15.2
nov	30	2459913.75	19	57	2.63	-22	59	9.33	35.2978	15.1
dic	1	2459914.75	19	57	8.73	-22	58	54.94	35.3113	15.1
dic	2	2459915.75	19	57	14.91	-22	58	40.32	35.3246	15.0
dic	3	2459916.75	19	57	21.19	-22	58	25.48	35.3377	15.0
dic	4	2459917.75	19	57	27.54	-22	58	10.40	35.3506	14.9
dic	5	2459918.75	19	57	33.99	-22	57	55.11	35.3632	14.8
dic	6	2459919.75	19	57	40.52	-22	57	39.60	35.3757	14.8
dic	7	2459920.75	19	57	47.13	-22	57	23.89	35.3880	14.7
dic	8	2459921.75	19	57	53.83	-22	57	8.00	35.4000	14.6
dic	9	2459922.75	19	58	0.60	-22	56	51.94	35.4118	14.6
dic	10	2459923.75	19	58	7.46	-22	56	35.71	35.4234	14.5
dic	11	2459924.75	19	58	14.39	-22	56	19.33	35.4347	14.4
dic	12	2459925.75	19	58	21.39	-22	56	2.79	35.4459	14.4
dic	13	2459926.75	19	58	28.46	-22	55	46.11	35.4568	14.3
dic	14	2459927.75	19	58	35.60	-22	55	29.27	35.4674	14.3
dic	15	2459928.75	19	58	42.80	-22	55	12.29	35.4778	14.2
dic	16	2459929.75	19	58	50.07	-22	54	55.15	35.4880	14.1
dic	17	2459930.75	19	58	57.40	-22	54	37.85	35.4979	14.1
dic	18	2459931.75	19	59	4.80	-22	54	20.39	35.5076	14.0
dic	19	2459932.75	19	59	12.26	-22	54	2.77	35.5170	13.9
dic	20	2459933.75	19	59	19.78	-22	53	45.00	35.5262	13.9
dic	21	2459934.75	19	59	27.37	-22	53	27.08	35.5351	13.8
dic	22	2459935.75	19	59	35.02	-22	53	9.03	35.5437	13.7
dic	23	2459936.75	19	59	42.73	-22	52	50.87	35.5521	13.7
dic	24	2459937.75	19	59	50.49	-22	52	32.63	35.5602	13.6
dic	25	2459938.75	19	59	58.30	-22	52	14.31	35.5681	13.6
dic	26	2459939.75	20	0	6.16	-22	51	55.92	35.5756	13.5
dic	27	2459940.75	20	0	14.06	-22	51	37.47	35.5829	13.4
dic	28	2459941.75	20	0	21.99	-22	51	18.93	35.5900	13.4
dic	29	2459942.75	20	0	29.97	-22	51	0.30	35.5967	13.3
dic	30	2459943.75	20	0	37.98	-22	50	41.58	35.6032	13.2
dic	31	2459944.75	20	0	46.04	-22	50	22.76	35.6094	13.2
ene	1	2459945.75	20	0	54.13	-22	50	3.86	35.6153	13.1
ene	2	2459946.75	20	1	2.04	-22	49	45.05	35.5569	13.0
ene	3	2459947.75	20	1	12.30	-22	49	24.83	35.9870	13.0
ene	4	2459948.75	20	4	11.25	-22	39	17.12	34.5349	13.0

Satélite de los planetas, 2022

Planeta		Satélite	Periodo orbital (días)		Semi eje mayor (10^3 km)	Excentricidad de la órbita	Inclinación de la orbita		Razón de Ms a Mp	Radio (km)		Albedo
Tie	1	Luna	27.321661		384.400	0.0549018.2-28.58		p	1.23000371E-02	1737.40		0.11
												0.07
Mar	1	Fobos	0.31891011		9.376	0.01510	1.075	p	1.6720E-08	7.81	irr	0.07
Mar	2	Deimos	1.26244080		23.458	0.00020	1.788	p	2.4300E-09	10.35	irr	
Júp	1	Io	1.76914		421.800	0.00410	0.036	p	4.7040E-05	1821.35	irr	0.62
Júp	2	Europa	3.55118		671.100	0.00940	0.466	p	2.5280E-05	1562.00	irr	0.68
Júp	3	Ganímedes	7.15455		1070.400	0.00130	0.177	p	7.8050E-05	2632.30		0.44
Júp	4	Calixto	16.88902		1882.700	0.00740	0.192	p	5.6670E-05	2409.30		0.19
Júp	5	Amaltea	0.49818		181.400	0.00320	0.380	p	1.1000E-09	92.09	irr	0.09
Júp	6	Himalia	250.56000		11461.000	0.16230	27.496	p	2.2000E-09	85.00		0.04
Júp	7	Elara	259.64000		11471.000	0.21740	26.627	p	4.5800E-10	40.00		0.04
Júp	8	Pasifae	743.63000		23624.000	0.40900	151.431	p	1.5800E-10	18.00		0.04
Júp	9	Sínope	758.90000		23939.000	0.24950	158.109	p	3.9500E-11	14.00		0.04
Júp	10	Lisistea	259.20000		11717.000	0.11240	28.302	p	3.3100E-11	12.00		0.04
Júp	11	Carmé	734.14000		23404.000	0.25330	164.907	p	6.9400E-11	15.00		0.04
Júp	12	Ananque	629.77000		21276.000	0.24350	148.889	p	1.5800E-11	10.00		0.04
Júp	13	Leda	240.92000		11165.000	0.16360	27.457	p	5.7600E-12	5.00		0.04
Júp	14	Tebe	0.67500		221.900	0.01760	1.080	p	7.8900E-10	50.52	irr	0.05
Júp	15	Adrastea	0.29800		129.000	0.00180	0.054	p	3.9500E-12	8.52	irr	0.10
Júp	16	Metis	0.29500		128.000	0.00120	0.019	p	6.3100E-11	23.70	irr	0.06
Júp	17	Calirre	736.00000		24596.240	0.20600	143.000	e		4.30		0.04
Júp	18	Temixto	130.00000		7450.000	0.20000	46.000	e		4.00		0.04
Júp	19	Megaclito	734.10000		23439.080	0.52770	151.700	e		2.70		0.04
Júp	20	Taiguet	650.10000		21671.850	0.24600	163.545	e		2.50		0.04
Júp	21	Caldena	591.70000		20299.460	0.15530	165.620	e		1.90		0.04
Júp	22	Harpalika	617.30000		20917.720	0.20030	149.288	e		2.20		0.04
Júp	23	Kalica	767.00000	r	24135.610	0.31770	165.792	e		2.60		0.04
Júp	24	Iocasta	606.30000	r	20642.860	0.26860	149.906	e		2.60		0.04
Júp	25	Erinoma	661.10000	r	21867.750	0.34650	160.909	e		1.60		0.04
Júp	26	Isunoa	704.90000	r	22804.700	0.28090	165.039	e		1.90		0.04
Júp	27	Praxiodica	624.60000	r	21098.100	0.14580	146.353	e		3.40		0.04
Júp	28	Autonoa	778.00000	r	24413.090	0.45860	153.056	e		2.00		0.04
Júp	29	Tiona	610.00000	r	20769.900	0.28830	148.286	e		2.00		0.04
Júp	30	Hermipe	624.60000	r	21047.990	0.24790	149.785	e		2.00		0.04
Júp	31	Gitna	679.30000	r	22274.410	0.31120	164.343	e		1.50		0.04
Júp	32	Euridome	752.40000	r	23830.940	0.32550	150.430	e		1.50		0.04
Júp	33	Euanda	620.90000	r	20983.140	0.14270	146.030	e		1.50		0.04
Júp	36	Esponda	690.30000	r	22548.240	0.51890	155.220	e		1.00		0.04
Júp	37	Kala	679.40000	r	22300.640	0.32500	164.794	e		1.00		0.04
Júp	39	Egémona	715.00000	r	23006.330	0.24940	152.330	e		1.50		0.04
Júp	41	Oda	747.00000	r	23743.830	0.40510	159.408	e		2.00		0.04
Júp	43	Arca	748.70000	r	23765.120	0.22370	163.254	e		1.50		0.04
Júp	45	Élica	601.40000	r	20540.270	0.13750	154.587	e		2.00		0.04
Júp	46	Carpo	455.07000	r	17056.040	0.29490	55.147	e		1.50		0.04
Júp	47	Euquelade	735.27000	r	23485.28	0.28280	164.000	e		2.00		0.04
Júp	53	Dia	287.00000		12118.000	0.21100	28.230			1.00		0.04
Sat	1	Mimas	0.94242		185.539	0.01960	1.574	p	6.6100E-08	198.62	irr	0.60
Sat	2	Encélado	1.37022		238.042	0.00000	0.003	p	1.9000E-07	252.15	irr	1.00
Sat	3	Tetis	1.88780		294.672	0.00010	1.091	p	1.0900E-06	531.05	irr	0.80
Sat	4	Dione	2.73692		377.415	0.00220	0.026	p	1.9300E-06	560.45	irr	0.60
Sat	5	Rea	4.51750		527.068	0.00020	0.333	p	4.0600E-06	763.50	irr	0.60
Sat	6	Titán	15.94545		1221.865	0.02880	0.306	p	2.3660E-04	2574.73		0.20

Satélite de los planetas, 2022

Planeta		Satélite	Periodo orbital (días)		Semi eje mayor (10^3 km)	Excentri-cidad de la órbita	Inclinación de la orbita		Razón de Ms a Mp	Radio (km)		Albedo
Sat	7	Hiperión	21.27666		1500.933	0.02320	0.615	p	1.0000E-08	145.69	irr	0.25
Sat	8	Iapetos	79.33112		3560.854	0.02930	8.298	p	3.1770E-06	734.84	irr	0.20
Sat	9	Febe	546.41400	r	12893.240	0.17560	173.730	e	1.4540E-08	106.67	irr	0.08
Sat	10	Jano	0.69500		151.460	0.00680	0.163	p	3.3380E-09	91.28	irr	0.71
Sat	11	Epimeteo	0.69400		151.410	0.00980	0.351	p	9.2630E-10	58.75	irr	0.73
Sat	12	Elena	2.74000		377.400	0.00000	0.212	p	4.4800E-11	18.63	irr	1.67
Sat	13	Telesto	1.88800		294.660	0.00100	1.158	p	1.2650E-11	13.25	irr	1.00
Sat	14	Calipso	1.88800		294.660	0.00100	1.473	p	6.3250E-12	12.09	irr	0.70
Sat	15	Atlas	0.60200		137.670	0.00120	0.003	p	1.1610E-11	17.05	irr	0.40
Sat	16	Prometeo	0.61300		139.380	0.00220	0.008	p	2.8060E-10	51.11	irr	0.60
Sat	17	Pandora	0.62900		141.720	0.00420	0.050	p	2.4120E-10	43.08	irr	0.50
Sat	18	Pan	0.57500		133.585	0.00000	0.000	p	8.7070E-12	14.98	irr	0.50
Sat	19	Aimir	1315.13000	r	23128.000	0.33380	173.496	p		10.00		0.08
Sat	20	Paalia	686.95000		15204.000	0.33250	46.230	p		13.00		0.08
Sat	21	Tarrus	926.35000		18243.000	0.52820	33.725	p		7.00		0.08
Sat	22	Ijira	451.42000		11408.000	0.27210	47.483	p		6.00		0.08
Sat	24	Quivio	449.22000		11384.000	0.33250	46.766	p		8.00		0.08
Sat	26	Alborer	783.46000		16393.000	0.47970	34.059	p		16.00		0.08
Sat	29	Sarmac	895.51000		18182.000	0.28010	45.809	p		21.00		0.08
Ura	1	Ariel	2.52038		190.900	0.00120	0.041	p	1.5600E-05	578.90	irr	0.39
Ura	2	Umbriel	4.14418		266.000	0.00390	0.128	p	1.3500E-05	584.70		0.21
Ura	3	Titania	8.70587		436.300	0.00110	0.079	p	4.0600E-05	788.90		0.27
Ura	4	Oberón	13.46323		583.500	0.00140	0.068	p	3.4700E-05	761.40		0.23
Ura	5	Miranda	1.41348		129.900	0.00130	4.338	p	8.0000E-06	235.88	irr	0.32
Ura	7	Ofelia	0.37640		53.800	0.00990	0.104	p	6.2100E-10	21.40		0.07
Ura	8	Bianca	0.43458		59.200	0.00090	0.193	p	1.0700E-09	25.70		0.07
Ura	9	Crésida	0.46357		61.800	0.00040	0.006	p	3.9500E-09	39.80		0.07
Ura	10	Desdémona	0.47365		62.700	0.00010	0.113	p	2.0500E-09	32.00		0.07
Ura	11	Julieta	0.49307		64.400	0.00070	0.065	p	6.4200E-09	46.80		0.07
Ura	12	Porcia	0.51320		66.100	0.00010	0.059	p	1.9200E-08	67.60		0.07
Ura	13	Rosalinda	0.55846		69.900	0.00010	0.279	p	2.9300E-09	36.00		0.07
Ura	14	Belinda	0.62353		75.300	0.00010	0.031	p	4.1100E-09	40.30		0.07
Ura	15	Pucle	0.76183		86.000	0.18000	0.319	p	3.3300E-08	81.00		0.07
Ura	16	Calibán	579.73000	r	7231.000	0.52000	141.530	e	8.4500E-09	36.00		0.04
Ura	17	Sícorax	1288.33000	r	12179.000		159.420	e	6.1900E-08	75.00		0.04
Nep	1	Tritón	5.87685	r	354.759	0.00000	156.865	p	2.0890E-04	1353.00		0.72
Nep	2	Nereida	360.13000		5513.818	0.75070	7.090	p	3.0100E-07	170.00		0.16
Nep	5	Despina	0.33466		52.526	0.00014	0.070	p	2.0500E-08	74.00		0.09
Nep	6	Galatea	0.42875		61.953	0.00012	0.050	p	3.6600E-08	79.00		0.08
Nep	7	Larisa	0.55465		73.548	0.00139	0.200	p	4.8300E-08	96.00		0.09
Nep	8	Proteo	1.12200		117.646	0.00050	0.075	p	4.9140E-07	209.23	irr	0.10
Plu	1	Caronte	6.38723		19.571	0.00000	96.145	t	1.1650E-01	606.00		0.37

r movimiento retrogrado
irr forma irregular
p inclinación de la orbita relativa al ecuador del planeta
e inclinación de la orbita relativa a la eclíptica
t inclinación de la orbita relativa al ecuador terrestre
Ms masa del satélite
Mp masa del planeta

Parámetros orbitales y físicos, 2022

Parámetros de las órbitas de los planetas

(a las 0h del meridiano 90° W.G. del 7 de enero del 2017)

Planetas	Semieje mayor en UA	Revolución en años trópicos	Excentricidad	Inclinación °	Aplanamiento geométrico ($x10^{-3}$)
Mercurio	0.3870983	0.251	0.2056272	7.00400	0
Venus	0.7233267	0.615	0.0067404	3.39442	0
Tierra	0.9999985	1.000	0.0167015	0.00217	3.354
Marte	1.5237182	1.881	0.0935073	1.82839	6.772
Júpiter	5.202041	11.862	0.0489192	1.30373	5.000
Saturno	9.558687	29.458	0.0530788	2.48732	64.874
Urano	19.10948	84.013	0.0508390	0.77193	97.462
Neptuno	29.96013	164.749	0.0064668	1.77232	22.927

Parámetros físicos de la Luna y los planetas

	radio	masa	densidad	período de rotación	semidiámetro mínimo
	km	kg	g/cm3	días	“
Luna	1737.4	7.3458×10^{22}	3.34	+ 27.32166	2010.7
Mercurio	2439.7	3.3010×10^{23}	5.43	+ 58.6462	12.3
Venus	6051.8	4.8673×10^{24}	5.24	- 243.0185	63.0
Tierra	6378.1	5.9721×10^{24}	5.513	+ 0.99726963	
Marte	3396.2	6.4169×10^{23}	3.93	+ 1.02595676	25.1
Júpiter	71492.0	1.8981×10^{27}	1.33	+ 0.41354	49.9
Saturno	60268.0	5.6831×10^{26}	0.69	+ 0.44401	20.7
Urano	25559.0	8.6890×10^{25}	1.27	- 0.71833	4.1
Neptuno	24764.0	1.0241×10^{26}	1.64	+ 0.67125	2.4
Plutón	1195.0	1.3041×10^{22}	1.82	- 6.3872	0.11

* Movimiento de rotación retrógrado

Sistema de constantes y parámetros, 2022

Unión Astronómica Internacional (IAU 1976)

Tiempos y épocas de referencia

Duración del año en 1990

Año	d	d	h	m	s
Trópico (equinoccio a equinoccio)	365.242190	365	05	48	45.19
Sideral (estrella fija a estrella fija)	365.256363	365	06	09	10
Anomalístico (perihelio a perihelio)	365.259636	365	06	13	53
Eclipsar (nodo lunar a nodo lunar)	346.620078	346	14	52	52
Juliano	365.25	365	06	00	00

Duración del mes

Sinódico (luna nueva a luna nueva)	29.53059	29	12	44	03
Trópico (equinoccio a equinoccio)	27.32158	27	07	43	05
Sideral (estrella fija a estrella fija)	27.32166	27	07	43	12
Anomalístico (perigeo a perigeo)	27.55455	27	13	18	33
Draconítico (nodo a nodo)	27.21222	27	05	36	

Duración del día

	Día sideral medio				segundos siderales
	d	h	m	s	s
Un día del tiempo solar medio	1.00273790935	24	03	56.555367	86636.555367

	Día solar medio				segundos solares
	d	h	m	s	s
Un día del tiempo sideral medio	0.99726956633	23	56	04.09054	86164.09054

Épocas de referencia para los años Juliano (J) y Beseliano (B)

Año Juliano	DJ
J1900.0	2415020.0
J1950.0	2433282.5
J2000.0	2451545.0
J2050.0	2469807.5
J2100.0	2488070.0
B1850.0	2396758.203
B1900.0	2415020.313
B1950.0	2433282.423
B1975.0	2442413.478
B2000.0	2451544.533
B2025.0	2460675.588
B2050.0	2469806.643
B2100.0	2488068.753
1900 enero 0.5	2415020.0
1925 enero 0.5	2424151.0
1950 enero 0.5	2433282.0
2000 enero 0.5	2451544.0
2050 enero 0.5	2469807.0
2100 enero 0.5	2488069.0

Sistema de constantes y parámetros, 2022

Unión Astronómica Internacional (IAU 1976)

Parámetros del Sol, la Tierra y la Luna

Sol	
Radio	6.96×10^8 m
Semidiámetro a la distancia media	15' 59.63"=959.63"
Masa	1.9891×10^{33} g
Densidad media	1.41 g cm-3
Gravedad superficial	29,398 cm s-2
Inclinación del ecuador solar (respecto de la eclíptica)	7° 15'
Longitud del Nodo Ascendente (T en siglos desde J2000.0)	75° 46' + 84' T
Período sinódico de rotación (f: latitud en el Sol)	(26.90 + 5.2 sen2f) días
Período sideral de rotación(para longitudes heliográficas)	25.38 días
Apex	a = 18h 10' δ = +37°
Rapidez en el sistema local de reposo	1.94x104 m/s,(0.0112 au/d)

Tierra

Órbita	
Paralaje solar	8.794148"
Constante de Aberración (J2000)	20.49552"
Tiempo luz a 1 AU	499.004782 s
Unidad astronómica de longitud (AU)	$1.49597870 \times 10^{11}$ m
Proporciones entre las masas:	
Sol/Tierra	332946.0
Sol/(Tierra más Luna)	328900.5
Tierra/Luna	0.0123002
Excentricidad media	0.016708617
Oblicuidad media de la Eclíptica	23° 26' 21.448"
Variación anual en rotación en la Eclíptica	0.4704"
Distancia media de la Tierra al Sol	1.0000010178 UA
Rapidez orbital media	29.7859 km/s
Aceleración centrípeta media	0.00594 m/s2

Período de rotación respecto a estrellas fijas:

En tiempo solar medio	24 h 0 m 0.0084 s
En tiempo sideral medio	23 h 56 m 4.0989 s
Variación de la rotación	15.04106717866910 " /s = 7.29211510x10-5 rad s-1

Precesión ("/año)
(T dado en siglos desde J2000)

Precesión general en longitud	50.290966" + 0.0222226" T
Precesión lunisolar en longitud	50.387784" + 0.0049263" T
Precesión planetaria	-0.0188626" - 0.0476128" T

Sistema de constantes y parámetros, 2022

Unión Astronómica Internacional (IAU 1976)

Figura y campo de gravedad	
Radio ecuatorial (a)	6378140 m
Radio polar (b)	6356755 m
Masa	5.9742 10^{24}g
Densidad media	5.52 g/cm3
Factor dinámico (J2)	0.00108263x10^{-11} años-1
Gravedad normal (g)	g = 9.80621-0.02593 cos(2f)+0.00003 cos(4f) m/s2
Constante de gravitación geocéntrica	3.986005x10^{14} m3s-2

Luna

Radio medio	1738 km
Semidiámetro a la distancia media	15' 32.6"
Masa	7.3483x10^{22} kg
Densidad media	3.34 g/cm2
Gravedad superficial	1.62 m/s2 = 0.17g

Orbita de la Luna en torno a la Tierra

Movimiento sideral medio	2.661699489x10^{-6} rad/s
Distancia media de la Tierra a la Luna	3.844x105 km = 60.27 radios terrestres = 0.002570 UA
Paralaje horizontal ecuatorial (a la distancia media)	57' 02.608" = 3422.608"
Distancia media del centro de la Tierra al baricentro Tierra-Luna	4.671x10^{3} km
Excentricidad media	0.05490
Inclinación media(respecto de la Eclíptica)	5.145396º
Inclinación media (respecto del ecuador de la Luna)	6º 41'
Límites de la declinación geocéntrica	+29º - 29º
Período de revolución del nodo	6798d
Período de revolución del perigeo	3232d
Período Saros	223 lunaciones = 19 pasos del Sol por el Nodo 6585 1/3 días
Rapidez orbital media	1023 m/s = 0.000591 UA/día
Aceleración centrípeta media	0.00272 m/s2 = 0.0003 g

Nomenclatura de las estrellas brillantes, 2022

Nombres de estrellas			
Propios	Clasificación Bayer		NBSC
Acamar	θ	Eri	897
Achernar	α	Eri	472
Achird	η	Cas	219
Acrux	α	Cru	4730
Acubens	α	Cnc	3572
Adhafera	ζ	Leo	4031
Adhara	ε	CMa	2618
Adhil	ξ	And	390
Adib	α	Dra	5291
Agena	ß	Cen	5267
Ain	ε	Tau	1409
Ain al Rami	ν	Sgr	7116
Ak	α	UMa	4301
Akrab	ß	Sco	5984
Aladfar	η	Lyr	7298
Alamak	γ	And	603
Al Anchatal Nahr	τ	Eri	850
Al Anf	ε	Peg	8308
Al Anz	ε	Aur	1605
Alaraph	α	Vir	5056
Alaraph	ß	Vir	4540
Alascha	λ	Sco	6527
Al Athfar	μ	Lyr	6903
Al Atik	ο	Per	1131
Al Baldah	π	Sgr	7264
Al Bali	ε	Aqr	7950
Albireo	ß	Cyg	7417
Al Chiba	α	Crv	4623
Alcor	80	UMa	5062
Alcyone	ν	Tau	1165
Aldebarán	α	Tau	1457
Alderamín	α	Cep	8162
Aldhafara	ζ	Leo	4031
Al Dhiba	ι	Dra	5744
Aldhibah	ζ	Dra	6396
Al Dihi	ι	Dra	5744
Aldib	δ	Dra	7310
Al Dibah	ζ	Dra	6396
Alfard	α	Hya	3748
Alfecca	α	CrA	7254
Alfirk	ß	Cep	8238
Alga	θ	Ser	7141
Algebar	ß	Ori	1713
Algedi Prima	α	Cap	7747
Algedi Secunda	α	Cap	7754
Algeiba	γ	Leo	4057
Algenib	γ	Peg	39
Algenib	α	Per	1017
Algenubi	ε	Leo	3873
Algieba	γ	Leo	4058
Algol	ß	Per	936

Nombres de estrellas			
Propios	Clasificación Bayer		NBSC
Algomeyla	ß	CMi	2845
Algomeysa	α	CMi	2943
Algorab	δ	Crv	4757
Alhajoth	α	Aur	1708
Al Hammam	ζ	Peg	8634
Alhena	γ	Gem	2421
Alioth	ε	UMa	4905
Al Kaffal Jidmah	γ	Cet	804
Alkaid	η	UMa	5191
Al Kalbal Asad	α	Leo	3982
Alkalurops	μ	Boo	5733
Al Kaphrab	χ	UMa	4518
Alkes	α	Crt	4287
Alkhiba	α	Crv	4623
Al Kirdah	ξ	Cep	8417
Almaak	γ	And	603
Almaaz	ε	Aur	1605
Al Minliar al Asad	κ	Leo	3731
Al Minliar al Shuja	σ	Hya	3418
Almuredin	ε	Vir	4932
Alnair	α	Gru	8425
Al Nasl	γ	Sgr	6746
Alnath	α	Ari	617
Alnilam	ε	Ori	1903
Alnitak	ζ	Ori	1948
Al Niyat	σ	Sco	6084
Al Niyat	τ	Sco	6165
Alphard	α	Hya	3748
Alphecca	α	CrB	5793
Alpheratz	α	And	15
Alphirk	ß	Cep	8238
Alrai	γ	Cep	8974
Alrami	α	Sgr	7348
Al Rescha	α	Psc	595
Alruccabah	α	UMi	424
Al Rukbahal Daj	ω	Cyg	7851
Alsafi	σ	Dra	7462
Alsah	α	Sge	7479
Al Sanamal Nakah	ß	Cas	21
Alsciaukat	31	Lyn	3275
Alshain	ß	Aql	7602
Alshat	ν	Cap	7773
Alshemali	μ	leo	3905
Al Sheratain	ß	Ari	553
Alsuhail	λ	Vel	3634
Al Suhailal Muhlif	γ	Vel	3206
Altair	α	Aql	7557
Altais	δ	Dra	7310
AlTarf	ß	Cnc	3249
Alterf	λ	Leo	3773
Aludra	η	CMa	2827

Nomenclatura de las estrellas brillantes, 2022

Nombres de estrellas			
Propios	Clasificación Bayer		NBSC
Alula Australia	ξ	UMa	4374
Alula Borealis	ν	UMa	4377
Alwaid	ß	Dra	6536
Al Wazor	δ	CMa	2693
Alya	θ	Ser	7141
Alzirr	ξ	Gem	2484
Ancha	θ	Aqr	8499
Angetenar	τ	Eri	850
Ankaa	α	Phe	99
Anser	α	Vul	7405
Antares	α	Sco	6134
Arcturus	α	Boo	5340
Arich	γ	Vir	4825
Arietis	α	Ari	617
Arkab Posterior	ß	Sgr	7343
Arkab Prior	ß	Sgr	7337
Arneb	α	Lep	1865
Arnai	γ	Cep	8974
Ascella	ζ	Sgr	7194
Asellus Australis	δ	Cnc	3461
Asellus Borealis	γ	Cnc	3449
Asellus Primus	θ	Boo	5404
Asellus Secundus	ι	Boo	5350
Asellus Tertius	κ	Boo	5329
Asmidiske	ι	Car	3699
Asmidiske	ξ	Pup	3045
Asuia	ψ	Dra	6636
Atik	ο	Per	1131
Atlas	27	Tau	1178
Atria	α	Tri	544
Auva	δ	Vir	4910
Avior	ε	Car	3307
Azelfafage	π	Cyg	8301
Azha	η	Eri	874
Baham	θ	Peg	8450
Baten Kaitos	ζ	Cet	539
Becrux	ß	Cru	4853
Beid	ο	Eri	1298
Bellatrix	γ	Ori	1790
Benetnash	η	UMa	5191
Betelgeuse	α	Ori	2061
Botein	δ	Ari	951
Brachiu	γ	Sco	1809
Bunda	ξ	Agr	8264
Caja	ω	Her	6117
Calx	μ	Gem	2298
Canopus	α	Car	2326
Capella	α	Aur	1708
Castor	α	Gem	2890
Castula	υ	Cas	253
Castula	υ	Cas	265

Nombres de estrellas			
Propios	Clasificación Bayer		NBSC
Cebalrai	ß	Oph	6603
Ceginus	γ	Boo	5435
Celaeno	16	Tau	1140
Chara	ß	CVn	4785
Chertan	θ	Leo	4359
Cor Caroli	α	CVn	4915
Cor Tauri	α	Tau	1457
Cursa	ß	Eri	1666
Dabih Major	ß	Cap	7776
Demon Star	ß	per	936
Deneb	α	Cyg	7924
Deneb	ε	Aql	7176
Deneb	ε	Del	7852
Deneb	η	Cet	334
Deneb	ζ	Aql	7235
Deneb Algedi	δ	Cap	8322
Denebkaitos	ι	Cet	74
Denebola	ß	Leo	4534
Dhur	δ	Leo	4357
Diadem	α	Com	4968
Diphda	ß	Cet	188
Dschubba	δ	Sco	5953
Dubhe	α	UMa	4301
Ed Asich	ι	Dra	5744
El Acola	ξ	UMa	4374
Elacrab	ß	Sco	5984
El Kaprah	κ	UMa	3594
El Karidab	δ	Sgr	6859
El Khereb	τ	Peg	8880
Elkhiffa Australis	α	Lib	5530
Elkhiffa Borealis	ß	Lib	5685
El Koprah	χ	UMa	4518
El Nath	ß	Tau	1791
El Phekrab	μ	UMa	4069
Enif	ε	Peg	8308
Erakis	μ	Cep	8316
Etamin	γ	Dra	6705
Fomalhaut	α	Psa	8728
Fornacis	α	For	963
Fumal Samakah	ß	Psc	8773
Furud	ζ	CMa	2282
Gacrux	γ	Cru	4763
Gemma	α	CrB	5793
Genam	ξ	Dra	6688
Gianfar	λ	Dra	4434
Giedi Prima	α	Cap	7747
Giedi Secunda	α	Cap	7754
Gienah	γ	Crv	4662
Gienah	ε	Cyg	7949
Gildun	δ	UMi	6789
Gomeisa	ß	CMi	2845

Nomenclatura de las estrellas brillantes, 2022

Nombres de estrellas			
Propios	Clasificación Bayer		NBSC
Gorgonea Quarta	ω	Per	947
Gorgonea Tertia	ρ	Per	921
Hadar	ß	Cen	5267
Haedus	ζ	Aur	1612
Hamal	α	Ari	617
Hassaleh	ι	Aur	1577
Hatysa	ι	Ori	1895
Head of Hydrus	α	Hyi	691
Heka	λ	Ori	1879
Hércules	ß	Gem	2990
Heze	ζ	Vir	5107
Hoedus II	ν	Aur	1641
Homam	ζ	Peg	8634
Hyadum I	γ	Tau	1346
Hyadum II	δ	Tau	1373
Isis	γ	CMa	2657
Izar	ε	Boo	5506
Jabbah	ν	Sco	6027
Jed	δ	Oph	6056
Jugum	γ	Lyr	7178
Kaffaljidhma	γ	Cet	804
Kaus Australis	ε	Sgr	6879
Kaus Borealis	λ	Sgr	6913
Keid	ο	Eri	1325
Kitalphar	α	Equ	8131
Kocab	ß	UMi	5563
Kornephoros	ß	Her	6148
Kraz	ß	Crv	4786
Ksora	δ	Cas	403
Kuma	ν	Dra	6555
Lesath	υ	Sco	6508
Maasym	λ	Her	6526
Maia	20	Tau	1149
Maiaplacidus	ß	Car	3685
Marfak	θ	Cas	343
Marfak	κ	Her	6008
Marfak	μ	Cas	321
Marfic	λ	Oph	6149
Markab	α	Peg	8781
Matar	η	Peg	8650
Mebsuta	ε	Gem	2473
Megrez	δ	UMa	4660
Mekbuda	ζ	Gem	2650
Menchib	ξ	Per	1228
Menkalinan	ß	Aur	2088
Menkar	α	Cet	911
Menkar	λ	Cet	896
Menkent	θ	Cen	5288
Merak	ß	UMa	4295
Meres	ß	Boo	5602
Meridiana	β	CrA	7259

Nombres de estrellas			
Propios	Clasificación Bayer		NBSC
Merope	23	Tau	1156
Mesartim	γ	Ari	545
Minelauva	ß	Vir	4540
Minkar	ε	Crv	4630
Mintaka	δ	Ori	1852
Mira	ο	Cet	681
Mirach	ß	And	337
Miram	η	Per	834
Mirphak	α	Per	2294
Mirza	ß	CMa	2286
Misam	κ	Per	941
Mizar	ζ	UMa	5055
Mufrid	η	Boo	5235
Muscida	ο	UMa	3323
Muscida	π	UMa	3403
Naos	ζ	Pup	3165
Nashira	γ	Cap	8278
Nicolaus	α	Del	7906
Nihal	ß	Lep	1829
Nodus I	ζ	Dra	6396
Nunki	σ	Sgr	7121
Nusakan	ß	CrB	5747
Oculus Boreus	ε	Tau	1409
Peacok	α	Pav	7790
Phact	α	Col	1956
Phad	γ	UMa	4554
Pherkad	γ	UMi	5735
Pherkad Minor	λ	UMi	5714
Pleione	28	Tau	1180
Polaris	α	UMi	424
Pullux	ß	Gem	2990
Praecipua	46	LMi	4247
Praepes	η	Gem	2216
Praesaepe	ε	Cnc	3429
Prima Giedi	α	Cap	7747
Procyon	α	CMi	2943
Propus	ι	Gem	2821
Rana	δ	Eri	1136
Rasalgethi	α	Her	6406
Rasalhague	α	Oph	6556
Ras Elased Austral	ε	Leo	3873
Regulus	α	Leo	3982
Rigel	ß	Ori	1713
Rigil Kent	α	Cen	5459
Rijilal Awwa	μ	Vir	5487
Rotanev	ß	Del	7882
Ruchbah	ε	Cas	542
Saad el Sund	ß	Aqr	8232
Sabik	η	Oph	6378
Sadalachbia	γ	Aqr	8518
Sadalbari	μ	Peg	8684

Nomenclatura de las estrellas brillantes, 2022

Nombres de estrellas			
Propios	Clasificación Bayer		NBSC
Sadalmelik	α	Aqr	8414
Sadir	γ	Cyg	7796
Saidak	80	UMa	5062
Saiph	κ	Ori	2004
Saiph	η	Ori	1788
Sargas	θ	Sco	6553
Sarin	δ	Her	6410
Sartan	α	Cnc	3572
Sceptrum	53	Eri	1481
Scheat	β	Peg	8775
Scheat	δ	Aqr	8709
Segin	ε	Cas	542
Shaula	λ	Sco	6527
Schedir	α	Cas	168
Sheliak	β	Lyr	7106
Sirius	α	CMa	2491
Situla	κ	Aqr	8610
Spica	α	Vir	5056
Subra	ο	Leo	3852
Superba	λ	CVn	4846
Syrma	ι	Vir	5338
Tabit	π	Ori	1543
Tabit	υ	Ori	1855

Nombres de estrellas			
Propios	Clasificación Bayer		NBSC
Talitha	ι	UMa	3569
Tarazed	γ	Aql	7525
Tayeta	19	Tau	1845
Tegmen	ζ	Cnc	3208
Terebellum	β	Sgr	7604
Theemim	υ	Eri	1464
Thuban	α	Dra	5291
Torcularis Septentr.	ο	Psc	510
Tyl	ε	Dra	7582
Unukalhai	α	Ser	5854
Vega	α	Lyr	7001
Vindemiatrix	ε	Vir	4932
Wasat	δ	Gem	2777
Wazn	ß	Col	2040
Yed Posterior	ε	Oph	5985
Zaniah	η	Vir	4689
Zaurak	γ	Eri	1231
Zibal	ζ	Eri	984
Zuben Elakrab	γ	Lib	5787
Zuben Elakribi	δ	Lib	5586
Zuben Hakrabi	ζ	Lib	5848
Zuben Hakrabi	υ	Lib	5794

Nombre de estrellas (Catálogo Hiparco), 2022

Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
171	9088	85 Peg	2210	105	η Scl	3903	239	AZ Phe	5586	352	τ Psc
154	9089	30 Psc	2224	106	48 Psc	3949	242	ρ Phe	5594	353	34 Cet
154	9089	YY Psc	2355	114	GN And	4129	246	V357 And	5688	354	V761 Cas
183	9091	ζ Scl	2353	117	12 Cet	4147	248	20 Cet	5661	359	AI Scl
186	9092	31 Psc	2388	119	BB Phe	4084	252	λ^1 Tuc	5742	360	φ Psc
194	9093	32 Psc	2474	121	13 Cas	4292	253	υ^1 Cas	5737	361	ζ Psc
194	9093	c Psc	2505	123	λ Cas	4267	254	66 Psc	5743	362	ζ Psc
274	9097	V639 Cas	2472	125	λ^1 Phe	4257	255	21 Cet	5778	364	87 Psc
301	9098	2 Cet	2484	126	β^1 Tuc	4200	257	BQ Tuc	5926	365	V762 Cas
302	9099	V398 Cep	2487	127	β^2 Tuc	4288	258	36 And	5799	366	37 Cet
330	9100	9 Cas	2599	130	κ Cas	4366	262	k Psc	5824	367	88 Psc
355	9103	3 Cet	2568	131	52 Psc	4427	264	γ Cas	5833	368	38 Cet
418	9110	V567 Cas	2548	132	51 Psc	4422	265	υ^2 Cas	5862	370	ν Phe
443	3	33 Psc	2707	137	16 Cas	4371	267	φ^3 Cet	5951	373	39 Cet
476	4	86 Peg	2629	139	θ Tuc	4436	269	μ And	5896	377	κ Tuc
518	5	V640 Cas	2762	142	13 Cet	4293	270	λ^2 Tuc	6061	378	f Psc
531	7	10 Cas	2787	143	14 Cet	4463	271	η And	6242	382	φ Cas
664	14	AP Psc	2802	147	λ^2 Phe	4510	274	h Psc	6193	383	υ Psc
677	15	α And	2865	149	PY And	4587	279	φ^4 Cet	6312	384	35 Cas
696	18	CF Cet	2852	151	BG Cet	4577	280	α Scl	6226	385	42 Cet
746	21	β Cas	2920	153	ζ Cas	4655	284	WW Psc	6315	389	l Psc
729	22	87 Peg	2912	154	π And	4770	288	ξ Scl	6411	390	ξ And
761	24	κ^1 Scl	2903	155	53 Psc	4903	290	39 And	6429	393	43 Cet
765	25	ε Phe	3031	163	ε And	4889	291	σ Psc	6514	395	47 And
813	26	34 Psc	3092	165	δ And	4852	293	σ Scl	6692	399	ψ Cas
841	27	22 And	3093	166	54 Psc	4906	294	ε Psc	6539	401	44 Cet
814	30	γ^3 Oct	3138	167	55 Psc	4914	296	25 Cet	6537	402	θ Cet
910	33	6 Cet	3179	168	α Cas	4979	301	26 Cet	6686	403	δ Cas
930	34	κ^2 Scl	3142	170	Z Scl	5074	307	73 Psc	6670	412	46 Cet
950	35	θ Scl	3231	175	32 And	5081	308	72 Psc	6706	413	ρ Psc
1067	39	γ Peg	3300	179	ξ Cas	5131	310	ψ^1 Psc	6732	414	94 Psc
1086	41	23 And	3245	180	μ Phe	5132	311	ψ^1 Psc	6813	417	ω And
1168	45	χ Peg	3277	183	ξ Phe	5141	313	77 Psc	6748	421	47 Cet
1158	46	AD Cet	3414	184	π Cas	5121	315	27 Cet	6759	423	R Scl
1170	48	AE Cet	3356	185	λ^1 Scl	5164	317	28 Cet	11767	424	α UMi
1196	50	UU Psc	3330	187	ρ Tuc	5204	319	75 Psc	7078	427	38 Cas
1319	59	36 Psc	3419	188	β Cet	5336	321	μ Cas	6867	429	γ Phe
1366	63	θ And	3405	191	η Phe	5165	322	β Phe	6999	430	49 And
1415	65	AO Cas	3572	192	21 Cas	5193	323	AW Scl	6888	431	WZ Scl
1473	68	σ And	3504	193	o Cas	5317	324	41 And	6981	432	97 Psc
1501	70	26 And	3455	194	φ^1 Cet	5319	327	78 Psc	6960	433	48 Cet
1562	74	ι Cet	3456	195	λ^2 Scl	5310	328	ψ^2 Psc	7007	434	μ Psc
1599	77	ζ Tuc	3559	203	18 Cet	5296	329	30 Cet	6952	435	AW Phe
1645	80	d Psc	3721	208	23 Cas	5346	330	e Psc	7097	437	η Psc
1686	82	ρ And	3632	211	57 Psc	5300	331	υ Phe	7083	440	δ Phe
1647	83	π Tuc	3675	213	58 Psc	5268	332	ι Tuc	7294	442	χ Cas
1708	84	ι Scl	3685	214	59 Psc	5364	334	η Cet	7321	446	KK And
1728	85	T Cet	3693	215	ζ And	5434	335	φ And	7345	451	49 Cet
1772	86	42 Psc	3697	216	60 Psc	5518	336	31 Cas	7493	454	OP And
1803	88	BE Cet	3730	217	61 Psc	5447	337	β And	7436	455	101 Psc
1830	89	AV Scl	3821	219	η Cas	5348	338	ζ Phe	7650	456	40 Cas
1901	90	R And	3801	223	ν Cas	5454	339	ψ^3 Psc	7513	458	υ And
1921	91	V746 Cas	3786	224	δ Psc	5493	340	44 And	7450	459	50 Cet
1960	93	12 Cas	3810	225	64 Psc	5542	343	θ Cas	7463	462	τ Scl
2006	97	44 Psc	3881	226	ν And	5589	345	RU Cas	7535	463	π Psc
2021	98	β Hyi	3885	230	65 Psc	5485	346	32 Cet	7607	464	υ Per
2081	99	α Phe	3919	234	GO And	5510	347	33 Cet	7651	465	GY And
2072	100	κ Phe	3909	235	φ^2 Cet	5550	348	45 And	7719	469	χ And
2100	101	10 Cet	3781	236	λ Hyi	5544	349	g Psc	7588	472	α Eri
2219	103	TV Psc	3965	238	V526 Cas	5571	351	χ Psc	7740	475	105 Psc

Nombre de estrellas (Catálogo Hiparco), 2022

Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
7818	477	τ And	9440	594	π For	11072	695	κ For	12486	794	ι Eri
7965	478	V557 Cas	9487	595	α Psc	11279	696	V554 Per	12777	799	13 Per
8016	480	42 Cas	9487	596	113 Psc	11313	699	65 And	12777	799	θ Per
7939	481	V772 Cas	9570	599	ε Tri	11249	702	ξ Ari	12768	800	14 Per
7751	487	p Eri	9459	602	x Phe	11261	704	71 Cet	12719	801	35 Ari
7884	489	ν Psc	9640	603	γ^1 And	11001	705	δ Hyi	12484	802	ζ Hor
8046	491	44 Cas	9640	604	γ^2 And	11569	707	ι Cas	12706	804	86 Cet
7981	493	107 Psc	9621	605	10 Ari	11345	708	ρ Cet	12706	804	γ Cet
8068	496	φ Per	9589	607	60 Cet	11465	709	66 And	12394	806	ε Hyi
7955	497	π Scl	9631	610	61 Cet	11348	710	AB Cet	12784	808	36 Ari
8115	499	V773 Cas	9677	612	ν For	11432	712	11 Tri	12803	809	o Ari
7978	506	q^1 Eri	9836	613	κ Ari	11258	714	λ Hor	12803	809	37 Ari
8159	508	109 Psc	9809	614	WZ Psc	11095	715	κ Hyi	12653	810	ι Hor
8102	509	τ Cet	9859	615	11 Ari	11486	717	12 Tri	12770	811	π Cet
8198	510	o Psc	9884	617	α Ari	11484	718	73 Cet	12770	811	89 Cet
8209	514	ε Scl	9990	618	V472 Per	11484	718	ξ^2 Cet	12832	812	38 Ari
8271	515	VY Psc	9977	620	58 And	11548	720	13 Tri	12832	812	UV Ari
7879	516	τ^1 Hyi	10064	622	β Tri	11407	721	κ Eri	12828	813	μ Cet
8241	520	q^2 Eri	10053	623	14 Ari	11293	722	TZ Hor	12828	813	87 Cet
8387	522	4 Ari	10227	627	5 Per	11477	724	φ For	13133	815	RZ Cas
8544	530	1 Ari	10176	628	59 And	11678	729	26 Ari	12843	818	τ^1 Eri
8497	531	x Cet	10180	629	59 And	11678	729	UU Ari	12843	818	1 Eri
8704	533	V436 Per	10155	631	15 Ari	11698	731	27 Ari	13061	824	39 Ari
8714	536	2 Per	10203	633	16 Ari	11644	733	TY For	13178	825	V480 Per
8645	539	ζ Cet	10220	634	5 Tri	11784	736	14 Tri	13108	828	40 Ari
8593	541	BD Phe	10212	635	64 Cet	11791	739	75 Cet	13367	829	SU Cas
8886	542	ε Cas	10234	639	63 Cet	11783	740	σ Cet	13121	830	VZ Ari
8814	543	55 And	10438	640	55 Cas	11783	740	76 Cet	13064	832	Z Eri
8796	544	α Tri	10280	642	TZ Tri	11843	741	29 Ari	12871	833	γ Hor
8832	545	γ^1 Ari	10340	643	60 And	11867	744	λ^1 For	13268	834	η Per
8778	547	BK Cet	10366	645	6 Per	11918	749	ω For	13268	834	15 Per
9009	548	ω Cas	10306	646	η Ari	12086	750	15 Tri	13040	835	η^1 For
8833	549	ξ Psc	10328	648	19 Ari	12002	752	77 Cet	13165	836	42 Ari
8366	550	τ^2 Hyi	10324	649	ξ^1 Cet	12093	754	78 Cet	13165	836	π Ari
8903	553	β Ari	10305	650	66 Cet	12093	754	ν Cet	12876	837	ζ Hyi
8837	555	ψ Phe	10320	652	μ For	12193	758	R Tri	13209	838	41 Ari
9021	557	56 And	10633	654	V551 Per	12107	759	80 Cet	13254	840	16 Per
8882	558	φ Phe	10559	655	7 Tri	12153	763	31 Ari	13147	841	β For
8993	559	7 Ari	10540	656	20 Ari	12184	764	30 Ari	13328	843	17 Per
9110	563	ι Ari	10535	657	21 Ari	12189	765	30 Ari	13197	844	γ^1 For
9061	565	56 Cet	10644	660	δ Tri	12122	767	ι^1 For	13202	845	γ^2 For
9007	566	x Eri	10718	661	8 Per	12247	771	81 Cet	13327	847	σ Ari
9222	568	3 Per	10729	662	x Per	12186	772	λ^2 For	13327	847	43 Ari
9153	569	λ Ari	10687	663	W And	12332	773	32 Ari	13225	848	η^2 For
8928	570	η^2 Hyi	10670	664	γ Tri	12332	773	ν Ari	13288	850	τ^2 Eri
9480	575	48 Cas	10642	666	67 Cet	11757	776	μ Hyi	13288	850	2 Eri
9598	580	50 Cas	10418	667	π^1 Hyi	12288	777	ι^2 For	13265	851	η^3 For
9727	581	47 Cas	10732	669	θ Ari	12225	778	η Hor	13141	852	ν Hor
9353	582	112 Psc	10819	670	62 And	12387	779	δ Cet	13531	854	18 Per
9326	583	57 Cet	10602	674	φ Eri	12387	779	82 Cet	13531	854	τ Per
9347	585	υ Cet	10793	675	10 Tri	12387	779	δ Cet	13531	854	τ Per
9347	585	59 Cet	10513	678	π^2 Hyi	12390	781	ε Cet	13490	855	20 Per
9564	586	52 Cas	10826	681	o Cet	12390	781	83 Cet	13402	857	EP Eri
9372	587	AR Cet	10944	682	63 And	12489	782	33 Ari	13473	863	ψ For
9573	589	53 Cas	11060	685	9 Per	12692	785	11 Per	13654	867	45 Ari
9505	590	g Per	11060	685	V474 Per	12623	788	12 Per	13654	867	RZ Ari
9505	590	4 Per	11021	689	69 Cet	12413	789	s Eri	13502	868	R Hor
9236	591	α Hyi	11174	690	V440 Per	12530	790	84 Cet	13702	869	46 Ari
9763	592	49 Cas	11046	691	70 Cet	12640	793	μ Ari	13702	869	ρ Ari
8991	593	σ Hyi	11220	694	64 And	12640	793	34 Ari	13244	872	ν Hyi

Nombre de estrellas (Catálogo Hiparco), 2022

Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
13775	873	LT Per	14668	941	27 Per	16319	1032	V805 Cas	17529	1135	41 Per
13775	873	21 Per	14668	941	κ Per	16228	1035	CS Cam	17378	1136	δ Eri
13701	874	3 Eri	14677	944	55 Ari	16083	1038	2 Tau	17378	1136	δ Eri
13701	874	η Eri	14817	947	ω Per	16083	1038	ξ Tau	17378	1136	23 Eri
13756	877	EH Cet	14817	947	28 Per	16083	1038	ξ Tau	17489	1140	16 Tau
13834	878	47 Ari	14838	951	57 Ari	16281	1040	CE Cam	17499	1142	17 Tau
13879	879	π Per	14838	951	δ Ari	15987	1042	x^{1} For	17351	1143	h Eri
13879	879	22 Per	14893	954	56 Ari	16244	1044	34 Per	17527	1144	18 Tau
13905	882	24 Per	14893	954	SX Ari	16181	1048	66 Ari	17531	1145	19 Tau
13782	883	4 Eri	14915	958	EL Cet	16335	1052	σ Per	17531	1145	q Tau
13914	887	48 Ari	14954	962	94 Cet	16335	1052	35 Per	17457	1146	24 Eri
13914	887	ε Ari	14879	963	α For	16112	1054	x^{2} For	17959	1148	γ Cam
13914	888	48 Ari	15110	972	58 Ari	16156	1058	x^{3} For	17573	1149	20 Tau
13914	888	ε Ari	15110	972	ζ Ari	16322	1061	4 Tau	17506	1150	25 Eri
13835	889	6 Eri	15204	976	V423 Per	16322	1061	s Tau	17579	1151	21 Tau
13954	896	91 Cet	14930	977	TW Hor	16470	1063	V396 Per	17588	1152	22 Tau
13954	896	λ Cet	15241	978	V573 Per	16369	1066	5 Tau	17563	1153	u Tau
13847	897	θ^{2} Eri	14521	981	BN Hyi	16369	1066	f Tau	17563	1153	29 Tau
13847	897	θ^{1} Eri	15338	982	30 Per	16499	1069	36 Per	17884	1155	BE Cam
13847	898	θ^{2} Eri	15197	984	ζ Eri	16341	1070	ν Eri	17608	1156	23 Tau
13847	898	θ^{1} Eri	15197	984	13 Eri	16341	1070	17 Eri	17608	1156	V971 Tau
13951	899	5 Eri	15520	985	BK Cam	16516	1072	KP Per	17593	1162	π Eri
13942	901	ζ For	15404	987	29 Per	16591	1078	IW Per	17593	1162	26 Eri
14040	904	7 Eri	15244	988	14 Eri	16511	1079	t Tau	17593	1162	π Eri
14040	904	CV Eri	15444	989	31 Per	16511	1079	6 Tau	17702	1165	η Tau
14109	905	49 Ari	15383	992	95 Cet	16339	1081	TU Hor	17702	1165	25 Tau
14060	907	8 Eri	15382	994	15 Eri	16245	1083	κ Ret	17846	1170	V376 Per
14060	907	ρ^{1} Eri	15514	995	59 Ari	16537	1084	18 Eri	17618	1171	σ For
13884	909	β Hor	15457	996	κ^{1} Cet	16537	1084	ε Eri	17651	1173	27 Eri
14143	910	93 Cet	15457	996	κ^{1} Cet	16537	1084	ε Eri	17651	1173	τ^{6} Eri
14135	911	α Cet	15457	996	96 Cet	16664	1086	7 Tau	17771	1174	30 Tau
14135	911	92 Cet	15557	1000	60 Ari	16826	1087	ψ Per	17771	1174	e Tau
14135	911	α Cet	15648	1002	32 Per	16826	1087	ψ Per	17440	1175	β Ret
14086	914	ε For	15648	1002	l Per	16826	1087	37 Per	17886	1177	42 Per
14328	915	γ Per	15474	1003	τ^{4} Eri	16611	1088	τ^{5} Eri	17886	1177	V467 Per
14328	915	γ Per	15474	1003	16 Eri	16611	1088	19 Eri	17886	1177	n Per
14328	915	23 Per	15474	1003	τ^{4} Eri	16846	1099	V711 Tau	17847	1178	27 Tau
14168	917	9 Eri	15479	1004	AI For	16803	1100	20 Eri	17851	1180	BU Tau
14168	917	ρ^{2} Eri	15627	1005	τ^{1} Ari	16803	1100	EG Eri	17851	1180	28 Tau
14382	918	k Per	15627	1005	61 Ari	16852	1101	10 Tau	17717	1181	τ^{7} Eri
14146	919	τ^{3} Eri	15627	1005	τ^{1} Ari	17296	1105	BD Cam	17717	1181	28 Eri
14146	919	11 Eri	15330	1006	ζ^{1} Ret	16870	1106	y Eri	17738	1184	ρ For
14354	921	25 Per	15619	1007	97 Cet	17027	1111	21 Eri	18033	1194	V766 Tau
14354	921	ρ Per	15619	1007	κ^{2} Cet	17007	1114	τ For	17874	1195	g Eri
14354	921	ρ Per	15510	1008	e Eri	17103	1115	12 Tau	18089	1199	31 Tau
14293	925	10 Eri	15510	1008	82 Eri	17181	1118	11 Tau	18141	1202	30 Eri
14293	925	ρ^{3} Eri	15890	1009	CQ Cam	17167	1121	22 Eri	18246	1203	ζ Per
14376	927	52 Ari	15371	1010	ζ^{2} Ret	17167	1121	FY Eri	18246	1203	44 Per
14376	927	52 Ari	15770	1011	V575 Per	17358	1122	δ Per	17678	1208	γ Hyi
14376	928	52 Ari	15696	1012	62 Ari	17358	1122	δ Per	18350	1209	X Per
14376	928	52 Ari	15737	1015	63 Ari	17358	1122	39 Per	18453	1210	43 Per
14240	934	μ Hor	15737	1015	τ^{2} Ari	17313	1123	o Per	18255	1211	32 Eri
14576	936	β Per	15863	1017	33 Per	17313	1123	40 Per	18255	1212	32 Eri
14576	936	β Per	15863	1017	α Per	17309	1126	13 Tau	18216	1213	τ^{8} Eri
14576	936	26 Per	15861	1022	64 Ari	17448	1131	o Per	18216	1213	τ^{8} Eri
14632	937	ι Per	15201	1025	ι Hyi	17448	1131	38 Per	18216	1213	33 Eri
14514	938	53 Ari	15870	1027	65 Ari	17448	1131	o Per	18213	1214	i Eri
14514	938	UW Ari	15988	1029	V576 Per	17408	1132	14 Tau	18339	1217	DO Eri
14131	939	θ Hyi	15900	1030	o Tau	17304	1134	δ For	18471	1218	32 Tau
14586	940	54 Ari	15900	1030	1 Tau	17529	1135	ν Per	18532	1220	45 Per

Nombre de estrellas (Catálogo Hiparco), 2022

Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
18532	1220	ε Per	19811	1306	f Per	20542	1380	δ^2 Tau	21248	1453	50 Eri
18532	1220	ε Per	19811	1306	52 Per	20522	1381	66 Tau	21476	1454	58 Per
18485	1221	V817 Tau	19719	1309	46 Tau	20522	1381	r Tau	20297	1456	ν Men
18485	1221	33 Tau	19740	1311	47 Tau	20507	1383	42 Eri	21421	1457	87 Tau
18547	1223	V386 Per	19725	1312	GY Eri	20507	1383	ξ Eri	21421	1457	α Tau
18455	1225	DL Eri	19777	1318	39 Eri	20635	1387	κ^1 Tau	21421	1457	α Tau
18614	1228	ξ Per	19877	1319	48 Tau	20635	1387	65 Tau	21402	1458	88 Tau
18614	1228	ξ Per	19860	1320	μ Tau	20641	1388	67 Tau	21402	1458	d Tau
18614	1228	46 Per	19860	1320	49 Tau	20641	1388	κ^2 Tau	21444	1463	ν Eri
18543	1231	γ Eri	19855	1321	V891 Tau	20648	1389	68 Tau	21444	1463	48 Eri
18543	1231	γ Eri	19859	1322	V774 Tau	20648	1389	V776 Tau	21444	1463	ν Eri
18543	1231	34 Eri	20070	1324	b Per	20648	1389	δ^3 Tau	21393	1464	52 Eri
18724	1239	35 Tau	20070	1324	b Per	20661	1391	70 Tau	21393	1464	υ^2 Eri
18724	1239	λ Tau	19849	1325	40 Eri	20711	1392	υ Tau	21281	1465	α Dor
18724	1239	λ Tau	19849	1325	o^2 Eri	20711	1392	69 Tau	21281	1465	α Dor
18673	1240	36 Eri	19747	1326	α Hor	20711	1392	υ Tau	21730	1466	2 Cam
18673	1240	τ^9 Eri	19990	1329	ω^2 Tau	20535	1393	d Eri	21727	1467	3 Cam
18673	1240	τ^9 Eri	19990	1329	ω Tau	20535	1393	υ^3 Eri	21604	1471	HU Tau
18788	1244	35 Eri	19990	1329	50 Tau	20535	1393	43 Eri	21588	1472	89 Tau
18597	1247	δ Ret	20087	1331	51 Tau	20713	1394	71 Tau	21589	1473	c Tau
18691	1250	XY Dor	19780	1336	α Ret	20713	1394	V777 Tau	21589	1473	90 Tau
18907	1251	38 Tau	19893	1338	γ Dor	20384	1395	η Ret	21547	1474	51 Eri
18907	1251	ν Tau	19893	1338	γ Dor	20732	1396	π Tau	21547	1474	c Eri
19009	1252	36 Tau	20171	1339	V102 Tau	20732	1396	73 Tau	21673	1478	91 Tau
18957	1253	40 Tau	20171	1339	53 Tau	20715	1397	V114 Tau	21673	1478	σ^1 Tau
18957	1253	V113 Tau	20186	1341	56 Tau	20789	1399	72 Tau	21683	1479	σ^2 Tau
19038	1256	37 Tau	20186	1341	V724 Tau	20877	1407	75 Tau	21683	1479	92 Tau
19167	1261	λ Per	20252	1343	54 Per	20873	1408	76 Tau	21594	1481	53 Eri
19167	1261	47 Per	20075	1345	GZ Eri	20889	1409	ε Tau	21594	1481	1 Eri
19076	1262	39 Tau	20205	1346	γ Tau	20889	1409	74 Tau	21735	1484	93 Tau
18744	1264	γ Ret	20205	1346	54 Tau	20885	1411	θ^1 Tau	21479	1492	R Dor
18744	1264	γ Ret	20042	1347	υ^4 Eri	20885	1411	77 Tau	21928	1494	59 Per
18772	1266	ι Ret	20042	1347	41 Eri	20894	1412	78 Tau	21763	1496	54 Eri
19171	1268	GS Tau	20250	1348	φ Tau	20894	1412	θ^2 Tau	21763	1496	DM Eri
19171	1268	41 Tau	20250	1348	52 Tau	20894	1412	θ^2 Tau	21881	1497	94 Tau
19205	1269	ψ Tau	20354	1350	V469 Per	20901	1414	b Tau	21881	1497	τ Tau
19205	1269	42 Tau	20354	1350	53 Per	20901	1414	79 Tau	21961	1499	95 Tau
19343	1273	48 Per	20354	1350	d Per	21148	1417	1 Cam	21770	1502	α Cae
19343	1273	c Per	20219	1351	V483 Tau	21148	1417	DL Cam	21861	1503	β Cae
19343	1273	MX Per	20219	1351	h Tau	20963	1420	V114 Tau	21986	1505	55 Eri
19302	1277	49 Per	20219	1351	57 Tau	20995	1422	80 Tau	21986	1505	DW Eri
19335	1278	V582 Per	19921	1355	ε Ret	20922	1423	DU Eri	21986	1506	55 Eri
19335	1278	50 Per	20261	1356	58 Tau	20049	1426	δ Men	21986	1506	DW Eri
19388	1283	43 Tau	20261	1356	V696 Tau	21039	1428	81 Tau	22024	1508	56 Eri
19388	1283	ω^1 Tau	19917	1357	TT Ret	20856	1429	RV Cae	22024	1508	DX Eri
19513	1287	IM Tau	20263	1362	EK Eri	21036	1430	83 Tau	22287	1511	4 Cam
19513	1287	44 Tau	20271	1363	EM Eri	21137	1432	85 Tau	21914	1516	λ πc
19513	1287	p Tau	20400	1368	60 Tau	21242	1434	57 Per	22109	1520	μ Eri
19398	1288	GU Eri	20400	1368	V775 Tau	21242	1434	m Per	22109	1520	57 Eri
20860	1289	V408 Cep	20430	1369	x Tau	21139	1437	45 Eri	22040	1530	κ Dor
19483	1290	37 Eri	20430	1369	59 Tau	21192	1441	DZ Eri	22263	1532	58 Eri
19554	1292	45 Tau	20020	1372	θ Ret	21060	1443	δ Cae	22453	1533	1 Aur
19672	1297	V113 Tau	20455	1373	δ^1 Tau	21273	1444	ρ Tau	22441	1537	96 Tau
19587	1298	o^1 Eri	20455	1373	61 Tau	21273	1444	86 Tau	22325	1538	59 Eri
19587	1298	38 Eri	20493	1375	V114 Tau	21273	1444	ρ Tau	22280	1539	ζ Cae
19587	1298	o^1 Eri	20484	1376	63 Tau	21278	1449	EH Eri	21949	1541	μ Men
19571	1300	GW Eri	20579	1377	55 Per	21278	1449	46 Eri	22783	1542	9 Cam
19515	1302	δ Hor	20533	1378	62 Tau	21296	1451	DV Eri	22783	1542	α Cam
19812	1303	51 Per	20591	1379	56 Per	21296	1451	47 Eri	22449	1543	π^3 Ori
19812	1303	μ Per	20542	1380	64 Tau	21248	1453	υ^1 Eri	22449	1543	1 Ori

Nombre de estrellas (Catálogo Hiparco), 2022

Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
22509	1544	2 Ori	23743	1623	BM Cam	24645	1707	R Aur	25428	1791	β Tau
22509	1544	π^{2} Ori	23743	1623	12 Cam	24608	1708	13 Aur	25428	1791	112 Tau
22565	1547	97 Tau	22871	1629	η Men	24608	1708	α Aur	25194	1793	SW Col
22565	1547	V480 Tau	23474	1634	1 Lep	24512	1711	108 Tau	25410	1798	113 Tau
22565	1547	i Tau	23783	1637	9 Aur	24575	1712	AE Aur	25098	1801	κ πc
22479	1549	60 Eri	23783	1637	V398 Aur	24436	1713	β Ori	25769	1802	17 Cam
22678	1551	2 Aur	23607	1638	V103 Ori	24436	1713	19 Ori	25541	1805	24 Aur
22549	1552	3 Ori	23607	1638	11 Ori	24436	1713	β Ori	25 541	1805	φ Aur
22549	1552	π^{4} Ori	23767	1641	10 Aur	23148	1716	ξ Men	25499	1808	115 Tau
22854	1555	5 Cam	23767	1641	η Aur	24555	1718	18 Ori	25539	1810	o Tau
22667	1556	o^{1} Ori	24254	1643	BN Cam	24836	1719	DV Cam	25539	1810	114 Tau
22667	1556	o^{1} Ori	23680	1648	W Ori	24836	1719	15 Cam	25473	1811	ψ Ori
22667	1556	4 Ori	23482	1649	η^{1} πc	24738	1722	PU Aur	25473	1811	ψ^{2} Ori
22701	1560	61 Eri	23595	1652	γ^{1} Cae	24727	1726	16 Aur	25473	1811	ψ Ori
22701	1560	ω Eri	23596	1653	γ^{2} Cae	24740	1728	17 Aur	25473	1811	30 Ori
22730	1562	5 Ori	23596	1653	X Cae	24740	1728	AR Aur	25555	1814	116 Tau
22531	1563	ι πc	23685	1654	ε Lep	24813	1729	λ Aur	25583	1816	117 Tau
22534	1564	ι πc	23685	1654	2 Lep	24813	1729	15 Aur	25303	1818	θ πc
22797	1567	π05 Ori	23835	1656	104 Tau	24799	1732	IQ Aur	25695	1821	118 Tau
22797	1567	π^{5} Ori	23835	1656	m Tau	24832	1734	18 Aur	25973	1828	18 Cam
22797	1567	8 Ori	23794	1657	EN Eri	24674	1735	20 Ori	25606	1829	β Lep
23040	1568	7 Cam	23794	1657	66 Eri	24674	1735	τ Ori	25606	1829	9 Lep
22833	1569	6 Ori	23871	1658	106 Tau	24822	1739	n Tau	25737	1834	31 Ori
22833	1569	g Ori	23871	1658	l Tau	24822	1739	109 Tau	25737	1834	CI Ori
22845	1570	π^{1} Ori	23900	1659	103 Tau	24879	1740	19 Aur	25429	1836	λ Dor
22845	1570	7 Ori	23883	1660	105 Tau	24659	1743	o Col	25785	1837	CK Ori
23015	1577	ι Aur	23883	1660	V115 Tau	24372	1744	θ Dor	25813	1839	32 Ori
23015	1577	3 Aur	23852	1662	13 Ori	24817	1746	21 Ori	25861	1842	33 Ori
22957	1580	o^{2} Ori	23649	1663	η^{2} πc	25048	1749	20 Aur	25861	1842	n^{1} Ori
22957	1580	9 Ori	23879	1664	14 Ori	25048	1749	ρ Aur	25984	1843	x Aur
22881	1581	R Eri	23879	1664	i Ori	25197	1751	16 Cam	25984	1843	25 Aur
22958	1582	b Eri	23875	1666	β Eri	24827	1754	TX Lep	25945	1845	119 Tau
22958	1582	62 Eri	23875	1666	67 Eri	24845	1756	λ Lep	25945	1845	CE Tau
23068	1586	99 Tau	24019	1670	V115 Tau	24845	1756	6 Lep	25853	1849	10 Lep
23216	1588	8 Cam	23983	1672	16 Ori	24873	1757	7 Lep	25930	1852	δ Ori
23088	1590	k Tau	23983	1672	h Ori	24873	1757	ν Lep	25930	1852	δ Ori
23088	1590	98 Tau	23941	1673	68 Eri	25011	1761	V136 Ori	25930	1852	34 Ori
23179	1592	4 Aur	23693	1674	ζ Dor	25044	1765	22 Ori	25923	1855	υ Ori
23261	1599	5 Aur	24010	1676	15 Ori	25044	1765	o Ori	25923	1855	36 Ori
23123	1601	10 Ori	23467	1677	β Men	24829	1767	ζ πc	26408	1857	19 Cam
23123	1601	π^{6} Ori	24348	1678	14 Cam	25192	1768	22 Aur	26064	1858	120 Tau
23268	1602	6 Aur	23972	1679	λ Eri	25142	1770	23 Ori	26064	1858	V960 Tau
23522	1603	10 Cam	23972	1679	69 Eri	25292	1773	σ Aur	25859	1862	ε Col
23522	1603	β Cam	23972	1679	λ Eri	25292	1773	21 Aur	26093	1864	35 Ori
23416	1605	ε Aur	24340	1689	μ Aur	25216	1774	110 Tau	25985	1865	11 Lep
23416	1605	ε Aur	24340	1689	11 Aur	25278	1780	V111 Tau	25985	1865	α Lep
23416	1605	7 Aur	24196	1690	V108 Ori	25278	1780	111 Tau	26063	1868	VV Ori
23203	1607	R Lep	24169	1693	RX Lep	25202	1783	8 Lep	26126	1872	38 Ori
23221	1608	63 Eri	23840	1695	WZ Dor	25247	1784	29 Ori	26126	1872	n^{2} Ori
23231	1611	64 Eri	24244	1696	ι Lep	25247	1784	e Ori	26248	1875	121 Tau
23231	1611	S Eri	24244	1696	3 Lep	25282	1787	p Ori	26176	1876	37 Ori
23453	1612	8 Aur	24331	1698	ρ Ori	25282	1787	27 Ori	26176	1876	φ^{1} Ori
23453	1612	ζ Aur	24331	1698	17 Ori	25281	1788	η Ori	26207	1879	λ Ori
23453	1612	ζ Aur	24305	1702	μ Lep	25281	1788	28 Ori	26207	1879	39 Ori
23364	1617	ψ Eri	24305	1702	μ Lep	25281	1788	η Ori	26207	1880	λ Ori
23364	1617	65 Eri	24305	1702	5 Lep	25302	1789	V108 Ori	26207	1880	39 Ori
23497	1620	ι Tau	24327	1705	κ Lep	25302	1789	25 Ori	26233	1890	V104 Ori
23497	1620	102 Tau	24327	1705	4 Lep	25302	1789	ψ^{1} Ori	26237	1892	c Ori
23734	1622	BV Cam	24504	1706	KW Aur	25336	1790	24 Ori	26237	1892	42 Ori
23734	1622	11 Cam	24504	1706	14 Aur	25336	1790	γ Ori	26220	1893	41 Ori

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Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
26220	1893	V101 Ori	27196	1971	27 Aur	28358	2077	δ Aur	29388	2176	41 Aur
26220	1893	θ^1 Ori	26868	1973	WZ Col	28358	2077	33 Aur	29034	2177	θ Col
26220	1893	θ^1 Ori	27181	1977	Υ Tau	28237	2084	139 Tau	29064	2181	π^2 Col
26220	1894	41 Ori	27072	1983	γ Lep	28103	2085	η Lep	29379	2185	5 Gem
26220	1894	V101 Ori	27072	1983	13 Lep	28103	2085	16 Lep	29416	2190	TV Gem
26220	1894	θ^1 Ori	27265	1985	129 Tau	28010	2087	ξ Col	29433	2193	68 Ori
26220	1894	θ^1 Ori	27316	1989	131 Tau	28360	2088	β Aur	28909	2194	η^1 Dor
26221	1895	41 Ori	27338	1990	130 Tau	28360	2088	34 Aur	29323	2195	V653 Mon
26221	1895	θ^1 Ori	26264	1991	ι Men	28360	2088	β Aur	29450	2197	6 Gem
26224	1896	41 Ori	26264	1991	ι Men	28404	2091	35 Aur	29450	2197	BU Gem
26224	1896	θ^1 Ori	27592	1992	29 Cam	28404	2091	π Aur	29434	2198	f^1 Ori
26235	1897	θ^2 Ori	27364	1993	133 Tau	28404	2091	π Aur	29434	2198	69 Ori
26235	1897	43 Ori	27483	1995	29 Aur	28098	2092	σ Col	29426	2199	ξ Ori
26241	1899	44 Ori	27483	1995	τ Aur	28380	2095	37 Aur	29426	2199	70 Ori
26241	1899	ι Ori	27204	1996	μ Col	28380	2095	θ Aur	29730	2201	40 Cam
26263	1900	V137 Ori	27288	1998	ζ Lep	28380	2095	θ Aur	29401	2202	V638 Mon
26268	1901	45 Ori	27288	1998	14 Lep	28271	2100	V100 Ori	29263	2203	AF Col
26311	1903	ε Ori	27386	1999	52 Ori	28271	2100	59 Ori	29276	2212	δ πc
26311	1903	46 Ori	27341	2001	V103 Ori	28499	2101	V444 Aur	29276	2212	δ πc
26311	1903	ε Ori	27468	2002	132 Tau	28499	2101	36 Aur	29488	2213	IP CMa
26382	1905	122 Tau	27366	2004	κ Ori	28296	2103	60 Ori	29919	2215	UW Lyn
26366	1907	40 Ori	27366	2004	53 Ori	28199	2106	γ Col	29919	2215	1 Lyn
26366	1907	φ^2 Ori	27731	2006	30 Cam	28321	2107	V474 Mon	29655	2216	η Gem
26451	1910	ζ Tau	27511	2010	134 Tau	28321	2107	1 Mon	29655	2216	η Gem
26451	1910	123 Tau	27639	2011	31 Aur	28325	2108	2 Mon	29655	2216	7 Gem
26451	1910	ζ Tau	27639	2011	υ Aur	28677	2119	38 Aur	29696	2219	44 Aur
26536	1914	26 Aur	27673	2012	32 Aur	28328	2120	η Col	29696	2219	κ Aur
26069	1922	β Dor	27673	2012	ν Aur	28614	2124	61 Ori	29650	2220	71 Ori
26069	1922	β Dor	27100	2015	δ Dor	28614	2124	μ Ori	29134	2221	ν Dor
26606	1924	V433 Aur	27581	2016	135 Tau	27566	2125	κ Men	29704	2223	f^2 Ori
26412	1926	ν^1 Col	27661	2018	V440 Aur	28574	2128	3 Mon	29704	2223	72 Ori
26300	1927	YX πc	27321	2020	β πc	28691	2130	64 Ori	29651	2227	5 Mon
26640	1928	125 Tau	26394	2022	π Men	28823	2132	39 Aur	29651	2227	γ Mon
26549	1931	σ Ori	27971	2027	31 Cam	28734	2134	1 Gem	29884	2228	42 Aur
26549	1931	48 Ori	27971	2027	TU Cam	28716	2135	χ^2 Ori	29736	2229	73 Ori
26594	1934	47 Ori	27949	2029	ξ Aur	28716	2135	χ^2 Ori	29789	2230	8 Gem
26594	1934	ω Ori	27949	2029	30 Aur	28716	2135	62 Ori	30060	2238	UZ Lyn
26594	1934	ω Ori	27658	2031	55 Ori	28744	2142	V696 Mon	30060	2238	2 Lyn
26460	1935	ν^2 Col	27743	2033	V809 Tau	28946	2143	40 Aur	29949	2239	43 Aur
26563	1937	d Ori	27743	2033	137 Tau	28812	2144	63 Ori	29840	2240	9 Gem
26563	1937	49 Ori	27830	2034	136 Tau	28814	2145	66 Ori	29840	2240	PX Gem
26718	1939	NO Aur	27654	2035	δ Lep	28930	2146	V394 Aur	29800	2241	74 Ori
26942	1941	24 Cam	27654	2035	15 Lep	28816	2148	SS Lep	29800	2241	k Ori
27046	1943	23 Cam	27750	2037	56 Ori	28816	2148	17 Lep	29353	2245	η^2 Dor
26777	1946	126 Tau	27628	2040	β Col	28756	2149	72 Col	29850	2247	75 Ori
26727	1948	ζ Ori	27530	2042	γ πc	28596	2151	SW πc	29850	2247	1 Ori
26727	1948	50 Ori	27913	2047	54 Ori	29246	2152	37 Cam	29885	2255	6 Mon
26727	1949	ζ Ori	27913	2047	χ^1 Ori	28910	2155	θ Lep	29807	2256	κ Col
26727	1949	50 Ori	27965	2052	57 Ori	28910	2155	18 Lep	30272	2257	4 Lyn
25918	1953	γ Men	28162	2054	V403 Aur	28874	2156	S Lep	30019	2258	V115 Ori
26634	1956	α Col	27810	2056	λ Col	29038	2159	ν Ori	29271	2261	α Men
26728	1957	V105 Ori	27810	2056	λ Col	29038	2159	67 Ori	30247	2264	45 Aur
26964	1961	V731 Tau	25776	2059	31 Men	28973	2161	XZ Lep	30073	2273	7 Mon
26885	1963	51 Ori	25776	2059	TZ Men	29490	2165	36 Cam	30122	2282	ζ CMa
26885	1963	b Ori	27989	2061	58 Ori	28984	2166	YY Lep	30122	2282	1 CMa
26169	1964	WX Men	27989	2061	α Ori	29048	2168	19 Lep	30214	2284	FR CMa
26865	1968	12 Lep	27989	2061	α Ori	28957	2171	π^1 Col	30343	2286	μ Gem
27249	1969	26 Cam	27369	2062	λ Men	29225	2173	3 Gem	30343	2286	13 Gem
26953	1970	V119 Ori	28041	2063	U Ori	29225	2173	PU Gem	30343	2286	μ Gem
27196	1971	o Aur	27534	2064	ε Dor	29388	2175	41 Aur	30520	2289	ψ^1 Aur

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Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
30520	2289	ψ[1] Aur	31681	2421	24 Gem	32921	2529	d Gem	33856	2646	σ CMa
30520	2289	46 Aur	31681	2421	γ Gem	32838	2534	V592 Mon	33971	2648	19 Mon
30651	2291	RR Lyn	31646	2422	V640 Mon	32759	2538	κ CMa	33971	2648	V637 Mon
30679	2293	5 Lyn	31564	2423	6 CMa	32759	2538	κ CMa	34088	2650	43 Gem
30324	2294	β CMa	31564	2423	ν[1] CMa	32759	2538	13 CMa	34088	2650	ζ Gem
30324	2294	β CMa	31737	2425	53 Aur	33041	2539	OX Aur	34088	2650	ζ Gem
30324	2294	2 CMa	31832	2427	ψ[2] Aur	33041	2539	59 Aur	33977	2653	o[2] CMa
30277	2296	δ Col	31832	2427	50 Aur	33018	2540	θ Gem	33977	2653	24 CMa
30419	2298	8 Mon	31592	2429	7 CMa	33018	2540	34 Gem	33977	2653	o[2] CMa
30419	2298	ε Mon	31592	2429	ν[2] CMa	33064	2541	60 Aur	34045	2657	γ CMa
30422	2299	ε Mon	31697	2432	V731 Mon	32810	2545	HZ CMa	34045	2657	23 CMa
30422	2299	8 Mon	31852	2438	54 Aur	33133	2547	61 Aur	34182	2659	44 Gem
30407	2301	V721 Mon	31766	2442	V689 Mon	33133	2547	ψ[8] Aur	34081	2666	C Pup
30426	2306	IU CMa	31700	2443	ν[3] CMa	32607	2550	α πc	34234	2670	V569 Mon
30564	2308	BL Ori	31700	2443	8 CMa	32768	2553	τ Pup	34356	2671	R Gem
30541	2310	T Mon	31685	2451	ν Pup	33269	2557	V352 Aur	34059	2672	H Pup
30342	2320	ν πc	32019	2453	25 Gem	31897	2559	ζ Men	34000	2674	V450 Car
30438	2326	α Car	31978	2456	S Mon	33449	2560	15 Lyn	34301	2678	FN CMa
30769	2330	16 Gem	31978	2456	15 Mon	33202	2564	e Gem	34248	2680	IL CMa
31039	2331	6 Lyn	32173	2459	55 Aur	33202	2564	38 Gem	34105	2683	V386 Car
30827	2332	RT Aur	32173	2459	ψ[4] Aur	33040	2567	KX CMa	34440	2684	45 Gem
30827	2332	48 Aur	32104	2466	26 Gem	33377	2568	ψ[9] Aur	33384	2689	θ Men
30972	2338	47 Aur	32438	2470	12 Lyn	33277	2569	37 Gem	34360	2690	FV CMa
30883	2343	ν Gem	32246	2473	27 Gem	33092	2571	EY CMa	34444	2693	δ CMa
30883	2343	18 Gem	32246	2473	ε Gem	33092	2571	15 CMa	34444	2693	25 CMa
30772	2344	10 Mon	32489	2477	13 Lyn	33160	2574	θ CMa	34752	2696	63 Aur
30591	2348	G Pup	32249	2478	30 Gem	33160	2574	14 CMa	34693	2697	46 Gem
30321	2352	π[1] Dor	32311	2480	28 Gem	33152	2580	o[1] CMa	34693	2697	τ Gem
30867	2356	β Mon	32480	2483	56 Aur	33152	2580	16 CMa	34722	2700	47 Gem
30867	2356	11 Mon	32480	2483	ψ[5] Aur	33152	2580	o[1] CMa	34622	2701	20 Mon
30867	2357	β Mon	32362	2484	ξ Gem	33165	2583	EZ CMa	34495	2702	A Pup
30867	2357	11 Mon	32362	2484	31 Gem	33485	2585	ψ[1] Aur	34912	2703	UY Lyn
30867	2358	β Mon	32562	2487	57 Aur	33485	2585	16 Lyn	34579	2704	LZ CMa
30867	2358	11 Mon	32562	2487	ψ[6] Aur	33248	2588	17 CMa	34819	2706	48 Gem
30788	2361	λ CMa	32404	2489	32 Gem	33302	2590	π CMa	34724	2707	21 Mon
30840	2364	IY CMa	32864	2490	42 Cam	33302	2590	19 CMa	34724	2707	V571 Mon
31105	2371	19 Gem	32349	2491	9 CMa	33189	2591	NP Pup	34769	2714	22 Mon
31173	2372	WW Aur	32349	2491	α CMa	33345	2593	μ CMa	34769	2714	δ Mon
31359	2376	BQ Lyn	32292	2492	10 CMa	33345	2593	18 CMa	35146	2715	18 Lyn
31359	2376	7 Lyn	32292	2492	FT CMa	33347	2596	ι CMa	34909	2717	51 Gem
30565	2377	π[2] Dor	32463	2494	16 Mon	33347	2596	20 CMa	34909	2717	BQ Gem
31159	2382	12 Mon	32385	2501	HP CMa	33347	2596	ι CMa	34798	2718	26 CMa
31216	2385	13 Mon	32533	2503	17 Mon	33614	2600	62 Aur	34798	2718	MM CMa
31125	2387	4 CMa	32492	2504	11 CMa	33595	2601	39 Gem	34814	2724	HN CMa
31125	2387	ξ[1] CMa	32578	2506	18 Mon	32912	2602	ι Vol	35025	2725	52 Gem
31125	2387	ξ[1] CMa	32504	2509	12 CMa	33447	2603	HH CMa	34817	2726	V363 Pup
31205	2392	HR CMa	32504	2509	HK CMa	33650	2605	40 Gem	34802	2727	E Pup
31099	2393	SX Col	32434	2510	V339 Pup	37391	2609	OV Cep	34924	2734	GY CMa
31676	2394	8 Lyn	33104	2511	43 Cam	33715	2615	41 Gem	34473	2735	γ[1] Vol
31434	2398	49 Aur	32740	2512	IS Gem	33579	2618	ε CMa	34481	2736	γ[2] Vol
31665	2402	11 Lyn	32844	2516	ψ[7] Aur	33579	2618	21 CMa	35152	2738	53 Gem
31385	2404	14 Mon	32844	2516	58 Aur	33558	2619	t Pup	34834	2740	I Pup
31579	2405	UU Aur	32682	2517	V715 Mon	33721	2628	FU CMa	34834	2740	QW Pup
31068	2410	AE πc	32537	2518	x Pup	33927	2630	42 Gem	34937	2741	GG CMa
31137	2412	μ πc	32753	2519	33 Gem	33927	2630	ω Gem	36547	2742	VZ Cam
31416	2414	ξ[2] CMa	32753	2519	OV Gem	33927	2630	ω Gem	35080	2744	24 Mon
31416	2414	5 CMa	33048	2520	14 Lyn	33929	2631	NP Gem	34981	2745	27 CMa
31771	2419	51 Aur	32814	2525	35 Gem	33804	2640	LS CMa	34981	2745	EW CMa
31789	2420	ψ[3] Aur	32531	2526	V448 Car	33856	2646	σ CMa	34899	2746	OU Pup
31789	2420	52 Aur	32921	2529	36 Gem	33856	2646	22 CMa	34899	2746	l Pup

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Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
34922	2748	1 Pup	36186	2853	NR CMa	37949	2975	51 Cam	38835	3102	11 Pup
34922	2748	L02 Pup	36284	2854	γ CMi	37934	2977	BC Cam	38835	3102	j Pup
35037	2749	ω CMa	36284	2854	4 CMi	37934	2977	49 Cam	38945	3103	BU CMi
35037	2749	28 CMa	36168	2855	FY CMa	37704	2983	76 Gem	39261	3109	AX Cam
35037	2749	ω CMa	36393	2857	64 Gem	37704	2983	c Gem	39261	3109	53 Cam
35341	2753	64 Aur	36429	2861	b Gem	37740	2985	κ Gem	38962	3110	14 CMi
35029	2761	PR Pup	36429	2861	65 Gem	37740	2985	77 Gem	38872	3116	N Pup
35350	2763	54 Gem	36425	2864	6 CMi	37705	2989	AZ CMi	38827	3117	x Car
35350	2763	λ Gem	36363	2875	y Pup	37826	2990	β Gem	38827	3117	x Car
35210	2764	145 CMa	36377	2878	σ Pup	37826	2990	78 Gem	39348	3119	AE Lyn
35735	2772	47 Cam	36377	2878	σ Pup	37811	2991	79 Gem	39348	3119	54 Cam
35264	2773	π Pup	36641	2880	δ^1 CMi	37648	2993	1 Pup	38917	3121	O Pup
35264	2773	π Pup	36641	2880	7 CMi	37677	2996	3 Pup	39079	3122	27 Mon
35550	2777	δ Gem	36760	2886	68 Gem	37677	2996	1 Pup	39023	3123	12 Pup
35550	2777	55 Gem	36723	2887	δ^2 CMi	37908	3003	g Gem	39191	3124	ω^1 Cnc
35412	2781	29 CMa	36723	2887	8 CMi	37908	3003	81 Gem	39191	3124	2 Cnc
35412	2781	UW CMa	36608	2889	PS Pup	37751	3004	V390 Pup	38834	3126	V341 Car
35415	2782	30 CMa	36850	2890	66 Gem	37921	3008	11 CMi	39177	3128	3 Cnc
35415	2782	τ CMa	36850	2890	α Gem	37842	3009	PV Pup	38957	3129	V Pup
35415	2782	τ CMa	36850	2890	66 Gem	37842	3009	2 Pup	39263	3132	ω^2 Cnc
35783	2783	19 Lyn	36850	2891	66 Gem	37843	3010	2 Pup	39263	3132	4 Cnc
35785	2784	19 Lyn	36850	2891	α Gem	38016	3013	π Gem	39236	3134	5 Cnc
35363	2787	NV Pup	36850	2891	66 Gem	38016	3013	80 Gem	39172	3135	V695 Mon
35487	2788	R CMa	36965	2898	CC Lyn	37891	3015	4 Pup	39211	3141	28 Mon
35406	2790	v^2 Pup	36812	2901	δ^3 CMi	37819	3017	c Pup	39211	3141	V645 Mon
35406	2790	NW Pup	36812	2901	9 CMi	38106	3021	82 Gem	38994	3147	V374 Car
35393	2791	F Pup	36773	2902	KQ Pup	37915	3022	V392 Pup	39424	3149	x Gem
35710	2793	65 Aur	36962	2905	69 Gem	37504	3024	ζ Vol	39153	3151	PY Pup
35699	2795	56 Gem	36962	2905	υ Gem	38031	3026	QY Pup	39070	3153	V460 Car
35611	2800	HQ CMa	36728	2907	V376 Pup	38048	3029	5 Pup	39225	3157	V461 Car
35626	2802	MZ CMa	36778	2911	OW Pup	37982	3032	OX Pup	39360	3162	V336 Pup
35228	2803	δ Vol	36778	2911	z Pup	38070	3034	o Pup	39567	3163	8 Cnc
35907	2805	66 Aur	36039	2919	ε Men	38070	3034	o Pup	39429	3165	ζ Pup
35846	2808	57 Gem	36981	2921	V378 Pup	38074	3041	T Pup	39722	3167	28 Lyn
35842	2810	58 Gem	37204	2924	70 Gem	38211	3044	6 Pup	39524	3168	14 Pup
35941	2816	59 Gem	37088	2927	25 Mon	38170	3045	ξ Pup	39659	3169	9 Cnc
35933	2817	OT Gem	37036	2928	PT Pup	38170	3045	7 Pup	39659	3169	μ^1 Cnc
36145	2818	21 Lyn	37406	2929	23 Lyn	38089	3046	Q Pup	39659	3169	BL Cnc
35795	2819	NO CMa	37265	2930	71 Gem	38167	3049	V397 Pup	39487	3170	MZ Pup
35987	2820	1 CMi	37265	2930	o Gem	38164	3055	P Pup	39847	3173	27 Lyn
36046	2821	60 Gem	37096	2937	f Pup	38159	3058	QS Pup	39780	3176	μ Cnc
36046	2821	ι Gem	37300	2938	f Gem	38373	3059	13 CMi	39780	3176	10 Cnc
35951	2825	FW CMa	37300	2938	74 Gem	38373	3059	ζ CMi	39780	3176	μ^2 Cnc
35904	2827	η CMa	37279	2943	α CMi	38406	3061	BC CMi	39584	3179	MX Vel
35904	2827	η CMa	37279	2943	10 CMi	38372	3063	8 Pup	39874	3184	12 Cnc
35904	2827	31 CMa	37173	2944	PU Pup	38382	3064	9 Pup	39757	3185	ρ Pup
36041	2828	2 CMi	37173	2944	m Pup	38623	3065	25 Lyn	39757	3185	ρ Pup
36041	2828	ε CMi	37609	2946	24 Lyn	38639	3066	26 Lyn	39757	3185	15 Pup
36156	2837	61 Gem	37174	2957	MY Pup	38538	3067	φ Gem	39530	3186	V375 Car
35960	2842	V368 Pup	37297	2961	n^1 Pup	38538	3067	83 Gem	39863	3188	ζ Mon
35960	2843	V368 Pup	37322	2963	d^2 Pup	38427	3073	10 Pup	39863	3188	29 Mon
36188	2845	3 CMi	37329	2964	d^3 Pup	38370	3078	QU Pup	40023	3191	14 Cnc
36188	2845	β CMi	37521	2967	NZ Gem	38414	3080	a Pup	40023	3191	ψ Cnc
36188	2845	β CMi	37447	2970	26 Mon	38455	3084	b Pup	39906	3192	16 Pup
36238	2846	63 Gem	37447	2970	α Mon	38455	3084	QZ Pup	39866	3195	PQ Pup
36439	2849	22 Lyn	37248	2971	V390 Car	38722	3086	85 Gem	40035	3202	18 Pup
36265	2851	5 CMi	37629	2973	75 Gem	38438	3088	V372 Car	39919	3203	NN Vel
36265	2851	η CMi	37629	2973	σ Gem	38518	3090	J Pup	39953	3207	γ^2 Vel
36366	2852	62 Gem	37629	2973	σ Gem	38848	3095	1 Cnc	39953	3207	γ^2 Vel
36366	2852	ρ Gem	37415	2974	R Pup	38792	3099	PX Pup	39953	3207	γ Vel

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Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
40167	3208	16 Cnc	41400	3319	BP Cnc	42515	3438	β Pyx	43409	3518	γ Pyx
40167	3208	ζ^2 Cnc	41375	3321	2 Hya	42540	3439	NY Vel	43584	3519	51 Cnc
40167	3208	ζ^1 Cnc	41375	3321	LM Hya	42459	3440	HW Vel	43584	3519	σ^1 Cnc
40167	3209	16 Cnc	41250	3322	V438 Pup	42662	3441	9 Hya	43347	3520	g Vel
40167	3209	ζ^2 Cnc	41704	3323	o UMa	42504	3442	NZ Vel	43575	3521	BO Cnc
40167	3209	ζ^1 Cnc	41704	3323	1 UMa	42570	3445	b Vel	43575	3521	53 Cnc
40167	3210	16 Cnc	41361	3327	NO Pup	42536	3447	o Vel	43587	3522	ρ^1 Cnc
40167	3210	ζ^2 Cnc	41361	3328	NO Pup	42536	3447	o Vel	43587	3522	55 Cnc
40167	3210	ζ^1 Cnc	41574	3329	28 Cnc	42806	3449	43 Cnc	43496	3523	15 Hya
40084	3211	19 Pup	41574	3329	CX Cnc	42806	3449	γ Cnc	42794	3524	RS Cha
39970	3213	IS Vel	41578	3333	29 Cnc	42795	3450	45 Cnc	43413	3527	f Vel
40240	3215	15 Cnc	41003	3334	η Vol	42624	3452	n Vel	43413	3527	KX Vel
40240	3215	BM Cnc	41475	3335	VV Pyx	42799	3454	η Hya	43685	3528	CY Lyn
39794	3223	ε Vol	41564	3337	LO Hya	42799	3454	7 Hya	43903	3531	6 UMa
40091	3225	NS Pup	40888	3340	θ Cha	42799	3454	η Hya	43721	3532	57 Cnc
40091	3225	h^1 Pup	41515	3343	XY Pyx	42679	3456	LN Vel	43834	3540	ρ^2 Cnc
40259	3229	20 Pup	41312	3347	β Vol	42568	3457	V343 Car	43834	3540	58 Cnc
40155	3232	AH Vel	41483	3350	GU Vel	42568	3457	d Car	43811	3541	X Cnc
40646	3235	29 Lyn	41483	3350	F Vel	42835	3459	F Hya	43813	3547	16 Hya
40274	3237	MX Pup	42080	3354	2 UMa	42425	3460	θ Vol	43813	3547	ζ Hya
40274	3237	r Pup	41816	3355	30 Cnc	42911	3461	δ Cnc	43851	3550	60 Cnc
40321	3240	OS Pup	41816	3355	υ^1 Cnc	42911	3461	47 Cnc	43822	3552	17 Hya
40326	3243	h^2 Pup	41822	3357	31 Cnc	42712	3462	HX Vel	43822	3553	17 Hya
40285	3244	NO Vel	41822	3357	θ Cnc	42954	3464	46 Cnc	43932	3555	σ^2 Cnc
40534	3248	R Cnc	41726	3364	AB Pyx	42917	3465	b Cnc	43932	3555	59 Cnc
40526	3249	β Cnc	41975	3365	32 Lyn	42917	3465	BI Cnc	43825	3556	δ Pyx
40526	3249	17 Cnc	41909	3366	η Cnc	42917	3465	49 Cnc	43970	3561	o Cnc
40875	3254	30 Lyn	41909	3366	33 Cnc	42715	3466	KT Vel	43970	3561	62 Cnc
40604	3257	21 Pup	41940	3369	32 Cnc	42726	3467	HY Vel	43807	3562	IY Vel
40843	3262	x Cnc	41940	3369	υ^2 Cnc	42828	3468	α Pyx	44031	3563	61 Cnc
40843	3262	18 Cnc	41904	3372	34 Cnc	42931	3469	10 Hya	44001	3565	o Cnc
40766	3265	HQ Hya	42090	3377	33 Lyn	42951	3472	MX Hya	44001	3565	63 Cnc
40881	3268	19 Cnc	41939	3385	VX Pyx	43100	3474	48 Cnc	43763	3568	V473 Car
40881	3268	λ Cnc	42133	3387	35 Cnc	43100	3474	ι Cnc	44127	3569	9 UMa
40706	3270	q Pup	42438	3391	3 UMa	43103	3475	48 Cnc	44127	3569	ι UMa
41075	3275	31 Lyn	42438	3391	π^1 UMa	43103	3475	ι Cnc	43783	3571	c Car
40945	3282	w Pup	42146	3398	3 Hya	42834	3476	D Vel	44066	3572	α Cnc
41117	3284	20 Cnc	42146	3398	HV Hya	42884	3477	d Vel	44066	3572	65 Cnc
41117	3284	d^1 Cnc	42527	3403	π^2 UMa	43121	3481	50 Cnc	43878	3574	H Vel
41067	3289	22 Pup	42527	3403	4 UMa	43109	3482	ε Hya	44154	3575	64 Cnc
41163	3290	21 Cnc	42265	3406	36 Cnc	43109	3482	11 Hya	44154	3575	σ^3 Cnc
41039	3294	B Vel	42265	3406	c Cnc	43109	3482	ε Hya	44390	3576	8 UMa
41107	3296	V436 Pup	42088	3407	C Vel	43067	3484	D Hya	44390	3576	ρ UMa
41211	3297	1 Hya	42313	3410	4 Hya	43067	3484	12 Hya	44126	3577	FZ Cnc
41319	3299	25 Cnc	42313	3410	δ Hya	42913	3485	δ Vel	44248	3579	10 UMa
41319	3299	d^2 Cnc	42353	3412	37 Cnc	43023	3487	a Vel	43937	3582	V376 Car
40817	3301	κ^1 Vol	42177	3413	HV Vel	43114	3490	AI Pyx	43937	3582	b^1 Car
40834	3302	κ^2 Vol	42134	3414	e^2 Car	43234	3492	ρ Hya	44307	3587	66 Cnc
41377	3304	φ^1 Cnc	42129	3415	e^1 Car	43234	3492	13 Hya	44093	3588	FZ Vel
41377	3304	22 Cnc	42402	3418	σ Hya	43082	3494	OP Vel	44342	3589	67 Cnc
41037	3307	ε Car	42402	3418	5 Hya	43105	3498	V344 Car	44191	3591	w Vel
41404	3310	23 Cnc	42334	3420	η Pyx	43105	3498	f Car	44213	3593	IU Vel
41404	3310	φ^2 Cnc	42604	3422	34 Lyn	43305	3500	14 Hya	44471	3594	κ UMa
41404	3311	23 Cnc	42312	3426	e Vel	43305	3500	KX Hya	44471	3594	12 UMa
41404	3311	φ^2 Cnc	42516	3427	39 Cnc	42637	3502	η Cha	44405	3595	69 Cnc
41389	3312	24 Cnc	42556	3429	41 Cnc	43644	3505	5 UMa	44405	3595	ν Cnc
41389	3313	24 Cnc	42556	3429	ε Cnc	43644	3505	b UMa	44143	3598	b^2 Car
41307	3314	C Hya	42509	3431	a Hya	43531	3508	35 Lyn	44299	3600	IZ Vel
40702	3318	α Cha	42509	3431	6 Hya	43454	3510	54 Cnc	44512	3601	70 Cnc
41400	3319	27 Cnc	42483	3433	ζ Pyx	43354	3517	HZ Vel	44337	3605	OY Vel

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Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
44857	3609	11 UMa	45915	3698	CG UMa	47080	3815	11 LMi	48341	3899	6 Sex
44857	3609	σ^1 UMa	45556	3699	ι Car	47080	3815	SV LMi	48390	3900	g Leo
44659	3613	18 Hya	45631	3703	K Vel	46806	3816	R Car	48390	3900	22 Leo
44659	3613	ω Hya	45860	3705	40 Lyn	47096	3818	7 Leo	47956	3902	ν Cha
44511	3614	c Vel	45860	3705	α Lyn	46950	3819	L Vel	48356	3903	υ^1 Hya
44382	3615	α Vol	45751	3706	26 Hya	46974	3825	h Car	48356	3903	39 Hya
45038	3616	13 UMa	45675	3708	LR Vel	47189	3826	8 Leo	48455	3905	μ Leo
45038	3616	σ^2 UMa	45811	3709	27 Hya	47205	3827	10 Leo	48455	3905	24 Leo
44738	3618	NS Hya	45615	3713	V478 Car	47300	3829	42 Lyn	48414	3906	7 Sex
44901	3619	15 UMa	45902	3718	θ Pyx	47145	3831	IM Vel	48437	3909	8 Sex
44901	3619	f UMa	46247	3722	EZ UMa	47249	3832	34 Hya	48437	3909	γ Sex
44818	3621	72 Cnc	45999	3724	KU Hya	47310	3834	2 Sex	48374	3912	m Vel
44818	3621	τ Cnc	45856	3728	k Car	47175	3836	M Vel	48682	3917	SY UMa
44798	3623	κ Cnc	46146	3731	κ Leo	47654	3839	27 UMa	48682	3917	31 UMa
44798	3623	76 Cnc	46146	3731	1 Leo	47267	3842	y Vel	48469	3920	QZ Vel
44798	3623	κ Cnc	46026	3733	λ Pyx	47431	3845	ι Hya	48527	3924	V335 Vel
45075	3624	τ UMa	45941	3734	κ Vel	47431	3845	35 Hya	48833	3928	19 LMi
45075	3624	14 UMa	46221	3738	28 Hya	47427	3846	OW Hya	48883	3937	27 Leo
44892	3626	75 Cnc	46365	3744	29 Hya	47427	3846	37 Hya	48883	3937	ν Leo
44946	3627	ξ Cnc	46390	3748	α Hya	47452	3849	38 Hya	48774	3940	φ Vel
44946	3627	77 Cnc	46390	3748	30 Hya	47452	3849	κ Hya	48799	3941	IV Vel
44824	3628	κ Pyx	46371	3749	G Hya	47544	3850	DR Leo	48990	3945	12 Sex
44883	3630	19 Hya	46283	3753	I Vel	47570	3851	43 Lyn	48943	3946	OY Hya
44816	3634	λ Vel	46454	3754	2 Leo	47508	3852	14 Leo	48926	3947	η Ant
44816	3634	λ Vel	46454	3754	ω Leo	47508	3852	o Leo	48782	3949	V492 Car
45058	3639	RS Cnc	46457	3755	3 Leo	47550	3853	13 Leo	49029	3950	29 Leo
45033	3640	79 Cnc	46733	3757	23 UMa	47391	3856	m Car	49029	3950	π Leo
44961	3641	20 Hya	46733	3757	h UMa	47631	3857	13 LMi	49081	3951	20 LMi
44626	3642	V345 Car	46509	3759	τ^1 Hya	47522	3858	I Hya	49220	3952	EO Leo
45001	3644	ε Pyx	46509	3759	31 Hya	46928	3860	ζ Cha	49329	3961	13 Sex
45333	3648	16 UMa	46652	3764	7 LMi	46928	3860	ζ Cha	49402	3970	40 Hya
45333	3648	c UMa	46515	3765	ε Ant	47701	3861	f Leo	49402	3970	υ^2 Hya
45170	3650	π^1 Cnc	47013	3768	22 UMa	47701	3861	15 Leo	49530	3973	14 Sex
45170	3650	81 Cnc	46735	3769	8 LMi	47911	3865	28 UMa	49593	3974	21 LMi
45290	3652	36 Lyn	46977	3771	d UMa	47723	3866	16 Leo	49583	3975	η Leo
45085	3654	GX Vel	46977	3771	24 UMa	47723	3866	ψ Leo	49583	3975	30 Leo
45184	3655	21 Hya	46977	3771	DK UMa	47965	3870	CS UMa	49477	3978	R Vel
45184	3655	KW Hya	46750	3773	4 Leo	47758	3871	θ Ant	49637	3980	31 Leo
45080	3659	V357 Car	46750	3773	λ Leo	47694	3872	IP Vel	49641	3981	α Sex
45080	3659	a Car	46853	3775	25 UMa	47908	3873	17 Leo	49641	3981	15 Sex
45455	3660	17 UMa	46853	3775	θ UMa	47908	3873	ε Leo	49669	3982	α Leo
45189	3661	KL Vel	46774	3779	6 Leo	47717	3875	O Vel	49669	3982	32 Leo
45493	3662	DD UMa	46657	3780	ζ^1 Ant	47959	3877	18 Leo	49065	3983	μ Cha
45493	3662	18 UMa	46657	3781	ζ^1 Ant	48029	3880	19 Leo	49812	3989	17 Sex
45493	3662	e UMa	46771	3782	ξ Leo	48036	3882	R Leo	49712	3990	Q Vel
45101	3663	i Car	46771	3782	5 Leo	47893	3883	V487 Car	49841	3994	41 Hya
45336	3665	22 Hya	46651	3786	ψ Vel	47854	3884	l Car	49841	3994	λ Hya
45336	3665	θ Hya	46776	3787	32 Hya	47854	3884	l Car	49865	3996	18 Sex
45410	3669	π Cnc	46776	3787	τ^2 Hya	48319	3888	υ UMa	49929	3998	34 Leo
45410	3669	82 Cnc	46734	3789	ζ^2 Ant	48319	3888	υ UMa	49751	3999	S Car
45410	3669	π^2 Cnc	46904	3791	9 LMi	48319	3888	29 UMa	50027	4004	19 Sex
45344	3674	z Vel	46620	3793	V482 Car	48218	3889	DG Leo	49926	4007	V368 Car
43908	3678	ζ Oct	46107	3795	ι Cha	48218	3889	20 Leo	50222	4008	U UMa
45527	3681	23 Hya	46810	3798	S Ant	48002	3890	υ Car	49934	4009	QY Car
45439	3682	l Vel	47006	3799	26 UMa	48002	3891	υ Car	50218	4014	22 LMi
45526	3683	24 Hya	46952	3800	10 LMi	48273	3893	4 Sex	50070	4017	LW Vel
45448	3684	k Vel	46952	3800	SU LMi	48402	3894	φ UMa	50191	4023	q Vel
45238	3685	β Car	46701	3803	N Vel	48402	3894	30 UMa	50303	4024	23 LMi
45688	3690	38 Lyn	46701	3803	N Vel	48324	3896	23 Leo	50448	4026	32 UMa
45496	3696	g Car	46982	3814	33 Hya	48224	3898	u Vel	50316	4027	24 LMi

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Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
50319	4030	35 Leo	51624	4133	ρ Leo	52943	4232	ν Hya	54539	4335	52 UMa
50335	4031	ζ Leo	51624	4133	ρ Leo	52633	4234	δ^{2} Cha	54463	4337	x Car
50335	4031	36 Leo	51624	4133	47 Leo	53043	4235	43 UMa	54463	4337	V382 Car
50372	4033	33 UMa	51685	4137	34 LMi	53064	4236	42 UMa	54461	4338	V371 Car
50372	4033	λ UMa	51576	4140	p Car	52980	4237	41 Sex	54682	4343	β Crt
50333	4035	37 Leo	51576	4140	PP Car	53261	4246	44 UMa	54682	4343	11 Crt
50099	4037	ω Car	51814	4141	37 UMa	53229	4247	46 LMi	54751	4352	V533 Car
50384	4039	39 Leo	51635	4143	t Vel	53295	4248	45 UMa	54849	4356	p^{5} Leo
50414	4042	22 Sex	51718	4145	44 Hya	53295	4248	ω UMa	54849	4356	69 Leo
50414	4042	ε Sex	51775	4146	48 Leo	53154	4250	V524 Car	54872	4357	68 Leo
50332	4045	GY Vel	51676	4147	V369 Car	53252	4251	b^{3} Hya	54872	4357	δ Leo
50685	4047	EN UMa	51802	4148	49 Leo	53273	4253	p^{1} Leo	54879	4359	70 Leo
50456	4049	AG Ant	51802	4148	TX Leo	53355	4254	48 LMi	54879	4359	θ Leo
50371	4050	V337 Car	51914	4150	35 LMi	53253	4257	u Car	54951	4362	FN Leo
50371	4050	q Car	51821	4153	U Ant	53426	4258	46 UMa	54951	4362	72 Leo
50564	4054	40 Leo	51905	4156	φ^{2} Hya	53417	4259	54 Leo	55016	4365	n Leo
50583	4057	41 Leo	51849	4159	r Car	53417	4260	54 Leo	55016	4365	73 Leo
50583	4057	γ^{2} Leo	52009	4163	U Hya	53379	4263	KQ Vel	55084	4368	φ Leo
50583	4057	γ^{1} Leo	51912	4164	t^{1} Car	53423	4265	55 Leo	55084	4368	74 Leo
50583	4058	41 Leo	52098	4166	37 LMi	53449	4267	VY Leo	55106	4369	SV Crt
50583	4058	γ^{2} Leo	51986	4167	p Vel	53449	4267	56 Leo	55137	4371	75 Leo
50583	4058	γ^{1} Leo	52139	4168	38 LMi	53492	4270	50 LMi	55203	4374	53 UMa
50555	4063	GZ Vel	52004	4169	V370 Car	53394	4271	T Car	55203	4374	ξ UMa
50684	4064	RS Sex	52085	4171	φ^{3} Hya	53502	4273	ι Ant	55203	4374	ξ UMa
50684	4064	23 Sex	52085	4171	φ Hya	53530	4274	IW Vel	55203	4375	53 UMa
50801	4069	μ UMa	52043	4173	V514 Car	53589	4276	U Car	55203	4375	ξ UMa
50801	4069	34 UMa	51839	4174	γ Cha	53721	4277	47 UMa	55203	4375	ξ UMa
50755	4070	42 Leo	52353	4178	38 UMa	53740	4287	7 Crt	55219	4377	ν UMa
50933	4072	ET UMa	52154	4180	x Vel	53740	4287	α Crt	55219	4377	54 UMa
50676	4074	J Vel	52316	4182	33 Sex	53838	4288	49 UMa	55140	4379	V535 Car
50860	4075	27 LMi	52366	4184	RX LMi	53807	4291	58 Leo	55266	4380	55 UMa
50851	4077	43 Leo	52221	4185	V364 Car	53773	4293	i Vel	55249	4381	76 Leo
50799	4080	r Vel	52478	4187	39 UMa	53824	4294	59 Leo	55282	4382	δ Crt
50935	4081	28 LMi	52308	4188	V429 Car	53824	4294	c Leo	55282	4382	12 Crt
50885	4082	SS Sex	52422	4189	40 LMi	53910	4295	β UMa	55434	4386	σ Leo
50885	4082	25 Sex	52457	4192	41 LMi	53910	4295	48 UMa	55434	4386	77 Leo
51008	4088	44 Leo	52452	4193	35 Sex	53907	4299	61 Leo	55425	4390	π Cen
51008	4088	DE Leo	52577	4195	VY UMa	53907	4299	p^{2} Leo	55560	4392	56 UMa
51056	4090	30 LMi	52370	4196	V518 Car	53954	4300	60 Leo	55598	4395	λ Crt
51069	4094	42 Hya	52405	4198	V519 Car	53954	4300	b Leo	55598	4395	13 Crt
51069	4094	μ Hya	52419	4199	θ Car	54061	4301	50 UMa	55642	4399	78 Leo
51233	4100	31 LMi	52468	4200	w Car	54061	4301	α UMa	55642	4399	ι Leo
51233	4100	β LMi	52468	4200	V520 Car	54049	4306	62 Leo	55650	4400	79 Leo
51213	4101	CX Leo	52584	4201	36 Sex	54049	4306	p^{3} Leo	55687	4402	14 Crt
51213	4101	45 Leo	52685	4202	41 UMa	54136	4309	51 UMa	55687	4402	ε Crt
51172	4104	α Ant	52638	4203	42 LMi	54182	4310	63 Leo	55705	4405	γ Crt
51401	4106	35 UMa	52340	4206	DR Cha	54182	4310	x Leo	55705	4405	15 Crt
51192	4110	V399 Car	52686	4208	51 Leo	53702	4312	η Oct	55765	4408	81 Leo
51459	4112	36 UMa	52686	4208	m Leo	54204	4314	x^{1} Hya	55791	4410	80 Leo
51420	4113	32 LMi	52689	4209	k Leo	54255	4317	x^{2} Hya	55846	4414	83 Leo
51232	4114	s Car	52689	4209	52 Leo	54255	4317	x^{2} Hya	55874	4416	16 Crt
51362	4116	δ Sex	52737	4214	b^{1} Hya	54336	4319	65 Leo	55874	4416	κ Crt
51362	4116	29 Sex	52727	4216	μ Vel	54336	4319	p^{4} Leo	55945	4418	τ Leo
51376	4118	δ Ant	52882	4223	43 LMi	54388	4322	64 Leo	55945	4418	84 Leo
51437	4119	β Sex	52911	4227	l Leo	54301	4325	z Car	55953	4420	QT Hya
51437	4119	30 Sex	52911	4227	53 Leo	54360	4327	V815 Cen	56034	4422	57 UMa
51437	4119	β Sex	52827	4228	V522 Car	54540	4330	EP UMa	56080	4426	85 Leo
51556	4124	33 LMi	52913	4229	40 Sex	54487	4332	67 Leo	56135	4430	EE UMa
51585	4127	46 Leo	52959	4230	44 LMi	54522	4333	CO UMa	56148	4431	58 UMa
51585	4127	ES Leo	52595	4231	δ^{1} Cha	54539	4335	ψ UMa	56127	4432	87 Leo

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Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
56127	4432	e Leo	57632	4534	94 Leo	59608	4650	12 Vir	60904	4752	17 Com
56146	4433	86 Leo	57632	4534	β Leo	59654	4652	D Cen	60904	4752	AI Com
56211	4434	λ Dra	57632	4534	β Leo	59678	4653	DL Cru	60941	4753	18 Com
56211	4434	1 Dra	57669	4537	j Cen	59747	4656	δ Cru	60979	4755	V928 Cen
56242	4437	88 Leo	57757	4540	5 Vir	59747	4656	δ Cru	60957	4756	20 Com
56201	4438	V809 Cen	57757	4540	β Vir	59774	4660	69 UMa	60965	4757	7 Crv
56243	4441	o^1 Cen	57803	4546	B Cen	59774	4660	δ UMa	60965	4757	δ Crv
56243	4441	o^1 Cen	57936	4552	β Hya	59803	4662	γ Crv	60978	4760	74 UMa
56250	4442	o^2 Cen	57936	4552	β Hya	59803	4662	4 Crv	60988	4761	7 CVn
56250	4442	o^2 Cen	58001	4554	γ UMa	59819	4663	6 Com	60992	4762	75 UMa
56280	4443	17 Crt	58001	4554	64 UMa	59796	4665	DK Dra	61084	4763	γ Cru
56280	4444	17 Crt	58110	4559	6 Vir	59831	4666	2 CVn	60998	4765	CQ Dra
56343	4450	ξ Hya	58112	4560	65 UMa	59847	4667	7 Com	60998	4765	4 Dra
56445	4455	89 Leo	58112	4560	DN UMa	59929	4671	ε µs	61071	4766	UU Com
56473	4456	90 Leo	58117	4561	65 UMa	59929	4671	ε µs	61071	4766	21 Com
56480	4460	A Cen	58159	4564	95 Leo	60000	4674	β Cha	61136	4768	BG Cru
56583	4461	2 Dra	58159	4564	o Leo	60009	4679	ζ Cru	61136	4768	35 Cru
56518	4463	V763 Cen	58181	4566	66 UMa	60030	4681	13 Vir	61199	4773	γ µs
56518	4463	c^1 Cen	58188	4567	η Crt	60059	4682	F Cen	61174	4775	η Crv
56573	4466	c^2 Cen	58188	4567	30 Crt	60066	4684	FM Com	61174	4775	8 Crv
56561	4467	λ Cen	58272	4571	LV Hya	60087	4685	8 Com	61246	4777	20 Vir
56633	4468	21 Crt	58484	4583	ε Cha	60098	4688	9 Com	61295	4780	22 Com
56633	4468	θ Crt	58510	4585	7 Vir	60129	4689	η Vir	61318	4781	21 Vir
56647	4471	91 Leo	58510	4585	b Vir	60129	4689	15 Vir	61318	4781	q Vir
56647	4471	υ Leo	58545	4586	FR Cam	60122	4690	3 CVn	61317	4785	8 CVn
56700	4476	c^3 Cen	58590	4589	8 Vir	60172	4695	c Vir	61317	4785	β CVn
56770	4477	59 UMa	58590	4589	π Vir	60172	4695	16 Vir	61359	4786	β Crv
56675	4479	π Cha	58587	4590	TY Crv	60189	4696	5 Crv	61359	4786	9 Crv
56789	4480	60 UMa	58587	4590	31 Crt	60189	4696	ζ Crv	61281	4787	κ Dra
56779	4483	ω Vir	58684	4594	67 UMa	60202	4697	11 Com	61281	4787	κ Dra
56779	4483	ω Vir	58684	4594	DP UMa	60260	4700	ε Cru	61281	4787	5 Dra
56779	4483	1 Vir	58758	4599	θ^1 Cru	60212	4701	70 UMa	61394	4789	23 Com
56802	4488	ι Crt	58858	4602	2 Com	60320	4703	ζ^2 µs	61415	4791	24 Com
56802	4488	24 Crt	58867	4603	θ^2 Cru	60329	4704	ζ^1 µs	61418	4792	24 Com
56899	4491	VX Crt	58867	4603	θ^2 Cru	60351	4707	12 Com	61384	4795	6 Dra
56862	4492	GT µs	58905	4605	κ Cha	60353	4708	17 Vir	61496	4797	TU Crv
56922	4494	o Hya	58948	4608	9 Vir	60425	4711	6 Crv	61585	4798	α µs
56975	4495	92 Leo	58948	4608	o Vir	60449	4712	x^1 Cen	61585	4798	α µs
56997	4496	61 UMa	59072	4616	η Cru	60467	4715	AI CVn	61558	4799	25 Vir
56970	4497	V914 Cen	59173	4618	V863 Cen	60467	4715	4 CVn	61558	4799	f Vir
57029	4501	62 UMa	59184	4620	E Cen	60485	4716	5 CVn	61532	4800	T UMa
57111	4504	3 Dra	59196	4621	δ Cen	60514	4717	GN Com	61571	4801	25 Com
57175	4511	V810 Cen	59196	4621	δ Cen	60514	4717	13 Com	61622	4802	τ Cen
57283	4514	27 Crt	59199	4623	α Crv	60610	4724	x^2 Cen	61703	4806	KY µs
57283	4514	ζ Crt	59199	4623	1 Crv	60584	4726	71 UMa	61658	4807	FW Vir
57328	4515	2 Vir	59229	4624	V788 Cen	60646	4728	6 CVn	61667	4808	R Vir
57328	4515	ξ Vir	59232	4625	V817 Cen	60718	4730	α^1 Cru	61692	4811	9 CVn
57380	4517	ν Vir	59285	4626	10 Vir	60718	4730	α^2 Cru	61740	4813	26 Vir
57380	4517	3 Vir	59309	4629	11 Vir	60718	4731	α^1 Cru	61740	4813	x Vir
57380	4517	ν Vir	59316	4630	2 Crv	60718	4731	α^2 Cru	61796	4814	FH µs
57399	4518	x UMa	59316	4630	ε Crv	60710	4732	G Cen	61724	4815	26 Com
57399	4518	63 UMa	59352	4632	3 Com	60697	4733	14 Com	61748	4816	AX CVn
57363	4520	λ µs	59394	4635	3 Crv	60742	4737	γ Com	61789	4817	l Cen
57512	4526	V918 Cen	59449	4638	ρ Cen	60742	4737	15 Com	61932	4819	γ Cen
57565	4527	93 Leo	59468	4640	4 Com	60746	4738	16 Com	61981	4820	R µs
57565	4527	DQ Leo	59458	4641	68 UMa	60781	4739	BL Cru	61910	4821	VV Crv
57562	4528	4 Vir	59501	4643	5 Com	60823	4743	σ Cen	61910	4822	VV Crv
57581	4530	µ µs	59551	4645	S µs	60795	4745	73 UMa	61966	4823	CH Cru
57581	4530	µ µs	59504	4646	CO Cam	60813	4746	FT Vir	61966	4823	39 Cru
57613	4532	II Hya	59588	4647	V335 Hya	60855	4748	u Cen	61937	4824	GG Vir

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Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
61937	4824	27 Vir	63210	4913	H Cen	64792	5011	59 Vir	66607	5115	DY Cha
61941	4825	γ Vir	63210	4913	V945 Cen	64792	5011	e Vir	66458	5127	25 CVn
61941	4825	29 Vir	63121	4914	12 CVn	64852	5015	σ Vir	66657	5132	ε Cen
61941	4826	γ Vir	63121	4914	α^1 CVn	64852	5015	60 Vir	66657	5132	ε Cen
61941	4826	29 Vir	63125	4915	α^2 CVn	64844	5017	20 CVn	66666	5134	V744 Cen
61960	4828	ρ Vir	63125	4915	12 CVn	64844	5017	AO CVn	66645	5135	V765 Cen
61960	4828	30 Vir	63125	4915	α^2 CVn	64924	5019	61 Vir	66821	5141	Q Cen
61960	4828	ρ Vir	63076	4916	8 Dra	64962	5020	γ Hya	66634	5142	82 UMa
61968	4829	d^1 Vir	63355	4920	36 Com	64962	5020	46 Hya	66727	5144	1 Boo
61968	4829	31 Vir	63414	4921	k Vir	64906	5023	21 CVn	66825	5147	T Cen
62027	4830	BZ Cru	63414	4921	44 Vir	64906	5023	BK CVn	66763	5149	2 Boo
62012	4831	w Cen	63613	4923	δ μs	65112	5026	V964 Cen	66803	5150	m Vir
61936	4833	76 UMa	63462	4924	37 Com	65109	5028	ι Cen	66803	5150	82 Vir
62268	4842	ι Cru	63494	4925	46 Vir	65072	5032	23 CVn	66700	5153	CQ UMa
62322	4844	β μs	63432	4928	9 Dra	65271	5035	J Cen	66738	5154	83 UMa
62207	4845	10 CVn	63533	4929	38 Com	65241	5040	64 Vir	66738	5154	IQ UMa
62223	4846	Y CVn	63688	4930	LS μs	65387	5041	m Cen	67036	5158	V827 Cen
62267	4847	32 Vir	63503	4931	78 UMa	65468	5042	ι μs	66936	5159	84 Vir
62267	4847	FM Vir	63608	4932	ε Vir	65301	5044	63 Vir	67057	5165	83 Vir
62267	4847	d^2 Vir	63608	4932	47 Vir	65323	5047	65 Vir	67153	5168	1 Cen
62325	4849	33 Vir	63724	4933	ξ^1 Cen	65420	5050	66 Vir	67153	5168	i Cen
62356	4851	27 Com	63750	4937	48 Vir	65628	5051	ι μs	67139	5170	85 Vir
62434	4853	β Cru	63820	4938	V789 Cen	65376	5052	CL CVn	67261	5171	V766 Cen
62434	4853	β Cru	63945	4940	f Cen	65378	5054	79 UMa	67234	5172	M Cen
62376	4854	EP Vir	64004	4942	ξ^2 Cen	65378	5054	ζ UMa	67172	5173	86 Vir
62394	4855	34 Vir	63901	4943	14 CVn	65378	5055	79 UMa	67244	5174	z Cen
62443	4858	35 Vir	63948	4946	39 Com	65378	5055	ζ UMa	67288	5181	87 Vir
62478	4861	28 Com	63950	4949	40 Com	65474	5056	α Vir	67239	5182	3 Boo
62423	4863	7 Dra	63950	4949	FS Com	65474	5056	67 Vir	67275	5185	τ Boo
62541	4865	29 Com	64094	4952	θ μs	65474	5056	α Vir	67275	5185	4 Boo
62516	4866	11 CVn	64094	4952	θ μs	65477	5062	80 UMa	67231	5187	84 UMa
62576	4869	30 Com	64022	4954	41 Com	65581	5064	68 Vir	67231	5187	CR UMa
63031	4870	ι Oct	64078	4955	49 Vir	65581	5064	i Vir	67464	5190	ν Cen
62683	4874	p Cen	64122	4957	g Vir	65755	5066	EZ μs	67464	5190	ν Cen
62732	4876	DS Cru	64166	4958	45 Hya	65639	5068	69 Vir	67301	5191	η UMa
62757	4878	37 Vir	64166	4958	ψ Hya	65810	5071	K Cen	67301	5191	85 UMa
62763	4883	31 Com	64224	4961	50 Vir	65721	5072	70 Vir	67457	5192	2 Cen
62807	4884	32 Com	64238	4963	51 Vir	65835	5080	R Hya	67457	5192	V806 Cen
62867	4888	e Cen	64238	4963	θ Vir	65790	5081	71 Vir	67472	5193	μ Cen
62896	4889	n Cen	64320	4965	V824 Cen	66121	5082	S Cha	67472	5193	μ Cen
62931	4890	κ Cru	64217	4967	15 CVn	66753	5084	κ Oct	67494	5196	89 Vir
62875	4891	38 Vir	64241	4968	42 Com	65892	5088	72 Vir	67410	5199	R CVn
62886	4894	35 Com	64241	4968	α Com	65936	5089	d Cen	67459	5200	υ Boo
62986	4895	S Cru	64241	4969	42 Com	66015	5094	73 Vir	67459	5200	5 Boo
63007	4897	λ Cru	64241	4969	α Com	66015	5094	HX Vir	67480	5201	e Boo
63007	4897	λ Cru	64246	4971	17 CVn	66006	5095	l Vir	67480	5201	6 Boo
63003	4898	μ^1 Cru	64425	4975	V831 Cen	66006	5095	74 Vir	67669	5210	V983 Cen
63005	4899	μ^2 Cru	64407	4981	53 Vir	66091	5099	75 Vir	67669	5210	3 Cen
63005	4899	μ^2 Cru	64394	4983	β Com	66098	5100	76 Vir	67669	5211	V983 Cen
62933	4900	41 Vir	64394	4983	43 Com	66098	5100	h Vir	67669	5211	3 Cen
62985	4902	ψ Vir	64520	4990	54 Vir	66100	5101	S Vir	67665	5219	AW CVn
62985	4902	40 Vir	64520	4990	LM Vir	66200	5105	78 Vir	67786	5221	h Cen
62985	4902	ψ Vir	64661	4993	η μs	66200	5105	o Vir	67786	5221	4 Cen
62956	4905	ε UMa	64661	4993	η μs	66200	5105	CW Vir	67819	5222	y Cen
62956	4905	ε UMa	64577	4995	55 Vir	66249	5107	ζ Vir	67861	5223	V767 Cen
62956	4905	77 UMa	64607	4998	LN Vir	66249	5107	79 Vir	67787	5225	7 Boo
63024	4909	TU CVn	64725	5001	57 Vir	66198	5109	81 UMa	67627	5226	i Dra
63090	4910	δ Vir	64692	5004	19 CVn	66257	5110	BH CVn	67627	5226	10 Dra
63090	4910	43 Vir	64769	5005	DK Vir	66320	5111	80 Vir	67627	5226	CU Dra
63159	4912	LN Hya	64803	5006	r Cen	66234	5112	24 CVn	68002	5231	ζ Cen

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Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
67929	5232	p Vir	69701	5338	99 Vir	71683	5459	α^1 Cen	72487	5533	38 Boo
67929	5232	90 Vir	69701	5338	ι Vir	71681	5460	α^2 Cen	72631	5535	11 Lib
67927	5235	η Boo	70638	5339	δ Oct	71908	5463	α Cir	72524	5538	39 Boo
67927	5235	8 Boo	69673	5340	16 Boo	71908	5463	α Cir	72965	5539	ζ Cir
67848	5238	86 UMa	69673	5340	α Boo	71618	5468	33 Boo	73223	5540	R Aps
68092	5244	92 Vir	69713	5350	21 Boo	71860	5469	α Lup	72800	5543	V101 Cen
68103	5247	9 Boo	69713	5350	ι Boo	71860	5469	α Lup	72659	5544	ξ Boo
68245	5248	φ Cen	69713	5350	ι Boo	72370	5470	α Aps	72659	5544	37 Boo
68282	5249	υ^1 Cen	69732	5351	19 Boo	71762	5475	29 Boo	72659	5544	ξ Boo
68269	5250	47 Hya	69732	5351	λ Boo	71762	5475	π^2 Boo	73771	5545	π^2 Oct
68276	5255	10 Boo	69829	5352	CY Boo	71762	5475	π^1 Boo	72929	5548	12 Lib
68390	5257	48 Hya	69996	5354	ι Lup	71762	5476	29 Boo	73129	5551	θ Cir
68523	5260	υ^2 Cen	69929	5355	CS Vir	71762	5476	π^2 Boo	73129	5551	θ Cir
68815	5261	θ Aps	70069	5358	ν Cen	71762	5476	π^1 Boo	72848	5553	DE Boo
68815	5261	θ Aps	69974	5359	100 Vir	71795	5477	ζ Boo	72934	5554	ξ^1 Lib
68478	5263	11 Boo	69974	5359	λ Vir	71795	5477	30 Boo	72934	5554	13 Lib
68520	5264	τ Vir	69879	5361	A Boo	71795	5478	ζ Boo	73095	5556	c Lup
68520	5264	93 Vir	69989	5365	18 Boo	71795	5478	30 Boo	74296	5557	ω Oct
68702	5267	β Cen	70012	5366	υ Vir	71832	5480	31 Boo	72607	5563	β UMi
68702	5267	β Cen	70012	5366	102 Vir	71837	5481	32 Boo	72607	5563	7 UMi
68673	5269	V828 Cen	70090	5367	ψ Cen	71974	5484	4 Lib	73133	5564	15 Lib
68842	5278	V992 Cen	70027	5370	20 Boo	72010	5485	c^1 Cen	73133	5564	ξ^2 Lib
68862	5285	x Cen	70270	5375	HX Lup	71957	5487	μ Vir	73165	5570	16 Lib
68862	5285	x Cen	70300	5378	V761 Cen	71957	5487	107 Vir	73273	5571	β Lup
68895	5287	π Hya	70300	5378	a Cen	72121	5488	BU Cir	73334	5576	κ Cen
68895	5287	49 Hya	70306	5381	51 Hya	72104	5489	c^2 Cen	73284	5577	59 Hya
68933	5288	5 Cen	70306	5381	k Hya	71995	5490	W Boo	73249	5578	17 Lib
68933	5288	θ Cen	70336	5383	2 Lib	71995	5490	34 Boo	73310	5582	18 Lib
68940	5290	95 Vir	70574	5395	τ^1 Lup	75736	5491	BP Oct	73473	5586	δ Lib
68756	5291	α Dra	70574	5395	τ^1 Lup	71876	5492	DL Dra	73473	5586	19 Lib
68756	5291	11 Dra	70576	5396	τ^2 Lup	72290	5495	b Lup	73473	5586	δ Lib
69122	5292	V883 Cen	70497	5404	θ Boo	72197	5497	54 Hya	73369	5588	40 Boo
69174	5296	V869 Cen	70497	5404	23 Boo	72197	5497	m Hya	73199	5589	RR UMi
69127	5298	96 Vir	70602	5405	22 Boo	72438	5500	CO Cir	73566	5591	60 Hya
69038	5299	BY Boo	70602	5405	f Boo	72154	5501	108 Vir	73776	5593	η Cir
69068	5300	CF Boo	70680	5406	104 Vir	72125	5502	o Boo	73454	5597	BX Boo
69068	5300	13 Boo	70753	5407	52 Hya	72125	5502	35 Boo	73568	5600	ω Boo
69269	5301	ET Vir	70753	5407	l Hya	72194	5503	5 Lib	73568	5600	41 Boo
69896	5303	η Aps	70755	5409	105 Vir	72105	5505	36 Boo	73620	5601	110 Vir
69226	5304	12 Boo	70755	5409	φ Vir	72105	5505	ε Boo	73555	5602	β Boo
69226	5304	d Boo	70794	5410	106 Vir	72105	5506	36 Boo	73555	5602	42 Boo
68956	5305	3 UMi	70791	5420	g Boo	72105	5506	ε Boo	73714	5603	γ Sco
69491	5311	V716 Cen	70791	5420	24 Boo	72220	5511	109 Vir	73714	5603	σ Lib
69415	5312	50 Hya	71116	5421	V Cen	72208	5512	EK Boo	73714	5603	20 Lib
69389	5313	CU Vir	71121	5425	σ Lup	72323	5514	55 Hya	73714	5603	σ Lib
69427	5315	κ Vir	71121	5425	σ Lup	72357	5516	56 Hya	73764	5604	GM Lup
69427	5315	98 Vir	71053	5429	ρ Boo	72378	5517	57 Hya	73807	5605	π Lup
69618	5316	V795 Cen	71053	5429	25 Boo	72432	5519	V768 Cen	73807	5606	π Lup
69112	5321	4 UMi	70692	5430	5 UMi	72489	5523	μ Lib	73745	5616	ψ Boo
69536	5323	14 Boo	71115	5434	26 Boo	72489	5523	7 Lib	73745	5616	43 Boo
69754	5326	R Cen	71075	5435	γ Boo	73540	5525	π^1 Oct	73695	5618	44 Boo
69481	5328	17 Boo	71075	5435	27 Boo	72571	5526	58 Hya	73695	5618	i Boo
69481	5328	κ^1 Boo	71075	5435	γ Boo	72571	5526	E Hya	73695	5618	i Boo
69483	5329	κ^2 Boo	71040	5437	ER Dra	72773	5527	AX Cir	73937	5619	HZ Lup
69483	5329	17 Boo	71352	5440	η Cen	72683	5528	o Lup	73945	5622	21 Lib
69483	5329	κ^2 Boo	71168	5441	CP Boo	72603	5530	α^1 Lib	73945	5622	ν Lib
69612	5330	15 Boo	71284	5447	σ Boo	72603	5530	8 Lib	74066	5624	HR Lup
69614	5331	FS Vir	71284	5447	28 Boo	72622	5531	9 Lib	74117	5626	λ Lup
70248	5336	ε Aps	71280	5452	CH Boo	72622	5531	α^2 Lib	73841	5627	47 Boo
70248	5336	ε Aps	71536	5453	ρ Lup	72487	5533	h Boo	73841	5627	k Boo

Nombre de estrellas (Catálogo Hiparco), 2022

Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
73996	5634	45 Boo	75312	5727	η CrB	76337	5795	15 Ser	77336	5870	υ Ser
73996	5634	c Boo	75312	5727	2 CrB	76552	5797	ω Lup	77645	5873	V360 Nor
74087	5638	46 Boo	75312	5728	η CrB	76427	5799	14 Ser	77450	5879	35 Ser
74087	5638	b Boo	75312	5728	2 CrB	76307	5800	μ CrB	77450	5879	κ Ser
74582	5644	X TrA	76996	5729	ρ Oct	76307	5800	6 CrB	77442	5880	R CrB
74376	5646	κ^{1} Lup	76013	5730	κ^{1} Aps	76425	5802	16 Ser	77516	5881	μ Ser
74380	5647	κ^{2} Lup	76013	5730	κ^{1} Aps	76424	5804	τ^{5} Ser	77516	5881	32 Ser
74395	5649	ζ Lup	75411	5733	μ^{1} Boo	76424	5804	18 Ser	77634	5883	x Lup
74449	5651	e Lup	75411	5733	51 Boo	76600	5812	τ Lib	77634	5883	5 Lup
74392	5652	ι^{1} Lib	75415	5734	μ^{2} Boo	76600	5812	40 Lib	77635	5885	1 Sco
74392	5652	24 Lib	75415	5734	51 Boo	76628	5814	41 Lib	77635	5885	b Sco
74386	5654	FL Ser	75097	5735	γ UMi	76705	5820	3 Lup	77578	5888	ω Ser
74493	5656	ι^{2} Lib	75530	5739	9 Ser	76705	5820	ψ^{1} Lup	77578	5888	34 Ser
74493	5656	25 Lib	75530	5739	τ^{1} Ser	76534	5823	54 Boo	77512	5889	10 CrB
74500	5657	23 Lib	75730	5743	32 Lib	76534	5823	φ Boo	77512	5889	δ CrB
74604	5660	1 Lup	75730	5743	ζ^{1} Lib	76742	5824	42 Lib	77512	5889	δ CrB
74604	5660	i Lup	75458	5744	ι Dra	76829	5825	g Lup	77982	5891	κ TrA
74600	5662	26 Lib	75458	5744	12 Dra	76008	5826	15 UMi	77622	5892	ε Ser
74778	5664	δ Cir	75761	5746	10 Ser	76008	5826	θ UMi	77622	5892	37 Ser
74778	5664	δ Cir	75695	5747	3 CrB	76669	5833	ζ^{1} CrB	77615	5894	R Ser
74837	5666	ε Cir	75695	5747	β CrB	76669	5833	7 CrB	77660	5895	36 Ser
74824	5670	β Cir	75695	5747	β CrB	76669	5833	ζ^{2} CrB	77660	5895	b Ser
74946	5671	γ TrA	75944	5750	ζ^{3} Lib	76669	5834	ζ^{1} CrB	77952	5897	β TrA
74649	5675	3 Ser	75944	5750	34 Lib	76669	5834	7 CrB	77661	5899	ρ Ser
74596	5676	x Boo	75973	5763	52 Boo	76669	5834	ζ^{2} CrB	77655	5901	11 CrB
74596	5676	48 Boo	75973	5763	ν^{1} Boo	76939	5837	h Lup	77655	5901	κ CrB
74689	5679	4 Ser	76126	5764	35 Lib	76880	5838	43 Lib	77811	5902	45 Lib
74666	5681	49 Boo	76126	5764	ζ^{4} Lib	76880	5838	κ Lib	77811	5902	λ Lib
74666	5681	δ Boo	76126	5764	ζ Lib	76945	5839	4 Lup	77055	5903	16 UMi
74911	5683	μ Lup	76069	5770	12 Ser	76945	5839	ψ^{2} Lup	77055	5903	ζ UMi
74785	5685	β Lib	76069	5770	τ^{2} Ser	76810	5840	19 Ser	77840	5904	2 Sco
74785	5685	27 Lib	76440	5771	ε TrA	76810	5840	τ^{6} Ser	77859	5907	V104 Sco
74857	5686	2 Lup	76133	5772	11 Ser	76852	5842	ι Ser	77853	5908	46 Lib
74857	5686	f Lup	76041	5774	53 Boo	76852	5842	21 Ser	77853	5908	θ Lib
74950	5687	GG Lup	76041	5774	ν^{2} Boo	76866	5843	x Ser	77801	5911	39 Ser
74975	5694	MQ Ser	76259	5775	36 Lib	76866	5843	20 Ser	77909	5912	V927 Sco
74975	5694	5 Ser	76297	5776	γ Lup	76866	5843	x Ser	77909	5912	3 Sco
75141	5695	δ Lup	76297	5776	γ Lup	76878	5845	22 Ser	77760	5914	x Her
75206	5698	ν^{1} Lup	76219	5777	37 Lib	76878	5845	τ^{7} Ser	77760	5914	1 Her
75181	5699	ν^{2} Lup	76127	5778	θ CrB	77060	5848	44 Lib	77939	5915	47 Lib
75110	5701	28 Lib	76127	5778	4 CrB	77060	5848	η Lib	77984	5917	4 Sco
75118	5703	o Lib	76127	5778	θ CrB	76952	5849	γ CrB	77910	5919	FP Ser
75118	5703	29 Lib	76243	5780	IU Lib	76952	5849	8 CrB	77910	5919	40 Ser
75323	5704	γ Cir	76371	5781	d Lup	76952	5849	γ CrB	78105	5925	ξ^{1} Lup
75323	5704	γ Cir	76371	5781	KT Lup	77052	5853	23 Ser	78106	5926	ξ^{2} Lup
75177	5705	φ^{1} Lup	76750	5782	κ^{2} Aps	77052	5853	ψ Ser	78104	5928	5 Sco
75264	5708	ε Lup	76333	5787	38 Lib	77070	5854	α Ser	78104	5928	ρ Sco
75049	5709	1 CrB	76333	5787	γ Lib	77070	5854	24 Ser	77907	5932	2 Her
75049	5709	o CrB	76276	5788	δ Ser	77048	5855	9 CrB	78072	5933	41 Ser
75119	5710	6 Ser	76276	5788	δ Ser	77048	5855	π CrB	78072	5933	γ Ser
75304	5712	φ^{2} Lup	76276	5788	13 Ser	76957	5857	BP Boo	78012	5936	12 CrB
74793	5714	11 UMi	76276	5789	δ Ser	77111	5858	26 Ser	78012	5936	λ CrB
75230	5717	7 Ser	76276	5789	δ Ser	77111	5858	τ^{8} Ser	77986	5938	4 Her
75178	5718	50 Boo	76276	5789	13 Ser	77227	5863	25 Ser	77986	5938	V839 Her
75439	5719	υ Lup	76267	5793	α CrB	77227	5863	PT Ser	78476	5939	S TrA
75342	5721	8 Ser	76267	5793	α CrB	77233	5867	β Ser	78132	5940	φ Ser
75379	5723	ε Lib	76267	5793	5 CrB	77233	5867	28 Ser	78207	5941	48 Lib
75379	5723	31 Lib	76470	5794	υ Lib	77257	5868	λ Ser	78207	5941	FX Lib
75501	5724	k Lup	76470	5794	39 Lib	77257	5868	27 Ser	78246	5942	V913 Sco
75665	5725	LX TrA	76337	5795	τ^{3} Ser	77336	5870	31 Ser	78265	5944	π Sco

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Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
78265	5944	π Sco	79374	6027	ν Sco	80197	6107	20 CrB	81305	6164	V918 Sco
78265	5944	6 Sco	79374	6027	14 Sco	80197	6107	ν^1 CrB	81266	6165	τ Sco
78159	5947	ε CrB	79404	6028	13 Sco	80214	6108	21 CrB	81266	6165	23 Sco
78159	5947	13 CrB	79404	6028	c^2 Sco	80214	6108	ν^2 CrB	81126	6168	35 Her
78384	5948	η Lup	79399	6029	c^1 Sco	80645	6109	ι TrA	81126	6168	σ Her
78401	5953	7 Sco	79399	6029	12 Sco	80351	6111	21 Her	81300	6171	12 Oph
78401	5953	δ Sco	79664	6030	δ TrA	80351	6111	o Her	81300	6171	V213 Oph
78400	5954	49 Lib	79375	6031	ψ Sco	80473	6112	5 Oph	81710	6172	η^1 TrA
78322	5958	T CrB	79375	6031	15 Sco	80473	6112	ρ Oph	81472	6174	V100 Sco
78436	5959	50 Lib	79387	6033	16 Sco	80473	6113	5 Oph	81377	6175	ζ Oph
78180	5960	CL Dra	79332	6035	q Her	80473	6113	ρ Oph	81377	6175	ζ Oph
78662	5961	ι^1 Nor	79349	6039	LQ Her	80582	6115	ε Nor	81377	6175	13 Oph
78639	5962	η Nor	79349	6039	10 Her	79822	6116	η UMi	81337	6176	V773 Her
78481	5966	5 Her	79530	6042	V105 Sco	79822	6116	21 UMi	81290	6184	16 Dra
78481	5966	r Her	79653	6045	θ Nor	80463	6117	24 Her	81292	6185	17 Dra
78459	5968	15 CrB	79488	6047	9 Her	80463	6117	ω Her	81292	6186	17 Dra
78459	5968	ρ CrB	79540	6048	x Sco	80463	6117	ω Her	81634	6194	36 Her
78493	5971	ι CrB	79540	6048	17 Sco	80569	6118	x Oph	81641	6195	37 Her
78493	5971	14 CrB	79754	6055	V368 Nor	80569	6118	x Oph	81497	6200	42 Her
78554	5972	π Ser	79593	6056	δ Oph	80569	6118	7 Oph	82129	6204	LP TrA
78554	5972	44 Ser	79593	6056	1 Oph	80488	6119	U Her	81734	6205	14 Oph
78685	5976	43 Ser	79790	6058	γ^1 Nor	80788	6120	V378 Nor	81693	6212	40 Her
78727	5977	ξ Sco	79672	6060	18 Sco	80460	6123	25 Her	81693	6212	ζ Her
78727	5978	ξ Sco	79932	6062	S Nor	80375	6127	DQ Dra	81729	6213	39 Her
78914	5980	δ Nor	79607	6063	TZ CrB	80620	6128	V210 Oph	82273	6217	α TrA
78592	5982	υ Her	79607	6063	σ CrB	80628	6129	3 Oph	81833	6220	44 Her
78592	5982	6 Her	79607	6063	17 CrB	80628	6129	υ Oph	81833	6220	η Her
78820	5984	8 Sco	79607	6064	TZ CrB	80782	6131	QU Nor	81660	6223	g Dra
78820	5984	β^1 Sco	79607	6064	σ CrB	80331	6132	η Dra	81660	6223	18 Dra
78821	5985	8 Sco	79607	6064	17 CrB	80331	6132	14 Dra	82037	6224	16 Oph
78821	5985	β^2 Sco	79666	6065	16 Her	80763	6134	α Sco	82140	6225	25 Sco
78527	5986	13 Dra	79881	6070	d Sco	80763	6134	21 Sco	82073	6228	i Her
78527	5986	θ Dra	79963	6071	λ Nor	80763	6134	α Sco	82073	6228	43 Her
78918	5987	θ Lup	80000	6072	γ^2 Nor	83255	6139	CW Oct	82363	6229	η Ara
78877	5988	V929 Sco	79757	6074	υ CrB	80815	6141	i Sco	82162	6232	19 Oph
78933	5993	9 Sco	79757	6074	18 CrB	80815	6141	22 Sco	82216	6234	1 Her
78933	5993	ω^1 Sco	79882	6075	ε Oph	80945	6142	V105 Sco	82216	6234	V776 Her
79153	5994	ι^2 Nor	79882	6075	2 Oph	80704	6146	30 Her	82216	6234	45 Her
78990	5997	ω^2 Sco	79280	6079	19 UMi	80704	6146	g Her	82339	6240	V101 Oph
78990	5997	10 Sco	80079	6081	o Sco	80704	6146	g Her	82396	6241	ε Sco
79080	5999	V856 Sco	80079	6081	19 Sco	80894	6147	φ Oph	82396	6241	26 Sco
79005	6002	11 Sco	79420	6082	20 UMi	80894	6147	8 Oph	82172	6242	V636 Her
79007	6004	45 Ser	80112	6084	σ Sco	80816	6148	27 Her	82369	6243	20 Oph
79043	6008	7 Her	80112	6084	20 Sco	80816	6148	β Her	82493	6245	V973 Sco
79043	6008	κ Her	80112	6084	σ Sco	80883	6149	10 Oph	82514	6247	μ^1 Sco
79045	6009	7 Her	79804	6086	AT Dra	80883	6149	λ Oph	82514	6247	μ^1 Sco
79072	6010	47 Ser	79992	6092	22 Her	81252	6151	θ TrA	82543	6249	V919 Sco
79072	6010	FS Ser	79992	6092	τ Her	80843	6152	s Her	82402	6250	47 Her
79102	6013	8 Her	79992	6092	τ Her	80975	6153	ω Oph	82402	6250	k Her
79119	6018	16 CrB	80179	6093	50 Ser	80975	6153	ω Oph	82545	6252	μ^2 Sco
79119	6018	τ CrB	80179	6093	σ Ser	80975	6153	9 Oph	82321	6254	52 Her
79497	6019	ζ Nor	80170	6095	20 Her	81122	6155	μ Nor	82321	6254	V637 Her
80047	6020	δ^1 Aps	80170	6095	γ Her	81122	6155	μ Nor	82480	6255	21 Oph
80047	6020	δ^1 Aps	80170	6095	γ Her	80809	6156	34 Her	82650	6257	V106 Sco
80057	6021	δ^2 Aps	80686	6098	ζ TrA	81007	6158	28 Her	82422	6258	50 Her
79490	6022	V367 Nor	81065	6102	γ Aps	81007	6158	n Her	82669	6261	V900 Sco
79101	6023	φ Her	80181	6103	19 CrB	81008	6159	h Her	82671	6262	ζ^1 Sco
79101	6023	φ Her	80181	6103	ξ CrB	81008	6159	29 Her	82671	6262	ζ^1 Sco
79101	6023	11 Her	80343	6104	ψ Oph	80650	6161	15 Dra	82526	6268	49 Her
79509	6024	κ Nor	80343	6104	4 Oph	81852	6163	β Aps	82526	6268	V823 Her

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Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
82504	6270	51 Her	84401	6397	V107 Sco	85340	6486	44 Oph	86414	6588	85 Her
82729	6271	ζ^2 Sco	84405	6401	36 Oph	85423	6492	d Oph	86414	6588	ι Her
82868	6274	V846 Ara	84405	6402	36 Oph	85423	6492	45 Oph	86736	6595	58 Oph
83150	6276	MX TrA	84345	6406	64 Her	85302	6495	V640 Her	86201	6596	ω Dra
82587	6279	53 Her	84345	6406	α^1 Her	85355	6498	49 Oph	86201	6596	28 Dra
82730	6280	23 Oph	84345	6406	α Her	85355	6498	σ Oph	86667	6602	83 Her
82673	6281	ι Oph	84345	6406	α^2 Her	85727	6500	δ Ara	86742	6603	60 Oph
82673	6281	25 Oph	84345	6407	64 Her	85751	6505	V862 Ara	86742	6603	β Oph
82911	6283	V861 Sco	84345	6407	α^1 Her	85696	6508	34 Sco	86731	6608	84 Her
83081	6285	ζ Ara	84345	6407	α Her	85696	6508	υ Sco	86831	6609	61 Oph
82960	6288	27 Sco	84345	6407	α^2 Her	85379	6509	x Her	86809	6611	V624 Her
82798	6290	V644 Her	84379	6410	65 Her	85379	6509	77 Her	87073	6615	ι Sco
82925	6291	24 Oph	84379	6410	δ Her	85792	6510	α Ara	87072	6616	X Sgr
82780	6292	56 Her	84979	6411	ι Aps	85792	6510	α Ara	87072	6616	3 Sgr
82802	6293	54 Her	84479	6412	V236 Oph	85755	6519	c Oph	87163	6621	V389 Sgr
83153	6295	ε^1 Ara	84500	6414	U Oph	85755	6519	51 Oph	87314	6622	V539 Ara
83000	6299	27 Oph	84514	6415	41 Oph	85839	6522	V949 Sco	86974	6623	μ Her
83000	6299	κ Oph	84969	6417	ζ Aps	85693	6526	76 Her	86974	6623	86 Her
83000	6299	κ Oph	84380	6418	67 Her	85693	6526	λ Her	86946	6626	V826 Her
83323	6304	V828 Ara	84380	6418	π Her	85927	6527	λ Sco	87108	6629	62 Oph
82987	6305	57 Her	84650	6422	V107 Sco	85927	6527	λ Sco	87108	6629	γ Oph
83196	6310	26 Oph	84626	6424	o Oph	85927	6527	35 Sco	87294	6631	ι Sco
83431	6314	ε^2 Ara	84626	6424	39 Oph	85790	6533	78 Her	86614	6636	ψ^1 Dra
82860	6315	h Dra	84625	6425	39 Oph	86011	6535	V103 Sco	86614	6636	31 Dra
82860	6315	19 Dra	84625	6425	o Oph	85670	6536	β Dra	86620	6637	ψ^1 Dra
83262	6318	30 Oph	85760	6429	NO Aps	85670	6536	23 Dra	86620	6637	31 Dra
82898	6319	20 Dra	84573	6431	u Her	86092	6537	σ Ara	87194	6644	87 Her
83331	6321	29 Oph	84573	6431	u Her	85934	6543	V642 Her	87460	6647	V957 Sco
82080	6322	ε UMi	84573	6431	68 Her	86060	6545	V212 Oph	87212	6656	30 Dra
82080	6322	22 UMi	84671	6433	e Oph	86060	6545	52 Oph	87495	6661	Y Oph
82080	6322	ε UMi	84704	6434	V211 Oph	85998	6548	f Oph	87616	6662	V906 Sco
83207	6324	ε Her	84606	6436	e Her	85998	6548	53 Oph	87624	6663	V951 Sco
83207	6324	58 Her	84606	6436	69 Her	86305	6549	π Ara	87280	6664	88 Her
83308	6326	V451 Her	84893	6445	40 Oph	86228	6553	θ Sco	87280	6664	V744 Her
83491	6327	V923 Sco	84893	6445	ξ Oph	85819	6554	24 Dra	87280	6664	z Her
83313	6332	59 Her	84880	6446	53 Ser	85819	6554	ν^1 Dra	87706	6672	63 Oph
83313	6332	d Her	84880	6446	ν Ser	85829	6555	ν^2 Dra	87655	6676	V238 Oph
83574	6334	k Sco	84496	6448	VW Dra	85829	6555	25 Dra	87563	6677	f Her
83574	6334	V107 Sco	85020	6450	V975 Sco	86032	6556	55 Oph	87563	6677	90 Her
83462	6346	V931 Her	85079	6451	ι Ara	86032	6556	α Oph	87812	6684	V205 Oph
83462	6346	61 Her	85079	6451	ι Ara	86263	6561	ξ Ser	87747	6685	89 Her
83706	6347	V107 Sco	84833	6452	V656 Her	86263	6561	55 Ser	87747	6685	V441 Her
83601	6349	V221 Oph	84970	6453	θ Oph	85805	6566	27 Dra	87585	6688	32 Dra
83613	6355	60 Her	84970	6453	θ Oph	85805	6566	f Dra	87585	6688	ξ Dra
83608	6369	21 Dra	84970	6453	42 Oph	86284	6567	μ Oph	87808	6695	θ Her
83608	6369	μ Dra	84887	6457	70 Her	86284	6567	57 Oph	87808	6695	91 Her
83608	6370	21 Dra	84862	6458	72 Her	86486	6569	λ Ara	88048	6698	64 Oph
83608	6370	μ Dra	84862	6458	w Her	86254	6571	79 Her	88048	6698	ν Oph
84105	6374	V854 Ara	85084	6459	43 Oph	86036	6573	26 Dra	88116	6700	4 Sgr
83838	6377	c Her	85258	6461	β Ara	86182	6574	82 Her	87234	6701	35 Dra
84012	6378	η Oph	85267	6462	γ Ara	86182	6574	y Her	87850	6702	OP Her
84012	6378	35 Oph	84835	6464	74 Her	86628	6576	V626 Ara	87933	6703	ξ Her
84143	6380	η Sco	85312	6468	κ Ara	86670	6580	κ Sco	87933	6703	92 Her
84311	6384	V829 Ara	84949	6469	V819 Her	86670	6580	κ Sco	87933	6703	ξ Her
84054	6391	V620 Her	85157	6480	73 Her	86565	6581	o Ser	87833	6705	33 Dra
84054	6391	63 Her	85112	6484	ρ Her	86565	6581	56 Ser	87833	6705	γ Dra
84332	6392	V915 Sco	85112	6484	75 Her	86565	6581	o Ser	87998	6707	94 Her
84177	6393	37 Oph	85112	6485	ρ Her	86929	6582	η Pav	87998	6707	ν Her
83895	6396	22 Dra	85112	6485	75 Her	86796	6585	μ Ara	87998	6707	ν Her
83895	6396	ζ Dra	85340	6486	b Oph	86414	6588	ι Her	88148	6709	V212 Oph

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Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
88175	6710	ζ Ser	89341	6812	13 Sgr	90830	6934	δ^1 Tel	92175	7063	β Sct
88175	6710	57 Ser	89172	6815	104 Her	90642	6935	c Ser	92202	7066	R Sct
88149	6712	66 Oph	89172	6815	V669 Her	90642	6935	60 Ser	92382	7068	η^2 CrA
88149	6712	V204 Oph	89369	6816	14 Sgr	90853	6938	δ^2 Tel	92161	7069	111 Her
88128	6713	93 Her	89605	6819	QV Tel	90344	6945	42 Dra	92609	7074	λ Pav
88192	6714	67 Oph	89439	6822	15 Sgr	90836	6947	U Sgr	92609	7074	λ Pav
88258	6715	6 Sgr	89440	6823	16 Sgr	90982	6951	θ CrA	92390	7078	29 Sgr
88030	6718	V771 Her	89470	6825	V438 Sgr	90968	6952	κ^2 CrA	92133	7084	CX Dra
88172	6720	V974 Her	90133	6829	φ Oct	90969	6953	κ^1 CrA	92646	7087	κ Tel
92824	6721	x Oct	89642	6832	η Sgr	90844	6957	61 Ser	92480	7088	30 Sgr
88290	6723	68 Oph	89642	6832	η Sgr	90858	6958	MV Ser	92442	7089	S Sct
88380	6724	7 Sgr	89637	6833	RS Sgr	90913	6959	V450 Sct	92398	7100	ν^1 Lyr
87728	6725	34 Dra	89527	6834	V239 Oph	91004	6961	24 Sgr	92398	7100	8 Lyr
87728	6725	ψ^2 Dra	89348	6850	36 Dra	91066	6965	25 Sgr	92524	7101	8 Aql
88267	6729	95 Her	90098	6855	ξ Pav	90971	6967	V239 Oph	92405	7102	9 Lyr
88267	6730	95 Her	89931	6859	19 Sgr	91132	6969	V419 Sgr	92405	7102	ν^2 Lyr
88404	6733	τ Oph	89931	6859	δ Sgr	90970	6971	V532 Lyr	92405	7102	ν Lyr
88404	6733	69 Oph	89773	6860	105 Her	91117	6973	α Sct	92649	7105	V440 Sgr
88404	6734	τ Oph	89980	6861	V402 Sgr	90905	6978	d Dra	92420	7106	β Lyr
88404	6734	69 Oph	89968	6863	Y Sgr	90905	6978	45 Dra	92420	7106	β Lyr
88469	6736	9 Sgr	89448	6865	37 Dra	91792	6982	ζ Pav	92420	7106	10 Lyr
88331	6738	V820 Her	89918	6866	74 Oph	91494	6991	V718 CrA	93015	7107	κ Pav
88331	6738	96 Her	89861	6868	106 Her	91322	6993	e Ser	93015	7107	κ Pav
88346	6741	97 Her	89962	6869	58 Ser	91262	7001	3 Lyr	92593	7109	V822 Her
88567	6742	γ^1 Sgr	89962	6869	η Ser	91262	7001	α Lyr	92614	7113	112 Her
88567	6742	W Sgr	90074	6870	V405 Sgr	91262	7001	α Lyr	92747	7114	33 Sgr
88714	6743	θ Ara	89826	6872	1 Lyr	91389	7002	X Oph	92761	7116	ν^1 Sgr
88866	6745	π Pav	89826	6872	κ Lyr	91250	7003	V533 Lyr	92761	7116	32 Sgr
88635	6746	10 Sgr	89977	6873	NW Ser	91373	7009	XY Lyr	92845	7120	ν^2 Sgr
88635	6746	γ^2 Sgr	89925	6876	108 Her	91689	7011	26 Sgr	92845	7120	35 Sgr
88635	6746	γ Sgr	89935	6877	107 Her	91726	7020	δ Sct	92855	7121	34 Sgr
88522	6747	V986 Oph	89935	6877	t Her	91726	7020	δ Sct	92855	7121	σ Sgr
88601	6752	V239 Oph	90185	6879	20 Sgr	91875	7021	λ CrA	92112	7124	50 Dra
88601	6752	70 Oph	90185	6879	ε Sgr	91781	7023	V387 Sgr	92512	7125	o Dra
88528	6754	V831 Her	90135	6884	ζ Sct	91845	7032	ε Sct	92512	7125	o Dra
89042	6761	ι Pav	90260	6888	18 Sgr	92294	7036	θ Pav	92512	7125	47 Dra
88657	6765	98 Her	90139	6895	109 Her	92041	7039	27 Sgr	93163	7127	ω Pav
88765	6770	71 Oph	90289	6896	21 Sgr	92041	7039	φ Sgr	92989	7129	V686 CrA
88771	6771	72 Oph	90422	6897	α Tel	91975	7040	4 Aql	92728	7131	δ^1 Lyr
88905	6773	V379 Sgr	90313	6902	V229 Oph	92079	7045	V440 Sgr	92728	7131	11 Lyr
88745	6775	b Her	90191	6903	μ Lyr	92111	7046	28 Sgr	92818	7133	113 Her
88745	6775	99 Her	90191	6903	2 Lyr	91755	7049	c Dra	93148	7134	λ Tel
88794	6779	o Her	90568	6905	ζ Tel	91755	7049	46 Dra	92791	7139	12 Lyr
88794	6779	o Her	90496	6913	22 Sgr	92226	7050	μ CrA	92791	7139	δ^2 Lyr
88794	6779	103 Her	90496	6913	λ Sgr	91919	7051	4 Lyr	92791	7139	δ^2 Lyr
88818	6781	100 Her	90797	6916	ν Pav	91919	7051	ε^1 Lyr	92946	7141	θ^1 Ser
88817	6782	100 Her	90797	6916	ν Pav	91919	7052	4 Lyr	92946	7141	63 Ser
89112	6783	ε Tel	90441	6918	d Ser	91919	7052	ε^1 Lyr	92951	7142	θ^2 Ser
88886	6787	102 Her	90441	6918	59 Ser	91926	7053	ε^2 Lyr	92951	7142	63 Ser
85822	6789	23 UMi	90441	6918	d Ser	91926	7053	5 Lyr	93057	7145	ξ^1 Sgr
85822	6789	δ UMi	89908	6920	43 Dra	91926	7054	ε^2 Lyr	93057	7145	36 Sgr
88899	6794	101 Her	89908	6920	φ Dra	91926	7054	5 Lyr	92934	7147	V828 Her
88964	6795	73 Oph	89908	6920	φ Dra	91971	7056	ζ^1 Lyr	93026	7149	η Sct
89178	6802	V404 Sgr	90156	6923	b Dra	91971	7056	6 Lyr	93085	7150	37 Sgr
89290	6804	V692 CrA	90156	6923	39 Dra	91973	7057	ζ^2 Lyr	93085	7150	ξ^2 Sgr
88127	6809	40 Dra	89937	6927	x Dra	91973	7057	7 Lyr	93174	7152	ε CrA
88136	6810	41 Dra	89937	6927	44 Dra	92036	7058	V535 Her	93174	7152	ε CrA
85699	6811	24 UMi	90610	6929	V403 Sgr	92117	7059	5 Aql	92862	7157	R Lyr
89341	6812	μ Sgr	90595	6930	γ Sct	92043	7061	110 Her	92862	7157	13 Lyr
89341	6812	μ Sgr	90651	6932	V432 Sct	92308	7062	η^1 CrA	93051	7158	64 Ser

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Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
93124	7165	FF Aql	94141	7264	π Sgr	94648	7352	τ Dra	96302	7441	9 Cyg
93179	7167	V128 Aql	94141	7264	41 Sgr	94648	7352	60 Dra	96198	7442	V174 Cyg
93179	7167	10 Aql	94068	7266	19 Aql	95260	7358	3 Vul	96483	7446	κ Aql
93203	7172	11 Aql	94724	7274	τ Pav	95260	7358	V377 Vul	96483	7446	39 Aql
93104	7174	V542 Lyr	94013	7275	V176 Cyg	95477	7362	x^1 Sgr	96468	7447	41 Aql
92997	7175	48 Dra	94385	7279	20 Aql	95477	7362	47 Sgr	96468	7447	ι Aql
93244	7176	13 Aql	94311	7283	V471 Lyr	95503	7363	49 Sgr	96387	7457	11 Cyg
93244	7176	ε Aql	94311	7283	19 Lyr	95503	7363	x^3 Sgr	96458	7458	U Vul
93194	7178	14 Lyr	94377	7285	V338 Sge	95398	7369	2 Sge	96556	7460	42 Aql
93194	7178	γ Lyr	94477	7287	V128 Aql	95081	7371	58 Dra	96721	7461	QQ Tel
93177	7179	V543 Lyr	94477	7287	21 Aql	95081	7371	π Dra	96100	7462	61 Dra
92782	7180	υ Dra	94140	7290	55 Dra	95372	7372	2 Cyg	96100	7462	σ Dra
92782	7180	52 Dra	94643	7292	42 Sgr	95447	7373	b Aql	96516	7463	4 Sge
93270	7183	V387 Vul	94643	7292	ψ Sgr	95447	7373	31 Aql	96516	7463	ε Sge
93210	7185	V545 Lyr	94302	7295	53 Dra	95564	7375	50 Sgr	96739	7464	V409 Sgr
93542	7188	ζ CrA	94730	7296	RY Sgr	95501	7377	30 Aql	96441	7469	13 Cyg
93279	7192	λ Lyr	94481	7298	η Lyr	95501	7377	δ Aql	96441	7469	θ Cyg
93279	7192	15 Lyr	94481	7298	20 Lyr	95498	7385	4 Vul	96729	7470	53 Sgr
93429	7193	i Aql	94620	7301	1 Sge	95585	7387	ν Aql	96665	7474	σ Aql
93429	7193	12 Aql	94727	7303	22 Aql	95585	7387	32 Aql	96665	7474	44 Aql
93506	7194	38 Sgr	94820	7304	43 Sgr	95560	7390	5 Vul	96665	7474	σ Aql
93506	7194	ζ Sgr	94820	7304	d Sgr	95932	7393	μ Tel	96688	7475	V340 Sge
93552	7197	V701 CrA	94703	7306	1 Vul	84535	7394	λ UMi	96808	7476	54 Sgr
93309	7201	V547 Lyr	94685	7308	V473 Lyr	84535	7394	λ UMi	96808	7476	e^1 Sgr
93526	7209	14 Aql	94490	7309	54 Dra	95556	7395	4 Cyg	96683	7478	12 Cyg
93526	7209	g Aql	94376	7310	57 Dra	95556	7395	V174 Cyg	96683	7478	φ Cyg
93815	7213	ρ Tel	94376	7310	δ Dra	95793	7400	c Aql	96757	7479	α Sge
93408	7215	16 Lyr	94083	7312	59 Dra	95793	7400	35 Aql	96757	7479	5 Sge
93683	7217	39 Sgr	94713	7314	21 Lyr	95820	7402	U Aql	96807	7480	45 Aql
93683	7217	o Sgr	94713	7314	θ Lyr	95673	7403	V558 Lyr	96693	7483	14 Cyg
93340	7218	49 Dra	94834	7315	$ω^1$ Aql	95771	7405	α Vul	96620	7484	V114 Cyg
93666	7220	V Aql	94834	7315	25 Aql	95771	7405	6 Vul	96840	7486	QS Aql
93603	7222	LT Vul	94827	7318	ES Vul	95785	7406	8 Vul	96837	7488	β Sge
93187	7224	EE Dra	94827	7318	2 Vul	95656	7408	$ι^1$ Cyg	96837	7488	6 Sge
93717	7225	15 Aql	94885	7319	23 Aql	95656	7408	7 Cyg	96950	7489	e^2 Sgr
93717	7225	h Aql	94913	7321	24 Aql	95818	7409	7 Vul	96950	7489	55 Sgr
93825	7226	γ CrA	94910	7326	U Sge	95937	7414	e Aql	96931	7493	46 Aql
93825	7227	γ CrA	94779	7328	κ Cyg	95937	7414	36 Aql	96957	7497	x Aql
104382	7228	σ Oct	94779	7328	1 Cyg	95929	7415	V923 Aql	96957	7497	47 Aql
104382	7228	σ Oct	95261	7329	η Tel	96178	7416	PW Tel	96988	7501	V127 Cyg
93864	7234	40 Sgr	94982	7331	V120 Aql	95947	7417	6 Cyg	96895	7503	16 Cyg
93864	7234	τ Sgr	94982	7331	28 Aql	95947	7417	$β^1$ Cyg	97077	7506	10 Vul
93747	7235	17 Aql	95002	7332	$ω^2$ Aql	95951	7418	6 Cyg	97091	7508	PS Vul
93747	7235	ζ Aql	95002	7332	29 Aql	95951	7418	$β^2$ Cyg	96919	7509	V135 Cyg
93805	7236	16 Aql	95066	7333	26 Aql	95853	7420	$ι^2$ Cyg	97421	7510	ν Tel
93805	7236	λ Aql	95066	7333	f Aql	95853	7420	10 Cyg	97139	7511	48 Aql
93887	7241	V419 Sgr	95073	7336	27 Aql	95853	7420	ι Cyg	97139	7511	ψ Aql
94005	7242	δ CrA	95073	7336	d Aql	96234	7422	V408 Sgr	97290	7515	f Sgr
93820	7243	R Aql	95241	7337	$β^1$ Sgr	96341	7424	ι Tel	97290	7515	56 Sgr
93867	7248	Y Aql	95159	7339	V419 Sgr	96052	7426	8 Cyg	97118	7517	15 Cyg
93867	7248	18 Aql	95168	7340	$ρ^1$ Sgr	96003	7428	V181 Cyg	97150	7518	SU Cyg
93996	7249	V402 Sgr	95168	7340	44 Sgr	96229	7429	μ Aql	97229	7519	49 Aql
93713	7251	51 Dra	95168	7340	$ρ^1$ Sgr	96229	7429	38 Aql	97229	7519	υ Aql
94114	7254	α CrA	95176	7342	46 Sgr	96327	7430	37 Aql	97142	7520	V209 Cyg
93808	7258	V550 Lyr	95176	7342	υ Sgr	96406	7431	h^1 Sgr	97151	7523	V973 Cyg
94160	7259	β CrA	95176	7342	υ Sgr	96406	7431	51 Sgr	97674	7524	NZ Pav
93917	7261	17 Lyr	95294	7343	$β^2$ Sgr	96275	7437	9 Vul	97278	7525	50 Aql
93903	7262	ι Lyr	95188	7344	45 Sgr	96440	7439	V433 Sgr	97278	7525	γ Aql
93903	7262	ι Lyr	95188	7344	$ρ^2$ Sgr	96465	7440	52 Sgr	97165	7528	δ Cyg
93903	7262	18 Lyr	95347	7348	α Sgr	96465	7440	h^2 Sgr	97165	7528	18 Cyg

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Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
97295	7534	17 Cyg	98103	7610	φ Aql	99303	7708	b^2 Cyg	100469	7779	κ^1 Sgr
97365	7536	7 Sge	98103	7610	61 Aql	99303	7708	V162 Cyg	100250	7786	V158 Cyg
97365	7536	δ Sge	98624	7612	μ^2 Pav	99303	7708	28 Cyg	100591	7787	κ^2 Sgr
97365	7536	δ Sge	98068	7613	22 Cyg	99457	7709	BE Cap	100435	7789	25 Vul
97473	7544	π Aql	98258	7614	g Sgr	99473	7710	θ Aql	100751	7790	α Pav
97473	7544	52 Aql	98258	7614	61 Sgr	99473	7710	65 Aql	100221	7792	DE Dra
97496	7546	8 Sge	98110	7615	21 Cyg	99404	7711	18 Vul	100221	7792	71 Dra
97496	7546	ζ Sge	98110	7615	η Cyg	99529	7712	ξ^1 Cap	100453	7796	37 Cyg
97485	7551	V176 Cyg	98353	7618	60 Sgr	99529	7712	1 Cap	100453	7796	γ Cyg
97749	7552	V396 Sgr	98055	7619	24 Cyg	99572	7715	ξ Cap	100261	7804	AC Dra
97650	7553	51 Aql	98055	7619	ψ Cyg	99572	7715	ξ^2 Cap	100587	7806	39 Cyg
97607	7554	V133 Aql	98234	7622	11 Sge	99572	7715	2 Cap	100574	7807	V211 Cyg
97572	7556	V379 Vul	98412	7623	θ^1 Sgr	99518	7718	19 Vul	100881	7814	10 Cap
97649	7557	53 Aql	98421	7624	θ^2 Sgr	99531	7719	20 Vul	100881	7814	π Cap
97649	7557	α Aql	98608	7625	ν Pav	99631	7720	66 Aql	100977	7821	68 Aql
97675	7560	o Aql	98337	7635	12 Sge	99742	7724	67 Aql	101027	7822	11 Cap
97675	7560	54 Aql	98337	7635	γ Sge	99742	7724	ρ Aql	101027	7822	ρ Cap
97783	7561	57 Sgr	98375	7641	14 Vul	99500	7727	68 Dra	100907	7826	40 Cyg
97326	7563	CN Dra	98438	7645	13 Sge	99920	7728	V443 Sgr	100859	7828	43 Cyg
97629	7564	x Cyg	98438	7645	VZ Sge	99639	7730	30 Cyg	100859	7828	V212 Cyg
97629	7564	x Cyg	98425	7647	V174 Cyg	99738	7731	21 Vul	101120	7829	o Cap
97679	7565	V395 Vul	98425	7647	25 Cyg	99738	7731	ν Vul	101120	7829	12 Cap
97679	7565	12 Vul	98633	7649	63 Sgr	99675	7735	31 Cyg	101123	7830	12 Cap
97630	7566	19 Cyg	98688	7650	V387 Sgr	99675	7735	o^1 Cyg	101123	7830	o Cap
97630	7566	V150 Cyg	98688	7650	c Sgr	99675	7735	V695 Cyg	101101	7831	69 Aql
97634	7567	V380 Cyg	98688	7650	62 Sgr	99770	7736	V164 Cyg	101076	7834	41 Cyg
97651	7568	V209 Cyg	98379	7651	V210 Cyg	99770	7736	b^3 Cyg	101067	7835	42 Cyg
97804	7570	η Aql	98543	7653	15 Vul	99770	7736	29 Cyg	101160	7836	1 δ
97804	7570	55 Aql	98543	7653	NT Vul	99918	7738	3 Cap	101138	7844	V201 Cyg
97804	7570	η Aql	98636	7657	16 Vul	99824	7739	QR Vul	101138	7844	ω^1 Cyg
97849	7571	V505 Sgr	98571	7660	26 Cyg	99655	7740	33 Cyg	101138	7844	45 Cyg
97787	7572	V146 Aql	98571	7660	e Cyg	99853	7741	22 Vul	101477	7846	ν Mic
97796	7574	9 Sge	99240	7665	δ Pav	99853	7741	QS Vul	101214	7847	44 Cyg
97796	7574	QZ Sge	98844	7667	62 Aql	99874	7744	23 Vul	101612	7848	φ^1 Pav
97871	7575	V129 Aql	98823	7669	63 Aql	99913	7746	18 Sge	101093	7850	2 Cep
97635	7576	20 Cyg	98823	7669	τ Aql	100027	7747	5 Cap	101093	7850	θ Cep
97635	7576	d Cyg	98910	7671	V140 Aql	100027	7747	α^1 Cap	101243	7851	ω^2 Cyg
97944	7578	V420 Sgr	98819	7672	15 Sge	100062	7748	4 Cap	101243	7851	46 Cyg
98032	7581	ι Sgr	99120	7673	ξ Tel	99255	7750	1 Cep	101421	7852	2 δ
97433	7582	63 Dra	98953	7675	65 Sgr	99255	7750	κ Cep	101421	7852	ε δ
97433	7582	ε Dra	98583	7676	e Dra	99848	7751	V148 Cyg	101483	7858	3 δ
97928	7584	56 Aql	98583	7676	64 Dra	99848	7751	o^2 Cyg	101483	7858	η δ
98495	7590	ε Pav	98863	7678	V176 Cyg	99848	7751	32 Cyg	101773	7859	ρ Pav
97886	7592	13 Vul	98920	7679	η Sge	99951	7753	24 Vul	101773	7859	ρ Pav
97966	7593	57 Aql	98920	7679	16 Sge	100064	7754	6 Cap	102162	7863	μ^1 Oct
97967	7594	57 Aql	98954	7680	V147 Aql	100064	7754	α^2 Cap	102125	7864	μ^2 Oct
97938	7595	ξ Aql	98658	7682	65 Dra	100195	7761	7 Cap	101474	7866	V212 Cyg
97938	7595	59 Aql	98702	7685	ρ Dra	100195	7761	σ Cap	101474	7866	47 Cyg
97980	7596	58 Aql	98702	7685	67 Dra	100044	7763	P Cyg	101772	7869	α Ind
98066	7597	ω Sgr	98401	7686	69 Dra	100044	7763	34 Cyg	101475	7870	V201 Cyg
98066	7597	58 Sgr	99080	7688	17 Vul	100044	7763	P Cyg	101589	7871	ζ δ
97845	7600	V819 Cyg	99031	7689	b^1 Cyg	100108	7769	36 Cyg	101589	7871	4 δ
98036	7602	60 Aql	99031	7689	V200 Cyg	100122	7770	35 Cyg	101692	7873	70 Aql
98036	7602	β Aql	99031	7689	27 Cyg	100310	7773	ν Cap	101641	7874	26 Vul
98478	7603	μ^1 Pav	99171	7690	64 Aql	100310	7773	8 Cap	101983	7875	φ^2 Pav
98162	7604	59 Sgr	99221	7694	AV Cap	100325	7775	β^2 Cap	101260	7879	AF Dra
98162	7604	b Sgr	99176	7696	V344 Sge	100345	7776	9 Cap	101260	7879	73 Dra
97870	7608	23 Cyg	98962	7701	66 Dra	100345	7776	β^1 Cap	101716	7880	27 Vul
98085	7609	S Sge	99352	7705	17 Sge	100345	7776	β Cap	102157	7881	υ Pav
98085	7609	10 Sge	99352	7705	θ Sge	100142	7777	V177 Cyg	101769	7882	β δ

Nombre de estrellas (Catálogo Hiparco), 2022

Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
101769	7882	6 δ	102790	7952	ζ Ind	104019	8060	22 Cap	105269	8157	V133 Cyg
101800	7883	ι δ	102633	7953	13 δ	103828	8062	V198 Cyg	105412	8160	16 Aqr
101800	7883	5 δ	102571	7956	T Cyg	104031	8066	3 Equ	105199	8162	α Cep
101847	7884	l Aql	102422	7957	η Cep	104177	8069	η Mic	105199	8162	5 Cep
101847	7884	71 Aql	102422	7957	3 Cep	104148	8070	δ Mic	105413	8163	9 Equ
101765	7885	48 Cyg	102589	7963	54 Cyg	104139	8075	23 Cap	105259	8164	V381 Cep
101810	7886	EU δ	102589	7963	λ Cyg	104139	8075	θ Cap	105515	8167	ι Cap
101923	7889	τ Cap	102589	7963	λ Cyg	104101	8077	4 Equ	105515	8167	ι Cap
101923	7889	τ^2 Cap	102831	7965	α Mic	104060	8079	ξ Cyg	105515	8167	32 Cap
101923	7889	14 Cap	102950	7968	ι Ind	104060	8079	62 Cyg	105268	8171	V382 Cep
101867	7891	29 Vul	102805	7973	15 δ	104234	8080	24 Cap	105268	8171	6 Cep
101882	7892	8 δ	102819	7974	14 δ	104185	8084	DT Cyg	105502	8173	1 Peg
101882	7892	θ δ	102724	7977	V166 Cyg	104214	8085	61 Cyg	105574	8175	17 Aqr
101868	7894	28 Vul	102724	7977	55 Cyg	104214	8085	V180 Cyg	105570	8178	β Equ
101916	7896	κ δ	102989	7979	β Mic	104217	8086	61 Cyg	105570	8178	10 Equ
101916	7896	7 δ	102978	7980	18 Cap	104365	8087	x Cap	105696	8180	θ^2 Mic
101936	7897	1 Aqr	102978	7980	ω Cap	104365	8087	25 Cap	105858	8181	γ Pav
101984	7900	15 Cap	102945	7982	4 Aqr	104194	8089	f^2 Cyg	105665	8183	33 Cap
101984	7900	υ Cap	102827	7983	V213 Cyg	104194	8089	63 Cyg	105668	8187	18 Aqr
100965	7901	75 Dra	102843	7984	56 Cyg	104452	8091	27 Cap	105841	8188	γ Ind
101958	7906	α δ	103005	7985	5 Aqr	104755	8092	o Pav	105729	8192	20 Aqr
101958	7906	9 δ	103227	7986	β Ind	104459	8093	ν Aqr	105761	8195	19 Aqr
101082	7908	74 Dra	102949	7988	T Vul	104459	8093	13 Aqr	106044	8196	SX Pav
101949	7911	V213 Cyg	103045	7990	6 Aqr	104371	8094	V389 Cyg	105767	8199	21 Aqr
102395	7913	β Pav	103045	7990	μ Aqr	104521	8097	γ Equ	105881	8204	34 Cap
102080	7918	10 δ	103004	7995	31 Vul	104521	8097	γ Equ	105881	8204	ζ Cap
102333	7920	η Ind	103168	7997	BY Mic	104521	8097	5 Equ	105733	8206	V193 Cyg
102066	7921	49 Cyg	103226	8000	19 Cap	104538	8098	6 Equ	105928	8207	35 Cap
102158	7923	LU δ	103089	8001	57 Cyg	104634	8102	EW Aqr	105811	8209	V215 Cyg
102098	7924	50 Cyg	102208	8002	76 Dra	104483	8103	V214 Cyg	105811	8209	69 Cyg
102098	7924	α Cyg	103261	8006	EM Aqr	104451	8113	T Cep	105860	8210	IK Peg
102098	7924	α Cyg	103191	8007	BW Vul	104732	8115	ζ Cyg	106039	8213	b Cap
102195	7927	V568 Cyg	103200	8008	32 Vul	104732	8115	64 Cyg	106039	8213	36 Cap
102281	7928	δ δ	103294	8011	17 δ	104858	8123	δ Equ	106067	8214	5 PsA
102281	7928	11 δ	103298	8012	16 δ	104858	8123	7 Equ	105942	8215	70 Cyg
102281	7928	δ δ	103401	8015	7 Aqr	104963	8127	φ Cap	105966	8217	35 Vul
102177	7929	51 Cyg	103312	8020	V214 Cyg	104963	8127	28 Cap	106062	8223	NV Peg
102276	7932	X Cyg	104043	8021	α Oct	104974	8128	29 Cap	105949	8224	V426 Cep
102773	7934	σ Pav	104043	8021	α Oct	104887	8130	65 Cyg	106140	8225	2 Peg
102485	7936	16 Cap	103545	8024	DV Aqr	104887	8130	τ Cyg	105972	8227	7 Cep
102485	7936	ψ Cap	103413	8028	ν Cyg	104887	8130	τ Cyg	106093	8228	g Cyg
102487	7937	17 Cap	103413	8028	58 Cyg	104987	8131	α Equ	106093	8228	71 Cyg
102388	7939	30 Vul	103527	8030	18 δ	104987	8131	8 Equ	106327	8229	ξ Gru
102258	7940	V379 Cep	103511	8032	33 Vul	105140	8135	ε Mic	106340	8230	6 PsA
102440	7941	U δ	103616	8033	AO Cap	105143	8137	30 Cap	106278	8232	22 Aqr
102453	7942	52 Cyg	103616	8033	20 Cap	105168	8139	31 Cap	106278	8232	β Aqr
102693	7943	ι Mic	103569	8034	ε Equ	105319	8140	θ Ind	106032	8238	8 Cep
102358	7944	V414 Cep	103569	8034	1 Equ	105164	8141	15 Aqr	106032	8238	β Cep
102253	7945	4 Cep	103738	8039	γ Mic	105102	8143	67 Cyg	106032	8238	β Cep
102531	7947	γ^1 δ	103682	8041	11 Aqr	105102	8143	σ Cyg	106559	8245	37 Cap
102531	7947	12 δ	103632	8047	f^1 Cyg	105334	8145	T Ind	106481	8252	ρ Cyg
102532	7948	12 δ	103632	8047	V832 Cyg	105138	8146	υ Cyg	106481	8252	73 Cyg
102532	7948	γ^2 δ	103632	8047	59 Cyg	105138	8146	66 Cyg	106654	8253	8 PsA
102488	7949	53 Cyg	103882	8048	ζ Mic	105138	8146	υ Cyg	107089	8254	ν Oct
102488	7949	ε Cyg	103732	8053	V193 Cyg	105382	8151	θ^1 Mic	106551	8255	72 Cyg
102618	7950	2 Aqr	103732	8053	60 Cyg	105382	8151	θ^1 Mic	106703	8256	7 PsA
102618	7950	ε Aqr	104085	8055	μ Ind	105091	8153	V421 Cep	106723	8260	39 Cap
102624	7951	3 Aqr	103981	8058	12 Aqr	105186	8154	68 Cyg	106723	8260	ε Cap
102624	7951	k Aqr	103981	8059	12 Aqr	105186	8154	V180 Cyg	106723	8260	ε Cap
102624	7951	EN Aqr	104019	8060	η Cap	105678	8156	Y Pav	106642	8262	W Cyg

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Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
106786	8264	ξ Aqr	107608	8326	10 PsA	108917	8417	ξ Cep	110273	8512	ρ Aqr
106786	8264	23 Aqr	107608	8326	θ PsA	109139	8418	33 Aqr	110298	8513	30 Peg
106783	8265	3 Peg	107575	8328	11 Peg	109139	8418	ι Aqr	110618	8515	ν Ind
106711	8266	74 Cyg	107835	8333	o Ind	109056	8419	23 Peg	110391	8516	47 Aqr
106787	8267	5 Peg	107418	8334	ν Cep	109033	8421	HT Lac	110346	8517	PT Peg
106856	8270	4 Peg	107418	8334	10 Cep	109268	8425	α Gru	110395	8518	48 Aqr
106752	8272	CP Cyg	107418	8334	ν Cep	109005	8426	20 Cep	110395	8518	γ Aqr
106897	8276	NZ Peg	107533	8335	81 Cyg	109082	8427	V365 Lac	110386	8520	31 Peg
106944	8277	d Aqr	107533	8335	π^2 Cyg	109017	8428	19 Cep	110386	8520	IN Peg
106944	8277	25 Aqr	107586	8339	12 Cep	109176	8430	24 Peg	110478	8521	π^1 Gru
106985	8278	40 Cap	107763	8343	14 Peg	109176	8430	ι Peg	110478	8521	π^1 Gru
106985	8278	γ Cap	107788	8344	13 Peg	109285	8431	μ PsA	110371	8522	32 Peg
106801	8279	V337 Cep	107856	8349	V161 Cyg	109285	8431	14 PsA	110351	8523	2 Lac
106801	8279	9 Cep	107956	8350	HO Peg	109289	8433	υ PsA	110506	8524	π^2 Gru
107843	8280	λ Oct	108036	8351	51 Cap	109124	8434	V444 Cep	110408	8528	V405 Lac
107095	8283	42 Cap	108036	8351	μ Cap	109212	8436	OY Peg	110529	8529	49 Aqr
106999	8284	75 Cyg	108085	8353	γ Gru	109240	8438	25 Peg	110548	8532	33 Peg
107128	8285	41 Cap	107975	8354	15 Peg	109332	8439	35 Aqr	110578	8533	51 Aqr
107144	8287	26 Aqr	108022	8356	OQ Peg	109205	8443	V399 Lac	110602	8534	50 Aqr
107188	8288	43 Cap	108022	8356	16 Peg	109422	8447	τ PsA	110538	8538	3 Lac
107188	8288	κ Cap	108281	8362	π Ind	109422	8447	15 PsA	110538	8538	β Lac
107151	8289	7 Peg	108347	8367	BZ Gru	109303	8448	AR Lac	110672	8539	π Aqr
107097	8291	76 Cyg	108431	8368	δ Ind	109352	8449	π^1 Peg	110672	8539	52 Aqr
112355	8294	CG Oct	108478	8369	κ^1 Ind	109352	8449	27 Peg	110672	8539	π Aqr
107232	8295	44 Cap	108478	8369	BG Ind	109427	8450	26 Peg	110838	8540	δ Tuc
107129	8297	V460 Cyg	108165	8371	13 Cep	109427	8450	θ Peg	110609	8541	4 Lac
107140	8298	V133 Cyg	108339	8373	17 Peg	109472	8452	38 Aqr	110778	8544	53 Aqr
107162	8300	77 Cyg	108348	8377	V217 Cyg	109472	8452	e Aqr	110778	8545	53 Aqr
107136	8301	π^1 Cyg	108494	8378	BW Cap	109410	8454	π Peg	110785	8548	34 Peg
107136	8301	80 Cyg	108317	8383	VV Cep	109410	8454	29 Peg	110882	8551	35 Peg
107302	8302	45 Cap	108612	8385	18 Peg	109410	8454	π^2 Peg	110936	8552	ν Gru
107380	8305	9 PsA	108661	8386	η PsA	109458	8459	28 Peg	110997	8556	δ^1 Gru
107380	8305	ι PsA	108661	8386	12 PsA	109624	8462	39 Aqr	110960	8558	ζ^1 Aqr
107253	8307	79 Cyg	108870	8387	ε Ind	109492	8465	ζ Cep	110960	8558	55 Aqr
107315	8308	ε Peg	108691	8390	28 Aqr	109492	8465	ζ Cep	110960	8558	ζ^2 Aqr
107315	8308	8 Peg	108693	8392	20 Peg	109492	8465	21 Cep	110960	8559	ζ^1 Aqr
107315	8308	ε Peg	108699	8393	19 Peg	109400	8468	24 Cep	110960	8559	55 Aqr
107310	8309	78 Cyg	108797	8396	DX Aqr	109556	8469	λ Cep	110960	8559	ζ^2 Aqr
107310	8309	μ^2 Cyg	108797	8396	29 Aqr	109556	8469	22 Cep	111043	8560	δ^2 Gru
107310	8309	μ^1 Cyg	108535	8400	16 Cep	110078	8471	ψ Oct	111043	8560	δ^2 Gru
107310	8310	78 Cyg	108868	8401	30 Aqr	109789	8478	λ PsA	110817	8561	26 Cep
107310	8310	μ^2 Cyg	108874	8402	o Aqr	109789	8478	16 PsA	110986	8562	36 Peg
107310	8310	μ^1 Cyg	108874	8402	31 Aqr	109786	8480	41 Aqr	111062	8566	37 Peg
107382	8311	c Cap	108874	8402	o Aqr	110256	8481	BO Oct	111086	8567	56 Aqr
107382	8311	46 Cap	108875	8404	21 Peg	110256	8481	ε Oct	111138	8570	ζ PsA
107348	8313	9 Peg	108952	8405	13 PsA	109908	8486	μ^1 Gru	110991	8571	δ Cep
107350	8314	HN Peg	108772	8406	14 Cep	109973	8488	μ^2 Gru	110991	8571	δ Cep
107354	8315	10 Peg	108772	8406	LZ Cep	109857	8494	23 Cep	110991	8571	27 Cep
107354	8315	κ Peg	108845	8407	V194 Cyg	109857	8494	ε Cep	111022	8572	V412 Lac
107259	8316	μ Cep	108975	8408	UU PsA	109857	8494	ε Cep	111022	8572	5 Lac
107259	8316	μ Cep	109081	8409	κ^2 Ind	110000	8496	42 Aqr	111123	8573	57 Aqr
107119	8317	11 Cep	108991	8410	32 Aqr	109937	8498	1 Lac	111123	8573	σ Aqr
107487	8318	47 Cap	109111	8411	λ Gru	110003	8499	43 Aqr	111068	8574	38 Peg
107487	8318	AG Cap	109068	8413	ν Peg	110003	8499	θ Aqr	111072	8575	V350 Lac
107517	8319	48 Cap	109068	8413	22 Peg	110130	8502	α Tuc	111188	8576	β PsA
107517	8319	λ Cap	109074	8414	α Aqr	110023	8504	44 Aqr	111188	8576	17 PsA
107472	8321	12 Peg	109074	8414	34 Aqr	111196	8505	υ Oct	110787	8578	28 Cep
107556	8322	49 Cap	108924	8416	MO Cep	110179	8508	45 Aqr	110787	8578	ρ^1 Cep
107556	8322	δ Cap	108924	8416	18 Cep	110103	8511	25 Cep	111104	8579	6 Lac
107556	8322	δ Cap	108917	8417	17 Cep	110273	8512	46 Aqr	111310	8582	ν Tuc

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Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
111310	8582	ν Tuc	112615	8676	70 Aqr	113797	8770	V638 Cas	115102	8863	γ Scl
111200	8583	58 Aqr	112716	8679	τ Aqr	113889	8773	4 Psc	115065	8864	9 And
111191	8584	GX Peg	112716	8679	71 Aqr	113889	8773	β Psc	115065	8864	AN And
111169	8585	7 Lac	112716	8679	τ^2 Aqr	113957	8774	κ Gru	115115	8865	ψ^3 Aqr
111169	8585	α Lac	112748	8684	μ Peg	113881	8775	53 Peg	115115	8865	95 Aqr
111278	8586	39 Peg	112748	8684	48 Peg	113881	8775	β Peg	115126	8866	94 Aqr
111394	8590	60 Aqr	112778	8690	V360 Lac	113881	8775	β Peg	115142	8868	96 Aqr
111056	8591	ρ Cep	112778	8690	14 Lac	113853	8777	V387 Cep	115088	8872	34 Cep
111056	8591	29 Cep	112862	8693	21 PsA	113919	8780	3 And	115088	8872	ο Cep
111449	8592	59 Aqr	112724	8694	32 Cep	113963	8781	54 Peg	115152	8874	11 And
111449	8592	υ Aqr	112724	8694	ι Cep	113963	8781	α Peg	115191	8876	10 And
111497	8597	62 Aqr	112948	8695	22 PsA	113996	8782	83 Aqr	115227	8878	7 Psc
111497	8597	η Aqr	112948	8695	γ PsA	113996	8782	h Aqr	115250	8880	τ Peg
111594	8600	σ^1 Gru	112935	8697	49 Peg	114131	8787	θ Gru	115250	8880	τ Peg
111643	8602	σ^2 Gru	112935	8697	σ Peg	114119	8789	86 Aqr	115250	8880	62 Peg
111546	8603	8 Lac	112961	8698	λ Aqr	114119	8789	c^1 Aqr	115271	8882	63 Peg
111710	8610	63 Aqr	112961	8698	73 Aqr	114132	8790	υ Gru	115280	8885	12 And
111710	8610	κ Aqr	112961	8698	λ Aqr	114144	8795	55 Peg	115355	8887	64 Peg
111833	8611	CC Gru	112917	8699	15 Lac	114155	8796	56 Peg	115433	8889	DR Tuc
111674	8613	9 Lac	113044	8700	τ^1 Gru	114104	8797	1 Cas	115404	8890	97 Aqr
111532	8615	31 Cep	113137	8701	ρ Ind	114187	8798	V343 Peg	115407	8891	65 Peg
111809	8616	VZ PsA	112997	8703	IM Peg	114189	8799	V342 Peg	115438	8892	b^1 Aqr
111810	8618	40 Peg	113031	8704	74 Aqr	114200	8804	4 And	115438	8892	98 Aqr
111795	8621	V416 Lac	113031	8704	HI Aqr	114210	8805	5 And	115444	8893	66 Peg
111841	8622	10 Lac	113009	8706	V377 Lac	114273	8807	5 Psc	115591	8903	67 Peg
111884	8624	41 Peg	113136	8709	δ Aqr	114341	8812	c^2 Aqr	115590	8904	4 Cas
111797	8627	30 Cep	113136	8709	76 Aqr	114341	8812	88 Aqr	115623	8905	υ Peg
111954	8628	ε PsA	113127	8710	78 Aqr	114347	8815	57 Peg	115623	8905	68 Peg
111954	8628	18 PsA	113148	8711	77 Aqr	114347	8815	GZ Peg	115669	8906	b^2 Aqr
112405	8630	β Oct	113131	8714	HR Peg	114375	8817	89 Aqr	115669	8906	99 Aqr
111944	8632	11 Lac	113167	8715	1 Psc	114407	8818	DL Gru	115713	8907	ο Gru
112029	8634	ζ Peg	113186	8717	ρ Peg	114222	8819	33 Cep	115738	8911	8 Psc
112029	8634	42 Peg	113186	8717	50 Peg	114222	8819	π Cep	115738	8911	κ Psc
112122	8636	β Gru	113246	8720	δ PsA	114421	8820	ι Gru	115738	8911	κ Psc
112122	8636	β Gru	113246	8720	23 PsA	114389	8821	58 Peg	115768	8912	9 Psc
112102	8637	19 PsA	113283	8721	TW PsA	114365	8822	2 Cas	115755	8913	V388 And
112031	8640	12 Lac	113307	8722	τ^3 Gru	114430	8825	6 And	115755	8913	13 And
112031	8640	DD Lac	113281	8725	EN Lac	114520	8826	59 Peg	115806	8915	69 Peg
112051	8641	ο Peg	113281	8725	16 Lac	114526	8827	60 Peg	115806	8915	HV Peg
112051	8641	43 Peg	113288	8726	V424 Lac	114570	8830	7 And	115830	8916	10 Psc
112203	8644	ρ Gru	113368	8728	α PsA	114724	8834	90 Aqr	115830	8916	θ Psc
112179	8647	67 Aqr	113368	8728	24 PsA	114724	8834	φ Aqr	115908	8919	CG Tuc
112211	8649	g Aqr	113357	8729	51 Peg	114855	8841	ψ^1 Aqr	115919	8923	70 Peg
112211	8649	66 Aqr	113327	8731	EW Lac	114855	8841	91 Aqr	115990	8926	AR Cas
112158	8650	η Peg	113503	8739	52 Peg	114844	8842	61 Peg	116076	8930	14 And
112158	8650	44 Peg	113532	8740	WX PsA	114996	8848	γ Tuc	116118	8932	100 Aqr
112374	8655	η Gru	113521	8742	2 Psc	114939	8850	92 Aqr	116119	8933	V354 Peg
112242	8656	13 Lac	113638	8747	ζ Gru	114939	8850	χ Aqr	116146	8934	13 Psc
112358	8660	45 Peg	113610	8750	3 Psc	114939	8850	χ Aqr	116231	8937	β Scl
112781	8663	ξ Oct	113561	8752	V509 Cas	114831	8851	V388 Cep	116247	8939	101 Aqr
112781	8663	ξ Oct	113674	8757	81 Aqr	114971	8852	6 Psc	116247	8939	b^3 Aqr
112447	8665	46 Peg	113640	8758	V378 And	114971	8852	γ Psc	116264	8940	HW Peg
112447	8665	ξ Peg	113726	8762	1 And	114904	8854	V649 Cas	116264	8940	71 Peg
112440	8667	47 Peg	113726	8762	ο And	115033	8858	ψ^2 Aqr	116310	8943	72 Peg
112440	8667	λ Peg	113726	8762	ο And	115033	8858	ψ^2 Aqr	116323	8944	14 Psc
112529	8670	68 Aqr	113781	8763	82 Aqr	115033	8858	93 Aqr	116354	8947	15 And
112542	8673	69 Aqr	113788	8766	2 And	115054	8859	φ Gru	116355	8948	73 Peg
112542	8673	τ^1 Aqr	113860	8767	π PsA	115022	8860	8 And	116389	8949	ι Phe
112623	8675	ε Gru	113860	8767	π PsA	115036	8861	ET And	116389	8949	ι Phe
112615	8676	FM Aqr	113802	8768	LN And	115836	8862	τ Oct	116495	8954	16 Psc

Nombre de estrellas (Catálogo Hiparco), 2022

Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
116592	8960	74 Peg	116928	8984	18 Psc	117447	9018	V566 Cas	117863	9045	ρ Cas
116584	8961	λ And	116971	8988	105 Aqr	117447	9018	6 Cas	117887	9047	XZ Psc
116584	8961	λ And	116971	8988	ω^2 Aqr	117491	9022	21 Psc	117927	9048	26 Psc
116584	8961	16 And	116948	8989	V816 Cas	117503	9024	OU And	117931	9049	AL Scl
116611	8963	KS Peg	117020	8991	77 Peg	117500	9025	79 Peg	117957	9052	V373 Cas
116611	8963	75 Peg	117054	8992	R Aqr	117628	9030	HH Peg	118027	9056	V Cep
116631	8965	17 And	117073	8997	78 Peg	117628	9030	80 Peg	118114	9061	γ^2 Oct
116631	8965	ι And	117089	8998	i^1 Aqr	117629	9031	ET Aqr	118121	9062	η Tuc
116737	8966	θ Phe	117089	8998	106 Aqr	117629	9031	i^3 Aqr	118131	9064	ψ Peg
116709	8967	18 And	117218	9002	i^2 Aqr	117629	9031	108 Aqr	118131	9064	84 Peg
116758	8968	102 Aqr	117218	9002	107 Aqr	117689	9032	γ^1 Oct	118178	9065	1 Cet
116758	8968	ω^1 Aqr	117221	9003	ψ And	117683	9033	22 Psc	118188	9066	R Cas
116771	8969	17 Psc	117221	9003	20 And	117718	9036	φ Peg	118209	9067	27 Psc
116771	8969	ι Psc	117245	9004	TX Psc	117718	9036	81 Peg	118234	9069	π Phe
116727	8974	35 Cep	117245	9004	19 Psc	117718	9036	φ Peg	118214	9070	LQ And
116727	8974	γ Cep	117315	9006	σ Phe	117730	9039	HT Peg	118243	9071	σ Cas
116820	8975	μ Scl	117301	9008	τ Cas	117730	9039	82 Peg	118243	9071	8 Cas
116805	8976	19 And	117301	9008	5 Cas	117761	9041	24 Psc	118268	9072	28 Psc
116805	8976	κ And	117375	9012	20 Psc	117774	9042	25 Psc	118268	9072	ω Psc
116889	8980	103 Aqr	117452	9016	δ Scl	117863	9045	7 Cas	118277	9073	BU Scl
116901	8982	104 Aqr	117430	9017	V650 Cas	117863	9045	ρ Cas	118322	9076	ε Tuc
116928	8984	λ Psc									

Posiciones medias de estrellas brillantes, 2022

Estrella	α			δ			α	δ				
NH	h	m	s	º	‘	“	º	º	V	U-V	B-V	Espectro
118243	0	0	3.5	+55	52	8.4	0.014631	+55.869013	4.88	-0.071	-0.05	B1V...
118268	0	0	21.9	+ 6	58	36.5	0.091326	+ 6.976811	4.03	0.419	0.49	F4IV
118322	0	0	58.0	-65	27	47.3	0.241875	-65.463143	4.49	-0.075	-0.04	B9IV
122	0	2	37.3	-76	57	9.4	0.655443	-76.952599	4.78	1.254	1.26	K2III
154	0	3	0.7	- 5	54	0.7	0.752841	- 5.900195	4.37	1.631	2.35	M3III
301	0	4	47.3	-17	13	19.0	1.197094	-17.221935	4.55	-0.047	-0.03	B9IVn
355	0	5	33.0	-10	23	43.8	1.387626	-10.395504	4.99	1.619	1.64	K3Ibvar
443	0	6	23.1	- 5	35	35.0	1.596217	- 5.593053	4.61	1.029	1.04	K1III
677	0	9	27.1	+29	12	12.8	2.362882	+29.203553	2.07	-0.038	-0.10	B9p
746	0	10	17.0	+59	15	46.0	2.570962	+59.262787	2.28	0.380	0.40	F2III-IV
765	0	10	26.7	-45	38	3.9	2.611214	-45.634421	3.88	1.013	1.00	K0III
910	0	12	18.4	-15	21	19.8	3.076600	-15.355512	4.89	0.487	0.59	F5V
1067	0	14	17.6	+15	17	50.8	3.573495	+15.297457	2.83	-0.190	-0.22	B2IV
1168	0	15	40.0	+20	19	14.1	3.916634	+20.320576	4.79	1.572	1.93	M2III
1170	0	15	40.8	-18	49	9.9	3.919959	-18.819412	4.44	1.640	1.96	M1III
1366	0	18	10.1	+38	47	43.1	4.542221	+38.795312	4.61	0.059	0.07	A2V
1473	0	19	24.3	+36	53	55.4	4.851104	+36.898715	4.51	0.054	0.06	A2V
1562	0	20	28.3	- 8	42	37.6	5.117998	- 8.710451	3.56	1.214	1.13	K2III
1599	0	21	7.4	-64	45	16.8	5.280890	-64.754663	4.23	0.576	0.65	F9V
2021	0	26	47.7	-77	8	20.7	6.698642	-77.139075	2.82	0.618	0.68	G2IV
2072	0	27	12.4	-43	33	58.7	6.801642	-43.566308	3.93	0.175	0.20	A7V
2081	0	27	17.6	-42	11	40.6	6.823334	-42.194612	2.40	1.083	1.11	K0III...
2210	0	28	56.5	-32	53	39.2	7.235418	-32.894211	4.86	1.634	2.32	M2/M3III
2472	0	32	24.0	-48	41	25.4	8.099846	-48.690398	4.76	0.018	0.01	A0V
2484	0	32	28.5	-62	50	43.9	8.118698	-62.845518	4.36	-0.064	-0.02	B9V
2487	0	32	29.3	-62	51	10.1	8.122082	-62.852815	4.53	0.147	0.14	A2V
2505	0	32	54.9	+54	38	6.7	8.228755	+54.635185	4.74	-0.098	-0.08	B8Vn
2599	0	34	10.9	+63	2	40.8	8.545339	+63.044660	4.17	0.130	0.17	B1Ia
2912	0	37	58.9	+33	49	54.9	9.495351	+33.831918	4.34	-0.123	-0.08	B5V
2920	0	38	7.5	+54	0	34.0	9.531227	+54.009443	3.69	-0.196	-0.23	B2IV
3031	0	39	38.6	+29	25	22.1	9.911012	+29.422796	4.34	0.871	0.92	G5III...
3092	0	40	25.7	+30	58	22.6	10.107193	+30.972952	3.27	1.268	1.23	K3III...
3179	0	41	41.0	+56	38	58.0	10.420835	+56.649435	2.24	1.170	1.13	K0II-IIIvar
3245	0	42	17.4	-45	58	22.0	10.572405	-45.972782	4.59	0.953	0.95	G8III
3300	0	43	13.1	+50	37	28.7	10.804643	+50.624633	4.80	-0.105	-0.10	B2.5V
3405	0	44	16.1	-57	21	3.4	11.067158	-57.350940	4.36	0.024	0.02	A0IV
3414	0	44	36.7	+47	8	10.9	11.152826	+47.136352	4.95	0.170	0.19	A5V
3419	0	44	37.0	-17	52	27.9	11.154308	-17.874417	2.04	1.019	1.00	K0III
3455	0	45	13.4	-10	29	53.6	11.305976	-10.498235	4.77	0.998	0.98	K0IIIvar
3504	0	45	52.6	+48	23	46.4	11.469293	+48.396212	4.48	-0.069	0.00	B5III
3693	0	48	25.8	+24	22	42.1	12.107402	+24.378354	4.08	1.100	1.06	K1II
3786	0	49	44.9	+ 7	41	46.6	12.436961	+ 7.696290	4.44	1.500	1.58	K5III
3801	0	50	0.4	+51	4	46.5	12.501500	+51.079583	4.90	-0.091	-0.07	B9III
3821	0	50	21.4	+57	55	24.6	12.589317	+57.923511	3.46	0.587	0.66	G0V SB
3881	0	50	57.1	+41	11	24.6	12.738065	+41.190177	4.53	-0.136	-0.14	B5V SB
4147	0	54	3.4	- 1	2	0.0	13.514225	- 1.033337	4.78	1.550	1.66	M0III
4151	0	54	18.6	+61	14	9.3	13.577475	+61.235909	4.80	0.540	0.61	F8V
4292	0	56	14.1	+59	4	59.7	14.058626	+59.083240	4.83	1.216	1.19	K2III
4422	0	57	54.1	+59	17	28.9	14.475317	+59.291371	4.62	0.957	1.01	G8III-IV
4427	0	57	57.8	+60	49	38.2	14.490633	+60.827279	2.15	-0.046	-0.02	B0IV:evar
4436	0	57	53.9	+38	36	36.4	14.474612	+38.610110	3.86	0.130	0.14	A5V
4463	0	58	18.3	+23	31	40.4	14.576390	+23.527900	4.40	0.940	0.94	G8III-IV
4577	0	59	35.5	-29	14	49.5	14.897945	-29.247075	4.30	-0.154	-0.12	B7IIIp
4906	1	4	0.6	+ 8	0	0.2	16.002403	+ 8.000043	4.27	0.952	0.98	K0III
5165	1	6	59.6	-46	36	32.0	16.748469	-46.608901	3.32	0.885	0.90	G8IIIvar
5348	1	9	14.5	-55	8	11.7	17.310465	-55.136588	3.94	-0.120	-0.08	B6V + B0V
5364	1	9	37.3	-10	4	26.6	17.405260	-10.074069	3.46	1.161	1.11	K2III
5372	1	11	58.0	+86	21	56.9	17.991489	+86.365804	4.24	1.213	1.16	K2II-III
5434	1	10	42.1	+47	21	1.9	17.675420	+47.350536	4.26	0.012	-0.02	B7III

Posiciones medias de estrellas brillantes, 2022

Estrella	α			δ			α	δ				
NH	h	m	s	°	‘	“	°	°	V	U-V	B-V	Espectro
5447	1	10	53.2	+35	43	43.4	17.721588	+35.728718	2.07	1.576	1.74	M0IIIvar
5542	1	12	21.9	+55	15	30.1	18.091077	+55.258361	4.34	0.170	0.19	A7Vvar
5571	1	12	33.6	+21	8	35.2	18.139898	+21.143118	4.66	1.024	0.99	K0III
5586	1	12	47.7	+30	11	52.5	18.198803	+30.197921	4.51	1.092	1.05	K0III-IV...
5742	1	14	52.0	+24	41	30.3	18.716698	+24.691762	4.67	1.047	1.02	K0III...
5862	1	16	6.4	-45	25	21.8	19.026627	-45.422723	4.97	0.571	0.62	F8V
5896	1	16	27.7	-68	46	2.4	19.115258	-68.767344	4.25	0.480	0.55	F6IV
6193	1	20	35.9	+27	22	16.4	20.149610	+27.371219	4.74	0.032	0.10	A3V
6242	1	21	23.2	+58	20	19.3	20.346816	+58.338704	4.95	0.683	0.93	F0Ia
6411	1	23	33.4	+45	38	8.0	20.889206	+45.635546	4.87	1.077	1.04	K0III-IV
6537	1	25	2.9	- 8	4	40.7	21.262167	- 8.077969	3.60	1.065	1.05	K0III
6670	1	26	37.7	-14	29	33.9	21.657154	-14.492743	4.90	1.231	1.29	K2III
6686	1	27	10.5	+60	20	27.9	21.793622	+60.341089	2.66	0.160	0.19	A5Vv SB
6692	1	27	24.6	+68	14	10.4	21.852433	+68.236210	4.72	1.047	1.01	K0III
6813	1	28	53.5	+45	30	42.6	22.223117	+45.511831	4.83	0.421	0.49	F5IV
6867	1	29	15.2	-43	12	49.5	22.313266	-43.213736	3.41	1.542	1.73	K5II-III
7007	1	31	15.7	+ 6	14	55.9	22.815360	+ 6.248850	4.84	1.372	1.42	K4III
7083	1	32	6.1	-48	58	0.3	23.025580	-48.966742	3.93	0.972	1.00	K0III-IV
7097	1	32	35.0	+15	27	3.0	23.145937	+15.450839	3.62	0.974	0.94	G8III
7294	1	35	17.3	+59	20	11.2	23.822041	+59.336438	4.68	0.991	1.01	K0III
7513	1	38	0.5	+41	30	26.3	24.502260	+41.507303	4.10	0.536	0.58	F8V
7588	1	38	28.5	-57	7	59.4	24.618606	-57.133162	0.45	-0.158	-0.17	B3Vp
7607	1	39	15.7	+48	43	52.7	24.815445	+48.731296	3.59	1.275	1.23	K3III
7818	1	41	47.9	+40	40	48.3	25.449662	+40.680088	4.96	-0.068	-0.06	B8III
7884	1	42	30.0	+ 5	35	26.3	25.625160	+ 5.590637	4.45	1.347	1.37	K3III
7918	1	43	2.5	+42	42	55.0	25.760487	+42.715272	4.96	0.618	0.67	G2V
7999	1	43	45.8	- 3	35	15.6	25.940698	- 3.587664	4.98	1.378	1.26	K3II-III
8068	1	44	57.4	+50	47	28.1	26.239374	+50.791153	4.01	-0.098	-0.08	B2Vpe
8102	1	45	1.3	-15	49	49.0	26.255396	-15.830286	3.49	0.727	0.82	G8V
8198	1	46	28.7	+ 9	15	36.3	26.619741	+ 9.260089	4.26	0.942	0.93	K0III
8497	1	50	35.6	-10	35	8.7	27.648148	-10.585736	4.66	0.333	0.38	F3III
8645	1	52	28.4	-10	14	4.2	28.118271	-10.234486	3.74	1.136	1.07	K2III
8796	1	54	15.4	+29	40	40.4	28.564043	+29.677893	3.42	0.488	0.55	F6IV
8832	1	54	39.5	+19	23	36.8	28.664788	+19.393562	3.88	-0.047	-0.03	A1p Si
8833	1	54	37.2	+ 3	17	16.6	28.654806	+ 3.287932	4.61	0.928	0.93	K0III SB
8837	1	54	27.9	-46	12	10.5	28.616401	-46.202906	4.39	1.597	2.49	M4III SB
8886	1	55	53.6	+63	46	12.0	28.973172	+63.770008	3.35	-0.150	-0.12	B2pvar
8903	1	55	46.6	+20	54	26.7	28.944190	+20.907426	2.64	0.165	0.18	A5V...
8928	1	55	27.4	-67	32	48.8	28.864264	-67.546899	4.68	0.931	0.95	G5III
9007	1	56	45.2	-51	30	27.4	29.188296	-51.507601	3.69	0.844	0.90	G5IV
9009	1	57	37.4	+68	47	5.3	29.406015	+68.784796	4.97	-0.084	-0.06	B8III
9061	1	57	37.8	-22	25	38.7	29.407400	-22.427427	4.92	1.434	1.45	K3III
9095	1	57	58.7	-47	17	8.9	29.494695	-47.285806	4.82	0.864	0.89	G8III
9153	1	59	4.5	+23	41	42.6	29.768930	+23.695176	4.79	0.290	0.33	F0V
9236	1	59	24.9	-61	28	14.4	29.853710	-61.470662	2.86	0.290	0.34	F0V
9347	2	0	58.2	-20	58	45.4	30.242690	-20.979266	3.99	1.554	1.79	K5/M0III
9480	2	3	40.8	+71	0	18.3	30.919894	+71.005076	4.49	0.164	0.20	A3IV
9487	2	3	6.6	+ 2	51	43.0	30.777425	+ 2.861933	3.82	0.024	0.05	A2
9505	2	3	40.9	+54	35	8.1	30.920310	+54.585593	4.99	-0.071	-0.02	B8III
9598	2	5	13.7	+72	31	8.9	31.307110	+72.519148	3.95	-0.002	0.03	A2V
9640	2	5	10.0	+42	25	37.6	31.291594	+42.427118	2.10	1.370	1.37	B8V
9677	2	5	24.5	-29	11	57.1	31.352233	-29.199203	4.68	-0.156	-0.12	B9.5p (Si)
9884	2	8	20.0	+23	33	30.4	32.083411	+23.558450	2.01	1.151	1.13	K2III
9977	2	9	43.9	+37	57	19.1	32.433085	+37.955313	4.78	0.120	0.16	A5IV-V
10053	2	10	35.7	+26	2	9.4	32.648569	+26.035947	4.98	0.339	0.40	F2III
10064	2	10	46.2	+35	4	59.8	32.692621	+35.083278	3.00	0.140	0.17	A5III
10280	2	13	34.0	+30	23	53.4	33.391679	+30.398166	4.94	0.770	0.81	F5V comp SB
10324	2	14	5.4	+ 8	56	30.9	33.522292	+ 8.941919	4.36	0.878	0.90	G8II:
10340	2	14	31.0	+44	19	36.3	33.629355	+44.326760	4.84	1.476	1.49	K4III

Posiciones medias de estrellas brillantes, 2022

Estrella	α			δ			α	δ				
NH	h	m	s	º	‘	“	º	º	V	U-V	B-V	Espectro
10602	2	17	14.5	-51	25	4.5	34.310303	-51.417928	3.56	-0.120	-0.11	B8IV-V
10644	2	18	18.7	+34	19	1.2	34.577785	+34.316990	4.84	0.607	0.76	G0V
10670	2	18	32.4	+33	56	27.5	34.634949	+33.940965	4.03	0.019	-0.02	A1Vnn
11001	2	22	7.2	-68	33	59.3	35.529992	-68.566485	4.08	0.034	0.04	A3V
11313	2	27	0.2	+50	22	12.7	36.750748	+50.370188	4.73	1.532	1.58	K4III
11345	2	26	56.5	-12	11	56.2	36.735317	-12.198945	4.88	-0.027	-0.01	A0V
11407	2	27	44.2	-47	36	45.2	36.934055	-47.612545	4.24	-0.136	-0.11	B5IV
11484	2	29	15.1	+ 8	33	3.2	37.312938	+ 8.550895	4.30	-0.053	-0.06	B9III
11569	2	30	47.0	+67	29	35.6	37.695879	+67.493234	4.46	0.153	0.17	A5p Sr
11767	2	57	49.4	+89	21	0.0	44.455661	+89.350011	1.97	0.636	0.70	F7:Ib-IIv SB
11783	2	33	3.6	-15	9	20.7	38.264800	-15.155747	4.74	0.454	0.55	F5V
11918	2	34	44.6	-28	8	35.3	38.685686	-28.143138	4.96	-0.050	-0.04	B9V
12093	2	36	57.2	+ 5	40	54.0	39.238208	+ 5.681672	4.87	0.880	0.89	G8III
12387	2	40	32.1	+ 0	24	57.3	40.133841	+ 0.415908	4.08	-0.212	-0.22	B2IV
12390	2	40	33.4	-11	47	9.9	40.139215	-11.786074	4.83	0.447	0.53	F5V
12394	2	39	54.7	-68	10	46.0	39.977910	-68.179449	4.12	-0.061	-0.07	B9III
12413	2	40	34.8	-42	48	15.8	40.145193	-42.804400	4.74	0.061	0.09	A2V
12486	2	41	28.5	-39	46	6.4	40.368939	-39.768457	4.11	1.006	1.05	K0III
12623	2	43	33.0	+40	16	45.9	40.887656	+40.279411	4.91	0.582	0.62	F9V
12706	2	44	21.9	+ 3	19	16.3	41.091263	+ 3.321188	3.47	0.093	0.10	A3V
12719	2	44	39.6	+27	47	35.5	41.165023	+27.793194	4.65	-0.122	-0.12	B3V
12770	2	45	5.9	-13	46	22.2	41.274745	-13.772822	4.24	-0.122	-0.11	B7IV
12777	2	45	36.7	+49	18	49.6	41.402763	+49.313771	4.10	0.514	0.59	F7V
12828	2	46	3.2	+10	11	58.6	41.513347	+10.199606	4.27	0.311	0.37	F1III-IV
12843	2	46	3.6	-18	29	12.3	41.515050	-18.486760	4.47	0.481	0.54	F5/F6V
12876	2	45	52.0	-67	31	50.9	41.466628	-67.530811	4.83	0.058	0.08	A2IV/V
13061	2	49	8.1	+29	19	51.8	42.283768	+29.331046	4.52	1.112	1.04	K1III
13147	2	49	56.9	-32	19	14.6	42.487041	-32.320721	4.45	0.981	1.00	G8III
13209	2	51	11.7	+27	20	37.7	42.798915	+27.343792	3.61	-0.100	-0.08	B8Vn
13244	2	50	22.0	-74	58	59.2	42.591681	-74.983107	4.76	1.337	1.27	K3III
13254	2	51	53.2	+38	24	6.3	42.971474	+38.401753	4.22	0.343	0.41	F2III
13268	2	52	12.4	+55	58	44.6	43.051819	+55.979061	3.77	1.690	1.64	K3Ib comp SB
13288	2	51	58.2	-20	55	13.8	42.992326	-20.920487	4.76	0.906	0.91	K0III
13328	2	52	47.0	+35	8	34.1	43.195921	+35.142796	4.56	1.554	1.67	K5III
13531	2	55	43.4	+52	50	41.6	43.931004	+52.844887	3.93	0.758	0.80	G4III...
13701	2	57	25.8	- 8	49	3.4	44.357536	- 8.817604	3.89	1.088	1.08	K1III-IV
13847	2	59	2.3	-40	13	24.1	44.759613	-40.223366	2.88	0.128	0.17	A4III+...
13879	3	0	4.8	+39	44	36.2	45.019939	+39.743395	4.68	0.065	0.11	A2Vn
13884	2	59	11.3	-63	59	24.8	44.797138	-63.990211	4.98	0.126	0.14	A5III
13905	3	0	20.3	+35	15	50.2	45.084531	+35.263955	4.94	1.235	1.19	K2III
13914	3	0	23.3	+21	25	16.1	45.097141	+21.421152	4.63	0.048	0.05	A2Vs
13954	3	0	49.0	+ 8	59	16.4	45.204160	+ 8.987877	4.71	-0.109	-0.09	B6III
14135	3	3	21.2	+ 4	10	8.4	45.838346	+ 4.168988	2.54	1.630	1.97	M2III
14146	3	3	17.8	-23	32	42.4	45.824002	-23.545099	4.08	0.163	0.18	A4V
14328	3	6	17.7	+53	35	6.5	46.573605	+53.585130	2.91	0.716	0.77	G8III+...
14354	3	6	29.9	+38	55	5.8	46.624385	+38.918289	3.32	1.528	2.76	M3IIIvar
14382	3	7	5.7	+56	47	4.4	46.773940	+56.784544	4.77	1.018	0.99	K0II-III
14576	3	9	30.6	+41	1	59.4	47.377646	+41.033157	2.09	-0.003	0.02	B8V
14632	3	10	33.4	+49	41	23.7	47.639174	+49.689922	4.05	0.595	0.65	G0V
14668	3	10	53.3	+44	56	1.6	47.721927	+44.933776	3.79	0.980	0.94	K0III
14817	3	12	37.2	+39	41	16.7	48.155133	+39.687981	4.61	1.115	1.09	K1III
14838	3	12	48.3	+19	48	10.5	48.201398	+19.802905	4.35	1.033	0.96	K2IIIvar
14862	3	14	12.7	+74	28	8.9	48.553042	+74.469137	4.85	0.035	0.05	A2Vnn
14879	3	12	56.8	-28	54	29.0	48.236858	-28.908052	3.80	0.543	0.63	F8V
15110	3	16	5.0	+21	7	8.6	49.020991	+21.119067	4.87	-0.007	0.02	A1V
15197	3	16	49.9	- 8	44	41.1	49.207724	- 8.744738	4.80	0.232	0.28	A5m
15382	3	19	16.5	-22	26	14.1	49.818798	-22.437248	4.86	0.904	0.91	K0III
15416	3	20	1.1	+34	17	46.3	50.004648	+34.296192	4.85	1.491	1.41	K2II
15457	3	20	26.3	+ 3	26	38.8	50.109731	+ 3.444104	4.84	0.681	0.73	G5Vvar

Posiciones medias de estrellas brillantes, 2022

Estrella	α			δ			α	δ				
NH	h	m	s	º	‘	“	º	º	V	U-V	B-V	Espectro
15474	3	20	25.8	-21	41	3.6	50.107292	-21.684326	3.70	1.614	2.42	M3/M4III
15510	3	20	44.6	-42	59	33.1	50.185897	-42.992540	4.26	0.711	0.79	G8V
15520	3	21	48.9	+65	43	30.8	50.453895	+65.725218	4.74	-0.108	-0.12	B2.5Vne
15549	3	21	35.1	+29	7	16.9	50.396212	+29.121349	4.47	1.555	1.61	K2II-III
15648	3	22	49.4	+43	24	7.9	50.706039	+43.402181	4.96	0.051	0.06	A3V
15863	3	25	47.8	+49	55	56.8	51.449245	+49.932437	1.79	0.481	0.63	F5Ib
15900	3	25	55.1	+ 9	5	58.9	51.479737	+ 9.099707	3.61	0.887	0.90	G8III
16083	3	28	17.0	+ 9	48	10.2	52.070702	+ 9.802829	3.73	-0.082	-0.07	B9Vn
16147	3	29	31.1	+49	7	57.6	52.379687	+49.132663	4.99	-0.091	-0.07	B5V
16228	3	30	44.7	+60	0	35.4	52.686447	+60.009823	4.21	0.419	0.58	B9Ia
16244	3	30	50.6	+49	34	41.6	52.710898	+49.578211	4.67	-0.096	-0.07	B3V
16245	3	29	44.4	-62	51	56.9	52.435132	-62.865818	4.71	0.410	0.49	F5IV-V
16281	3	31	33.9	+58	56	52.5	52.891237	+58.947918	4.55	0.489	0.79	A0Ia SB:
16335	3	32	1.8	+48	3	51.4	53.007415	+48.064268	4.36	1.367	1.42	K3III
16341	3	31	38.2	- 5	0	21.9	52.909097	- 5.006084	4.74	-0.092	-0.07	B9Vs
16369	3	32	0.5	+13	0	20.0	53.001936	+13.005565	4.14	1.112	1.01	K0II-III...
16537	3	33	53.9	- 9	23	24.2	53.474620	- 9.390048	3.72	0.881	0.94	K2V
16611	3	34	41.6	-21	33	54.9	53.673538	-21.565256	4.26	-0.106	-0.09	B9V
16826	3	37	57.4	+48	15	32.6	54.488969	+48.259060	4.32	-0.058	0.07	B5Ve
16852	3	37	55.3	+ 0	27	55.8	54.480301	+ 0.465494	4.29	0.575	0.66	F9V
16870	3	37	49.9	-40	12	29.3	54.457827	-40.208142	4.57	1.023	1.07	K0III
17304	3	43	3.9	-31	52	26.1	55.766093	-31.873919	4.99	-0.159	-0.15	B5III
17313	3	43	41.0	+34	1	45.1	55.920644	+34.029207	4.97	-0.048	-0.03	B0.5V
17351	3	43	35.7	-37	14	59.2	55.898706	-37.249781	4.59	1.191	1.12	K2IIICN...
17358	3	44	23.6	+47	51	4.6	56.098390	+47.851269	3.01	-0.125	-0.07	B5III SB
17378	3	44	13.9	- 9	41	43.3	56.058000	- 9.695354	3.52	0.915	0.94	K0IV
17440	3	44	27.7	-64	44	34.1	56.115548	-64.742795	3.84	1.133	1.11	K0IV SB
17448	3	45	36.6	+32	21	5.8	56.402423	+32.351602	3.84	0.022	0.12	B1III
17499	3	46	5.8	+24	10	34.6	56.524260	+24.176285	3.72	-0.105	-0.09	B6III
17529	3	46	35.6	+42	38	29.7	56.648494	+42.641584	3.77	0.425	0.52	F5IIvar
17531	3	46	26.0	+24	31	48.4	56.608151	+24.530103	4.30	-0.110	-0.08	B6V
17573	3	47	3.0	+24	25	49.1	56.762672	+24.430298	3.87	-0.063	-0.02	B8III
17587	3	47	51.0	+63	24	27.3	56.962680	+63.407590	4.78	0.747	0.79	A3V...
17593	3	47	6.8	-12	2	18.7	56.778127	-12.038535	4.43	1.604	1.89	M1III
17608	3	47	32.8	+24	0	38.6	56.886758	+24.010714	4.14	-0.051	0.02	B6IV
17651	3	47	43.9	-23	11	24.8	56.932718	-23.190213	4.22	0.434	0.51	F3/F5V
17678	3	46	56.6	-74	10	32.9	56.735932	-74.175794	3.26	1.590	1.94	M2III
17702	3	48	42.4	+24	10	1.2	57.176795	+24.167007	2.85	-0.086	-0.01	B7III
17797	3	49	21.3	-37	33	30.5	57.338781	-37.558474	4.30	-0.038	-0.02	A+...
17847	3	50	23.1	+24	6	52.5	57.596325	+24.114574	3.62	-0.070	-0.03	B8III
17874	3	50	13.3	-36	8	21.1	57.555483	-36.139185	4.17	0.927	0.92	G8III
17884	3	51	25.2	+65	35	13.2	57.854954	+65.587009	4.39	1.870	2.58	M1III
17959	3	52	33.4	+71	23	33.8	58.139080	+71.392731	4.59	0.064	0.13	A2IVn
18216	3	54	35.1	-24	33	9.8	58.646220	-24.552710	4.64	-0.136	-0.13	B5V
18246	3	55	25.5	+31	56	34.4	58.856386	+31.942876	2.84	0.271	0.18	B1Ib
18255	3	55	19.4	- 2	53	43.6	58.830721	- 2.895442	4.46	0.672	0.73	G8III
18488	3	58	54.1	+61	10	0.2	59.725528	+61.166712	4.99	1.435	1.53	K3I-II
18505	3	59	15.1	+63	7	48.2	59.812731	+63.130068	4.95	-0.074	-0.01	B9.5V
18532	3	59	14.1	+40	4	3.9	59.808917	+40.067763	2.90	-0.199	-0.19	B0.5V
18543	3	58	59.2	-13	27	5.2	59.746736	-13.451437	2.97	1.588	1.78	M1IIIb Ca-1
18597	3	59	4.5	-61	20	33.9	59.768655	-61.342741	4.56	1.590	1.85	M2III
18614	4	0	18.0	+35	50	53.7	60.075160	+35.848259	3.98	0.016	0.16	O7.5Iab:
18673	4	0	48.0	-23	57	33.2	60.199867	-23.959221	4.62	-0.121	-0.07	Ap Si
18724	4	1	49.1	+12	32	48.5	60.454662	+12.546796	3.41	-0.099	-0.08	B3V + A
18744	4	1	11.9	-62	6	9.0	60.299467	-62.102487	4.48	1.500	2.42	M4III
18772	4	1	38.3	-61	1	18.8	60.409715	-61.021877	4.97	1.386	1.41	K4III
18907	4	4	14.9	+ 6	2	41.1	61.062258	+ 6.044747	3.91	0.032	0.03	A1V
19018	4	6	10.5	+59	12	36.9	61.543627	+59.210254	5.00	0.495	0.69	F0II
19038	4	5	54.6	+22	8	10.9	61.477669	+22.136354	4.36	1.064	1.02	K0III

Posiciones medias de estrellas brillantes, 2022

Estrella	α			δ			α	δ				
NH	h	m	s	º	‘	“	º	º	V	U-V	B-V	Espectro
19167	4	8	7.2	+50	24	17.7	62.030047	+50.404916	4.25	-0.011	0.08	A0IVn
19343	4	10	9.5	+47	45	55.0	62.539418	+47.765279	3.96	-0.025	0.08	B3Ve
19515	4	11	32.1	-41	56	27.7	62.883629	-41.941026	4.93	0.334	0.41	A9V
19587	4	12	52.1	- 6	47	7.8	63.216961	- 6.785488	4.04	0.327	0.38	F2II-III
19740	4	15	3.4	+ 9	18	51.7	63.764239	+ 9.314348	4.84	0.799	0.86	G5III
19747	4	14	40.9	-42	14	41.1	63.670525	-42.244736	3.85	1.085	1.09	K1III
19777	4	15	22.3	-10	12	24.0	63.842822	-10.206662	4.87	1.156	1.12	K3III
19780	4	14	41.6	-62	25	22.5	63.673329	-62.422916	3.33	0.915	0.91	G7III
19811	4	16	17.4	+40	32	1.5	64.072408	+40.533758	4.67	1.007	1.07	G5II comp
19812	4	16	24.6	+48	27	33.9	64.102675	+48.459412	4.12	0.935	0.93	G0Ib...
19849	4	16	13.0	- 7	37	18.2	64.054316	- 7.621721	4.43	0.820	0.89	K1V
19860	4	16	39.0	+ 8	56	32.0	64.162414	+ 8.942217	4.27	-0.054	-0.02	B3IV
19893	4	16	33.9	-51	26	8.6	64.141294	-51.435735	4.26	0.312	0.37	F4III
19921	4	16	50.5	-59	15	12.1	64.210230	-59.253362	4.44	1.078	1.05	K2IV
19990	4	18	27.9	+20	37	38.8	64.616350	+20.627437	4.93	0.259	0.30	A3m
20042	4	18	40.3	-33	44	57.8	64.667717	-33.749387	3.55	-0.108	-0.09	B9V
20070	4	19	47.6	+50	20	37.9	64.948354	+50.343856	4.60	0.043	0.16	A2V
20205	4	20	57.8	+15	40	32.0	65.240644	+15.675563	3.65	0.981	0.95	G8III
20250	4	21	37.1	+27	23	53.2	65.404505	+27.398106	4.97	1.150	1.35	K1III
20252	4	21	44.8	+34	36	51.9	65.436600	+34.614424	4.93	0.950	0.94	G8III
20354	4	23	2.5	+46	32	45.1	65.760573	+46.545869	4.80	-0.022	0.03	B4IV
20455	4	24	7.2	+17	35	20.3	66.029951	+17.588981	3.77	0.983	0.93	G8III
20535	4	24	48.5	-33	58	13.1	66.202008	-33.970307	3.97	1.468	1.53	K4III
20542	4	25	16.8	+17	29	24.2	66.320123	+17.490043	4.80	0.154	0.18	A7V
20635	4	26	35.7	+22	20	20.9	66.648573	+22.339137	4.21	0.136	0.16	A7IV-V
20648	4	26	40.7	+17	58	23.5	66.669604	+17.973192	4.30	0.049	0.08	A2IV
20711	4	27	32.2	+22	51	30.3	66.884362	+22.858407	4.28	0.263	0.32	A8Vn
20713	4	27	31.0	+15	39	47.4	66.879064	+15.663155	4.48	0.262	0.33	F0V...
20732	4	27	46.0	+14	45	30.8	66.941725	+14.758568	4.69	0.979	0.96	G8III
20877	4	29	36.8	+16	24	14.0	67.403491	+16.403886	4.96	1.137	1.12	K2IIIvar
20885	4	29	44.9	+16	0	22.1	67.437123	+16.006150	3.84	0.952	1.02	G7III
20889	4	29	49.0	+19	13	27.3	67.454093	+19.224255	3.53	1.014	1.04	K0III
20894	4	29	50.1	+15	54	53.1	67.458822	+15.914749	3.40	0.179	0.21	A7III
21029	4	31	44.2	+16	14	13.2	67.934099	+16.237013	4.78	0.170	0.19	A6IV
21139	4	32	55.7	- 0	0	5.4	68.232015	- 0.001496	4.91	1.320	1.25	K3II-III
21248	4	34	18.8	-29	43	34.1	68.578536	-29.726138	4.49	0.972	1.00	K0III
21273	4	35	0.9	+14	53	9.2	68.753587	+14.885901	4.65	0.255	0.28	A8V
21281	4	34	26.5	-55	0	11.5	68.610443	-55.003185	3.30	-0.079	-0.08	A0V:
21393	4	36	20.9	-30	31	17.4	69.087123	-30.521495	3.81	0.957	0.93	G8III
21402	4	36	46.9	+10	12	4.6	69.195608	+10.201290	4.25	0.184	0.21	A5m
21421	4	37	6.0	+16	32	56.1	69.274798	+16.548905	0.87	1.538	1.67	K5III
21444	4	37	20.7	- 3	18	43.1	69.336186	- 3.311978	3.93	-0.210	-0.20	B2III SB
21476	4	38	7.0	+41	18	17.8	69.528975	+41.304942	4.25	1.171	1.13	G8II comp
21589	4	39	18.3	+12	33	1.4	69.826422	+12.550375	4.27	0.122	0.15	A6V
21594	4	39	7.2	-14	15	55.3	69.780041	-14.265350	3.86	1.082	1.09	K1III
21644	4	39	51.0	-12	5	2.0	69.962434	-12.083897	4.99	0.074	0.13	A0V
21683	4	40	27.0	+15	57	25.1	70.112480	+15.956960	4.67	0.147	0.19	A5Vn
21763	4	41	20.4	-19	38	0.3	70.334913	-19.633422	4.32	1.599	2.27	M3/M4III
21770	4	41	13.4	-41	49	32.0	70.305885	-41.825558	4.44	0.342	0.40	F2V
21881	4	43	28.7	+22	59	40.2	70.869538	+22.994499	4.27	-0.112	-0.10	B3V
22109	4	46	31.7	- 3	13	6.7	71.632237	- 3.218533	4.01	-0.148	-0.13	B5IV
22449	4	50	57.3	+ 6	59	43.7	72.738598	+ 6.995462	3.19	0.484	0.53	F6V
22453	4	51	17.7	+37	31	21.1	72.823617	+37.522516	4.89	1.447	1.51	K4II
22509	4	51	43.9	+ 8	56	1.5	72.932736	+ 8.933757	4.35	0.010	0.04	A1Vn
22549	4	52	18.0	+ 5	38	18.9	73.074866	+ 5.638589	3.68	-0.157	-0.16	B2III SB
22667	4	53	41.7	+14	16	59.4	73.423581	+14.283161	4.71	1.773	2.63	M3Sv
22678	4	54	0.5	+36	44	9.2	73.502244	+36.735898	4.79	1.414	1.46	K3III
22701	4	53	54.2	- 5	25	11.5	73.475751	- 5.419861	4.36	0.257	0.33	A9IV
22783	4	56	6.1	+66	22	28.6	74.025478	+66.374613	4.26	-0.008	0.09	O9.5Ia SB:

Posiciones medias de estrellas brillantes, 2022

Estrella	α			δ			α	δ				
NH	h	m	s	°	‘	“	°	°	V	U-V	B-V	Espectro
22797	4	55	19.3	+ 2	28	21.7	73.830240	+ 2.472706	3.71	-0.179	-0.18	B2III SB
22845	4	56	1.5	+10	10	54.6	74.006380	+10.181830	4.64	0.085	0.11	A0V
22957	4	57	31.5	+13	32	42.8	74.381423	+13.545209	4.06	1.158	1.16	K2III
23015	4	58	19.9	+33	11	47.9	74.582944	+33.196643	2.69	1.490	1.46	K3IIvar
23040	4	58	56.2	+53	46	57.3	74.734143	+53.782584	4.43	-0.017	0.06	A1V
23123	4	59	36.7	+ 1	44	38.2	74.903037	+ 1.743947	4.47	1.369	1.32	K2IIvar
23179	5	0	39.1	+37	55	9.3	75.162981	+37.919256	4.93	0.037	0.06	A1V
23231	5	0	52.9	-12	30	30.8	75.220605	-12.508561	4.78	0.267	0.33	F0V
23362	5	2	19.0	-20	1	24.1	75.579147	-20.023372	4.91	-0.047	-0.04	B9V
23364	5	2	26.0	- 7	8	43.2	75.608523	- 7.145336	4.80	-0.164	-0.18	B3V
23416	5	3	26.6	+43	51	5.5	75.861026	+43.851525	3.03	0.537	0.61	F0Ia
23453	5	3	54.9	+41	6	13.4	75.978696	+41.103711	3.69	1.154	1.12	K4II comp
23497	5	4	19.4	+21	37	2.9	76.080823	+21.617480	4.62	0.155	0.19	A7V
23522	5	5	15.0	+60	28	10.6	76.312528	+60.469607	4.03	0.921	0.89	G0Ib
23595	5	5	8.7	-35	27	21.6	76.286212	-35.455996	4.55	1.177	1.19	K2III
23607	5	5	44.5	+15	25	51.5	76.435600	+15.430979	4.65	-0.064	0.02	A0p Si
23685	5	6	19.8	-22	20	41.1	76.582380	-22.344746	3.19	1.460	1.50	K4III
23693	5	5	51.9	-57	26	42.9	76.466196	-57.445262	4.71	0.526	0.60	F7V
23767	5	7	57.4	+41	15	36.5	76.989002	+41.260133	3.18	-0.148	-0.17	B3V
23783	5	8	17.3	+51	37	21.6	77.071924	+51.622674	4.98	0.343	0.40	F0V
23835	5	8	39.8	+18	40	14.9	77.165846	+18.670793	4.91	0.657	0.74	G4V
23875	5	8	51.5	- 5	3	40.9	77.214728	- 5.061368	2.78	0.161	0.16	A3IIIvar
23972	5	10	7.7	- 8	43	45.2	77.532102	- 8.729219	4.25	-0.187	-0.16	B2IVn
24010	5	10	52.4	+15	37	18.1	77.718537	+15.621700	4.81	0.313	0.40	F2IV
24244	5	13	15.3	-11	50	45.8	78.313913	-11.846047	4.45	-0.099	-0.08	B8V
24305	5	13	51.2	-16	10	57.0	78.463358	-16.182513	3.29	-0.110	-0.09	B9IV: HgMn
24327	5	14	10.7	-12	55	6.3	78.544720	-12.918406	4.36	-0.094	-0.07	B7V
24331	5	14	21.9	+ 2	53	2.9	78.591098	+ 2.884126	4.46	1.166	1.12	K3III...
24340	5	14	50.1	+38	30	24.4	78.708599	+38.506781	4.82	0.189	0.23	A4m
24372	5	13	44.8	-67	9	43.8	78.436670	-67.162169	4.81	1.274	1.22	K2III
24436	5	15	31.4	- 8	10	45.8	78.881000	- 8.179398	0.18	-0.030	0.03	B8Ia
24608	5	18	12.4	+46	1	0.1	79.551727	+46.016682	0.08	0.795	0.83	M1: comp
24659	5	18	13.5	-34	52	34.4	79.556249	-34.876213	4.81	0.987	1.00	K0/K1III/IV
24674	5	18	36.2	- 6	49	25.4	79.650722	- 6.823720	3.59	-0.115	-0.10	B5III
24727	5	19	31.4	+33	23	27.9	79.880848	+33.391096	4.54	1.252	1.32	K3III...
24813	5	20	35.1	+40	6	54.8	80.146354	+40.115236	4.69	0.630	0.70	G0V
24822	5	20	30.6	+22	6	57.3	80.127567	+22.115910	4.96	0.937	0.92	G8III
24845	5	20	31.2	-13	9	25.3	80.130178	-13.157024	4.29	-0.235	-0.26	B0.5IV
24927	5	21	19.5	-21	13	13.6	80.331169	-21.220439	4.70	-0.048	-0.03	A0V
25044	5	22	48.6	- 0	21	49.5	80.702517	- 0.363764	4.72	-0.168	-0.17	B2IV-V
25142	5	23	54.7	+ 3	33	45.4	80.977950	+ 3.562621	4.99	-0.096	-0.14	B1V
25247	5	24	56.1	- 7	47	26.5	81.233895	- 7.790681	4.13	0.943	0.97	G8III
25278	5	25	37.3	+17	24	3.0	81.405515	+17.400838	5.00	0.544	0.62	F8V SB
25281	5	25	30.5	- 2	22	47.3	81.377160	- 2.379803	3.35	-0.240	-0.16	B1V + B2
25302	5	25	48.7	+ 1	51	49.2	81.453063	+ 1.863661	4.89	-0.200	-0.19	B1V:pe
25336	5	26	13.9	+ 6	21	59.9	81.557918	+ 6.366651	1.64	-0.224	-0.22	B2III
25428	5	27	35.4	+28	37	22.4	81.897359	+28.622884	1.65	-0.130	-0.09	B7III
25473	5	27	54.7	+ 3	6	42.7	81.978043	+ 3.111857	4.59	-0.199	-0.21	B2IV
25539	5	28	52.0	+21	57	9.7	82.216866	+21.952683	4.88	-0.140	-0.13	B2.5IV
25606	5	29	7.5	-20	44	39.8	82.281113	-20.744376	2.81	0.807	0.86	G5II
25737	5	30	46.5	- 1	4	39.4	82.693746	- 1.077616	4.71	1.592	1.70	K5III
25813	5	31	52.9	+ 5	57	43.9	82.970527	+ 5.962194	4.20	-0.143	-0.14	B5V
25859	5	31	56.5	-35	27	23.7	82.985311	-35.456594	3.86	1.130	1.09	K1II/III
25923	5	32	55.4	- 7	17	16.3	83.230876	- 7.287867	4.62	-0.261	-0.28	B0V
25930	5	33	3.3	- 0	17	7.6	83.263732	- 0.285446	2.25	-0.175	-0.21	O9.5II
25945	5	33	24.9	+18	36	27.8	83.353894	+18.607712	4.32	2.060	2.54	M2Ib
25984	5	34	3.8	+32	12	18.8	83.515964	+32.205215	4.71	0.281	0.51	B5Iab
25985	5	33	38.1	-17	48	32.3	83.408795	-17.808959	2.58	0.211	0.32	F0Ib
26069	5	33	48.3	-62	28	36.1	83.451354	-62.476698	3.76	0.640	0.69	F6Ia

Posiciones medias de estrellas brillantes, 2022

Estrella	α			δ			α	δ				
NH	h	m	s	º	‘	“	º	º	V	U-V	B-V	Espectro
26176	5	35	56.8	+ 9	30	6.5	83.986756	+ 9.501797	4.39	-0.157	-0.13	B0IV...
26199	5	36	2.9	- 5	59	23.5	84.011890	- 5.989872	4.78	-0.248	-0.27	B0.5V
26207	5	36	16.1	+ 9	56	46.4	84.067000	+ 9.946222	3.39	-0.160	-0.13	O...
26220	5	36	16.3	- 5	22	31.0	84.067864	- 5.375273	4.98	0.000	0.00	O7
26235	5	36	23.4	- 5	24	14.6	84.097313	- 5.404068	4.98	-0.097	0.03	O9.5Vpe
26237	5	36	23.9	- 4	49	35.1	84.099579	- 4.826418	4.58	-0.183	-0.19	B2III...
26241	5	36	26.2	- 5	53	52.6	84.109169	- 5.897946	2.75	-0.210	-0.22	O9III
26311	5	37	15.3	- 1	11	25.3	84.313659	- 1.190363	1.69	-0.184	-0.16	B0Ia
26366	5	38	2.0	+ 9	18	0.7	84.508378	+ 9.300181	4.09	0.951	1.02	G8III-IV
26451	5	38	52.3	+21	9	11.7	84.717780	+21.153257	2.97	-0.148	-0.15	B4IIIp
26549	5	39	46.6	- 2	35	23.1	84.944040	- 2.589761	3.77	-0.190	-0.25	O9.5V...
26563	5	39	52.6	- 7	12	10.3	84.969353	- 7.202853	4.77	0.139	0.16	A4V
26594	5	40	16.1	+ 4	7	53.6	85.067279	+ 4.131547	4.50	-0.098	-0.02	B3IIIe
26634	5	40	23.5	-34	3	51.5	85.098002	-34.064307	2.65	-0.120	-0.07	B7IV
26727	5	41	47.6	- 1	55	59.7	85.448502	- 1.933247	1.74	-0.199	-0.18	O9.5Ib SB
26736	5	41	53.2	- 1	7	10.3	85.471700	- 1.119525	4.95	-0.197	-0.21	B2IV-V
26777	5	42	28.9	+16	32	35.1	85.620270	+16.543074	4.84	-0.125	-0.10	B3IV...
26885	5	43	32.3	+ 1	28	58.8	85.884562	+ 1.482998	4.90	1.144	1.17	K1III
27072	5	45	19.1	-22	26	34.5	86.329627	-22.442911	3.59	0.481	0.57	F7V
27100	5	44	48.7	-65	43	40.5	86.202944	-65.727926	4.34	0.217	0.27	A7V
27288	5	47	53.1	-14	48	56.5	86.971321	-14.815698	3.55	0.104	0.11	A2Vann
27321	5	47	46.3	-51	3	35.5	86.942845	-51.059853	3.85	0.171	0.18	A3V
27366	5	48	43.8	- 9	39	49.5	87.182348	- 9.663761	2.07	-0.168	-0.14	B0.5Iavar
27468	5	50	16.5	+24	34	21.5	87.568855	+24.572642	4.88	1.021	1.04	G8IIIvar
27483	5	50	35.7	+39	11	9.5	87.648843	+39.185963	4.51	0.949	0.95	G8III
27511	5	50	42.1	+12	39	22.1	87.675315	+12.656141	4.89	-0.068	-0.05	B9IV
27530	5	50	12.1	-56	9	43.5	87.550301	-56.162094	4.50	1.075	1.06	K1III
27628	5	51	41.0	-35	45	42.3	87.920851	-35.761742	3.12	1.146	1.10	K1.5III
27639	5	52	26.4	+37	18	34.0	88.109943	+37.309434	4.72	1.621	1.90	M1III
27654	5	52	12.2	-20	52	42.9	88.050889	-20.878591	3.76	0.984	1.05	G8III/IV
27673	5	52	54.7	+39	9	8.5	88.228038	+39.152363	3.97	1.132	1.07	K0III
27750	5	53	30.3	+ 1	51	30.9	88.376451	+ 1.858576	4.76	1.382	1.31	K2IIvar
27810	5	53	51.6	-33	47	52.6	88.464913	-33.797940	4.88	-0.154	-0.14	B5V
27830	5	54	37.0	+27	36	54.8	88.654185	+27.615208	4.56	-0.008	0.00	A0V
27890	5	54	15.5	-63	5	0.8	88.564623	-63.083547	4.65	1.022	1.03	K1III/IV
27913	5	55	35.9	+20	16	41.2	88.899574	+20.278119	4.39	0.594	0.66	G0V
27949	5	56	34.0	+55	42	33.0	89.141492	+55.709179	4.96	0.052	0.09	A2V
27989	5	56	16.9	+ 7	24	33.3	89.070558	+ 7.409249	0.45	1.500	2.32	M2Ib
28010	5	56	12.3	-37	7	7.5	89.051191	-37.118738	4.97	1.102	1.03	K1IIICN...
28103	5	57	20.4	-14	9	55.3	89.334809	-14.165372	3.71	0.337	0.39	F1V
28199	5	58	15.9	-35	16	55.8	89.566080	-35.282174	4.36	-0.165	-0.16	B2.5IV
28237	5	59	16.0	+25	57	16.5	89.816723	+25.954583	4.81	-0.088	-0.04	B1Ib
28328	5	59	46.5	-42	48	53.8	89.943735	-42.814932	3.96	1.146	1.06	K0III
28358	6	1	13.0	+54	17	1.4	90.303982	+54.283724	3.72	1.010	0.99	K0III
28360	6	1	2.0	+44	56	50.2	90.258271	+44.947287	1.90	0.077	0.05	A2V
28380	6	1	7.2	+37	12	43.1	90.279867	+37.211965	2.65	-0.083	-0.06	A0p Si
28404	6	1	27.4	+45	56	10.8	90.364265	+45.936347	4.30	1.701	2.51	M3IIvar
28413	6	1	4.9	- 3	4	29.8	90.270496	- 3.074942	4.53	1.202	1.26	K2IIIvar
28574	6	2	48.3	-10	35	56.6	90.701332	-10.599068	4.92	-0.128	-0.08	B5III
28614	6	3	30.7	+ 9	38	44.2	90.877934	+ 9.645599	4.12	0.170	0.19	Am...
28716	6	5	8.3	+20	8	10.2	91.284417	+20.136180	4.64	0.236	0.41	B2Iavar
28734	6	5	22.0	+23	15	37.1	91.341721	+23.260313	4.16	0.835	0.88	G7III
28816	6	5	54.1	-16	29	13.8	91.475209	-16.487164	4.92	0.196	0.21	Ap shell
28910	6	7	5.0	-14	56	18.5	91.770955	-14.938478	4.67	0.046	0.04	A0V
29034	6	8	13.8	-37	15	24.6	92.057703	-37.256842	5.00	-0.095	-0.08	B8:IV
29038	6	8	44.6	+14	45	51.5	92.185739	+14.764292	4.42	-0.164	-0.17	B3IV
29276	6	10	41.9	-54	58	25.8	92.674587	-54.973835	4.72	-0.229	-0.24	B0.5IV
29426	6	13	6.3	+14	12	8.7	93.276448	+14.202419	4.45	-0.180	-0.16	B3IV
29434	6	13	14.2	+16	7	26.5	93.309274	+16.124018	4.95	-0.149	-0.12	B5Vn

Posiciones medias de estrellas brillantes, 2022

Estrella	α			δ			α	δ				
NH	h	m	s	°	‘	“	°	°	V	U-V	B-V	Espectro
29651	6	15	51.3	- 6	16	57.1	93.963957	- 6.282529	3.99	1.319	1.27	K3III
29655	6	16	6.9	+22	29	56.5	94.028826	+22.499031	3.31	1.600	2.70	M3III
29696	6	16	41.1	+29	29	19.1	94.171101	+29.488645	4.32	1.021	1.04	G8IIIvar
29735	6	16	41.3	-13	43	35.6	94.171932	-13.726545	5.00	-0.078	-0.05	B9V
29807	6	17	16.9	-35	8	54.4	94.320586	-35.148449	4.37	0.978	0.94	G8II
29997	6	21	6.1	+69	18	33.4	95.275248	+69.309289	4.76	0.025	0.05	A0Vn
30060	6	21	25.8	+59	0	3.2	95.357571	+59.000892	4.44	0.032	0.05	A2Vs
30093	6	21	1.2	- 2	57	16.9	95.255068	- 2.954697	4.91	1.613	1.90	M1III
30122	6	21	6.0	-30	4	25.1	95.275189	-30.073644	3.02	-0.160	-0.20	B2.5V
30277	6	22	51.8	-33	26	52.3	95.715919	-33.447872	3.85	0.858	0.88	G7II
30324	6	23	36.2	-17	58	2.7	95.900745	-17.967430	1.98	-0.240	-0.24	B1II/III
30343	6	24	12.0	+22	30	4.5	96.050119	+22.501259	2.87	1.621	2.30	M3IIIvar
30419	6	24	51.3	+ 4	34	51.0	96.213641	+ 4.580841	4.39	0.215	0.25	A5IV
30438	6	24	24.4	-52	42	27.2	96.101802	-52.707548	-0.62	0.164	0.23	F0Ib
30520	6	26	28.6	+49	16	30.4	96.618983	+49.275115	4.92	1.905	1.94	K5Iabvar
30788	6	28	55.8	-32	35	38.8	97.232697	-32.594116	4.47	-0.169	-0.16	B4V
30867	6	29	48.7	- 7	2	51.5	97.453073	- 7.047648	3.76	-0.113	-0.11	B3Ve
30883	6	30	10.8	+20	11	50.5	97.545021	+20.197370	4.13	-0.115	-0.10	B6III
31125	6	32	42.6	-23	26	3.9	98.177688	-23.434408	4.34	-0.245	-0.24	B1III
31216	6	34	0.7	+ 7	18	58.8	98.503069	+ 7.316331	4.47	0.023	0.09	A0Ib
31407	6	35	25.7	-52	59	34.8	98.857079	-52.993004	4.35	-0.021	0.06	B9III
31416	6	35	55.0	-22	58	56.3	98.979031	-22.982301	4.54	-0.035	-0.01	A0III
31592	6	37	34.7	-19	16	28.8	99.394625	-19.274677	3.95	1.037	1.02	K1III+...
31681	6	38	53.7	+16	22	47.6	99.723635	+16.379896	1.93	0.001	0.04	A0IV
31685	6	38	23.3	-43	12	53.4	99.597222	-43.214828	3.17	-0.103	-0.07	B8III SB
31700	6	38	47.5	-18	15	23.5	99.698085	-18.256528	4.42	1.137	1.12	K0II/III
31827	6	40	13.0	-14	9	55.8	100.053971	-14.165496	4.82	1.459	1.45	K2III
31832	6	40	47.6	+42	28	7.4	100.198128	+42.468721	4.80	1.236	1.17	K3III
31978	6	42	6.4	+ 9	52	30.6	100.526607	+ 9.875168	4.66	-0.233	-0.22	O7
32246	6	45	11.5	+25	6	32.4	101.298115	+25.109003	3.06	1.377	1.22	A3mA6-A9
32249	6	45	8.6	+13	12	20.4	101.285966	+13.205678	4.49	1.167	1.11	K1III
32349	6	46	3.1	-16	44	43.7	101.512986	-16.745464	-1.44	0.009	-0.02	A0m...
32362	6	46	26.4	+12	52	18.6	101.609907	+12.871845	3.35	0.443	0.48	F5IV
32438	6	48	2.5	+59	25	5.9	102.010429	+59.418315	4.86	0.084	0.10	A3V
32533	6	48	26.6	+ 8	0	48.7	102.110867	+ 8.013517	4.77	1.396	1.36	K4III
32578	6	48	55.8	+ 2	23	17.4	102.232441	+ 2.388171	4.48	1.099	1.06	K0III
32607	6	48	24.0	-61	57	50.1	102.100098	-61.963917	3.24	0.225	0.28	A7IV
32759	6	50	36.4	-32	31	59.8	102.651801	-32.533264	3.50	-0.116	-0.10	B1.5IVne
32761	6	50	18.0	-53	38	49.5	102.575128	-53.647090	4.41	0.899	0.92	G6II
32768	6	50	26.7	-50	38	23.0	102.611229	-50.639719	2.94	1.207	1.14	K0III...
32844	6	52	12.8	+41	45	18.1	103.053240	+41.755040	4.99	1.256	1.23	K3III
32855	6	51	37.1	-34	23	33.4	102.904665	-34.392619	4.99	1.379	1.28	K2/K3III
33018	6	54	8.3	+33	56	4.6	103.534594	+33.934608	3.60	0.102	0.14	A3III
33092	6	54	26.1	-20	15	3.1	103.608807	-20.250868	4.82	-0.212	-0.21	B1Ib
33152	6	54	59.0	-24	12	39.9	103.745914	-24.211094	3.89	1.740	1.58	K3Iab
33160	6	55	8.6	-12	3	56.4	103.785658	-12.065671	4.08	1.418	1.49	K4III
33202	6	55	48.0	+13	9	0.6	103.949932	+13.150163	4.73	0.321	0.36	F0Vp
33302	6	56	30.8	-20	9	50.1	104.128272	-20.163917	4.66	0.374	0.46	F2IV/V
33345	6	57	3.0	-14	4	16.6	104.262606	-14.071280	5.00	1.182	1.30	B9.5V
33347	6	57	3.1	-17	4	55.7	104.262914	-17.082126	4.36	-0.063	0.01	B3Ib/II
33357	6	56	48.8	-48	44	56.3	104.203157	-48.748966	4.94	1.668	2.05	M1III
33449	6	59	2.8	+58	23	36.3	104.761493	+58.393422	4.35	0.850	0.85	G5III-IV
33485	6	59	6.7	+45	3	55.2	104.777814	+45.065328	4.90	0.027	0.05	A2Vn
33579	6	59	25.9	-29	0	4.1	104.857966	-29.001140	1.50	-0.211	-0.20	B2II
33694	7	3	1.5	+76	56	49.4	105.756387	+76.947050	4.55	1.365	1.35	K4III
33856	7	2	32.2	-27	57	55.3	105.634040	-27.965363	3.49	1.729	1.82	K4III
33971	7	3	55.8	- 4	16	13.4	105.982675	- 4.270394	4.99	-0.195	-0.19	B1V
33977	7	3	52.9	-23	51	52.1	105.970233	-23.864460	3.02	-0.077	-0.03	B3Ia
34045	7	4	41.2	-15	39	53.7	106.171460	-15.664910	4.11	-0.112	-0.09	B8II

Posiciones medias de estrellas brillantes, 2022

Estrella	α			δ			α	δ				
NH	h	m	s	º	‘	“	º	º	V	U-V	B-V	Espectro
34059	7	4	25.6	-49	36	52.8	106.106679	-49.614679	4.92	0.140	0.15	A4IV
34088	7	5	19.4	+20	32	18.6	106.330907	+20.538494	4.01	0.899	0.90	G3Ibv SB
34444	7	9	13.5	-26	25	37.0	107.306329	-26.426931	1.83	0.671	0.67	F8Ia
34481	7	8	34.0	-70	31	55.2	107.141816	-70.532010	3.78	1.006	0.94	G8IIIvar
34495	7	9	32.4	-39	41	22.4	107.384971	-39.689551	4.83	-0.179	-0.17	B3IV/V
34622	7	11	14.8	- 4	16	14.0	107.811554	- 4.270562	4.91	1.020	1.03	K0III
34693	7	12	26.5	+30	12	35.0	108.110562	+30.209729	4.41	1.261	1.25	K2III
34752	7	13	3.7	+39	17	6.5	108.265598	+39.285126	4.91	1.451	1.48	K4II-III
34769	7	12	54.7	- 0	31	41.4	108.227748	- 0.528175	4.15	-0.005	0.02	A2V
34834	7	13	8.7	-46	47	39.8	108.286303	-46.794378	4.49	0.324	0.40	F0IV
34899	7	13	50.2	-45	13	9.2	108.459010	-45.219217	4.87	-0.003	0.02	Ap
34922	7	14	9.9	-44	40	26.7	108.541182	-44.674072	4.42	1.331	3.46	M5e
34981	7	15	5.4	-26	23	20.4	108.772377	-26.389012	4.42	-0.170	-0.12	B3III
35020	7	15	12.1	-48	18	30.8	108.800263	-48.308567	4.75	-0.091	-0.07	B8/B9V
35037	7	15	38.6	-26	48	33.9	108.910742	-26.809413	4.01	-0.150	-0.08	B2IV/Ve
35205	7	17	24.3	-27	55	6.9	109.351317	-27.918584	4.66	1.589	2.11	M2III
35210	7	17	28.7	-23	21	11.6	109.369605	-23.353223	4.83	1.601	1.77	K4III
35228	7	16	48.9	-67	59	40.7	109.203776	-67.994645	3.97	0.760	0.78	F6II
35264	7	17	52.0	-37	8	7.0	109.466747	-37.135291	2.71	1.616	1.65	K3Ib
35350	7	19	16.2	+16	30	6.3	109.817481	+16.501760	3.58	0.106	0.12	A3V...
35363	7	19	2.1	-36	46	20.5	109.758939	-36.772360	4.65	-0.099	0.11	B2V+...
35384	7	20	5.1	+49	25	33.9	110.021307	+49.426071	5.00	0.087	0.16	A4IIIn
35412	7	19	31.6	-24	35	50.3	109.881746	-24.597295	4.88	-0.160	-0.06	O7f
35415	7	19	33.5	-24	59	34.7	109.889637	-24.992979	4.37	-0.132	-0.10	O9Ib
35550	7	21	20.7	+21	56	34.5	110.336451	+21.942904	3.50	0.374	0.44	F0IV...
35727	7	23	7.7	-19	3	24.9	110.782153	-19.056916	4.94	-0.039	0.01	B5II/III
35904	7	24	54.4	-29	20	39.1	111.226577	-29.344195	2.45	-0.083	0.01	B5Ia
36041	7	26	46.1	+ 9	14	2.9	111.691980	+ 9.234129	4.99	0.991	0.96	G8III
36046	7	26	59.9	+27	45	20.2	111.749408	+27.755620	3.78	1.024	1.01	G9III+...
36145	7	28	15.3	+49	10	7.5	112.063729	+49.168746	4.61	-0.001	0.02	A1V
36188	7	28	15.7	+ 8	14	47.4	112.065409	+ 8.246489	2.89	-0.097	-0.07	B8Vvar
36284	7	29	16.7	+ 8	52	57.0	112.319663	+ 8.882509	4.33	1.425	1.48	K3III SB
36366	7	30	25.7	+31	44	31.4	112.606970	+31.742062	4.16	0.320	0.40	F0V...
36377	7	29	52.9	-43	20	37.9	112.470296	-43.343850	3.25	1.509	1.54	K5III SB
36425	7	30	56.2	+11	57	45.4	112.734098	+11.962618	4.55	1.276	1.21	K2III
36431	7	30	43.7	-23	4	5.0	112.682007	-23.068065	4.85	0.243	0.35	A6Ib/II
36514	7	31	30.5	-31	0	23.2	112.876884	-31.006456	4.65	0.904	0.89	G2Ib...
36547	7	35	15.7	+82	21	58.0	113.815430	+82.366106	4.92	1.633	2.66	M4IIIa
36773	7	34	44.5	-14	34	10.2	113.685293	-14.569499	4.82	1.362	1.37	A4Ia
36795	7	34	55.9	-22	20	29.5	113.732722	-22.341535	4.44	0.521	0.60	F6V
36850	7	35	54.1	+31	50	29.0	113.975602	+31.841380	1.58	0.034	0.05	A2Vm
36917	7	36	12.3	-28	24	56.7	114.051225	-28.415748	4.65	-0.111	-0.12	B8V
36942	7	36	10.1	-52	34	49.0	114.042196	-52.580278	4.93	1.373	1.39	K3III
36962	7	37	11.0	+26	50	54.5	114.295761	+26.848474	4.06	1.540	1.66	K5III
37096	7	38	7.7	-35	0	56.3	114.531942	-35.015647	4.53	-0.081	-0.08	B8IV/V
37173	7	39	9.3	-25	24	45.0	114.788600	-25.412494	4.69	-0.100	-0.07	B8IV
37229	7	39	40.3	-26	51	5.8	114.917934	-26.851597	3.80	-0.159	-0.15	B5IV
37265	7	40	30.0	+34	32	7.9	115.125029	+34.535538	4.89	0.413	0.47	F3III
37279	7	40	22.4	+ 5	10	15.9	115.093533	+ 5.171095	0.40	0.432	0.49	F5IV-V
37297	7	40	10.7	-38	21	21.9	115.044588	-38.356077	4.84	-0.189	-0.17	B3V
37379	7	41	19.5	-15	18	45.7	115.331109	-15.312689	4.98	1.543	1.49	K3III
37447	7	42	13.6	- 9	36	0.9	115.556627	- 9.600250	3.94	1.022	1.01	K0III
37504	7	41	33.4	-72	39	18.0	115.389019	-72.655002	3.93	1.033	1.02	K0III
37609	7	44	43.8	+58	39	36.4	116.182605	+58.660105	4.93	0.104	0.17	A3IVn
37629	7	44	35.4	+28	49	56.0	116.147575	+28.832221	4.23	1.118	1.12	K1III SB
37648	7	44	22.1	-28	27	38.6	116.091946	-28.460724	4.63	1.632	1.76	K5III
37677	7	44	37.9	-29	0	17.7	116.157779	-29.004928	3.94	0.160	0.34	A2Iab
37740	7	45	41.0	+24	20	49.8	116.420746	+24.347179	3.57	0.932	0.90	G8III
37819	7	45	59.1	-38	1	9.5	116.496453	-38.019300	3.62	1.706	1.82	K4III

Posiciones medias de estrellas brillantes, 2022

Estrella	α			δ			α	δ				
NH	h	m	s	º	‘	“	º	º	V	U-V	B-V	Espectro
37826	7	46	34.1	+27	58	30.2	116.641962	+27.975054	1.16	0.991	0.97	K0IIIvar
37908	7	47	18.6	+18	27	30.7	116.827304	+18.458520	4.89	1.425	1.54	K5III
38070	7	48	56.3	-25	59	21.0	117.234650	-25.989176	4.40	-0.070	0.13	B1IV:nne
38089	7	48	56.8	-47	7	48.9	117.236533	-47.130249	4.69	1.039	1.03	K0III
38164	7	49	51.8	-46	25	32.3	117.465761	-46.425649	4.10	-0.160	-0.17	B0III
38170	7	50	9.4	-24	54	44.5	117.539177	-24.912361	3.34	1.218	1.08	G6Ia
38414	7	52	55.3	-40	37	46.5	118.230590	-40.629581	3.71	1.012	1.04	G5III...
38455	7	53	22.2	-38	55	0.5	118.342511	-38.916806	4.49	-0.188	-0.18	B2V
38500	7	53	38.3	-49	40	1.7	118.409522	-49.667129	4.63	-0.228	-0.24	B1.5Vp
38518	7	53	54.3	-48	9	25.8	118.476260	-48.157179	4.22	-0.130	-0.11	B0.5Ib
38538	7	54	44.9	+26	42	40.0	118.687153	+26.711105	4.97	0.098	0.14	A3V
38827	7	57	18.0	-53	2	17.0	119.324852	-53.038043	3.46	-0.177	-0.17	B3IVp
38835	7	57	44.4	-22	56	9.4	119.435158	-22.935940	4.20	0.718	0.75	F7/F8II
38901	7	58	29.2	-30	23	26.7	119.621517	-30.390757	4.76	0.151	0.24	A7III
38957	7	58	49.8	-49	18	4.7	119.707517	-49.301298	4.47	-0.180	-0.14	B1Vp + B2
39079	8	0	45.6	- 3	44	12.3	120.189892	- 3.736757	4.93	1.205	1.22	K2III
39095	8	0	47.2	-18	27	23.8	120.196566	-18.456621	4.61	0.087	0.11	A1V
39138	8	0	35.3	-63	37	28.6	120.146989	-63.624605	4.81	-0.173	-0.16	B3V
39211	8	2	15.9	- 1	27	3.0	120.566118	- 1.450837	4.69	1.475	1.54	K4III
39311	8	3	19.9	+ 2	16	36.8	120.832830	+ 2.276897	4.39	1.252	1.27	K2III
39424	8	4	46.4	+27	44	7.1	121.193428	+27.735301	4.94	1.130	1.09	K2III
39429	8	4	18.3	-40	3	42.5	121.076254	-40.061804	2.21	-0.269	-0.22	O5IAf
39757	8	8	25.1	-24	21	52.3	122.104394	-24.364530	2.83	0.458	0.42	F2mF5IIp
39794	8	7	59.3	-68	40	38.4	121.997085	-68.677347	4.35	-0.113	-0.10	B6IV
39847	8	9	59.4	+51	26	44.4	122.497607	+51.445671	4.78	0.048	0.10	A2V
39863	8	9	37.4	- 3	2	41.1	122.405990	- 3.044747	4.36	0.970	0.92	G2Ib
39903	8	9	20.9	-61	21	54.2	122.337187	-61.365051	4.74	0.437	0.53	F5V
39906	8	9	56.6	-19	18	22.1	122.485689	-19.306142	4.40	-0.160	-0.14	B5V
39953	8	10	9.9	-47	23	52.0	122.541124	-47.397783	1.75	-0.145	-0.14	WC8 + O9I
40084	8	12	14.0	-12	59	20.4	123.058387	-12.989002	4.72	0.939	0.93	K0III
40091	8	12	5.5	-39	40	50.0	123.022750	-39.680565	4.44	1.590	1.62	K4III
40096	8	12	7.5	-43	2	57.5	123.031119	-43.049311	4.73	0.164	0.30	A7Ib
40167	8	13	23.1	+17	35	4.0	123.346140	+17.584447	4.67	0.531	0.60	G0V
40259	8	14	16.5	-15	51	4.1	123.568788	-15.851140	4.99	1.066	1.02	G5Ib/II
40274	8	14	16.0	-35	57	44.6	123.566585	-35.962396	4.78	-0.110	-0.01	B2ne
40326	8	14	46.6	-40	24	41.1	123.694301	-40.411412	4.42	1.170	1.15	K1II/III
40526	8	17	37.5	+ 9	7	15.7	124.406399	+ 9.121021	3.53	1.481	1.47	K4III
40702	8	17	57.9	-76	59	1.9	124.491314	-76.983867	4.05	0.413	0.49	F5III
40706	8	19	19.4	-36	43	25.5	124.830785	-36.723749	4.44	0.222	0.25	A4m...
40888	8	19	59.5	-77	32	59.4	124.998074	-77.549832	4.34	1.161	1.10	K0III-IV
40945	8	22	11.5	-33	7	13.9	125.547928	-33.120534	4.83	1.419	1.35	K2/K3III
41037	8	22	56.0	-59	34	33.3	125.733209	-59.575917	1.86	1.196	1.16	K3III+B2V
41039	8	23	9.6	-48	33	25.0	125.789818	-48.556952	4.79	-0.146	-0.12	B1V
41075	8	24	13.9	+43	7	14.5	126.057908	+43.120691	4.25	1.550	1.61	K5III
41307	8	26	41.1	- 3	58	28.2	126.671083	- 3.974505	3.91	-0.012	-0.02	A0V
41312	8	25	57.2	-66	12	20.0	126.488478	-66.205551	3.77	1.132	1.10	K2IIIvar
41704	8	31	57.1	+60	38	51.6	127.987842	+60.647666	3.35	0.856	0.87	G4II-III
42134	8	35	48.7	-58	4	50.6	128.952927	-58.080725	4.84	0.981	0.98	K0III
42312	8	38	21.9	-43	3	41.8	129.591343	-43.061616	4.11	0.109	0.20	A6II
42313	8	38	44.4	+ 5	37	51.9	129.684997	+ 5.631081	4.14	0.003	0.02	A1Vnn
42402	8	39	49.7	+ 3	16	5.7	129.956910	+ 3.268263	4.45	1.216	1.12	K2III
42483	8	40	33.6	-29	38	6.0	130.139812	-29.634993	4.86	0.900	0.99	G5III
42509	8	40	59.7	-12	32	56.1	130.248946	-12.548913	4.98	1.415	1.40	K3III
42515	8	40	54.3	-35	22	55.2	130.226413	-35.382014	3.97	0.936	0.91	G5II/III
42527	8	41	59.1	+64	15	15.5	130.496112	+64.254314	4.59	1.179	1.18	K2III
42536	8	40	52.8	-52	59	43.0	130.220097	-52.995267	3.60	-0.168	-0.16	B3IV
42568	8	41	4.1	-59	50	4.7	130.267120	-59.834648	4.31	-0.117	-0.08	B1.5III
42570	8	41	18.4	-46	43	20.8	130.326735	-46.722440	3.77	0.670	0.92	F3Ia
42624	8	41	53.5	-47	23	27.7	130.472890	-47.391029	4.74	0.137	0.25	A5II

Posiciones medias de estrellas brillantes, 2022

Estrella	α			δ			α	δ				
NH	h	m	s	º	‘	“	º	º	V	U-V	B-V	Espectro
42662	8	42	40.4	-16	1	5.2	130.668387	-16.018108	4.87	1.063	1.04	K0IIICN...
42726	8	43	0.6	-53	11	17.7	130.752704	-53.188238	4.83	-0.173	-0.18	B3IV
42799	8	44	17.7	+ 3	19	26.0	131.073734	+ 3.323880	4.30	-0.192	-0.20	B3V...
42806	8	44	28.1	+21	23	36.5	131.117255	+21.393463	4.66	0.010	0.03	A1IV
42828	8	44	25.0	-33	15	40.3	131.104203	-33.261194	3.68	-0.180	-0.17	B1.5III
42835	8	44	40.8	- 7	18	31.2	131.169808	- 7.308668	4.63	0.840	0.85	G2Ib
42884	8	45	7.9	-42	43	27.6	131.283028	-42.724321	4.05	0.874	0.89	G5III
42911	8	45	50.8	+18	4	39.7	131.461818	+18.077699	3.94	1.083	1.01	K0III
42913	8	45	16.2	-54	47	4.7	131.317463	-54.784636	1.93	0.043	0.05	A1V
43023	8	46	43.4	-46	7	2.1	131.680767	-46.117255	3.87	0.015	0.09	A1III
43067	8	47	20.7	-13	37	25.3	131.836055	-13.623689	4.32	0.900	0.91	G8III
43103	8	47	56.0	+28	41	0.8	131.983346	+28.683550	4.03	1.007	0.96	G8Iab:
43105	8	47	14.3	-56	50	44.5	131.809675	-56.845705	4.50	-0.169	-0.16	B3Vne
43109	8	47	51.5	+ 6	20	32.9	131.964642	+ 6.342483	3.38	0.685	0.78	G0III-IV
43234	8	49	31.0	+ 5	45	39.3	132.379324	+ 5.760929	4.35	-0.044	-0.03	A0Vn
43347	8	50	30.2	-45	23	5.8	132.625921	-45.384944	4.94	0.043	0.06	A2III
43409	8	51	24.2	-27	47	12.5	132.850719	-27.786803	4.02	1.272	1.24	K3III
43783	8	55	30.6	-60	43	24.2	133.877474	-60.723386	3.84	-0.104	-0.08	B8III
43813	8	56	28.6	+ 5	51	59.0	134.119011	+ 5.866398	3.11	0.978	0.96	G8III-IV
43825	8	56	24.4	-27	45	42.1	134.101553	-27.761691	4.87	0.142	0.16	A3IV
43878	8	56	56.4	-52	48	10.4	134.235026	-52.802890	4.68	-0.115	-0.11	B5V
43937	8	57	28.5	-59	18	32.4	134.368582	-59.308998	4.93	-0.182	-0.21	B2IV-V
44066	8	59	36.4	+11	46	37.9	134.901576	+11.777184	4.26	0.141	0.14	A5m
44127	9	0	36.1	+47	57	35.9	135.150512	+47.959976	3.12	0.223	0.25	A7IV
44191	9	0	51.4	-41	20	3.0	135.214141	-41.334159	4.45	0.646	0.75	Fp
44248	9	1	57.7	+41	42	2.0	135.490464	+41.700547	3.96	0.463	0.53	F5V
44382	9	2	45.9	-66	28	41.6	135.691350	-66.478212	4.00	0.145	0.15	Am
44390	9	4	21.9	+67	32	52.2	136.091212	+67.547822	4.74	1.542	2.15	M3III
44471	9	5	0.9	+47	4	26.5	136.253912	+47.074019	3.57	0.007	0.03	A1Vn
44511	9	4	51.8	-47	10	48.2	136.215695	-47.180053	3.75	1.174	1.11	K2III
44599	9	5	11.3	-72	41	6.8	136.296911	-72.685221	4.47	0.607	0.67	F6II-III
44626	9	5	47.8	-70	37	16.0	136.449362	-70.621121	4.66	-0.149	-0.13	B2IVe
44659	9	7	3.0	+ 5	0	33.5	136.762646	+ 5.009304	4.99	1.189	1.17	K2II-III
44700	9	7	49.6	+38	22	8.2	136.956735	+38.368958	4.56	1.037	0.97	G8Ib-II
44816	9	8	45.1	-43	30	57.9	137.187791	-43.516095	2.23	1.665	1.69	K4Ib-II
44824	9	8	56.9	-25	56	31.8	137.237153	-25.942160	4.62	1.594	1.66	K4/K5III
44901	9	10	18.4	+51	31	13.7	137.576460	+51.520473	4.46	0.288	0.30	Am
45038	9	12	10.1	+67	2	56.2	138.042232	+67.048950	4.80	0.489	0.57	F7IV-V
45075	9	12	35.1	+63	25	42.9	138.146420	+63.428572	4.67	0.381	0.45	Am
45080	9	11	30.4	-59	3	4.9	137.876871	-59.051366	3.43	-0.190	-0.17	B2IV
45085	9	11	49.1	-44	57	9.0	137.954605	-44.952496	4.99	0.222	0.36	B5Ia
45101	9	11	44.6	-62	24	5.5	137.935696	-62.401529	3.96	-0.180	-0.18	B3IV
45238	9	13	25.0	-69	48	6.6	138.354241	-69.801839	1.67	0.070	0.02	A2IV
45336	9	15	25.8	+ 2	13	36.5	138.857320	+ 2.226818	3.89	-0.060	-0.07	B9.5V
45439	9	16	25.3	-38	39	22.1	139.105292	-38.656126	4.92	1.084	1.06	K1III
45448	9	16	34.4	-37	29	57.7	139.143252	-37.499361	4.63	0.473	0.52	F3/F5V
45493	9	17	39.1	+53	56	8.8	139.412779	+53.935766	4.80	0.199	0.26	A5V
45496	9	16	46.8	-57	37	40.2	139.195038	-57.627839	4.34	1.602	1.83	M1III
45556	9	17	38.3	-59	21	42.2	139.409641	-59.361724	2.21	0.189	0.28	A8Ib
45688	9	20	6.8	+36	42	52.8	140.028358	+36.714660	3.82	0.066	0.12	A1V
45751	9	20	45.6	-12	3	44.2	140.190138	-12.062287	4.77	0.927	0.91	G8III
45811	9	21	29.1	- 9	38	36.9	140.371122	- 9.643574	4.80	0.913	0.92	F5V+...
45856	9	21	26.3	-62	29	32.7	140.359457	-62.492428	4.79	0.926	0.96	G6III
45860	9	22	17.9	+34	18	16.9	140.574576	+34.304694	3.14	1.550	1.65	M0IIIvar
45902	9	22	24.1	-26	3	12.7	140.600424	-26.053526	4.71	1.633	1.91	M0III
45941	9	22	45.0	-55	5	55.7	140.687303	-55.098795	2.47	-0.141	-0.17	B2IV
46026	9	24	5.6	-28	55	20.4	141.023178	-28.922331	4.71	0.892	0.91	G8III
46146	9	25	50.6	+26	5	34.7	141.461020	+26.092984	4.47	1.222	1.20	K2III
46371	9	28	14.7	-22	26	4.1	142.061375	-22.434472	4.72	1.154	1.11	K1III

Posiciones medias de estrellas brillantes, 2022

Estrella	α			δ			α	δ				
NH	h	m	s	º	‘	“	º	º	V	U-V	B-V	Espectro
46390	9	28	35.7	- 8	44	54.1	142.148648	- 8.748369	1.99	1.440	1.39	K3III
46509	9	30	11.2	- 2	51	33.9	142.546845	- 2.859414	4.59	0.411	0.52	F6V
46515	9	30	5.6	-36	2	30.3	142.523235	-36.041740	4.51	1.408	1.37	K3III
46651	9	31	30.6	-40	33	26.5	142.877575	-40.557365	3.60	0.371	0.43	F2IV
46701	9	31	50.7	-57	7	31.2	142.961436	-57.125339	3.16	1.538	1.59	K5III
46733	9	33	7.4	+62	58	14.8	143.280686	+62.970776	3.65	0.360	0.41	F0IV
46750	9	32	53.2	+22	52	35.5	143.221621	+22.876527	4.32	1.541	1.63	K5IIIvar
46771	9	33	2.9	+11	12	29.1	143.262159	+11.208076	4.99	1.046	0.89	K0IIIvar
46776	9	33	1.6	- 1	16	33.5	143.256631	- 1.275972	4.54	0.109	0.16	A3V
46853	9	34	13.1	+51	34	57.8	143.554425	+51.582735	3.17	0.475	0.56	F6IV
46952	9	35	28.4	+36	18	19.6	143.868140	+36.305449	4.54	0.914	0.91	G8III
46974	9	35	2.4	-59	19	18.0	143.759846	-59.321670	4.08	-0.013	0.01	B5II
46977	9	36	15.5	+69	44	19.1	144.064690	+69.738639	4.54	0.781	0.83	G4III-IV
47006	9	36	13.0	+51	57	32.7	144.054128	+51.959090	4.47	0.027	0.08	A2V
47029	9	36	20.1	+39	31	45.8	144.083915	+39.529376	4.81	0.992	1.00	K0III
47175	9	37	33.7	-49	26	50.9	144.390237	-49.447458	4.34	0.173	0.18	A5V
47193	9	39	51.6	+81	13	59.7	144.964815	+81.233254	4.28	1.488	1.46	K3III
47205	9	38	17.5	+ 6	44	34.9	144.572920	+ 6.743033	5.00	1.051	1.03	K1IIIvar
47310	9	39	31.4	+ 4	33	21.0	144.880712	+ 4.555829	4.68	1.310	1.35	K3III
47391	9	39	55.1	-61	25	16.8	144.979527	-61.421329	4.51	-0.070	-0.06	B9V
47431	9	40	54.1	- 1	14	12.3	145.225548	- 1.236745	3.90	1.313	1.29	K3IIIvar
47508	9	42	14.6	+ 9	47	53.3	145.560696	+ 9.798142	3.52	0.516	0.59	A5V+...
47522	9	42	13.2	-23	41	7.7	145.554985	-23.685471	4.76	-0.117	-0.10	B5V
47592	9	43	10.0	-24	0	30.1	145.791678	-24.008348	4.93	0.534	0.58	G0V
47758	9	45	7.0	-27	51	50.6	146.279172	-27.864049	4.78	0.516	0.61	A7V+...
47854	9	45	48.6	-62	36	10.4	146.452540	-62.602885	3.69	1.010	1.03	G5Iab/Ib
47908	9	47	0.7	+23	40	44.1	146.752759	+23.678925	2.97	0.808	0.81	G0II
48002	9	47	36.8	-65	10	3.0	146.903398	-65.167509	2.92	0.273	0.42	A9
48319	9	52	25.8	+58	56	28.3	148.107581	+58.941197	3.78	0.291	0.39	F0IV
48356	9	52	27.9	-14	56	36.6	148.116209	-14.943491	4.11	0.918	0.92	G6/G8III
48374	9	52	28.3	-46	38	39.7	148.117980	-46.644360	4.58	1.172	1.10	G5Ib
48402	9	53	29.3	+53	58	2.8	148.371889	+53.967455	4.55	0.038	0.09	A3IV
48455	9	53	55.5	+25	54	34.3	148.481362	+25.909520	3.88	1.222	1.13	K0III
48559	9	55	8.1	-26	1	46.2	148.783908	-26.029502	4.87	1.199	1.19	K2III
48615	9	55	50.3	-19	6	26.0	148.959498	-19.107214	4.94	1.559	1.75	K5III
48774	9	57	35.1	-54	39	57.2	149.396081	-54.665902	3.52	-0.067	-0.04	B5Ib
49029	10	1	17.7	+ 7	56	42.3	150.323791	+ 7.945088	4.68	1.589	1.96	M2III
49402	10	6	7.4	-13	9	53.0	151.530819	-13.164711	4.60	-0.087	-0.07	B8V
49583	10	8	26.8	+16	39	43.0	152.111854	+16.661931	3.48	-0.031	0.06	A0Ib
49593	10	8	37.9	+35	8	38.2	152.158091	+35.143933	4.49	0.190	0.19	A7V
49637	10	8	59.4	+ 9	53	46.6	152.247662	+ 9.896291	4.39	1.448	1.51	K4III
49641	10	8	59.2	- 0	28	21.1	152.246594	- 0.472521	4.48	-0.032	-0.01	A0III
49669	10	9	27.7	+11	51	58.6	152.365397	+11.866265	1.36	-0.087	-0.10	B7V
49712	10	9	43.0	-51	54	44.4	152.429349	-51.912323	4.85	-0.120	-0.10	B3IV
49841	10	11	35.3	-12	27	22.0	152.896997	-12.456109	3.61	1.007	0.96	K0III
50099	10	14	13.4	-70	8	23.9	153.555697	-70.139981	3.29	-0.074	-0.03	B8III
50191	10	15	36.0	-42	13	26.6	153.899830	-42.224047	3.85	0.051	0.03	A2V
50335	10	17	49.6	+23	18	52.0	154.456690	+23.314432	3.43	0.307	0.39	F0III
50371	10	17	46.2	-61	26	6.5	154.442569	-61.435143	3.39	1.541	1.45	K3II
50372	10	18	19.5	+42	48	40.3	154.581184	+42.811193	3.45	0.029	0.05	A2IV
50555	10	20	23.2	-55	7	57.7	155.096533	-55.132704	4.59	1.600	1.50	K3II
50564	10	20	50.9	+19	21	58.5	155.212263	+19.366239	4.78	0.452	0.53	F6IV
50583	10	21	6.0	+19	44	13.6	155.274874	+19.737104	2.01	1.128	1.17	K0III
50676	10	21	40.8	-56	8	48.9	155.419886	-56.146905	4.50	-0.102	-0.08	B3III
50799	10	23	12.5	-41	45	13.0	155.802178	-41.753619	4.82	1.095	1.06	K1IIIvar
50801	10	23	32.6	+41	23	44.4	155.885701	+41.395675	3.06	1.603	1.77	M0III SB
50847	10	23	34.7	-67	0	19.9	155.894709	-67.005537	4.97	-0.128	-0.12	B8V
50933	10	25	35.1	+65	27	42.8	156.396256	+65.461886	4.94	-0.052	-0.02	A0sp...
50954	10	24	47.8	-74	8	10.1	156.199273	-74.136134	3.99	0.369	0.43	F2IV

Posiciones medias de estrellas brillantes, 2022

Estrella	α			δ			α	δ				
NH	h	m	s	º	‘	“	º	º	V	U-V	B-V	Espectro
51056	10	27	5.0	+33	41	27.8	156.770764	+33.691045	4.72	0.260	0.31	F0V
51069	10	27	5.0	-16	56	29.4	156.770763	-16.941500	3.83	1.456	1.47	K4III
51172	10	28	5.5	-31	10	21.7	157.023009	-31.172694	4.28	1.429	1.47	K4III
51192	10	28	10.5	-57	44	37.6	157.043868	-57.743786	4.65	0.474	0.69	A6Ia
51232	10	28	38.1	-58	50	40.1	157.158796	-58.844483	3.81	0.317	0.41	F2II
51233	10	29	3.7	+36	36	5.3	157.265597	+36.601469	4.20	0.908	0.89	G8III-IV
51438	10	30	51.1	-72	5	54.6	157.713083	-72.098500	4.72	0.042	0.06	A2III
51459	10	31	55.5	+55	52	28.9	157.981154	+55.874682	4.82	0.541	0.58	F8V
51495	10	31	30.6	-73	19	37.6	157.877704	-73.327116	4.94	1.677	1.71	K4/K5III
51523	10	32	9.9	-53	49	12.3	158.041137	-53.820079	4.89	0.500	0.58	F6V
51576	10	32	45.4	-61	47	28.1	158.189355	-61.791146	3.30	-0.089	0.02	B4Vne
51624	10	33	53.3	+ 9	12	1.8	158.472262	+ 9.200511	3.84	-0.148	-0.13	B1Ib SB
51658	10	34	25.2	+40	19	10.1	158.605090	+40.319463	4.72	0.222	0.23	A7IV
51808	10	36	46.7	+75	36	22.8	159.194522	+75.606342	4.86	0.957	0.94	K0III
51839	10	35	41.7	-78	42	51.1	158.923771	-78.714181	4.11	1.580	1.71	M0III
51849	10	36	22.8	-57	39	51.0	159.095070	-57.664168	4.45	1.604	1.62	K3/K4II
51979	10	38	11.6	-27	31	9.7	159.548267	-27.519351	4.87	1.626	1.89	M1III
51986	10	38	10.1	-48	19	56.9	159.542166	-48.332469	3.84	0.300	0.35	A3m+...
52009	10	38	34.1	-13	29	29.9	159.641964	-13.491651	4.89	2.800	2.27	C
52085	10	39	35.0	-16	59	0.6	159.895686	-16.983498	4.91	0.922	0.85	G8III
52098	10	39	52.1	+31	52	9.0	159.967204	+31.869166	4.68	0.823	0.82	G0II
52102	10	39	32.1	-59	17	24.3	159.883722	-59.290078	4.69	1.562	1.63	K4/K5III:
52154	10	40	7.6	-55	42	37.5	160.031769	-55.710428	4.29	1.025	0.96	G2II
52370	10	42	58.1	-64	34	26.5	160.741898	-64.574031	4.76	-0.139	-0.13	B3V
52419	10	43	41.6	-64	30	7.8	160.923189	-64.502169	2.74	-0.220	-0.24	B0Vp
52468	10	44	19.4	-60	40	28.2	161.080955	-60.674487	4.58	1.700	1.79	K3Ib
52502	10	44	51.7	-64	4	8.3	161.215478	-64.068980	4.80	-0.134	-0.12	B5Vn
52633	10	45	57.2	-80	38	54.1	161.488260	-80.648349	4.45	-0.188	-0.19	B2.5IV
52727	10	47	39.3	-49	31	44.3	161.913890	-49.528960	2.69	0.901	0.91	G5III SB
52736	10	47	36.3	-64	29	30.6	161.901321	-64.491832	4.87	-0.149	-0.18	B3IV
52943	10	50	38.3	-16	18	5.0	162.659389	-16.301394	3.11	1.232	1.22	K0/K1III
53229	10	54	27.2	+34	6	14.0	163.613219	+34.103884	3.79	1.040	1.07	K0III-IV
53253	10	54	20.0	-58	57	44.5	163.583248	-58.962358	3.78	0.945	0.96	K0III-IV...
53295	10	55	9.1	+43	4	49.2	163.787841	+43.080326	4.66	-0.039	0.01	A1Vs
53417	10	56	43.2	+24	38	23.7	164.179902	+24.639920	4.30	0.016	0.07	A1
53502	10	57	40.6	-37	14	53.9	164.419101	-37.248313	4.60	1.006	0.99	K0III
53740	11	0	46.5	-18	24	30.0	165.193774	-18.408326	4.08	1.079	1.06	K1III
53773	11	1	6.0	-42	20	10.1	165.274823	-42.336139	4.37	0.116	0.13	A3IV
53807	11	1	37.1	+ 3	30	25.3	165.404727	+ 3.507040	4.84	1.144	1.13	K1III
53824	11	1	48.5	+ 5	59	27.4	165.452086	+ 5.990938	4.98	0.166	0.18	A5III
53907	11	2	52.4	- 2	35	43.1	165.718402	- 2.595308	4.73	1.593	1.77	K5III
53910	11	3	3.9	+56	16	19.5	165.766325	+56.272079	2.34	0.033	0.02	A1V
53954	11	3	25.3	+20	4	10.1	165.855286	+20.069475	4.42	0.053	0.03	A1m
54061	11	4	58.5	+61	38	24.3	166.243928	+61.640072	1.81	1.061	1.03	F7V comp
54182	11	6	4.4	+ 7	13	29.4	166.518414	+ 7.224837	4.62	0.332	0.39	F2III-IVvar
54204	11	6	19.3	-27	24	16.5	166.580565	-27.404590	4.92	0.369	0.43	F3IV/V
54301	11	7	23.3	-62	32	6.5	166.847075	-62.535131	4.62	0.988	0.97	G8III
54463	11	9	28.3	-59	5	10.8	167.368098	-59.086328	3.93	1.225	1.19	G0Ia0
54539	11	10	48.5	+44	23	12.8	167.702123	+44.386901	3.00	1.144	1.09	K1III
54682	11	12	40.1	-22	56	16.9	168.167219	-22.938034	4.46	0.025	0.04	A1V
54751	11	13	29.2	-60	25	45.6	168.371793	-60.429339	4.59	0.541	0.70	A6Ia
54872	11	15	11.7	+20	24	40.0	168.798942	+20.411105	2.56	0.128	0.12	A4V
54879	11	15	18.8	+15	19	2.0	168.828463	+15.317230	3.33	-0.003	0.01	A2V
54951	11	16	17.5	+22	59	0.4	169.072763	+22.983457	4.56	1.657	2.27	M3III
55084	11	17	42.3	- 3	45	50.1	169.426076	- 3.763927	4.45	0.210	0.25	A7IVn
55203	0	1	3.0	+ 0	6	50.8	0.262632	+ 0.114113	3.79	0.606	0.68	G0V
55219	11	19	34.9	+32	58	55.8	169.895387	+32.982164	3.49	1.400	1.37	K3III SB
55266	11	20	14.6	+38	4	22.2	170.060821	+38.072826	4.76	0.113	0.11	A2V
55282	11	20	22.0	-14	53	23.1	170.091848	-14.889760	3.56	1.112	1.12	K0III

Posiciones medias de estrellas brillantes, 2022

Estrella	α			δ			α	δ				
NH	h	m	s	°	‘	“	°	°	V	U-V	B-V	Espectro
55425	11	21	56.9	-54	36	12.7	170.487179	-54.603536	3.90	-0.157	-0.16	B5Vn
55434	11	22	11.6	+ 5	55	0.2	170.548249	+ 5.916730	4.05	-0.058	-0.06	B9.5Vs
55560	11	23	56.7	+43	22	11.9	170.986131	+43.369966	4.99	0.998	0.94	G8II
55588	11	24	12.5	-36	16	38.9	171.052117	-36.277458	5.00	1.464	1.47	K4III
55642	11	24	59.5	+10	24	58.8	171.247736	+10.416333	4.00	0.423	0.47	F2IV SB
55687	11	25	38.8	-10	58	19.1	171.411622	-10.971982	4.81	1.556	1.67	K5III
55705	11	25	54.5	-17	47	48.5	171.477090	-17.796807	4.06	0.216	0.24	A9V
55945	11	28	59.5	+ 2	44	35.4	172.247826	+ 2.743173	4.95	1.000	0.95	G8II-III
56127	11	31	21.8	- 3	7	0.4	172.840690	- 3.116786	4.77	1.529	1.62	K4III
56211	11	32	35.9	+69	13	3.8	173.149653	+69.217709	3.82	1.613	1.79	M0IIIvar
56280	11	33	17.6	-29	22	24.7	173.323260	-29.373530	4.93	0.540	0.61	F8V
56343	11	34	0.9	-31	58	16.3	173.503548	-31.971208	3.54	0.947	0.92	G8III
56480	11	35	44.5	-54	22	38.8	173.935211	-54.377447	4.62	-0.077	-0.06	B9V
56561	11	36	44.2	-63	8	0.2	174.184337	-63.133381	3.11	-0.044	-0.01	B9II:
56633	11	37	43.4	- 9	54	56.8	174.430800	- 9.915780	4.70	-0.073	-0.06	B9.5Vn
56647	11	37	59.9	- 0	56	13.5	174.499677	- 0.937070	4.30	0.983	0.98	G9III
56922	11	41	14.2	-34	51	30.2	175.308960	-34.858380	4.70	-0.070	-0.05	B9V
56986	11	41	52.4	-62	12	13.8	175.468409	-62.203832	4.93	1.111	1.11	G3Ib
57175	11	44	30.5	-62	36	11.6	176.127224	-62.603225	5.00	0.784	0.87	F9Ia
57283	11	45	48.3	-18	27	52.9	176.451086	-18.464689	4.71	0.958	0.94	G8III
57328	11	46	20.4	+ 8	8	38.8	176.584983	+ 8.144098	4.84	0.174	0.19	A4V
57363	11	46	35.2	-66	50	32.9	176.646835	-66.842481	3.63	0.160	0.17	A7III
57380	11	46	54.7	+ 6	24	52.1	176.728119	+ 6.414465	4.04	1.501	1.79	M0III
57399	11	47	7.5	+47	39	56.3	176.781386	+47.665646	3.69	1.181	1.15	K0III
57439	11	47	31.0	-61	17	32.7	176.879038	-61.292419	4.11	0.895	0.88	G0II
57443	11	47	30.1	-40	36	43.3	176.875368	-40.612041	4.89	0.664	0.73	G3/G5V
57565	11	49	2.5	+20	6	17.8	177.260269	+20.104939	4.50	0.547	0.69	A comp SB
57581	11	49	14.5	-66	55	44.3	177.310514	-66.928976	4.75	1.522	1.62	K4III
57632	11	50	6.2	+14	27	26.8	177.526016	+14.457433	2.14	0.090	0.10	A3Vvar
57669	11	50	41.7	-63	54	8.9	177.673566	-63.902462	4.30	-0.149	-0.09	B3V
57696	11	50	56.4	-70	20	23.3	177.735126	-70.339815	4.98	1.360	1.31	G5Ib
57757	11	51	45.8	+ 1	38	57.1	177.940707	+ 1.649182	3.59	0.518	0.61	F8V
57803	11	52	10.6	-45	17	15.2	178.044092	-45.287556	4.47	1.283	1.24	K4III
57851	11	52	52.2	-65	19	12.0	178.217363	-65.319996	4.89	-0.123	-0.11	B4V
57936	11	53	56.9	-34	1	19.8	178.487209	-34.022177	4.29	-0.100	-0.07	Ap Si
58001	11	54	54.0	+53	34	50.7	178.725147	+53.580744	2.41	0.044	0.06	A0V SB
58484	12	0	40.4	-78	20	9.6	180.168426	-78.335999	4.88	-0.054	-0.02	B9Vn
58590	12	1	55.4	+ 6	30	0.2	180.480842	+ 6.500047	4.65	0.122	0.14	A5V
58758	12	4	4.9	-63	25	37.2	181.020527	-63.426995	4.32	0.280	0.36	Am
58867	12	5	23.3	-63	16	47.3	181.347277	-63.279798	4.72	-0.081	-0.06	B2IV
58948	12	6	15.2	+ 8	37	9.2	181.563206	+ 8.619228	4.12	0.967	0.96	G8III
59072	12	7	57.9	-64	43	40.8	181.991302	-64.727991	4.14	0.353	0.41	F2III
59173	12	9	9.4	-50	46	31.3	182.289352	-50.775365	4.46	-0.163	-0.16	B2IIIne
59196	12	9	25.7	-50	50	11.4	182.357222	-50.836488	2.58	-0.128	-0.12	B2IVne
59199	12	9	28.5	-24	50	35.2	182.368705	-24.843120	4.02	0.334	0.40	F0IV/V
59316	12	11	10.9	-22	44	1.3	182.795586	-22.733697	3.02	1.326	1.23	K2III
59449	12	12	43.9	-52	28	57.1	183.183098	-52.482514	3.97	-0.156	-0.17	B3V
59747	12	16	14.7	-58	51	46.2	184.061453	-58.862833	2.79	-0.193	-0.25	B2IV
59774	12	16	25.9	+56	55	7.8	184.107993	+56.918823	3.32	0.077	0.03	A3Vvar
59803	12	16	51.8	-17	39	20.3	184.215822	-17.655629	2.58	-0.107	-0.10	B8III
59847	12	17	22.6	+23	49	53.7	184.344328	+23.831572	4.93	0.957	0.94	K0III
59856	12	17	31.8	+32	56	49.6	184.382338	+32.947107	4.99	1.140	1.12	K1III
59929	12	18	41.8	-68	4	28.7	184.674368	-68.074638	4.06	1.603	2.82	M5III
60000	12	19	35.6	-79	25	33.2	184.898525	-79.425895	4.24	-0.123	-0.11	B5Vn
60009	12	19	33.8	-64	7	0.7	184.891008	-64.116849	4.06	-0.168	-0.18	B2.5V
60129	12	20	57.3	- 0	46	50.1	185.238918	- 0.780592	3.89	0.026	0.03	A2IV
60172	12	21	23.5	+ 3	11	54.9	185.347826	+ 3.198585	4.97	1.172	1.19	K1III
60202	12	21	45.1	+17	40	47.1	185.437889	+17.679736	4.72	1.010	1.02	G8III
60260	12	22	28.8	-60	30	51.2	185.619973	-60.514228	3.59	1.389	1.39	K3/K4III

Posiciones medias de estrellas brillantes, 2022

Estrella	α			δ			α	δ				
NH	h	m	s	º	‘	“	º	º	V	U-V	B-V	Espectro
60351	12	23	32.0	+25	43	57.3	185.883336	+25.732573	4.78	0.515	0.61	F8:p...
60485	12	25	0.9	+51	26	55.9	186.253652	+51.448859	4.76	0.877	0.89	G7III
60697	12	27	25.4	+27	9	17.5	186.855931	+27.154853	4.92	0.277	0.28	F0p
60710	12	27	38.8	-51	33	50.4	186.911607	-51.564007	4.82	-0.141	-0.16	B3Vn
60718	12	27	45.2	-63	12	44.9	186.938438	-63.212485	0.77	-0.243	-0.26	B0.5IV
60742	12	27	57.4	+28	9	16.8	186.989259	+28.154677	4.35	1.128	1.04	K2IIICN+...
60746	12	28	0.7	+26	42	44.5	187.002737	+26.712356	4.98	0.088	0.05	A4V
60823	12	29	9.4	-50	20	38.1	187.289375	-50.343929	3.91	-0.192	-0.20	B3V
60965	12	30	55.7	-16	37	45.5	187.731970	-16.629317	2.94	-0.012	-0.04	B9.5V
61084	12	32	18.9	-57	13	39.7	188.078835	-57.227700	1.59	1.600	2.37	M4III
61174	12	33	7.8	-16	18	33.5	188.282504	-16.309293	4.30	0.388	0.44	F2V
61199	12	33	43.1	-72	14	45.4	188.429555	-72.245942	3.84	-0.157	-0.14	B5V
61281	12	34	20.8	+69	40	31.6	188.586735	+69.675435	3.85	-0.116	-0.02	B6IIIp
61317	12	34	42.7	+41	14	46.5	188.678101	+41.246264	4.24	0.588	0.67	G0V
61359	12	35	28.1	-23	30	35.5	188.866964	-23.509860	2.65	0.893	0.88	G5II
61384	12	35	35.4	+69	54	32.4	188.897700	+69.908990	4.95	1.312	1.27	K2III
61394	12	35	52.3	+22	30	60.0	188.967835	+22.516660	4.80	0.012	0.03	A0IV
61585	12	38	25.7	-69	14	53.5	189.607231	-69.248197	2.69	-0.176	-0.23	B2IV-V
61622	12	38	50.0	-48	39	13.9	189.708257	-48.653866	3.85	0.049	0.06	A2V
61740	12	40	18.4	- 8	6	29.2	190.076514	- 8.108100	4.66	1.240	1.15	K2III
61789	12	40	59.5	-40	5	59.2	190.248032	-40.099782	4.63	-0.082	-0.06	B8II/III
61932	12	42	39.4	-49	4	19.5	190.664359	-49.072089	2.20	-0.023	-0.01	A1IV
61941	12	42	42.0	- 1	33	40.4	190.674929	- 1.561224	2.74	0.368	0.43	F0V+...
61960	12	42	55.3	+10	7	22.7	190.730397	+10.122963	4.88	0.076	0.08	A0V
61966	12	43	8.2	-59	47	52.8	190.784162	-59.797992	4.91	-0.044	-0.02	B6IV
62012	12	43	44.1	-48	55	31.3	190.933772	-48.925372	4.66	1.075	1.03	K0III
62268	12	46	51.3	-61	5	36.5	191.713795	-61.093476	4.69	1.049	1.03	K1III
62322	12	47	33.6	-68	13	11.7	191.889955	-68.219906	3.04	-0.178	-0.19	B2V
62327	12	47	34.1	-56	36	2.2	191.892093	-56.600621	4.62	-0.150	-0.16	B3V
62434	12	48	56.0	-59	48	1.5	192.233312	-59.800420	1.25	-0.238	-0.27	B0.5III
62683	12	51	48.3	-34	6	38.4	192.951067	-34.110654	4.90	-0.031	-0.01	B9V
62763	12	52	41.7	+27	25	46.2	193.173840	+27.429498	4.93	0.681	0.70	G0III
62867	12	54	17.1	-49	3	16.0	193.571215	-49.054450	4.33	1.344	1.33	K3/K4III
62886	12	54	18.2	+21	8	1.6	193.576023	+21.133782	4.89	0.904	0.91	G8III
62896	12	54	34.8	-40	17	23.8	193.644845	-40.289952	4.25	0.224	0.27	A4IV
62956	12	54	55.5	+55	50	55.9	193.731332	+55.848868	1.76	-0.022	-0.04	A0p
62985	12	55	25.3	- 9	38	59.9	193.855285	- 9.649960	4.77	1.590	2.18	M3IIIvar
63003	12	55	48.7	-57	17	19.7	193.953051	-57.288818	4.03	-0.180	-0.26	B2IV-V
63007	12	55	53.1	-59	15	27.3	193.971252	-59.257594	4.62	-0.153	-0.15	B4Vn
63090	12	56	38.2	+ 3	17	11.3	194.159258	+ 3.286468	3.39	1.571	2.24	M3III
63125	12	56	59.0	+38	12	28.9	194.245960	+38.208023	2.89	-0.115	-0.13	A0spe...
63355	12	59	56.2	+17	17	57.6	194.984271	+17.299342	4.76	1.568	1.79	M0III
63462	13	1	15.2	+30	40	29.5	195.313344	+30.674861	4.88	1.165	1.13	K1IIIp
63503	13	1	36.2	+56	15	22.6	195.400653	+56.256280	4.93	0.368	0.45	F2V
63608	13	3	11.8	+10	50	57.8	195.799291	+10.849390	2.85	0.934	0.83	G8IIIvar
63613	13	3	42.8	-71	39	31.7	195.928163	-71.658813	3.61	1.190	1.17	K2III
63724	13	4	45.1	-49	38	13.2	196.188030	-49.636997	4.83	0.029	0.05	A0V
63945	13	7	28.6	-48	34	21.6	196.869114	-48.572659	4.71	-0.148	-0.14	B5V
64004	13	8	7.1	-50	0	55.8	197.029501	-50.015512	4.27	-0.182	-0.18	B1.5V
64022	13	8	9.7	+27	30	54.7	197.040209	+27.515188	4.80	1.482	1.55	K5III
64166	13	10	9.8	-23	13	37.9	197.540746	-23.227181	4.94	1.048	1.02	K0III
64238	13	11	0.8	- 5	38	52.6	197.753283	- 5.647951	4.38	-0.008	0.01	A1V
64241	13	10	59.1	+17	25	17.0	197.746143	+17.421393	4.32	0.455	0.53	F5V
64394	13	12	49.7	+27	46	28.6	198.207196	+27.774612	4.23	0.572	0.67	G0V
64408	13	13	12.2	-37	54	40.3	198.300850	-37.911192	4.85	0.693	0.73	G3V
64425	13	13	35.4	-60	1	44.6	198.397420	-60.029058	4.58	-0.073	-0.07	B8V
64540	13	14	38.5	+40	2	41.2	198.660614	+40.044784	4.94	1.061	1.03	K0III
64583	13	15	32.3	-59	12	43.8	198.884378	-59.212168	4.90	0.489	0.56	F7IV
64661	13	16	39.8	-68	0	9.2	199.166007	-68.002551	4.79	-0.078	-0.09	B8V

Posiciones medias de estrellas brillantes, 2022

Estrella	α			δ			α	δ				
NH	h	m	s	°	‘	“	°	°	V	U-V	B-V	Espectro
64820	13	18	37.3	-66	53	27.8	199.655583	-66.891054	4.86	1.480	1.50	K2Ib/II
64844	13	18	27.5	+40	27	54.5	199.614742	+40.465143	4.72	0.306	0.31	F3III
64852	13	18	38.4	+ 5	21	44.6	199.660152	+ 5.362378	4.78	1.638	1.97	M2III
64924	13	19	28.9	-18	25	28.3	199.870476	-18.424517	4.74	0.709	0.75	G5V
64962	13	20	2.4	-23	16	44.6	200.010093	-23.279059	2.99	0.920	0.90	G8III
65109	13	21	45.4	-36	49	11.3	200.439082	-36.819813	2.75	0.068	0.02	A2V
65271	13	23	58.5	-61	5	42.5	200.993615	-61.095134	4.52	-0.141	-0.13	B3V
65378	13	24	44.9	+54	49	7.6	201.186880	+54.818767	2.23	0.057	0.07	A2V
65387	13	25	24.4	-64	38	31.9	201.351796	-64.642191	4.52	0.822	0.87	G5III-IV
65474	13	26	16.5	-11	16	3.8	201.568906	-11.267719	0.98	-0.235	-0.25	B1V
65477	13	26	2.6	+54	52	53.9	201.510858	+54.881625	3.99	0.169	0.19	A5V SB
65639	13	28	33.0	-16	4	45.3	202.137388	-16.079261	4.76	1.096	1.02	K1IIICN...
65721	13	29	26.0	+13	40	11.8	202.358284	+13.669957	4.97	0.714	0.77	G5V
65936	13	32	14.4	-39	30	44.9	203.060157	-39.512480	3.90	1.186	1.10	G8II/III
66006	13	33	2.0	- 6	21	39.6	203.258194	- 6.361001	4.68	1.606	2.06	M3III
66200	13	35	10.3	+ 3	33	15.5	203.793034	+ 3.554315	4.92	0.029	0.03	A1p SrCrEu
66234	13	35	17.4	+48	54	41.9	203.822390	+48.911650	4.68	0.132	0.10	A5V
66249	13	35	44.4	- 0	41	59.8	203.934903	- 0.699956	3.38	0.114	0.12	A3V
66257	13	35	42.6	+37	4	40.7	203.927538	+37.077963	4.91	0.404	0.55	F2IV SB
66458	13	38	22.2	+36	11	28.2	204.592435	+36.191174	4.82	0.239	0.31	A7III
66657	13	41	12.0	-53	34	11.2	205.299955	-53.569771	2.29	-0.171	-0.23	B1III
66738	13	41	30.8	+54	34	42.2	205.378267	+54.578388	4.63	1.630	1.97	M2IIIvar
66821	13	43	4.4	-54	39	44.9	205.768175	-54.662470	4.99	-0.055	-0.03	B8Vn+...
67153	13	46	51.5	-33	8	47.7	206.714691	-33.146597	4.23	0.390	0.44	F3V
67234	13	47	58.0	-51	32	5.1	206.991508	-51.534751	4.64	0.955	0.93	G8/K0III
67275	13	48	14.2	+17	21	19.7	207.059223	+17.355474	4.50	0.508	0.51	F7V
67301	13	48	20.8	+49	12	41.4	207.086633	+49.211491	1.85	-0.099	-0.08	B3V SB
67457	13	50	38.4	-34	33	8.3	207.659912	-34.552318	4.19	1.520	3.00	M5III
67459	13	50	28.0	+15	41	48.9	207.616574	+15.696906	4.05	1.520	1.60	K5IIIvar
67464	13	50	44.6	-41	47	20.4	207.685652	-41.789013	3.41	-0.225	-0.24	B2IV
67472	13	50	51.6	-42	34	30.0	207.714994	-42.575003	3.47	-0.170	-0.21	B2IV-Ve
67480	13	50	41.0	+21	9	46.9	207.670742	+21.163027	4.92	1.432	1.38	K4III
67494	13	50	59.3	-18	14	7.8	207.747270	-18.235497	4.96	1.059	1.09	K0III
67627	13	52	1.9	+64	37	20.7	208.007783	+64.622429	4.58	1.572	2.35	M3III
67665	13	52	41.7	+34	20	36.1	208.173559	+34.343365	4.76	1.611	1.63	K5III
67669	13	53	1.0	-33	5	41.7	208.254034	-33.094913	4.32	-0.146	-0.12	B5
67786	13	54	23.7	-32	1	40.8	208.598730	-32.028003	4.75	-0.111	-0.10	B4IV
67927	13	55	39.7	+18	17	44.6	208.915210	+18.295724	2.68	0.580	0.65	G0IV
68002	13	56	49.7	-47	23	18.2	209.207226	-47.388384	2.55	-0.176	-0.18	B2.5IV
68191	13	59	9.2	-63	47	10.0	209.788371	-63.786098	4.71	1.075	1.05	K4III
68245	13	59	31.5	-42	11	59.9	209.881445	-42.199961	3.83	-0.224	-0.23	B2IV
68282	13	59	57.3	-44	54	9.7	209.988670	-44.902698	3.87	-0.208	-0.22	B2IV-V
68520	14	2	41.5	+ 1	26	46.1	210.672853	+ 1.446135	4.23	0.121	0.14	A3V
68523	14	3	0.8	-45	42	6.4	210.753307	-45.701766	4.34	0.598	0.65	F6II
68702	14	5	17.3	-60	28	15.1	211.322072	-60.470849	0.61	-0.231	-0.25	B1III
68756	14	4	56.7	+64	16	41.9	211.236334	+64.278304	3.67	-0.049	-0.08	A0III SB
68862	14	7	18.4	-41	16	36.7	211.826482	-41.276873	4.36	-0.198	-0.21	B2V
68895	14	7	32.6	-26	46	48.7	211.886038	-26.780190	3.25	1.091	1.10	K2III
68933	14	7	53.8	-36	28	11.3	211.974061	-36.469793	2.06	1.011	1.01	K0IIIb
69112	14	8	47.9	+77	27	4.1	212.199722	+77.451145	4.80	1.368	1.34	K3III
69191	14	11	17.5	-53	32	7.9	212.822848	-53.535529	4.74	0.938	0.92	G8III
69226	14	11	20.0	+24	59	43.2	212.833396	+24.995334	4.82	0.541	0.57	F9IVw
69269	14	11	57.9	-16	23	52.6	212.991171	-16.397954	4.93	1.684	1.94	M1III
69389	14	13	18.2	+ 2	18	49.7	213.325658	+ 2.313798	4.99	-0.118	-0.11	B9p Si
69427	14	13	59.5	-10	22	5.6	213.498045	-10.368229	4.18	1.323	1.35	K3III
69483	14	14	13.0	+51	41	41.0	213.554254	+51.694709	4.53	0.233	0.23	A8IV
69673	14	16	35.8	+19	4	36.2	214.149357	+19.076732	-0.05	1.239	1.22	K2IIIp
69701	14	17	5.5	- 6	5	50.4	214.272899	- 6.097328	4.07	0.511	0.59	F7V
69713	14	16	53.4	+51	16	23.8	214.222689	+51.273271	4.75	0.236	0.19	A9V

Posiciones medias de estrellas brillantes, 2022

Estrella	α			δ			α	δ				
NH	h	m	s	º	‘	“	º	º	V	U-V	B-V	Espectro
69732	14	17	9.7	+45	59	41.3	214.290536	+45.994801	4.18	0.087	0.04	A0sh
69879	14	18	51.8	+35	24	56.4	214.715747	+35.415663	4.80	1.057	1.00	K1III
69896	14	20	56.3	-81	6	6.2	215.234581	-81.101718	4.89	0.243	0.24	A2m...
69974	14	20	13.3	-13	27	52.2	215.055581	-13.464502	4.52	0.128	0.11	A1V
69996	14	20	43.6	-46	9	5.7	215.181509	-46.151571	3.55	-0.184	-0.18	B2.5IV
70027	14	20	43.5	+16	12	50.0	215.181176	+16.213876	4.84	1.228	1.16	K3III
70069	14	21	46.4	-56	28	47.0	215.443250	-56.479714	4.30	0.082	0.21	B6Ib
70090	14	21	48.7	-37	58	42.6	215.452864	-37.978494	4.05	-0.030	-0.02	A0IV
70104	14	22	1.7	-45	16	50.0	215.506901	-45.280552	4.78	0.310	0.36	F0IV
70264	14	24	6.2	-58	33	5.5	216.025646	-58.551528	4.76	0.795	0.83	G8/K1 + F/G
70300	14	24	18.5	-39	36	15.7	216.077083	-39.604354	4.41	-0.185	-0.20	B2V
70306	14	24	17.0	-27	50	49.5	216.070727	-27.847075	4.78	1.300	1.31	K3III
70327	14	24	23.3	+ 8	21	15.2	216.096876	+ 8.354211	4.86	0.010	0.07	A0V
70497	14	25	53.7	+51	45	24.0	216.473628	+51.756661	4.04	0.497	0.59	F7V
70574	14	27	27.8	-45	18	46.8	216.865628	-45.312994	4.56	-0.147	-0.14	B2IV
70576	14	27	30.5	-45	28	14.8	216.877027	-45.470791	4.33	0.434	0.58	A7:+...
70638	14	30	27.3	-83	45	32.0	217.613796	-83.758888	4.31	1.300	1.30	K2III
70692	14	27	30.4	+75	36	17.4	216.876552	+75.604837	4.25	1.431	1.42	K4III
70753	14	29	22.8	-29	34	57.6	217.345006	-29.582670	4.97	-0.074	-0.05	B7/B8V
70755	14	29	15.6	- 2	19	8.0	217.315161	- 2.318888	4.81	0.693	0.73	G2III
71053	14	32	42.8	+30	16	56.2	218.178281	+30.282267	3.57	1.298	1.22	K3III
71075	14	32	54.2	+38	13	9.6	218.225715	+38.219325	3.04	0.191	0.17	A7IIIvar
71121	14	34	0.6	-50	32	48.3	218.502633	-50.546757	4.44	-0.177	-0.18	B2III
71284	14	35	34.4	+29	39	24.9	218.893135	+29.656913	4.47	0.364	0.41	F3Vwvar
71352	14	36	49.0	-42	14	47.9	219.204312	-42.246636	2.33	-0.157	-0.17	B1Vn + A
71536	14	39	16.6	-49	30	49.9	219.819328	-49.513857	4.05	-0.152	-0.16	B5V
71681	14	40	59.9	-60	55	9.1	220.249562	-60.919202	1.35	0.900	0.88	K1V
71683	14	41	1.1	-60	55	7.1	220.254580	-60.918627	-0.01	0.710	0.69	G2V
71762	14	41	41.4	+16	19	52.9	220.422527	+16.331350	4.49	-0.002	0.02	B9p MnHg
71795	14	42	7.7	+13	38	28.8	220.532218	+13.641342	3.78	0.044	0.06	A3IVn
71832	14	42	39.2	+ 8	4	30.2	220.663454	+ 8.075059	4.86	0.992	0.96	G8IIIvar
71860	14	43	18.2	-47	28	29.7	220.825711	-47.474907	2.30	-0.154	-0.21	B1.5III
71865	14	43	14.4	-37	52	48.9	220.810125	-37.880246	4.01	-0.157	-0.18	B2.5V
71908	14	44	11.3	-65	3	46.0	221.047012	-65.062775	3.18	0.256	0.26	F1Vp
71957	14	44	8.6	- 5	44	46.4	221.035772	- 5.746235	3.87	0.385	0.47	F2III
71995	14	44	19.4	+26	26	29.7	221.080951	+26.441595	4.80	1.672	2.13	M3III
72010	14	44	55.1	-35	15	38.4	221.229473	-35.260665	4.06	1.356	1.35	K3III
72104	14	46	15.0	-35	16	38.7	221.562684	-35.277427	4.92	0.013	0.02	A0V
72105	14	45	52.9	+26	59	19.3	221.470584	+26.988682	2.35	0.966	0.95	A0
72125	14	46	11.9	+16	52	42.4	221.549556	+16.878441	4.60	0.972	0.94	K0III
72220	14	47	17.2	+ 1	48	27.2	221.821718	+ 1.807553	3.73	-0.005	0.01	A0V
72370	14	50	30.3	-79	7	45.3	222.626221	-79.129245	3.83	1.433	1.42	K5III
72571	14	51	29.9	-28	2	40.4	222.874433	-28.044549	4.42	1.366	1.43	K3III
72607	14	50	40.0	+74	4	18.0	222.666565	+74.071670	2.07	1.465	1.46	K4IIIvar
72622	14	52	1.0	-16	7	32.9	223.004040	-16.125805	2.75	0.147	0.16	A3IV
72631	14	52	5.0	- 2	23	0.4	223.020758	- 2.383445	4.93	0.988	0.97	G8...
72659	14	52	20.2	+19	0	59.6	223.084071	+19.016562	4.54	0.720	0.82	G8V + K4V
72683	14	52	59.1	-43	39	31.9	223.246304	-43.658858	4.32	-0.154	-0.14	B5IV
73165	14	58	15.4	- 4	25	43.7	224.564048	- 4.428809	4.47	0.318	0.38	F0V
73199	14	57	54.9	+65	51	4.2	224.478891	+65.851162	4.63	1.590	2.85	M5III
73273	14	59	53.0	-43	12	54.5	224.970845	-43.215141	2.68	-0.184	-0.23	B2III
73334	15	0	30.2	-42	11	6.2	225.125824	-42.185060	3.13	-0.208	-0.21	B2IV
73473	15	2	4.2	- 8	35	56.8	225.517603	- 8.599114	4.91	0.000	0.07	B9.5V
73555	15	2	43.1	+40	18	37.9	225.679601	+40.310539	3.49	0.956	0.89	G8III
73568	15	3	0.4	+24	55	41.1	225.751724	+24.928085	4.80	1.506	1.54	K4III
73620	15	3	56.3	+ 2	0	42.8	225.984543	+ 2.011898	4.39	1.026	1.04	K0III
73695	15	4	27.9	+47	34	29.8	226.116146	+47.574939	4.83	0.647	0.71	G2V + G2V
73714	15	5	16.5	-25	21	40.5	226.318705	-25.361240	3.25	1.674	2.23	M3/M4III
73745	15	5	19.5	+26	52	7.2	226.331142	+26.868672	4.52	1.240	1.23	K2III

Posiciones medias de estrellas brillantes, 2022

Estrella	α			δ			α	δ				
NH	h	m	s	°	‘	“	°	°	V	U-V	B-V	Espectro
73807	15	6	31.4	-47	7	47.9	226.630946	-47.129976	3.91	-0.144	-0.15	B5
73996	15	8	12.1	+24	47	25.3	227.050461	+24.790374	4.93	0.429	0.51	F5V
74117	15	10	14.0	-45	21	26.2	227.558309	-45.357265	4.07	-0.162	-0.18	B3V
74376	15	13	22.2	-48	48	51.1	228.342503	-48.814200	3.88	-0.029	-0.02	B9V
74392	15	13	23.6	-19	52	4.6	228.348475	-19.867948	4.54	-0.071	-0.06	Asp...
74395	15	13	46.2	-52	10	32.2	228.442351	-52.175617	3.41	0.918	0.91	G8III
74449	15	14	12.7	-44	34	34.8	228.553032	-44.576329	4.83	-0.177	-0.19	B3IV
74604	15	15	53.0	-31	35	39.3	228.970808	-31.594255	4.91	0.374	0.48	F3III
74666	15	16	19.8	+33	14	21.6	229.082370	+33.239324	3.46	0.961	0.96	G8III
74785	15	18	6.8	- 9	27	26.3	229.528190	- 9.457309	2.61	-0.071	-0.08	B8V
74824	15	19	8.1	-58	52	33.4	229.783787	-58.875948	4.07	0.088	0.08	A3V
74837	15	19	24.1	-63	41	3.6	229.850211	-63.684328	4.85	1.260	1.20	K2.5III
74857	15	19	5.0	-30	13	21.5	229.770798	-30.222634	4.35	1.100	1.03	K1II/III
74911	15	19	58.2	-47	56	56.7	229.992311	-47.949089	4.27	-0.086	-0.07	B8V
74946	15	20	51.2	-68	45	11.2	230.213344	-68.753118	2.87	0.014	0.04	A1V
75097	15	20	42.7	+71	45	39.7	230.177918	+71.761040	3.00	0.058	0.12	A3II-III
75141	15	22	43.5	-40	43	12.8	230.681206	-40.720217	3.22	-0.227	-0.23	B1.5IV
75177	15	23	6.8	-36	20	3.3	230.778324	-36.334262	3.57	1.534	1.59	K5III
75206	15	23	34.5	-48	0	2.8	230.893892	-48.000783	4.99	0.515	0.59	F8V
75264	15	24	4.9	-44	45	42.4	231.020415	-44.761786	3.37	-0.191	-0.20	B2IV-V
75304	15	24	28.3	-36	55	49.8	231.117993	-36.930493	4.54	-0.155	-0.16	B4V
75312	15	24	3.1	+30	12	53.6	231.013085	+30.214876	4.99	0.577	0.65	G2V
75323	15	25	1.6	-59	23	33.8	231.256682	-59.392725	4.48	0.169	0.18	B5III + F8
75379	15	25	18.7	-10	23	40.7	231.328038	-10.394634	4.92	0.453	0.52	F5IV
75411	15	25	15.9	+37	18	22.2	231.316345	+37.306164	4.31	0.309	0.35	F0V
75458	15	25	23.3	+58	53	41.3	231.347147	+58.894799	3.29	1.166	1.07	K2III
75501	15	26	40.4	-38	48	17.0	231.668272	-38.804729	4.60	0.000	0.02	A0V
75695	15	28	40.5	+29	2	9.7	232.168656	+29.036029	3.66	0.319	0.37	F0p
76008	15	30	50.8	+77	16	49.3	232.711586	+77.280361	5.00	1.545	1.61	K5III
76041	15	32	31.1	+40	49	50.3	233.129402	+40.830636	4.98	0.086	0.15	A5V
76127	15	33	45.4	+31	17	27.4	233.439221	+31.290945	4.14	-0.127	-0.12	B6Vnn
76219	15	35	18.1	-10	8	0.3	233.825321	-10.133407	4.61	1.000	1.02	K1IV
76267	15	35	33.4	+26	38	48.4	233.889067	+26.646771	2.22	0.032	0.05	A0V
76276	15	35	47.0	+10	28	17.5	233.945753	+10.471527	3.80	0.268	0.30	F0IV
76297	15	36	30.8	-41	14	2.5	234.128490	-41.234041	2.80	-0.216	-0.22	B2IV
76333	15	36	40.6	-14	51	23.5	234.169027	-14.856530	3.91	1.007	1.02	K0III
76371	15	37	18.4	-45	1	31.2	234.326807	-45.025340	4.55	-0.175	-0.20	B3IVp
76440	15	38	37.2	-66	23	1.5	234.654992	-66.383739	4.11	1.161	1.12	K0III
76470	15	38	16.4	-28	12	5.4	234.568282	-28.201506	3.60	1.361	1.36	K3III
76552	15	39	26.5	-42	37	58.8	234.860499	-42.632997	4.34	1.412	1.42	K4.5III
76600	15	39	55.2	-29	50	37.1	234.979971	-29.843643	3.66	-0.177	-0.18	B2.5V
76669	15	40	9.0	+36	34	12.8	235.037616	+36.570228	4.64	-0.103	-0.09	B7V+...
76705	15	41	4.4	-34	28	38.2	235.268442	-34.477282	4.66	0.964	0.97	G8/K0III
76742	15	41	29.8	-23	52	59.6	235.374373	-23.883212	4.97	1.302	1.25	K3III
76829	15	42	36.4	-44	43	38.5	235.651739	-44.727357	4.64	0.413	0.47	F5IV-V
76852	15	42	27.9	+19	36	19.9	235.616450	+19.605530	4.51	0.062	0.07	A1V
76880	15	43	7.9	-19	44	37.8	235.782843	-19.743820	4.75	1.574	1.74	K5III
76945	15	43	59.7	-34	46	28.8	235.998870	-34.774659	4.75	-0.151	-0.15	B5V
76952	15	43	36.3	+26	13	54.4	235.901053	+26.231768	3.81	0.020	0.04	A1Vs
77055	15	43	22.1	+77	43	50.0	235.842006	+77.730551	4.29	0.038	0.05	A3Vn
77070	15	45	16.7	+ 6	21	44.6	236.319737	+ 6.362383	2.63	1.167	1.09	K2III
77233	15	47	8.1	+15	21	32.0	236.783684	+15.358889	3.65	0.073	0.09	A3V
77257	15	47	26.4	+ 7	17	24.4	236.859997	+ 7.290101	4.42	0.604	0.66	G0Vvar
77450	15	49	39.8	+18	4	45.9	237.415826	+18.079424	4.09	1.616	1.73	M1III
77512	15	50	27.3	+26	0	24.3	237.613642	+26.006738	4.59	0.794	0.82	G5III-IV
77516	15	50	41.5	- 3	29	29.8	237.672944	- 3.491607	3.54	-0.036	-0.03	A0V
77622	15	51	50.4	+ 4	25	2.4	237.959856	+ 4.417321	3.71	0.147	0.13	A2m
77634	15	52	16.0	-33	41	16.6	238.066701	-33.687937	3.97	-0.045	-0.05	B9.5III-IV
77635	15	52	13.0	-25	48	43.5	238.054010	-25.812073	4.63	-0.072	-0.04	B1.5Vn

Posiciones medias de estrellas brillantes, 2022

Estrella	α			δ			α	δ				
NH	h	m	s	º	‘	“	º	º	V	U-V	B-V	Espectro
77655	15	52	0.3	+35	35	41.4	238.001349	+35.594822	4.79	0.996	0.97	K0III-IV
77661	15	52	10.0	+20	55	2.7	238.041575	+20.917429	4.74	1.534	1.60	K5III
77760	15	53	23.1	+42	23	41.9	238.346166	+42.394984	4.60	0.563	0.63	F9V
77840	15	54	50.8	-25	23	12.5	238.711678	-25.386808	4.59	-0.073	-0.06	B2.5Vn
77853	15	54	59.7	-16	47	16.8	238.748952	-16.787990	4.13	1.003	1.02	K0III
77952	15	56	58.0	-63	29	30.2	239.241856	-63.491709	2.83	0.315	0.36	F2III
78072	15	57	24.1	+15	35	46.0	239.350265	+15.596120	3.85	0.478	0.54	F6V
78104	15	58	9.3	-29	16	20.4	239.538667	-29.272334	3.87	-0.199	-0.18	B2IV/V
78159	15	58	26.2	+26	49	10.7	239.609264	+26.819635	4.14	1.231	1.17	K3III
78180	15	58	16.8	+54	41	32.8	239.569868	+54.692452	4.96	0.269	0.29	F0IV
78207	15	59	20.4	-14	20	13.3	239.835058	-14.337039	4.95	-0.080	-0.06	B8Ia/Iab
78265	16	0	5.8	-26	10	17.5	240.023969	-26.171530	2.89	-0.180	-0.18	B1V + B2V
78323	16	0	54.4	-41	48	5.4	240.226782	-41.801495	4.99	0.988	0.97	G8III
78384	16	1	29.2	-38	27	12.8	240.371605	-38.453565	3.42	-0.206	-0.23	B2.5IV
78401	16	1	32.9	-22	40	42.8	240.387275	-22.678564	2.29	-0.117	-0.09	B0.2IV
78493	16	2	15.9	+29	47	41.2	240.566161	+29.794769	4.98	-0.050	-0.03	A0p...
78527	16	2	16.6	+58	30	39.4	240.569142	+58.510955	4.01	0.528	0.55	F8IV-V
78554	16	3	10.7	+22	44	55.4	240.794597	+22.748716	4.82	0.066	0.09	A3V
78592	16	3	26.3	+45	58	50.4	240.859493	+45.980660	4.72	-0.094	-0.06	B9III
78639	16	4	43.8	-49	17	5.9	241.182572	-49.284971	4.65	0.902	0.91	G8III
78650	16	4	35.2	-25	55	14.8	241.146585	-25.920786	4.96	1.234	1.25	K3III
78655	16	4	46.3	-38	39	28.7	241.193072	-38.657983	4.90	-0.146	-0.15	B6III/IV
78662	16	5	12.9	-57	49	50.4	241.303765	-57.830659	4.63	0.252	0.30	A7IV
78727	0	1	3.0	+ 0	6	50.8	0.262632	+ 0.114113	4.16	0.460	0.53	F6IV
78820	16	6	37.9	-19	51	36.1	241.658059	-19.860025	2.56	-0.065	-0.04	B0.5V
78821	16	6	38.2	-19	51	22.8	241.659234	-19.856333	4.90	-0.024	0.00	B2V
78914	16	7	56.8	-45	13	36.8	241.986705	-45.226894	4.73	0.230	0.20	Am
78918	16	7	56.6	-36	51	22.9	241.985952	-36.856354	4.22	-0.184	-0.19	B2.5Vn
78933	16	8	0.6	-20	43	23.4	242.002356	-20.723156	3.93	-0.046	0.01	B1V
78990	16	8	36.7	-20	55	21.3	242.152723	-20.922584	4.31	0.831	0.85	G6/G8III
79043	16	9	0.1	+16	59	37.0	242.250407	+16.993615	5.00	0.931	0.93	G8III
79101	16	9	25.0	+44	52	55.3	242.354147	+44.882015	4.23	-0.045	-0.02	B9MNp...
79119	16	9	43.3	+36	26	23.5	242.430567	+36.439874	4.73	1.015	1.00	K0III-IV
79374	16	13	11.4	-19	30	44.6	243.297494	-19.512390	4.00	0.076	0.14	B2IV
79375	16	13	7.3	-10	6	57.5	243.280576	-10.115964	4.93	0.087	0.09	A3IV
79404	16	13	34.2	-27	58	40.4	243.392486	-27.977890	4.58	-0.172	-0.15	B2V
79509	16	15	6.3	-54	40	53.0	243.776376	-54.681378	4.95	1.017	0.99	G4III
79593	16	15	25.3	- 3	44	44.3	243.855444	- 3.745639	2.73	1.584	1.82	M1III
79664	16	17	19.2	-63	44	8.2	244.329925	-63.735610	3.86	1.105	1.03	G5II
79790	16	18	33.5	-50	7	2.5	244.639599	-50.117365	4.97	0.788	0.88	F9Ia
79822	16	16	55.8	+75	42	26.2	244.232444	+75.707283	4.95	0.393	0.46	F5V
79881	16	19	34.4	-28	39	47.8	244.893350	-28.663284	4.80	0.008	-0.01	A0V:
79882	16	19	24.5	- 4	44	27.7	244.851975	- 4.741024	3.23	0.966	0.96	G8III
79992	16	20	21.5	+46	15	55.4	245.089483	+46.265382	3.91	-0.151	-0.19	B5IV
80000	16	21	22.9	-50	12	13.5	245.345538	-50.203751	4.01	1.080	1.03	G8III
80047	16	23	28.7	-78	44	35.9	245.869543	-78.743309	4.68	1.680	2.67	M5III
80079	16	21	52.4	-24	13	1.4	245.468275	-24.217060	4.55	0.758	0.80	A4II/III
80112	16	22	26.3	-25	38	25.1	245.609489	-25.640302	2.90	0.299	0.31	B1III
80170	16	22	49.5	+19	6	22.4	245.706368	+19.106226	3.74	0.299	0.34	A9III
80179	16	23	6.7	+ 0	58	56.1	245.778060	+ 0.982253	4.82	0.338	0.39	F0V
80181	16	22	53.8	+30	50	43.8	245.724136	+30.845498	4.86	0.970	0.93	K0III
80331	16	24	16.4	+61	28	5.4	246.068311	+61.468175	2.73	0.910	0.84	G8III
80343	16	25	18.3	-20	5	1.3	246.326391	-20.083683	4.48	0.996	0.99	K0III
80463	16	26	21.8	+13	59	14.6	246.590723	+13.987385	4.57	0.002	0.02	B9p Cr
80473	16	26	49.1	-23	29	33.8	246.704376	-23.492727	4.57	0.227	0.25	B2V
80569	16	28	12.9	-18	30	4.1	247.053656	-18.501135	4.22	0.217	0.24	B2Vne
80582	16	28	41.6	-47	35	58.3	247.173432	-47.599515	4.46	-0.070	-0.04	B4V
80628	16	28	54.9	- 8	24	58.4	247.228544	- 8.416223	4.62	0.185	0.20	A3m
80650	16	27	57.1	+68	43	25.4	246.988101	+68.723724	4.94	-0.051	0.02	A0III

Posiciones medias de estrellas brillantes, 2022

Estrella	α			δ			α	δ				
NH	h	m	s	°	‘	“	°	°	V	U-V	B-V	Espectro
80686	16	30	41.8	-70	7	39.5	247.674270	-70.127642	4.90	0.555	0.64	F9V
80704	16	29	19.0	+41	50	15.0	247.329179	+41.837510	4.83	1.289	3.61	M6III:var
80763	16	30	40.1	-26	28	32.8	247.666951	-26.475782	1.06	1.865	2.90	M1Ib + B2.5V
80815	16	31	27.4	-25	9	31.2	247.864135	-25.158656	4.79	-0.116	-0.12	B3V
80816	16	31	6.1	+21	26	46.2	247.775534	+21.446169	2.78	0.947	0.94	G8III
80883	16	31	56.9	+ 1	56	25.8	247.987265	+ 1.940509	3.82	0.022	0.03	A2V
80894	16	32	18.9	-16	39	20.9	248.078834	-16.655816	4.29	0.924	0.89	G8/K0III
80911	16	32	43.5	-34	44	49.9	248.181449	-34.747190	4.24	-0.168	-0.17	B2III-IV
80975	16	33	21.3	-21	30	30.9	248.338621	-21.508590	4.45	0.130	0.12	Ap
81008	16	33	33.9	+11	26	43.3	248.391335	+11.445356	4.84	1.495	1.58	K4III
81065	16	36	39.6	-78	56	20.1	249.164910	-78.938914	3.86	0.923	0.92	K0IV SB
81122	16	35	32.8	-44	5	12.4	248.886465	-44.086772	4.86	0.045	0.18	B0Ia
81126	16	34	45.9	+42	23	44.7	248.691244	+42.395753	4.20	-0.013	0.02	B9Vvar
81266	16	37	9.7	-28	15	24.4	249.290478	-28.256792	2.82	-0.206	-0.24	B0V
81304	16	37	43.6	-35	17	44.4	249.431856	-35.295663	4.18	1.535	1.72	K5III
81377	16	38	17.4	-10	36	25.3	249.572415	-10.607039	2.54	0.038	0.10	O9.5V
81497	16	39	18.3	+48	53	20.4	249.826312	+48.889008	4.86	1.562	2.03	M2.5III
81660	16	41	3.9	+64	33	1.4	250.266420	+64.550393	4.84	1.212	1.19	K1p
81693	16	42	3.6	+31	33	59.0	250.515010	+31.566396	2.81	0.650	0.70	F9IV
81724	16	42	45.7	-17	46	48.7	250.690232	-17.780184	4.91	1.095	1.13	G8II/III
81833	16	43	36.0	+38	53	3.4	250.899935	+38.884279	3.48	0.916	0.89	G8III-IV
81852	16	46	3.2	-77	33	22.7	251.513381	-77.556298	4.23	1.060	1.04	K0III
82020	16	45	41.3	+56	44	44.9	251.422115	+56.745800	4.84	0.375	0.44	F2V
82080	16	43	56.5	+82	0	2.1	250.985422	+82.000588	4.21	0.897	0.91	G5IIIvar
82273	16	50	51.2	-69	3	44.4	252.713229	-69.062325	1.91	1.447	1.45	K2IIb-IIIa
82321	16	49	50.3	+45	56	54.6	252.459565	+45.948505	4.82	0.087	0.10	A2p...
82363	16	51	33.9	-59	4	31.8	252.891258	-59.075510	3.77	1.562	1.67	K5III
82369	16	50	58.2	-10	49	3.3	252.742388	-10.817577	4.64	0.478	0.55	F7IV
82396	16	51	29.7	-34	19	42.9	252.873760	-34.328576	2.29	1.144	1.10	K2IIIb
82514	16	53	15.8	-38	4	50.1	253.315724	-38.080592	3.00	-0.200	-0.20	B1.5IV + B
82545	16	53	43.7	-38	3	1.9	253.431954	-38.050538	3.56	-0.210	-0.21	B2IV
82671	16	55	26.7	-42	23	38.8	253.861414	-42.394101	4.70	0.444	0.71	B1Iae
82673	16	54	58.7	+10	7	58.8	253.744694	+10.132993	4.39	-0.088	-0.13	B8V
82729	16	56	1.8	-42	23	39.7	254.007535	-42.394363	3.62	1.393	1.37	K4III
82860	16	56	8.7	+65	6	13.2	254.036267	+65.103670	4.88	0.481	0.56	F6Vvar
83000	16	58	38.4	+ 9	20	40.4	254.659925	+ 9.344557	3.19	1.160	1.10	K2IIIvar
83081	17	0	19.4	-56	1	12.4	255.080844	-56.020124	3.12	1.552	1.60	K5III
83153	17	1	13.4	-53	11	22.8	255.305950	-53.189657	4.06	1.452	1.42	K4III
83207	17	1	4.5	+30	53	50.5	255.268661	+30.897349	3.92	-0.018	-0.04	A0V
83262	17	2	8.5	- 4	15	6.6	255.535597	- 4.251839	4.82	1.483	1.49	K4III
83430	17	4	4.3	+14	3	49.7	256.017824	+14.063798	4.97	1.600	2.08	M3III
83574	17	6	10.4	-34	8	59.4	256.543469	-34.149829	4.83	0.257	0.38	B2Iab
83608	17	5	45.7	+54	26	36.9	256.440577	+54.443596	4.91	0.471	0.54	F5
83613	17	6	19.8	+12	42	50.6	256.582405	+12.714058	4.89	0.125	0.11	A4IV
83895	17	8	51.0	+65	41	22.3	257.212518	+65.689518	3.17	-0.120	-0.14	B6III
84012	17	11	33.3	-15	44	54.9	257.888821	-15.748595	2.43	0.059	0.06	A2.5Va
84143	17	13	37.5	-43	15	50.7	258.406202	-43.264076	3.32	0.441	0.47	F3p
84345	17	15	35.0	+14	22	5.9	258.895807	+14.368310	2.78	1.164	1.13	M5IIvar
84379	17	15	52.5	+24	48	58.6	258.968663	+24.816288	3.12	0.080	0.06	A3IVv SB
84380	17	15	45.7	+36	47	13.6	258.940500	+36.787113	3.16	1.437	1.31	K3IIvar
84405	17	16	36.8	-26	37	51.5	259.153239	-26.630969	4.33	0.855	0.92	K2:III:
84514	17	17	39.9	- 0	28	0.7	259.416200	- 0.466868	4.72	1.119	1.09	K2III
84573	17	18	5.1	+33	4	44.9	259.521043	+33.079130	4.80	-0.166	-0.17	B1.5Vp
84606	17	18	22.7	+37	16	15.9	259.594640	+37.271070	4.64	0.043	0.07	A2V
84880	17	21	58.9	-12	51	57.5	260.495472	-12.865985	4.32	0.037	0.07	A0/A1V
84893	17	22	14.2	-21	7	59.1	260.559220	-21.133087	4.39	0.394	0.47	F2/F3V
84969	17	24	8.6	-67	47	20.5	261.035636	-67.789021	4.76	1.194	1.18	K1III
84970	17	23	16.2	-25	1	5.5	260.817515	-25.018195	3.27	-0.186	-0.21	B2IV
85112	17	24	23.4	+37	7	41.4	261.097608	+37.128165	4.15	-0.011	0.01	B9.5III

Posiciones medias de estrellas brillantes, 2022

Estrella	α			δ			α	δ				
NH	h	m	s	º	‘	“	º	º	V	U-V	B-V	Espectro
85258	17	27	0.5	-55	32	48.5	261.751968	-55.546811	2.84	1.479	1.50	K3Ib-II
85267	17	27	7.4	-56	23	40.4	261.781010	-56.394553	3.31	-0.150	-0.12	B1Ib
85340	17	27	37.4	-24	11	32.4	261.905903	-24.192338	4.16	0.283	0.30	A3IV:m
85355	17	27	32.0	+ 4	7	26.5	261.883147	+ 4.124038	4.34	1.480	1.44	K3IIvar
85365	17	27	43.2	- 5	6	11.2	261.930030	- 5.103120	4.53	0.385	0.46	F3V
85423	17	28	39.9	-29	53	1.2	262.166280	-29.883672	4.28	0.402	0.45	F3III
85670	17	30	53.8	+52	17	12.8	262.724258	+52.286886	2.79	0.954	0.93	G2II
85693	17	31	34.1	+26	5	47.1	262.891900	+26.096415	4.41	1.434	1.39	K3IIIvar
85696	17	32	9.6	-37	18	36.5	263.039852	-37.310144	2.70	-0.179	-0.23	B2IV
85727	17	32	57.2	-60	41	53.9	263.238423	-60.698293	3.60	-0.104	-0.10	B8V
85755	17	32	40.1	-23	58	36.0	263.166993	-23.976672	4.78	0.016	0.08	A0V
85792	17	33	25.7	-49	53	24.4	263.357220	-49.890110	2.84	-0.136	-0.15	B2Vne
85819	17	32	34.9	+55	10	15.0	263.145256	+55.170827	4.89	0.251	0.28	Am...
85822	17	25	42.3	+86	34	16.9	261.426219	+86.571353	4.35	0.021	0.04	A1Vn
85829	17	32	40.3	+55	9	34.7	263.168002	+55.159634	4.86	0.279	0.30	Am
85927	17	35	0.1	-37	7	0.3	263.750529	-37.116753	1.62	-0.231	-0.24	B1.5IV+...
86032	17	35	53.2	+12	32	47.7	263.971623	+12.546580	2.08	0.155	0.17	A5III
86092	17	37	11.3	-46	31	3.4	264.297051	-46.517614	4.56	-0.020	0.01	A0V
86170	17	37	57.6	-38	38	51.5	264.490087	-38.647627	4.26	1.075	1.09	G8/K0III/IV
86201	17	36	50.0	+68	44	53.8	264.208524	+68.748269	4.77	0.430	0.49	F5V
86228	17	38	47.6	-43	0	31.5	264.698325	-43.008737	1.86	0.406	0.48	F1II
86263	17	38	45.7	-15	24	35.1	264.690376	-15.409747	3.54	0.262	0.29	F0IIIp
86284	17	38	57.6	- 8	7	46.6	264.740087	- 8.129620	4.58	0.132	0.22	B8II-IIIMNp
86414	17	40	2.7	+45	59	46.6	265.011055	+45.996288	3.82	-0.179	-0.21	B3V SB
86486	17	41	58.9	-49	25	33.3	265.495586	-49.425927	4.76	0.415	0.49	F3IV
86565	17	42	34.0	-12	53	4.5	265.641872	-12.884570	4.24	0.086	0.10	A2Va
86614	17	41	34.8	+72	8	17.8	265.394852	+72.138274	4.57	0.434	0.50	F5IV-V
86670	17	43	54.4	-39	2	18.5	265.976835	-39.038482	2.39	-0.171	-0.22	B1.5III
86736	17	44	39.5	-21	41	29.0	266.164791	-21.691379	4.86	0.469	0.54	F6/F7V
86742	17	44	29.1	+ 4	33	36.8	266.121455	+ 4.560216	2.76	1.168	1.10	K2III
86929	17	47	44.9	-64	43	50.8	266.937071	-64.730782	3.61	1.161	1.09	K1III
86974	17	47	15.8	+27	42	35.9	266.815652	+27.709971	3.42	0.750	0.71	G5IV
87072	17	48	51.1	-27	50	12.2	267.212883	-27.836716	4.53	0.600	0.76	F7II
87073	17	49	1.2	-40	7	58.3	267.254876	-40.132854	2.99	0.509	0.64	F3Ia
87108	17	48	55.3	+ 2	42	3.9	267.230289	+ 2.701090	3.75	0.043	0.05	A0V
87220	17	50	30.4	-31	42	29.9	267.626734	-31.708303	4.79	-0.028	0.01	B8Ib/II
87261	17	51	15.2	-37	2	52.3	267.813492	-37.047848	3.19	1.192	1.15	K0/K1III
87294	17	51	37.2	-40	5	41.9	267.904953	-40.094977	4.78	0.259	0.41	A6Ib
87585	17	53	53.0	+56	52	11.8	268.470996	+56.869948	3.73	1.177	1.11	K2III
87808	17	56	57.4	+37	14	56.0	269.239139	+37.248890	3.86	1.350	1.17	K1IIvar
87833	17	57	5.0	+51	29	13.9	269.270712	+51.487197	2.24	1.521	1.54	K5III
87846	17	58	17.2	-44	20	36.9	269.571722	-44.343579	4.85	1.176	1.15	K2III
87933	17	58	33.7	+29	14	48.7	269.640449	+29.246863	3.70	0.935	0.89	K0III
87936	17	59	15.2	-41	43	1.6	269.813536	-41.717112	4.88	1.617	1.88	M0III
87998	17	59	17.2	+30	11	19.5	269.821865	+30.188746	4.41	0.380	0.51	F2II
88048	18	0	9.3	- 9	46	28.1	270.038863	- 9.774479	3.32	0.987	0.95	K0III
88060	18	0	24.3	-30	15	11.5	270.101211	-30.253196	5.00	1.654	2.00	K5/M0III
88116	18	1	2.7	-23	48	58.3	270.261106	-23.816203	4.74	-0.030	-0.01	B9V
88128	18	0	58.2	+16	45	4.0	270.242475	+16.751117	4.67	1.254	1.12	K0II-III
88149	18	1	16.7	+ 4	22	8.1	270.319751	+ 4.368929	4.79	-0.100	-0.08	B2Ve
88175	18	1	34.0	- 3	41	24.0	270.391727	- 3.690003	4.62	0.390	0.45	F3V
88192	18	1	40.3	+ 2	55	55.6	270.418105	+ 2.932100	3.93	0.029	0.10	B5Ib
88267	18	2	22.6	+21	35	49.1	270.594204	+21.596966	4.26	0.406	0.47	G5
88290	18	2	47.6	+ 1	18	22.1	270.698444	+ 1.306134	4.42	0.046	0.06	A2Vn
88404	18	4	11.9	- 8	10	43.5	271.049615	- 8.178744	4.77	0.410	0.45	F5V+...
88567	18	6	19.8	-29	34	38.2	271.582511	-29.577286	4.66	0.774	0.81	G0Ib/II
88601	18	6	29.3	+ 2	29	51.8	271.622041	+ 2.497726	4.03	0.860	0.96	K0V SB
88635	18	7	7.5	-30	25	18.8	271.781287	-30.421879	2.98	0.981	0.99	K0III
88657	18	6	53.7	+22	13	19.4	271.723872	+22.222069	4.96	1.656	2.18	M3IIIa+...

Posiciones medias de estrellas brillantes, 2022

Estrella	α			δ			α	δ				
NH	h	m	s	°	‘	“	°	°	V	U-V	B-V	Espectro
88714	18	8	13.6	-50	5	16.2	272.056711	-50.087829	3.65	-0.101	-0.06	B2Ib
88726	18	8	18.8	-43	25	19.3	272.078530	-43.422027	4.92	0.255	0.29	A5V
88765	18	8	17.2	+ 8	44	16.5	272.071662	+ 8.737918	4.64	0.951	0.92	G8III-IV
88771	18	8	19.3	+ 9	34	5.5	272.080498	+ 9.568192	3.71	0.159	0.18	A4IVs
88788	18	8	5.8	+43	27	55.6	272.024307	+43.465448	5.00	0.913	0.91	G8III...
88794	18	8	20.6	+28	45	59.3	272.085654	+28.766486	3.84	-0.018	-0.02	B9.5V
88839	18	9	22.9	-28	27	10.5	272.345333	-28.452920	4.55	0.938	1.00	K0IIICNpvar
88866	18	10	33.2	-63	39	53.8	272.638266	-63.664943	4.33	0.228	0.23	Am
88886	18	9	38.1	+20	49	8.8	272.408810	+20.819102	4.37	-0.164	-0.19	B2IV
89112	18	12	45.0	-45	56	55.2	273.187652	-45.948656	4.52	1.009	0.95	G5III
89153	18	12	58.4	-23	41	42.9	273.243248	-23.695243	4.96	1.055	1.02	K0III
89172	18	12	40.5	+31	24	41.8	273.168613	+31.411607	4.96	1.643	2.16	M3III
89341	18	14	59.4	-21	3	6.1	273.747359	-21.051686	3.84	0.195	0.21	B2III:
89348	18	14	0.9	+64	24	16.0	273.503716	+64.404438	4.99	0.440	0.51	F5V
89642	18	19	0.8	-36	45	12.6	274.753513	-36.753499	3.10	1.582	2.24	M2III
89678	18	19	20.2	-27	2	0.1	274.834000	-27.033357	4.66	1.629	1.62	K3III
89826	18	20	34.8	+36	4	29.4	275.145180	+36.074834	4.33	1.162	1.10	K2IIIvar
89861	18	21	10.0	+21	58	16.6	275.291542	+21.971278	4.92	1.594	1.82	M1III
89908	18	20	27.7	+71	20	53.7	275.115218	+71.348262	4.22	-0.093	-0.11	A0p (Si)
89918	18	21	53.5	+ 3	23	16.2	275.472855	+ 3.387843	4.85	0.911	0.90	G8III
89931	18	22	18.3	-29	49	2.9	275.576452	-29.817484	2.72	1.380	1.35	K3III
89937	18	20	41.0	+72	44	28.6	275.170999	+72.741278	3.55	0.489	0.62	F7Vvar
89962	18	22	22.3	- 2	53	30.7	275.592838	- 2.891861	3.23	0.941	0.96	K0III-IV
90098	18	25	6.8	-61	28	54.8	276.278289	-61.481878	4.35	1.462	1.50	M1III SB
90135	18	24	47.0	- 8	55	19.4	276.195685	- 8.922053	4.66	0.932	0.94	K0III
90139	18	24	34.3	+21	46	49.4	276.143011	+21.780400	3.85	1.168	1.13	K2III
90156	18	24	12.6	+58	48	46.9	276.052317	+58.813040	4.98	0.082	0.05	A3V
90185	18	25	31.9	-34	22	22.6	276.382973	-34.372954	1.79	-0.031	0.01	B9.5III
90289	18	26	34.3	-20	31	44.2	276.642821	-20.528938	4.81	1.310	1.27	A1/A2V
90344	18	26	2.6	+65	34	34.5	276.510879	+65.576258	4.82	1.179	1.16	K2III
90422	18	28	29.5	-45	57	17.9	277.123046	-45.954979	3.49	-0.179	-0.18	B3IV
90496	18	29	14.1	-25	24	30.7	277.308826	-25.408529	2.82	1.025	1.04	K1IIIb
90568	18	30	24.5	-49	3	25.7	277.602019	-49.057151	4.10	0.995	1.02	G8/K0III
90595	18	30	21.9	-14	33	3.8	277.591426	-14.551044	4.67	0.076	0.10	A1IV/V
90797	18	33	17.0	-62	15	45.0	278.320984	-62.262510	4.63	-0.116	-0.11	B8III
90830	18	33	16.4	-45	53	55.8	278.318505	-45.898837	4.92	-0.101	-0.08	B6IV
90905	18	32	55.7	+57	3	42.5	278.232195	+57.061813	4.77	0.611	0.67	F7Ib
90982	18	34	57.9	-42	17	44.3	278.741342	-42.295643	4.62	0.994	0.95	G5III
91117	18	36	19.3	- 8	13	41.1	279.080621	- 8.228084	3.85	1.317	1.28	K2III
91262	18	37	38.0	+38	48	13.6	279.408280	+38.803775	0.03	-0.001	-0.01	A0Vvar
91726	18	43	23.8	- 9	1	52.8	280.848964	- 9.031332	4.70	0.358	0.40	F2IIIp d Del
91792	18	45	25.1	-71	24	25.6	281.354686	-71.407106	4.01	1.134	1.14	K2III
91845	18	44	38.2	- 8	15	12.0	281.159240	- 8.253337	4.88	1.112	1.07	G8II
91918	18	45	41.6	-35	37	11.5	281.423526	-35.619869	4.86	-0.168	-0.19	B2V
91919	18	45	1.1	+39	41	33.2	281.254597	+39.692565	4.67	0.170	0.19	F1V
91926	18	45	3.6	+39	38	6.5	281.264901	+39.635136	4.59	0.180	0.20	A8Vn
91971	18	45	28.7	+37	37	39.3	281.369761	+37.627588	4.34	0.192	0.18	Am
92024	18	47	27.2	-64	50	56.8	281.863338	-64.849113	4.78	0.199	0.21	A7V
92041	18	46	56.2	-26	58	4.4	281.733971	-26.967879	3.17	-0.107	-0.10	B8.5III
92043	18	46	32.7	+20	34	2.1	281.636170	+20.567245	4.19	0.483	0.55	F6V
92088	18	46	54.1	+26	41	6.9	281.725263	+26.685255	4.83	1.199	1.16	K3III
92161	18	47	55.6	+18	12	20.3	281.981725	+18.205651	4.34	0.148	0.16	A5III
92175	18	48	15.7	- 4	43	27.7	282.065475	- 4.724366	4.22	1.087	1.09	G5II...
92420	18	50	50.2	+33	23	15.2	282.709259	+33.387565	3.52	0.003	0.02	A8:V comp SB
92512	18	51	30.2	+59	24	49.9	282.875736	+59.413850	4.63	1.185	1.20	K0II-III SB
92609	18	54	6.6	-62	9	41.2	283.527338	-62.161433	4.22	-0.150	-0.14	B2II-III
92689	18	53	44.0	+50	44	4.0	283.433368	+50.734456	4.92	0.903	0.88	G8III
92761	18	55	24.4	-22	43	4.2	283.851502	-22.717844	4.86	1.412	1.35	K1II
92782	18	54	8.4	+71	19	27.1	283.534940	+71.324197	4.82	1.151	1.10	K0III

Posiciones medias de estrellas brillantes, 2022

Estrella	α			δ			α	δ				
NH	h	m	s	º	‘	“	º	º	V	U-V	B-V	Espectro
92791	18	55	13.3	+36	55	32.5	283.805495	+36.925690	4.22	1.575	2.60	M4IIvar
92818	18	55	36.8	+22	40	20.3	283.903428	+22.672294	4.57	0.782	0.86	G4III+...
92845	18	56	21.4	-22	38	38.5	284.089287	-22.644017	5.00	1.348	1.25	K1Ib/II
92855	18	56	32.1	-26	16	10.0	284.133763	-26.269455	2.05	-0.134	-0.13	B2.5V
92862	18	55	57.5	+43	58	26.3	283.989724	+43.973974	4.08	1.397	3.14	M5IIIvar
92946	18	57	14.3	+ 4	13	54.1	284.309609	+ 4.231705	4.62	0.161	0.20	A5V
92951	18	57	15.8	+ 4	13	49.0	284.315782	+ 4.230278	4.98	0.204	0.22	A5Vn
93015	18	59	3.2	-67	12	17.4	284.763201	-67.204828	4.40	0.530	0.59	F5Ib-II:
93026	18	58	9.5	- 5	49	5.4	284.539551	- 5.818156	4.83	1.057	1.03	K1III
93085	18	58	57.1	-21	4	40.7	284.737942	-21.077985	3.52	1.151	1.09	G8/K0II/III
93148	19	0	5.9	-52	54	34.2	285.024423	-52.909488	4.85	-0.051	-0.03	A0V
93174	19	0	6.2	-37	4	43.4	285.025847	-37.078718	4.83	0.396	0.44	F3IV/V
93194	18	59	42.7	+32	43	7.6	284.927711	+32.718780	3.25	-0.049	-0.03	B9III
93244	19	0	33.2	+15	5	50.9	285.138282	+15.097466	4.02	1.082	1.00	K2III
93279	19	0	47.2	+32	10	31.1	285.196839	+32.175297	4.94	1.465	1.32	K3III
93408	19	2	1.2	+46	57	52.9	285.504872	+46.964701	5.00	0.186	0.23	A7V
93429	19	2	46.5	- 5	42	31.4	285.693629	- 5.708730	4.02	1.079	1.08	K1IIIvar
93506	19	3	54.9	-29	50	56.3	285.978559	-29.848983	2.60	0.062	0.06	A3IV
93542	19	4	33.8	-42	3	50.3	286.140764	-42.063978	4.74	-0.027	-0.02	A0Vn
93683	19	5	54.6	-21	42	35.1	286.477482	-21.709743	3.76	1.012	0.98	K0III
93747	19	6	21.1	+13	53	43.1	286.588086	+13.895303	2.99	0.014	-0.01	A0Vn
93805	19	7	20.2	- 4	51	1.0	286.834071	- 4.850267	3.43	-0.096	-0.09	B9Vn
93825	19	7	48.1	-37	1	55.4	286.950408	-37.032049	4.23	0.523	0.59	F7IV-V
93864	19	8	13.1	-27	38	19.1	287.054566	-27.638651	3.32	1.169	1.15	K1/K2III
94005	19	9	46.4	-40	27	46.7	287.443360	-40.462982	4.57	1.070	1.06	K1III
94114	19	10	51.8	-37	52	14.2	287.715991	-37.870615	4.11	0.042	0.03	A0/A1V
94141	19	10	58.9	-20	59	21.6	287.745365	-20.989327	2.88	0.377	0.44	F2II/III
94160	19	11	26.2	-39	18	22.8	287.859056	-39.306337	4.10	1.163	1.11	K0II/IIICN.
94376	19	12	33.3	+67	41	51.3	288.138620	+67.697582	3.07	0.990	0.94	G9III
94481	19	14	27.4	+39	10	56.0	288.614020	+39.182225	4.43	-0.150	-0.19	B2.5IV
94490	19	14	17.0	+57	44	27.6	288.570922	+57.741009	5.00	1.156	1.12	K2III
94643	19	16	47.7	-25	13	10.6	289.198886	-25.219623	4.86	0.569	0.67	K0/K1III+..
94648	19	15	8.7	+73	23	34.4	288.786409	+73.392891	4.45	1.257	1.15	K3III
94703	19	17	5.9	+21	25	40.3	289.274708	+21.427856	4.76	-0.058	-0.05	B4IV
94713	19	17	4.8	+38	10	16.4	289.270023	+38.171231	4.35	1.258	1.13	K0II
94779	19	17	34.6	+53	24	24.9	289.393972	+53.406926	3.80	0.950	0.85	K0III
94820	19	18	49.9	-18	54	53.2	289.708123	-18.914764	4.88	1.013	0.99	K0III
95066	19	21	38.5	- 5	22	33.5	290.410478	- 5.375974	4.98	0.937	0.93	G8III-IV...
95081	19	20	46.1	+65	45	14.9	290.192273	+65.754129	4.60	0.033	0.01	A2IIIs
95168	19	22	51.6	-17	48	25.1	290.714994	-17.806985	3.92	0.228	0.25	F0III/IV
95176	19	22	54.0	-15	54	53.8	290.724907	-15.914942	4.52	0.079	0.34	F2p
95241	19	24	6.4	-44	25	6.5	291.026816	-44.418485	3.96	-0.085	-0.07	B9V
95294	19	24	41.7	-44	45	33.1	291.173819	-44.759200	4.27	0.350	0.42	F2III
95347	19	25	18.2	-40	34	31.6	291.325645	-40.575439	3.96	-0.105	-0.10	B8V
95372	19	24	56.1	+29	39	45.1	291.233709	+29.662540	4.99	-0.120	-0.11	B3IV
95501	19	26	31.9	+ 3	9	25.4	291.632808	+ 3.157056	3.36	0.319	0.38	F0IV
95585	19	27	34.0	+ 0	22	51.1	291.891499	+ 0.380864	4.64	0.576	0.75	F2Ib
95771	19	29	33.5	+24	42	27.3	292.389698	+24.707581	4.44	1.502	1.68	M0 comp
95853	19	30	13.3	+51	46	26.9	292.555563	+51.774145	3.76	0.148	0.18	A5Vn
95947	19	31	32.9	+28	0	13.8	292.887025	+28.003842	3.05	1.088	1.05	K3II+...
96052	19	32	32.0	+34	29	51.4	293.133540	+34.497607	4.74	-0.150	-0.12	B3IV
96100	19	32	18.9	+69	41	46.6	293.078774	+69.696267	4.67	0.786	0.85	K0V
96229	19	35	5.4	+ 7	25	25.9	293.772549	+ 7.423852	4.45	1.176	1.14	K3III
96275	19	35	28.9	+19	49	9.8	293.870518	+19.819390	5.00	-0.093	-0.08	B8IIIn
96341	19	36	43.9	-48	3	10.8	294.182782	-48.053006	4.88	1.096	1.06	G9III
96441	19	36	59.5	+50	16	9.5	294.247973	+50.269305	4.49	0.395	0.44	F4V
96465	19	37	57.1	-24	50	12.2	294.488033	-24.836732	4.59	-0.075	-0.06	B8/B9V
96468	19	37	46.9	- 1	14	23.0	294.445258	- 1.239732	4.36	-0.079	-0.06	B5III
96483	19	37	59.5	- 6	58	49.5	294.498115	- 6.980422	4.93	-0.046	0.03	B0.5III

Posiciones medias de estrellas brillantes, 2022

Estrella	α			δ			α	δ				
NH	h	m	s	°	‘	“	°	°	V	U-V	B-V	Espectro
96683	19	40	11.2	+30	12	5.9	295.046669	+30.201651	4.68	0.971	0.89	G8III-IV...
96757	19	41	0.8	+18	3	44.1	295.253211	+18.062259	4.39	0.777	0.77	G0II
96837	19	41	58.2	+17	31	29.1	295.492423	+17.524760	4.39	1.041	0.96	G8II
97118	19	45	1.0	+37	24	17.5	296.254076	+37.404865	4.89	0.948	0.94	G8III
97165	19	45	36.9	+45	10	54.1	296.403790	+45.181683	2.86	-0.002	-0.02	B9.5III
97278	19	47	14.0	+10	39	52.2	296.808482	+10.664495	2.72	1.507	1.44	K3II
97290	19	47	33.4	-19	42	37.0	296.889012	-19.710267	4.87	1.061	1.03	K0III
97295	19	47	12.3	+33	46	35.0	296.801336	+33.776387	5.00	0.476	0.55	F5
97365	19	48	18.1	+18	35	9.9	297.075381	+18.586086	3.68	1.313	1.27	M2II + B6
97433	19	48	5.6	+70	19	12.1	297.023296	+70.320015	3.84	0.888	0.88	G8III
97649	19	51	47.0	+ 8	55	25.4	297.945680	+ 8.923725	0.76	0.221	0.27	A7IV-V
97679	19	51	57.1	+22	39	47.9	297.987827	+22.663312	4.90	-0.153	-0.12	B2.5V
97804	19	53	31.0	+ 1	3	34.7	298.379057	+ 1.059631	3.87	0.630	0.73	F6Ibv SB
97886	19	54	20.0	+24	8	3.2	298.583283	+24.134222	4.57	-0.047	-0.02	B9.5III
97938	19	55	14.5	+ 8	30	56.8	298.810267	+ 8.515778	4.71	1.023	1.03	K0III
98032	19	56	40.2	-41	48	45.7	299.167581	-41.812692	4.12	1.063	1.09	K0III
98036	19	56	19.2	+ 6	27	33.6	299.079940	+ 6.459334	3.71	0.855	0.89	G8IVvar
98055	19	56	9.6	+52	29	38.6	299.039801	+52.494054	4.91	0.124	0.12	A4Vn
98066	19	57	5.5	-26	14	36.8	299.272928	-26.243565	4.70	0.748	0.79	G3/G5III
98068	19	56	35.7	+38	32	31.7	299.148933	+38.542133	4.95	-0.086	-0.07	B5IV
98073	19	56	18.7	+58	54	4.4	299.078048	+58.901229	4.98	1.584	1.56	K5II-III
98110	19	57	4.5	+35	8	20.0	299.268895	+35.138895	3.89	1.019	0.98	K0IIIvar
98162	19	58	12.1	-27	6	50.3	299.550457	-27.113973	4.54	1.462	1.39	K3III
98337	19	59	40.1	+19	32	56.4	299.917187	+19.548992	3.51	1.571	1.65	K5III
98353	20	0	11.9	-26	8	19.5	300.049782	-26.138755	4.84	0.882	0.91	G8II/III
98412	20	1	4.0	-35	13	9.2	300.266515	-35.219214	4.37	-0.150	-0.15	B2.5IV
98495	20	2	55.6	-72	51	12.3	300.731739	-72.853417	3.97	-0.032	-0.04	A0V
98543	20	1	56.7	+27	48	40.7	300.486333	+27.811308	4.66	0.184	0.19	A4III
98608	20	3	27.6	-59	19	4.3	300.864929	-59.317866	4.95	1.356	3.25	M6III
98688	20	3	54.9	-27	39	4.7	300.978743	-27.651296	4.43	1.640	2.50	M4III
98702	20	2	54.2	+67	55	55.6	300.725706	+67.932117	4.51	1.313	1.23	K3III
98761	20	4	54.9	-37	52	56.3	301.228631	-37.882298	4.77	1.417	1.40	K4III
98842	20	5	37.3	-31	59	49.8	301.405576	-31.997166	4.99	1.208	1.17	K1III/IV
99120	20	8	56.8	-52	49	12.8	302.236668	-52.820213	4.93	1.591	1.83	M1II
99240	20	10	42.9	-66	7	37.7	302.678910	-66.127135	3.55	0.751	0.76	G5IV-Vvar
99255	20	8	9.7	+77	46	20.1	302.040435	+77.772246	4.38	-0.046	-0.06	B9III
99303	20	10	11.3	+36	54	3.3	302.547179	+36.900927	4.93	-0.139	-0.13	B2.5V
99473	20	12	21.7	- 0	45	33.6	303.090339	- 0.759345	3.24	-0.066	-0.06	B9.5III
99639	20	13	56.7	+46	52	42.6	303.486354	+46.878514	4.80	0.100	0.19	A5IIIn
99655	20	13	52.4	+56	37	51.6	303.468223	+56.631013	4.28	0.114	0.14	A3IV-Vn
99675	20	14	16.6	+46	48	15.5	303.569360	+46.804305	3.80	1.270	1.15	K2II+...
99742	20	15	13.5	+15	15	40.4	303.806349	+15.261227	4.94	0.072	0.09	A2V
99770	20	15	18.1	+36	52	12.2	303.825486	+36.870049	4.93	0.151	0.21	A2V
99824	20	16	8.0	+25	39	20.2	304.033490	+25.655617	4.79	-0.181	-0.22	B3V
99848	20	16	6.4	+47	46	40.6	304.026470	+47.777940	3.96	1.451	1.45	K3Ib-II comp
99874	20	16	37.1	+27	52	41.4	304.154696	+27.878167	4.50	1.258	1.30	K3III
100027	20	18	46.9	-12	26	36.5	304.695507	-12.443484	4.30	0.928	1.05	G3Ib
100044	20	18	32.6	+38	5	51.3	304.635670	+38.097595	4.77	0.377	0.44	B2pe
100064	20	19	11.4	-12	28	47.8	304.797378	-12.479945	3.58	0.883	0.92	G6/G8III
100310	20	21	47.9	-12	41	35.5	305.449652	-12.693206	4.77	-0.047	-0.06	B9IV
100345	20	22	9.7	-14	42	54.7	305.540212	-14.715190	3.05	0.790	0.90	A5:n
100453	20	22	57.9	+40	19	23.5	305.741130	+40.323183	2.23	0.673	0.65	F8Ib
100587	20	24	40.8	+32	15	26.4	306.169812	+32.257324	4.43	1.331	1.31	K3III
100751	20	27	15.4	-56	40	3.0	306.814066	-56.667510	1.94	-0.118	-0.10	B2IV
101027	20	30	1.6	-17	44	40.1	307.506681	-17.744481	4.77	0.386	0.44	F3V
101076	20	30	14.0	+30	26	16.6	307.558420	+30.437947	4.01	0.404	0.46	F5II
101093	20	29	55.3	+63	3	48.2	307.480492	+63.063402	4.21	0.199	0.20	A7III
101101	20	30	43.2	- 2	48	58.0	307.680039	- 2.816113	4.91	1.160	1.12	K2III
101138	20	30	41.6	+49	1	16.4	307.673506	+49.021229	4.94	-0.087	-0.06	B2.5IV

Posiciones medias de estrellas brillantes, 2022

Estrella	α			δ			α	δ				
NH	h	m	s	º	‘	“	º	º	V	U-V	B-V	Espectro
101421	20	34	11.5	+11	22	26.5	308.547980	+11.374026	4.03	-0.123	-0.10	B6III
101474	20	34	42.1	+35	19	19.1	308.675260	+35.321978	4.61	1.593	1.78	K2Ib comp
101589	20	36	16.0	+14	44	45.6	309.066822	+14.746011	4.64	0.120	0.14	A3V
101612	20	37	15.7	-60	30	38.9	309.315448	-60.510802	4.75	0.291	0.34	F1III
101692	20	37	47.6	- 2	28	39.9	309.448359	- 2.477745	4.91	1.606	1.66	K5II
101769	20	38	30.6	+14	40	2.7	309.627581	+14.667420	3.64	0.425	0.50	F5IV
101772	20	39	0.0	-47	13	6.4	309.750006	-47.218440	3.11	0.998	0.98	K0III
101773	20	39	17.4	-61	27	27.2	309.822327	-61.457562	4.86	0.447	0.52	Fm delta Del
101847	20	39	23.7	- 1	1	56.3	309.848867	- 1.032297	4.31	0.949	0.91	G8III SB
101867	20	39	26.3	+21	16	26.8	309.859555	+21.274122	4.81	-0.030	-0.01	A0V
101958	20	40	35.4	+15	59	7.8	310.147504	+15.985511	3.77	-0.057	-0.01	B9V
102098	20	42	7.9	+45	21	15.8	310.532812	+45.354375	1.25	0.092	0.16	A2Ia
102281	20	44	25.0	+15	8	57.1	311.103981	+15.149191	4.43	0.302	0.34	A7IIIp d Del
102333	20	45	32.0	-51	50	46.0	311.383197	-51.846107	4.51	0.278	0.30	A6:var
102388	20	45	45.8	+25	20	42.0	311.440715	+25.344990	4.92	1.183	1.11	K2III
102395	20	46	46.8	-66	7	39.3	311.695163	-66.127588	3.42	0.163	0.20	A5IV
102422	20	45	42.2	+61	55	7.5	311.425798	+61.918753	3.41	0.912	0.94	K0IV
102431	20	45	51.6	+57	39	14.0	311.465053	+57.653884	4.52	0.535	0.58	F8IV-V
102453	20	46	30.6	+30	47	43.8	311.627375	+30.795495	4.22	1.051	1.01	K0III
102485	20	47	18.3	-25	11	45.2	311.826372	-25.195893	4.13	0.426	0.49	F5V
102488	20	47	2.5	+34	2	52.6	311.760334	+34.047941	2.48	1.021	1.00	K0III
102532	20	47	36.6	+16	11	57.3	311.902416	+16.199242	4.27	1.042	1.03	K1IV
102571	20	47	59.9	+34	27	1.3	311.999511	+34.450375	4.93	1.294	1.25	K3IIIvar
102589	20	48	12.5	+36	34	1.0	312.052112	+36.566958	4.53	-0.083	-0.12	B6IV
102618	20	48	47.0	- 9	25	10.3	312.195889	- 9.419529	3.78	0.000	-0.01	A1V
102624	20	48	49.0	- 4	57	5.3	312.204325	- 4.951464	4.43	1.639	2.21	M3IIIvar
102724	20	49	38.2	+46	11	27.4	312.409318	+46.190953	4.81	0.571	0.59	B3Ia
102790	20	50	53.1	-46	8	58.2	312.721237	-46.149512	4.90	1.494	1.57	K5III
102831	20	51	14.6	-33	42	9.1	312.810725	-33.702518	4.89	1.004	0.97	G8III
102978	20	53	2.4	-26	50	28.2	313.260190	-26.841164	4.12	1.633	1.76	K4III
103004	20	53	0.4	+27	10	28.8	313.251499	+27.174673	4.56	0.835	0.87	G8III
103045	20	53	45.5	- 8	54	18.9	313.439440	- 8.905237	4.73	0.325	0.36	A3m
103089	20	53	58.3	+44	27	56.4	313.492932	+44.465657	4.80	-0.134	-0.16	B5V
103227	20	56	23.8	-58	22	30.6	314.099095	-58.375164	3.67	1.250	1.11	K0III
103413	20	57	56.3	+41	14	48.6	314.484699	+41.246829	3.94	0.027	0.01	A1Vn
103632	21	0	31.4	+47	36	6.2	315.130998	+47.601718	4.74	-0.084	-0.06	B1ne
103738	21	2	32.6	-32	10	35.1	315.635788	-32.176405	4.67	0.890	0.90	G8III
104019	21	5	34.1	-19	46	21.7	316.392085	-19.772699	4.82	0.169	0.18	A5V
104060	21	5	40.7	+44	0	37.4	316.419445	+44.010391	3.72	1.609	1.63	K5Ibv SB
104139	21	7	5.8	-17	9	0.9	316.774122	-17.150249	4.08	-0.010	0.00	A1V
104194	21	7	18.5	+47	43	53.4	316.827162	+47.731500	4.56	1.569	1.54	K4II
104234	21	8	19.4	-24	55	21.8	317.080692	-24.922730	4.49	1.604	1.81	K5/M0III
104459	21	10	42.5	-11	17	15.3	317.677122	-11.287595	4.50	0.926	0.92	G8III
104521	21	11	20.3	+10	12	54.5	317.834547	+10.215152	4.70	0.262	0.26	F0p
104732	21	13	48.6	+30	18	42.5	318.452519	+30.311797	3.21	0.990	0.97	G8II SB
104858	21	15	28.7	+10	5	27.9	318.869600	+10.091084	4.47	0.529	0.57	F5V+...
104887	21	15	36.7	+38	8	0.4	318.902979	+38.133458	3.74	0.393	0.46	F1IV
104987	21	16	50.9	+ 5	20	0.8	319.212009	+ 5.333554	3.92	0.549	0.62	G0III+...
105102	21	18	13.3	+39	28	53.0	319.555592	+39.481376	4.22	0.098	0.25	B9Iab
105138	21	18	45.7	+34	59	1.7	319.690510	+34.983819	4.41	-0.103	-0.09	B2Vne
105140	21	19	10.5	-32	5	8.6	319.793924	-32.085709	4.71	0.070	0.09	A0V
105199	21	19	4.0	+62	40	22.4	319.766776	+62.672881	2.45	0.257	0.26	A7IV-V
105319	21	21	18.9	-53	21	43.9	320.328735	-53.362194	4.39	0.191	0.21	A5V
105382	21	22	3.9	-40	43	17.4	320.516137	-40.721500	4.80	0.029	0.07	A2p
105502	21	23	2.1	+19	53	35.1	320.758798	+19.893087	4.08	1.108	1.05	K1III
105515	21	23	23.1	-16	44	46.3	320.846267	-16.746202	4.28	0.888	0.89	G8III
105858	21	28	6.7	-65	16	19.4	322.028044	-65.272048	4.21	0.494	0.61	F6V
105881	21	27	50.0	-22	19	17.5	321.958420	-22.321535	3.77	1.002	0.88	G4Ibp...
106032	21	28	55.0	+70	39	3.3	322.229148	+70.650929	3.23	-0.201	-0.25	B2IIIv SB

Posiciones medias de estrellas brillantes, 2022

Estrella	α			δ			α	δ				
NH	h	m	s	º	‘	“	º	º	V	U-V	B-V	Espectro
106039	21	29	53.3	-21	43	0.8	322.472107	-21.716888	4.50	0.889	0.89	K0III
106140	21	30	52.7	+23	43	46.3	322.719443	+23.729515	4.52	1.618	1.82	M1III
106278	21	32	38.2	- 5	28	48.2	323.159123	- 5.480045	2.90	0.828	0.82	G0Ib
106481	21	34	45.2	+45	40	59.4	323.688403	+45.683156	3.98	0.885	0.94	G8III
106551	21	35	36.9	+38	37	36.0	323.903716	+38.626657	4.87	1.085	1.06	K1III
106723	21	38	13.5	-19	22	23.5	324.556251	-19.373206	4.51	-0.180	-0.17	B3V:p
106786	21	38	50.5	- 7	45	40.9	324.710298	- 7.761349	4.68	0.175	0.19	A7V
106801	21	38	28.2	+62	10	29.6	324.617558	+62.174882	4.76	0.246	0.38	B2Ib
106985	21	41	13.4	-16	34	7.6	325.305904	-16.568767	3.69	0.320	0.32	A7III:mp...
107089	21	43	40.9	-77	17	49.8	325.920412	-77.297173	3.73	1.008	0.98	K0III
107119	21	42	12.9	+71	24	21.6	325.553581	+71.406006	4.55	1.108	1.07	K0III
107136	21	42	49.4	+51	17	1.6	325.706022	+51.283784	4.69	-0.119	-0.12	B3IV
107188	21	43	48.0	-18	46	19.1	325.949956	-18.771983	4.72	0.868	0.91	G8III
107259	21	44	8.2	+58	52	28.5	326.034010	+58.874585	4.23	2.242	3.57	M2Ia
107310	21	45	3.6	+28	50	9.8	326.265095	+28.836057	4.49	0.512	0.58	F6V
107315	21	45	11.6	+ 9	58	11.3	326.298180	+ 9.969815	2.38	1.520	1.42	K2Ibvar
107348	21	45	29.0	+17	26	41.4	326.370710	+17.444839	4.34	1.161	1.05	G5Ib
107354	21	45	34.5	+25	44	24.1	326.393834	+25.740023	4.14	0.425	0.48	F5IV
107380	21	46	9.7	-32	55	52.6	326.540538	-32.931268	4.35	-0.053	-0.05	B9.5V
107418	21	46	2.4	+61	12	57.2	326.510179	+61.215883	4.25	0.474	0.73	A2Iavar
107533	21	47	33.2	+49	24	18.1	326.888230	+49.405039	4.23	-0.120	-0.13	B3III
107556	21	48	10.2	-16	2	0.0	327.042305	-16.033334	2.85	0.180	0.35	A5mF2 (IV)
108085	21	55	9.8	-37	16	2.9	328.790756	-37.267479	3.00	-0.084	-0.10	B8III
108431	21	59	17.9	-54	53	38.8	329.824691	-54.894118	4.40	0.297	0.35	F0IV
108870	22	4	54.5	-56	42	0.8	331.227289	-56.700210	4.69	1.056	1.15	K5V
108874	22	4	22.4	- 2	3	20.4	331.093323	- 2.055656	4.74	-0.100	-0.03	B7IVe
108917	22	4	23.1	+64	43	41.9	331.096302	+64.728296	4.26	0.379	0.44	Am
109068	22	6	42.8	+ 5	9	33.9	331.678135	+ 5.159425	4.86	1.443	1.45	K4III
109074	22	6	50.2	- 0	13	10.4	331.708969	- 0.219547	2.95	0.969	0.92	G2Ib
109111	22	7	20.6	-39	26	36.9	331.835758	-39.443591	4.47	1.349	1.31	M0III
109139	22	7	32.5	-13	46	10.1	331.885440	-13.769477	4.29	-0.075	-0.06	B8V
109176	22	7	58.0	+25	26	45.2	331.991692	+25.445899	3.77	0.435	0.51	F5V
109268	22	9	30.9	-46	51	39.0	332.378801	-46.860837	1.73	-0.070	-0.05	B7IV
109285	22	9	34.4	-32	53	15.5	332.393460	-32.887644	4.50	0.054	0.06	A2V
109289	22	9	37.6	-33	56	35.2	332.406543	-33.943119	4.99	1.499	1.50	K4III
109400	22	10	11.8	+72	26	32.8	332.549025	+72.442445	4.79	0.919	0.91	G8III
109410	22	10	54.0	+33	16	46.0	332.725011	+33.279446	4.28	0.471	0.52	F5III
109422	22	11	20.5	-32	26	49.0	332.835393	-32.446938	4.94	0.489	0.54	F6V
109427	22	11	14.0	+ 6	17	57.9	332.808411	+ 6.299424	3.52	0.086	0.09	A2V
109492	22	11	34.1	+58	18	10.0	332.892138	+58.302783	3.39	1.558	1.58	K1Ibv SB
109754	22	14	45.7	+39	49	2.0	333.690360	+39.817209	4.50	1.385	1.36	K3III
109857	22	15	47.7	+57	8	46.7	333.948916	+57.146303	4.18	0.278	0.33	F0IV
109908	22	16	50.6	-41	14	38.3	334.210656	-41.243972	4.79	0.790	0.83	G8III+...
109937	22	16	51.9	+37	51	5.0	334.216439	+37.851397	4.14	1.447	1.33	K3III
110003	22	17	54.8	- 7	40	50.0	334.478491	- 7.680549	4.17	0.979	0.95	G8III-IV
110130	22	19	53.3	-60	9	23.6	334.972092	-60.156548	2.87	1.390	1.37	K3III
110351	22	21	52.6	+46	38	25.1	335.468969	+46.640306	4.55	-0.100	-0.10	B6V
110371	22	22	16.2	+28	26	3.7	335.567704	+28.434358	4.78	-0.010	0.06	B9III
110386	22	22	31.6	+12	18	32.6	335.631868	+12.309061	4.82	-0.132	-0.16	B2IV-V
110395	22	22	42.8	- 1	17	0.3	335.678515	- 1.283405	3.86	-0.057	-0.06	A0V
110538	22	24	22.2	+52	19	56.1	336.092578	+52.332252	4.42	1.015	1.03	G9III
110609	22	25	21.1	+49	34	50.9	336.337818	+49.580810	4.55	0.092	0.18	B9Iab
110672	22	26	19.4	+ 1	28	55.3	336.580859	+ 1.482029	4.80	-0.171	-0.18	B1Ve
110838	22	28	46.1	-64	51	40.5	337.191922	-64.861245	4.51	-0.029	-0.01	B8V
110882	22	28	53.8	+ 4	47	56.7	337.224051	+ 4.799072	4.78	1.039	1.07	K0III
110960	22	29	53.2	+ 0	5	7.9	337.471636	+ 0.085541	3.65	0.406	0.50	F3III-IV
110991	22	29	56.2	+58	31	14.0	337.484078	+58.520560	4.07	0.778	0.81	G2Ibvar
110997	22	30	29.2	-43	23	24.7	337.621632	-43.390184	3.97	1.022	0.98	G6/G8III
111022	22	30	23.3	+47	48	44.2	337.597108	+47.812287	4.34	1.679	1.90	M0II

Posiciones medias de estrellas brillantes, 2022

Estrella	α			δ			α	δ				
NH	h	m	s	º	‘	“	º	º	V	U-V	B-V	Espectro
111043	22	30	58.4	-43	38	37.4	337.743387	-43.643717	4.12	1.570	2.49	M4.5IIIa
111104	22	31	22.6	+43	13	44.2	337.843962	+43.228948	4.52	-0.086	-0.09	B2IV
111123	22	31	43.8	-10	34	20.8	337.932465	-10.572444	4.82	-0.053	-0.04	A0IVs
111169	22	32	8.4	+50	23	18.0	338.035036	+50.388338	3.76	0.031	0.05	A1V
111188	22	32	39.9	-32	14	25.3	338.166392	-32.240357	4.29	0.011	0.03	A1V
111310	22	34	22.1	-61	52	34.0	338.592071	-61.876118	4.91	1.612	2.50	M4III
111497	22	36	24.5	- 0	0	40.7	339.102255	- 0.011296	4.04	-0.083	-0.07	B9IV-Vn
111674	22	38	13.2	+51	39	5.0	339.555044	+51.651400	4.64	0.254	0.28	A8IV
111841	22	40	11.1	+39	9	26.7	340.046131	+39.157422	4.89	-0.207	-0.23	O9V
111944	22	41	25.0	+44	23	1.5	340.354259	+44.383756	4.50	1.318	1.25	K3III
111954	22	41	47.1	-26	56	10.3	340.446271	-26.936184	4.18	-0.105	-0.07	B8V
112029	22	42	29.1	+10	56	19.9	340.621245	+10.938867	3.41	-0.086	-0.06	B8.5V
112051	22	42	43.3	+29	24	54.5	340.680454	+29.415138	4.80	-0.013	0.02	A1IV
112122	22	43	52.9	-46	46	36.6	340.970578	-46.776823	2.07	1.610	2.60	M5III
112158	22	43	58.0	+30	19	44.1	340.991459	+30.328913	2.93	0.852	0.87	G2II-III..
112203	22	44	40.9	-41	18	25.0	341.170280	-41.306958	4.84	1.027	1.01	K0III
112211	22	44	41.2	-18	43	21.4	341.171860	-18.722612	4.68	1.358	1.35	K3III
112374	22	46	52.7	-53	23	30.4	341.719432	-53.391768	4.84	1.180	1.21	K2IIICNIV
112405	22	48	2.2	-81	16	23.6	342.009337	-81.273230	4.13	0.208	0.24	A9IV/V
112440	22	47	31.2	+23	40	26.3	341.880183	+23.673973	3.97	1.070	0.99	G8II-III
112447	22	47	43.1	+12	16	42.8	341.929488	+12.278560	4.20	0.502	0.60	F7V
112519	22	47	20.7	+83	15	45.1	341.836437	+83.262531	4.77	1.257	1.25	K3III
112623	22	49	46.9	-51	12	30.7	342.445602	-51.208523	3.49	0.083	0.10	A3V
112716	22	50	40.5	-13	29	2.4	342.668733	-13.483996	4.05	1.570	1.72	K5III
112724	22	50	24.9	+66	18	30.8	342.603843	+66.308554	3.50	1.053	1.06	K0III
112748	22	50	59.7	+24	42	36.9	342.748674	+24.710245	3.51	0.933	0.89	M2III
112917	22	52	57.8	+43	25	18.3	343.240658	+43.421737	4.95	1.559	1.71	M0III
112948	22	53	39.6	-32	45	58.8	343.414988	-32.766342	4.46	-0.037	-0.01	A0III
112961	22	53	41.0	- 7	28	12.4	343.420725	- 7.470124	3.73	1.626	2.07	M2IIIvar
113116	22	54	10.3	+84	27	20.8	343.543112	+84.455767	4.70	1.418	1.38	K4III
113136	22	55	44.1	-15	42	41.0	343.933918	-15.711377	3.27	0.066	0.08	A3V
113186	22	56	15.6	+ 8	55	33.5	344.065133	+ 8.925985	4.91	-0.003	0.00	A1V
113246	22	57	4.7	-32	25	46.9	344.269653	-32.429697	4.20	0.952	0.96	G8III
113288	22	57	20.2	+49	50	36.0	344.334258	+49.843342	4.99	1.778	1.87	K5Ibvar
113368	22	58	46.7	-29	30	47.4	344.694670	-29.513156	1.17	0.145	0.16	A3V
113638	23	2	4.8	-52	38	37.7	345.519914	-52.643795	4.11	0.960	1.01	G8III
113726	23	2	52.1	+42	26	11.4	345.717171	+42.436508	3.62	-0.099	-0.05	B6pv SB
113881	23	4	46.2	+28	11	39.5	346.192694	+28.194310	2.44	1.655	2.31	M2II-IIIvar
113889	23	4	55.2	+ 3	55	50.7	346.230071	+ 3.930761	4.48	-0.115	-0.09	B6Ve
113919	23	5	6.5	+50	9	49.8	346.277187	+50.163821	4.64	1.058	1.02	K0III
113963	23	5	47.0	+15	18	57.3	346.445844	+15.315903	2.49	-0.002	0.00	B9.5III
114104	23	7	29.2	+59	31	51.0	346.871798	+59.530830	4.84	-0.060	-0.02	B0.5IV
114119	23	7	46.7	-23	37	55.2	346.944609	-23.632011	4.48	0.892	0.92	G8III
114131	23	8	1.6	-43	24	33.5	347.006548	-43.409309	4.28	0.423	0.44	F5me...
114144	23	8	2.3	+ 9	31	14.0	347.009434	+ 9.520555	4.54	1.559	1.79	M2III
114155	23	8	6.8	+25	34	45.2	347.028368	+25.579219	4.76	1.285	1.30	K0IIp
114222	23	8	33.3	+75	29	54.7	347.138716	+75.498515	4.41	0.802	0.84	G2III
114341	23	10	32.2	-21	3	39.0	347.634159	-21.060828	3.68	1.202	1.16	K1III
114375	23	11	0.4	-22	20	46.3	347.751683	-22.346197	4.71	0.674	0.75	A3IV:
114421	23	11	30.7	-45	8	7.3	347.877820	-45.135349	3.88	0.998	0.95	K0III SB
114570	23	13	29.7	+49	31	6.5	348.373755	+49.518463	4.53	0.302	0.35	F0V
114724	23	15	23.0	- 5	56	17.5	348.845900	- 5.938185	4.22	1.545	1.89	M2III
114855	23	16	57.8	- 8	58	32.8	349.241027	- 8.975774	4.24	1.107	1.06	K0III
114939	23	17	54.6	- 7	36	52.0	349.477616	- 7.614444	4.93	1.613	2.56	M3III
114971	23	18	13.7	+ 3	23	40.4	349.557049	+ 3.394564	3.70	0.916	0.97	G7III
114996	23	18	36.8	-58	7	23.1	349.653146	-58.123088	3.99	0.410	0.50	F1III
115022	23	18	42.0	+49	7	39.2	349.675097	+49.127560	4.82	1.668	2.14	M2III
115033	23	18	58.1	- 9	4	13.2	349.741945	- 9.070325	4.41	-0.144	-0.14	B5Vn
115088	23	19	28.6	+68	13	25.7	349.869052	+68.223802	4.75	0.836	0.86	K0III

Posiciones medias de estrellas brillantes, 2022

Estrella	α			δ			α	δ				
NH	h	m	s	º	‘	“	º	º	V	U-V	B-V	Espectro
115102	23	19	55.6	-32	25	12.5	349.981569	-32.420138	4.41	1.109	1.08	K1III
115115	23	20	1.6	- 9	29	54.4	350.006572	- 9.498458	4.99	-0.022	0.00	A0V
115250	23	21	39.3	+23	51	9.9	350.413671	+23.852763	4.58	0.180	0.23	A5V
115438	23	24	2.7	-19	59	18.4	351.011133	-19.988448	3.96	1.082	1.10	K0III
115590	23	25	45.4	+62	23	43.9	351.439367	+62.395540	4.96	1.676	1.94	M1III
115623	23	26	24.3	+23	31	1.8	351.601392	+23.517156	4.42	0.617	0.67	F8IV
115669	23	27	7.2	-20	31	46.1	351.780169	-20.529462	4.38	1.460	1.52	K4III
115738	23	27	59.0	+ 1	22	5.0	351.995884	+ 1.368048	4.95	0.036	0.01	A0p
115830	23	29	0.5	+ 6	29	30.4	352.252238	+ 6.491788	4.27	1.062	1.03	K1III
115919	23	30	11.6	+12	52	25.7	352.548279	+12.873809	4.54	0.939	0.93	G8III
115990	23	30	59.3	+58	39	43.6	352.746923	+58.662113	4.89	-0.122	-0.11	B3IV
116231	23	34	3.9	-37	42	16.9	353.516246	-37.704707	4.38	-0.095	-0.09	B9.5IVMNpe.
116247	23	34	20.8	-20	48	3.9	353.586838	-20.801087	4.70	0.020	0.03	A0V
116310	23	34	58.4	+31	26	18.9	353.743501	+31.438580	4.97	1.383	1.36	K4III
116389	23	36	10.3	-42	30	5.6	354.043088	-42.501547	4.69	0.078	0.10	A2V
116584	23	38	34.4	+46	34	9.8	354.643434	+46.569402	3.81	0.984	0.96	G8III-IV
116602	23	38	56.8	-45	22	43.7	354.736577	-45.378813	4.74	0.082	0.08	A2V
116631	23	39	8.9	+43	22	54.1	354.787001	+43.381684	4.29	-0.083	-0.06	B8V
116727	23	40	12.5	+77	44	47.9	355.052156	+77.746652	3.21	1.031	0.99	K1IV
116758	23	40	50.8	-14	6	31.7	355.211515	-14.108794	4.97	0.257	0.29	A7IV
116771	23	41	0.3	+ 5	44	15.2	355.251437	+ 5.737563	4.13	0.507	0.59	F7V
116805	23	41	25.5	+44	26	51.2	355.356091	+44.447544	4.15	-0.071	-0.06	B9IVn
116901	23	42	49.5	-17	42	9.9	355.706391	-17.702760	4.82	0.822	0.81	G2Ib/II
116928	23	43	5.6	+ 1	53	34.7	355.773326	+ 1.892964	4.49	0.200	0.22	A7V
116971	23	43	47.0	-14	25	53.3	355.945949	-14.431467	4.49	-0.032	-0.04	B9V
117073	23	45	1.6	+29	28	30.3	356.256599	+29.475080	4.93	0.935	0.93	K0III
117221	23	47	3.4	+46	32	3.0	356.764184	+46.534157	4.97	1.086	1.05	G5Ib
117245	23	47	26.4	+ 3	36	2.2	356.860019	+ 3.600599	4.95	2.508	2.57	C5II
117301	23	48	4.2	+58	45	58.5	357.017495	+58.766249	4.88	1.122	1.08	K1III
117452	23	49	59.4	-28	1	0.7	357.497501	-28.016853	4.59	0.001	-0.01	A0V
117863	23	55	25.1	+57	36	48.4	358.854561	+57.613448	4.51	1.190	1.15	F8Iavar
118121	23	58	38.8	-64	11	4.1	359.661738	-64.184461	5.00	0.060	0.07	A1V
118131	23	58	48.4	+25	15	19.2	359.701701	+25.255332	4.63	1.584	2.21	M3III
118209	23	59	43.3	- 3	26	32.2	359.930581	- 3.442273	4.88	0.930	0.92	G9III

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

950

		V	Sp		
		5.24	F3/F5V		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	0.21388	0.19533	-35.01529	17.29
ene	8	0.21386	0.19529	-35.01525	16.83
ene	15	0.21383	0.19524	-35.01521	16.37
ene	22	0.21381	0.19519	-35.01509	15.91
ene	29	0.21378	0.19515	-35.01494	15.45
feb	5	0.21377	0.19511	-35.01471	14.99
feb	12	0.21375	0.19507	-35.01446	14.53
feb	19	0.21374	0.19505	-35.01415	14.07
feb	26	0.21372	0.19502	-35.01380	13.61
mar	5	0.21372	0.19501	-35.01342	13.15
mar	12	0.21372	0.19499	-35.01299	12.69
mar	19	0.21372	0.19499	-35.01255	12.23
mar	26	0.21374	0.19498	-35.01204	11.77
abr	2	0.21375	0.19499	-35.01155	11.31
abr	9	0.21378	0.19500	-35.01100	10.85
abr	16	0.21381	0.19502	-35.01049	10.39
abr	23	0.21385	0.19504	-35.00989	9.93
abr	30	0.21388	0.19507	-35.00938	9.47
may	7	0.21393	0.19509	-35.00879	9.01
may	14	0.21398	0.19513	-35.00829	8.55
may	21	0.21405	0.19517	-35.00769	8.09
may	28	0.21411	0.19521	-35.00723	7.63
jun	4	0.21418	0.19526	-35.00670	7.17
jun	11	0.21424	0.19531	-35.00629	6.71
jun	18	0.21432	0.19535	-35.00580	6.25
jun	25	0.21438	0.19540	-35.00548	5.79
jul	2	0.21446	0.19545	-35.00510	5.33
jul	9	0.21453	0.19550	-35.00488	4.87
jul	16	0.21461	0.19555	-35.00458	4.41
jul	23	0.21467	0.19560	-35.00446	3.95
jul	30	0.21474	0.19564	-35.00431	3.49
ago	6	0.21479	0.19568	-35.00431	3.03
ago	13	0.21485	0.19572	-35.00425	2.57
ago	20	0.21489	0.19576	-35.00436	2.11
ago	27	0.21494	0.19579	-35.00445	1.65
sep	3	0.21497	0.19581	-35.00467	1.19
sep	10	0.21501	0.19583	-35.00483	0.73
sep	17	0.21503	0.19584	-35.00513	0.27
sep	24	0.21505	0.19585	-35.00540	23.81
oct	1	0.21506	0.19584	-35.00577	23.35
oct	8	0.21507	0.19584	-35.00608	22.89
oct	15	0.21507	0.19582	-35.00646	22.43
oct	22	0.21506	0.19580	-35.00682	21.97
oct	29	0.21505	0.19577	-35.00720	21.51
nov	5	0.21504	0.19574	-35.00754	21.05
nov	12	0.21502	0.19570	-35.00788	20.59
nov	19	0.21500	0.19567	-35.00820	20.13
nov	26	0.21497	0.19562	-35.00848	19.67
dic	3	0.21494	0.19557	-35.00872	19.21
dic	10	0.21492	0.19552	-35.00891	18.75
dic	17	0.21489	0.19547	-35.00908	18.29
dic	24	0.21486	0.19541	-35.00917	17.83

1599

		V	Sp		
		4.23	F9V		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	0.35324	0.33469	-64.75255	17.43
ene	8	0.35318	0.33460	-64.75237	16.97
ene	15	0.35310	0.33450	-64.75217	16.51
ene	22	0.35304	0.33442	-64.75185	16.05
ene	29	0.35297	0.33434	-64.75150	15.59
feb	5	0.35293	0.33427	-64.75104	15.13
feb	12	0.35287	0.33420	-64.75056	14.67
feb	19	0.35284	0.33415	-64.75001	14.21
feb	26	0.35280	0.33410	-64.74941	13.75
mar	5	0.35278	0.33407	-64.74878	13.29
mar	12	0.35276	0.33404	-64.74810	12.83
mar	19	0.35277	0.33403	-64.74742	12.37
mar	26	0.35277	0.33402	-64.74668	11.91
abr	2	0.35279	0.33403	-64.74598	11.45
abr	9	0.35282	0.33404	-64.74523	10.99
abr	16	0.35286	0.33408	-64.74454	10.53
abr	23	0.35291	0.33410	-64.74378	10.07
abr	30	0.35298	0.33416	-64.74312	9.61
may	7	0.35305	0.33421	-64.74242	9.15
may	14	0.35313	0.33428	-64.74183	8.69
may	21	0.35323	0.33434	-64.74117	8.23
may	28	0.35332	0.33443	-64.74067	7.77
jun	4	0.35343	0.33451	-64.74014	7.31
jun	11	0.35354	0.33460	-64.73975	6.85
jun	18	0.35366	0.33469	-64.73931	6.39
jun	25	0.35377	0.33479	-64.73905	5.93
jul	2	0.35390	0.33489	-64.73877	5.47
jul	9	0.35401	0.33499	-64.73867	5.01
jul	16	0.35414	0.33508	-64.73851	4.55
jul	23	0.35424	0.33518	-64.73855	4.09
jul	30	0.35436	0.33527	-64.73857	3.63
ago	6	0.35445	0.33535	-64.73877	3.17
ago	13	0.35456	0.33543	-64.73891	2.71
ago	20	0.35463	0.33550	-64.73923	2.25
ago	27	0.35472	0.33556	-64.73954	1.79
sep	3	0.35477	0.33561	-64.73999	1.33
sep	10	0.35484	0.33566	-64.74038	0.87
sep	17	0.35487	0.33568	-64.74090	0.41
sep	24	0.35491	0.33570	-64.74139	23.95
oct	1	0.35491	0.33569	-64.74197	23.49
oct	8	0.35492	0.33569	-64.74248	23.03
oct	15	0.35490	0.33566	-64.74305	22.57
oct	22	0.35489	0.33563	-64.74357	22.11
oct	29	0.35485	0.33557	-64.74411	21.65
nov	5	0.35482	0.33552	-64.74456	21.19
nov	12	0.35476	0.33545	-64.74501	20.73
nov	19	0.35471	0.33538	-64.74539	20.27
nov	26	0.35463	0.33528	-64.74571	19.81
dic	3	0.35457	0.33520	-64.74596	19.35
dic	10	0.35449	0.33509	-64.74614	18.89
dic	17	0.35442	0.33500	-64.74626	18.43
dic	24	0.35434	0.33489	-64.74626	17.97

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

2021

		V	Sp		
		2.82	G2IV		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	0.44798	0.42942	-77.13775	17.53
ene	8	0.44783	0.42926	-77.13751	17.07
ene	15	0.44766	0.42906	-77.13726	16.61
ene	22	0.44753	0.42891	-77.13690	16.15
ene	29	0.44737	0.42874	-77.13649	15.69
feb	5	0.44727	0.42861	-77.13598	15.23
feb	12	0.44714	0.42847	-77.13543	14.77
feb	19	0.44706	0.42838	-77.13483	14.31
feb	26	0.44697	0.42827	-77.13417	13.84
mar	5	0.44693	0.42821	-77.13348	13.38
mar	12	0.44687	0.42814	-77.13276	12.92
mar	19	0.44686	0.42813	-77.13203	12.46
mar	26	0.44685	0.42810	-77.13126	12.00
abr	2	0.44688	0.42812	-77.13052	11.54
abr	9	0.44691	0.42813	-77.12974	11.08
abr	16	0.44698	0.42820	-77.12902	10.62
abr	23	0.44706	0.42825	-77.12825	10.17
abr	30	0.44716	0.42835	-77.12758	9.71
may	7	0.44728	0.42844	-77.12688	9.25
may	14	0.44742	0.42857	-77.12629	8.79
may	21	0.44757	0.42869	-77.12565	8.33
may	28	0.44774	0.42885	-77.12516	7.87
jun	4	0.44792	0.42900	-77.12465	7.41
jun	11	0.44811	0.42918	-77.12430	6.95
jun	18	0.44832	0.42935	-77.12389	6.49
jun	25	0.44852	0.42953	-77.12367	6.03
jul	2	0.44873	0.42972	-77.12344	5.57
jul	9	0.44893	0.42991	-77.12339	5.11
jul	16	0.44915	0.43010	-77.12327	4.65
jul	23	0.44934	0.43028	-77.12337	4.19
jul	30	0.44955	0.43046	-77.12345	3.73
ago	6	0.44972	0.43062	-77.12371	3.27
ago	13	0.44991	0.43078	-77.12391	2.81
ago	20	0.45005	0.43091	-77.12430	2.35
ago	27	0.45020	0.43104	-77.12467	1.89
sep	3	0.45030	0.43113	-77.12518	1.43
sep	10	0.45041	0.43123	-77.12562	0.97
sep	17	0.45046	0.43127	-77.12620	0.51
sep	24	0.45053	0.43132	-77.12674	0.05
oct	1	0.45053	0.43131	-77.12737	23.59
oct	8	0.45055	0.43132	-77.12792	23.13
oct	15	0.45050	0.43126	-77.12853	22.67
oct	22	0.45047	0.43121	-77.12908	22.21
oct	29	0.45038	0.43110	-77.12964	21.75
nov	5	0.45031	0.43101	-77.13012	21.29
nov	12	0.45018	0.43086	-77.13057	20.83
nov	19	0.45006	0.43074	-77.13096	20.37
nov	26	0.44990	0.43055	-77.13128	19.91
dic	3	0.44977	0.43040	-77.13151	19.45
dic	10	0.44959	0.43020	-77.13167	18.99
dic	17	0.44944	0.43003	-77.13176	18.53
dic	24	0.44926	0.42981	-77.13174	18.07

3419

		V	Sp		
		2.04	K0III		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	0.74467	0.72612	-17.86972	17.82
ene	8	0.74466	0.72608	-17.86977	17.36
ene	15	0.74463	0.72603	-17.86986	16.90
ene	22	0.74461	0.72599	-17.86986	16.44
ene	29	0.74459	0.72595	-17.86987	15.98
feb	5	0.74457	0.72591	-17.86980	15.52
feb	12	0.74455	0.72587	-17.86974	15.06
feb	19	0.74453	0.72585	-17.86961	14.60
feb	26	0.74452	0.72582	-17.86946	14.14
mar	5	0.74451	0.72580	-17.86926	13.68
mar	12	0.74450	0.72578	-17.86903	13.22
mar	19	0.74450	0.72577	-17.86878	12.76
mar	26	0.74451	0.72576	-17.86846	12.30
abr	2	0.74452	0.72576	-17.86815	11.84
abr	9	0.74453	0.72576	-17.86777	11.38
abr	16	0.74455	0.72577	-17.86741	10.92
abr	23	0.74459	0.72578	-17.86695	10.46
abr	30	0.74461	0.72580	-17.86655	10.00
may	7	0.74466	0.72582	-17.86607	9.54
may	14	0.74469	0.72584	-17.86564	9.08
may	21	0.74475	0.72587	-17.86511	8.62
may	28	0.74480	0.72590	-17.86469	8.16
jun	4	0.74486	0.72594	-17.86418	7.70
jun	11	0.74491	0.72598	-17.86376	7.24
jun	18	0.74499	0.72602	-17.86324	6.78
jun	25	0.74504	0.72606	-17.86287	6.32
jul	2	0.74511	0.72610	-17.86242	5.86
jul	9	0.74517	0.72615	-17.86210	5.40
jul	16	0.74524	0.72619	-17.86169	4.94
jul	23	0.74530	0.72623	-17.86144	4.48
jul	30	0.74536	0.72627	-17.86114	4.02
ago	6	0.74541	0.72631	-17.86098	3.56
ago	13	0.74547	0.72635	-17.86074	3.10
ago	20	0.74551	0.72638	-17.86068	2.64
ago	27	0.74556	0.72641	-17.86057	2.18
sep	3	0.74559	0.72643	-17.86060	1.72
sep	10	0.74564	0.72645	-17.86057	1.26
sep	17	0.74566	0.72647	-17.86068	0.80
sep	24	0.74569	0.72648	-17.86076	0.34
oct	1	0.74570	0.72648	-17.86095	23.88
oct	8	0.74572	0.72649	-17.86109	23.42
oct	15	0.74572	0.72648	-17.86132	22.96
oct	22	0.74573	0.72647	-17.86153	22.50
oct	29	0.74573	0.72645	-17.86180	22.04
nov	5	0.74572	0.72643	-17.86202	21.58
nov	12	0.74571	0.72640	-17.86229	21.12
nov	19	0.74570	0.72637	-17.86253	20.66
nov	26	0.74569	0.72634	-17.86278	20.20
dic	3	0.74567	0.72630	-17.86300	19.74
dic	10	0.74566	0.72626	-17.86320	19.28
dic	17	0.74563	0.72622	-17.86340	18.83
dic	24	0.74561	0.72617	-17.86354	18.37

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

3909

		V	Sp		
		5.17	F7IV-V		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	0.85360	0.83505	-10.52901	17.93
ene	8	0.85358	0.83501	-10.52908	17.47
ene	15	0.85356	0.83496	-10.52920	17.01
ene	22	0.85354	0.83492	-10.52924	16.55
ene	29	0.85351	0.83488	-10.52930	16.09
feb	5	0.85350	0.83484	-10.52929	15.63
feb	12	0.85348	0.83480	-10.52929	15.17
feb	19	0.85346	0.83477	-10.52923	14.71
feb	26	0.85345	0.83475	-10.52915	14.25
mar	5	0.85344	0.83472	-10.52904	13.79
mar	12	0.85343	0.83470	-10.52889	13.33
mar	19	0.85343	0.83469	-10.52872	12.87
mar	26	0.85343	0.83468	-10.52850	12.41
abr	2	0.85344	0.83468	-10.52827	11.95
abr	9	0.85346	0.83468	-10.52798	11.49
abr	16	0.85347	0.83469	-10.52769	11.03
abr	23	0.85350	0.83469	-10.52731	10.57
abr	30	0.85353	0.83471	-10.52698	10.11
may	7	0.85357	0.83473	-10.52657	9.65
may	14	0.85361	0.83476	-10.52619	9.19
may	21	0.85366	0.83478	-10.52572	8.73
may	28	0.85371	0.83481	-10.52533	8.27
jun	4	0.85377	0.83485	-10.52486	7.81
jun	11	0.85382	0.83489	-10.52446	7.35
jun	18	0.85389	0.83492	-10.52396	6.89
jun	25	0.85394	0.83496	-10.52359	6.43
jul	2	0.85401	0.83500	-10.52313	5.97
jul	9	0.85407	0.83505	-10.52280	5.51
jul	16	0.85414	0.83509	-10.52236	5.05
jul	23	0.85419	0.83513	-10.52208	4.59
jul	30	0.85426	0.83517	-10.52174	4.13
ago	6	0.85431	0.83520	-10.52153	3.67
ago	13	0.85437	0.83524	-10.52124	3.21
ago	20	0.85441	0.83527	-10.52111	2.75
ago	27	0.85446	0.83530	-10.52093	2.29
sep	3	0.85449	0.83533	-10.52089	1.83
sep	10	0.85453	0.83535	-10.52078	1.37
sep	17	0.85455	0.83536	-10.52081	0.91
sep	24	0.85458	0.83538	-10.52081	0.45
oct	1	0.85460	0.83538	-10.52092	23.99
oct	8	0.85462	0.83538	-10.52097	23.53
oct	15	0.85462	0.83538	-10.52113	23.07
oct	22	0.85463	0.83537	-10.52126	22.61
oct	29	0.85463	0.83535	-10.52146	22.15
nov	5	0.85463	0.83534	-10.52162	21.69
nov	12	0.85462	0.83531	-10.52183	21.23
nov	19	0.85461	0.83528	-10.52202	20.77
nov	26	0.85460	0.83525	-10.52223	20.31
dic	3	0.85459	0.83522	-10.52241	19.85
dic	10	0.85457	0.83517	-10.52259	19.39
dic	17	0.85455	0.83513	-10.52277	18.93
dic	24	0.85453	0.83509	-10.52291	18.47

5364

		V	Sp		
		3.46	K2III		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	1.16144	1.14289	-10.06877	18.24
ene	8	1.16142	1.14284	-10.06884	17.78
ene	15	1.16140	1.14280	-10.06898	17.32
ene	22	1.16138	1.14276	-10.06903	16.86
ene	29	1.16135	1.14272	-10.06910	16.40
feb	5	1.16133	1.14268	-10.06909	15.94
feb	12	1.16131	1.14264	-10.06911	15.48
feb	19	1.16129	1.14260	-10.06905	15.02
feb	26	1.16127	1.14257	-10.06899	14.56
mar	5	1.16126	1.14255	-10.06888	14.10
mar	12	1.16125	1.14252	-10.06875	13.64
mar	19	1.16124	1.14251	-10.06858	13.18
mar	26	1.16125	1.14249	-10.06837	12.72
abr	2	1.16125	1.14249	-10.06815	12.26
abr	9	1.16126	1.14248	-10.06787	11.80
abr	16	1.16127	1.14249	-10.06758	11.34
abr	23	1.16130	1.14249	-10.06721	10.88
abr	30	1.16132	1.14251	-10.06689	10.42
may	7	1.16136	1.14252	-10.06648	9.96
may	14	1.16140	1.14255	-10.06611	9.50
may	21	1.16145	1.14257	-10.06563	9.04
may	28	1.16149	1.14260	-10.06525	8.58
jun	4	1.16155	1.14263	-10.06477	8.12
jun	11	1.16160	1.14267	-10.06437	7.66
jun	18	1.16167	1.14270	-10.06387	7.20
jun	25	1.16172	1.14274	-10.06349	6.74
jul	2	1.16179	1.14278	-10.06303	6.28
jul	9	1.16185	1.14282	-10.06268	5.82
jul	16	1.16192	1.14287	-10.06223	5.36
jul	23	1.16197	1.14291	-10.06194	4.90
jul	30	1.16204	1.14295	-10.06159	4.44
ago	6	1.16209	1.14299	-10.06137	3.98
ago	13	1.16215	1.14302	-10.06106	3.52
ago	20	1.16219	1.14306	-10.06092	3.06
ago	27	1.16225	1.14309	-10.06073	2.60
sep	3	1.16228	1.14312	-10.06068	2.14
sep	10	1.16233	1.14314	-10.06055	1.68
sep	17	1.16235	1.14316	-10.06058	1.22
sep	24	1.16238	1.14318	-10.06056	0.76
oct	1	1.16240	1.14319	-10.06067	0.30
oct	8	1.16243	1.14319	-10.06072	23.84
oct	15	1.16244	1.14319	-10.06088	23.38
oct	22	1.16245	1.14319	-10.06100	22.92
oct	29	1.16245	1.14317	-10.06120	22.46
nov	5	1.16245	1.14316	-10.06136	22.00
nov	12	1.16245	1.14314	-10.06158	21.54
nov	19	1.16244	1.14311	-10.06177	21.08
nov	26	1.16243	1.14308	-10.06199	20.62
dic	3	1.16242	1.14305	-10.06217	20.16
dic	10	1.16241	1.14301	-10.06237	19.70
dic	17	1.16239	1.14297	-10.06255	19.24
dic	24	1.16237	1.14293	-10.06272	18.78

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

6537

		V	Sp		
		3.60	K0III		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	1.41858	1.40003	-8.07258	18.50
ene	8	1.41856	1.39998	-8.07266	18.04
ene	15	1.41854	1.39994	-8.07281	17.58
ene	22	1.41851	1.39990	-8.07287	17.12
ene	29	1.41849	1.39985	-8.07297	16.66
feb	5	1.41847	1.39981	-8.07297	16.20
feb	12	1.41844	1.39977	-8.07300	15.74
feb	19	1.41842	1.39974	-8.07297	15.28
feb	26	1.41840	1.39970	-8.07293	14.82
mar	5	1.41839	1.39968	-8.07284	14.36
mar	12	1.41838	1.39965	-8.07274	13.90
mar	19	1.41837	1.39963	-8.07259	13.44
mar	26	1.41837	1.39961	-8.07241	12.98
abr	2	1.41836	1.39960	-8.07221	12.52
abr	9	1.41837	1.39960	-8.07196	12.06
abr	16	1.41838	1.39960	-8.07170	11.60
abr	23	1.41841	1.39960	-8.07136	11.14
abr	30	1.41843	1.39961	-8.07105	10.68
may	7	1.41846	1.39962	-8.07067	10.22
may	14	1.41849	1.39964	-8.07031	9.76
may	21	1.41855	1.39966	-8.06986	9.30
may	28	1.41858	1.39969	-8.06948	8.84
jun	4	1.41864	1.39972	-8.06903	8.38
jun	11	1.41869	1.39976	-8.06863	7.92
jun	18	1.41876	1.39979	-8.06813	7.46
jun	25	1.41881	1.39983	-8.06775	7.00
jul	2	1.41888	1.39987	-8.06730	6.54
jul	9	1.41893	1.39991	-8.06694	6.08
jul	16	1.41900	1.39995	-8.06649	5.62
jul	23	1.41906	1.39999	-8.06619	5.16
jul	30	1.41912	1.40003	-8.06582	4.70
ago	6	1.41917	1.40007	-8.06558	4.24
ago	13	1.41924	1.40011	-8.06526	3.78
ago	20	1.41928	1.40015	-8.06510	3.32
ago	27	1.41934	1.40018	-8.06488	2.86
sep	3	1.41937	1.40021	-8.06481	2.40
sep	10	1.41942	1.40024	-8.06466	1.94
sep	17	1.41945	1.40026	-8.06466	1.48
sep	24	1.41948	1.40028	-8.06462	1.02
oct	1	1.41950	1.40029	-8.06471	0.56
oct	8	1.41953	1.40030	-8.06473	0.10
oct	15	1.41954	1.40030	-8.06487	23.64
oct	22	1.41956	1.40030	-8.06498	23.18
oct	29	1.41956	1.40029	-8.06517	22.72
nov	5	1.41957	1.40028	-8.06530	22.26
nov	12	1.41957	1.40026	-8.06552	21.80
nov	19	1.41957	1.40024	-8.06569	21.34
nov	26	1.41956	1.40021	-8.06591	20.88
dic	3	1.41955	1.40018	-8.06609	20.42
dic	10	1.41954	1.40014	-8.06629	19.96
dic	17	1.41952	1.40011	-8.06647	19.50
dic	24	1.41951	1.40006	-8.06663	19.04

7588

		V	Sp		
		0.45	B3Vp		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	1.64228	1.62373	-57.13148	18.72
ene	8	1.64223	1.62365	-57.13151	18.26
ene	15	1.64216	1.62357	-57.13156	17.80
ene	22	1.64211	1.62349	-57.13147	17.34
ene	29	1.64204	1.62340	-57.13136	16.88
feb	5	1.64199	1.62333	-57.13110	16.42
feb	12	1.64192	1.62325	-57.13084	15.96
feb	19	1.64187	1.62319	-57.13046	15.50
feb	26	1.64182	1.62312	-57.13007	15.04
mar	5	1.64178	1.62307	-57.12957	14.58
mar	12	1.64174	1.62301	-57.12905	14.12
mar	19	1.64171	1.62298	-57.12847	13.66
mar	26	1.64169	1.62293	-57.12785	13.20
abr	2	1.64167	1.62291	-57.12721	12.74
abr	9	1.64167	1.62289	-57.12653	12.28
abr	16	1.64167	1.62288	-57.12584	11.82
abr	23	1.64168	1.62288	-57.12511	11.36
abr	30	1.64171	1.62289	-57.12442	10.90
may	7	1.64174	1.62290	-57.12369	10.44
may	14	1.64178	1.62293	-57.12301	9.98
may	21	1.64183	1.62295	-57.12228	9.52
may	28	1.64189	1.62300	-57.12165	9.06
jun	4	1.64196	1.62304	-57.12100	8.60
jun	11	1.64203	1.62310	-57.12045	8.14
jun	18	1.64212	1.62315	-57.11984	7.68
jun	25	1.64220	1.62321	-57.11940	7.22
jul	2	1.64229	1.62328	-57.11893	6.76
jul	9	1.64238	1.62335	-57.11862	6.30
jul	16	1.64248	1.62343	-57.11825	5.84
jul	23	1.64257	1.62350	-57.11808	5.38
jul	30	1.64267	1.62357	-57.11790	4.92
ago	6	1.64275	1.62365	-57.11789	4.46
ago	13	1.64285	1.62372	-57.11782	4.00
ago	20	1.64292	1.62379	-57.11796	3.54
ago	27	1.64301	1.62385	-57.11809	3.08
sep	3	1.64307	1.62391	-57.11838	2.62
sep	10	1.64315	1.62396	-57.11862	2.16
sep	17	1.64319	1.62400	-57.11904	1.70
sep	24	1.64325	1.62404	-57.11943	1.24
oct	1	1.64328	1.62406	-57.11995	0.78
oct	8	1.64332	1.62408	-57.12041	0.32
oct	15	1.64333	1.62408	-57.12099	23.86
oct	22	1.64335	1.62409	-57.12151	23.40
oct	29	1.64334	1.62407	-57.12212	22.94
nov	5	1.64334	1.62405	-57.12264	22.48
nov	12	1.64332	1.62401	-57.12321	22.02
nov	19	1.64330	1.62397	-57.12370	21.56
nov	26	1.64326	1.62391	-57.12421	21.10
dic	3	1.64323	1.62386	-57.12461	20.64
dic	10	1.64318	1.62378	-57.12500	20.18
dic	17	1.64313	1.62372	-57.12531	19.72
dic	24	1.64307	1.62363	-57.12557	19.26

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

7884					
		V	Sp		
		4.45	K3III		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	1.70950	1.69095	5.59735	18.79
ene	8	1.70948	1.69091	5.59729	18.33
ene	15	1.70946	1.69086	5.59713	17.87
ene	22	1.70944	1.69082	5.59706	17.41
ene	29	1.70941	1.69078	5.59692	16.95
feb	5	1.70939	1.69073	5.59686	16.49
feb	12	1.70936	1.69069	5.59674	16.03
feb	19	1.70934	1.69066	5.59668	15.57
feb	26	1.70932	1.69062	5.59660	15.11
mar	5	1.70930	1.69059	5.59658	14.65
mar	12	1.70929	1.69056	5.59654	14.19
mar	19	1.70927	1.69054	5.59654	13.73
mar	26	1.70927	1.69052	5.59657	13.27
abr	2	1.70927	1.69051	5.59662	12.81
abr	9	1.70928	1.69050	5.59669	12.35
abr	16	1.70928	1.69049	5.59678	11.89
abr	23	1.70930	1.69049	5.59696	11.43
abr	30	1.70932	1.69050	5.59712	10.97
may	7	1.70935	1.69051	5.59735	10.51
may	14	1.70938	1.69053	5.59757	10.05
may	21	1.70943	1.69055	5.59789	9.59
may	28	1.70947	1.69058	5.59815	9.13
jun	4	1.70953	1.69061	5.59850	8.67
jun	11	1.70957	1.69064	5.59881	8.21
jun	18	1.70964	1.69067	5.59923	7.75
jun	25	1.70969	1.69071	5.59956	7.29
jul	2	1.70976	1.69075	5.59997	6.83
jul	9	1.70981	1.69079	5.60031	6.37
jul	16	1.70988	1.69083	5.60076	5.91
jul	23	1.70994	1.69087	5.60108	5.45
jul	30	1.71001	1.69091	5.60148	4.99
ago	6	1.71005	1.69095	5.60177	4.53
ago	13	1.71012	1.69099	5.60217	4.07
ago	20	1.71017	1.69103	5.60241	3.61
ago	27	1.71022	1.69107	5.60273	3.15
sep	3	1.71026	1.69110	5.60292	2.69
sep	10	1.71031	1.69113	5.60320	2.23
sep	17	1.71034	1.69115	5.60333	1.77
sep	24	1.71038	1.69117	5.60352	1.31
oct	1	1.71041	1.69119	5.60358	0.85
oct	8	1.71044	1.69120	5.60372	0.39
oct	15	1.71045	1.69121	5.60373	23.93
oct	22	1.71047	1.69121	5.60379	23.47
oct	29	1.71048	1.69121	5.60375	23.01
nov	5	1.71049	1.69120	5.60377	22.55
nov	12	1.71050	1.69119	5.60370	22.09
nov	19	1.71050	1.69117	5.60366	21.63
nov	26	1.71050	1.69115	5.60356	21.17
dic	3	1.71049	1.69112	5.60350	20.71
dic	10	1.71048	1.69109	5.60338	20.25
dic	17	1.71047	1.69105	5.60329	19.79
dic	24	1.71046	1.69101	5.60317	19.33

8102					
		V	Sp		
		3.49	G8V		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	1.75140	1.73285	-15.82519	18.83
ene	8	1.75139	1.73281	-15.82528	18.37
ene	15	1.75136	1.73276	-15.82543	17.91
ene	22	1.75133	1.73272	-15.82547	17.45
ene	29	1.75130	1.73267	-15.82554	16.99
feb	5	1.75128	1.73263	-15.82550	16.53
feb	12	1.75125	1.73258	-15.82550	16.07
feb	19	1.75123	1.73254	-15.82540	15.61
feb	26	1.75121	1.73250	-15.82530	15.15
mar	5	1.75119	1.73247	-15.82513	14.69
mar	12	1.75117	1.73244	-15.82496	14.23
mar	19	1.75115	1.73242	-15.82472	13.77
mar	26	1.75115	1.73240	-15.82445	13.31
abr	2	1.75114	1.73238	-15.82416	12.85
abr	9	1.75115	1.73237	-15.82383	12.39
abr	16	1.75115	1.73237	-15.82347	11.93
abr	23	1.75117	1.73236	-15.82305	11.47
abr	30	1.75119	1.73237	-15.82265	11.01
may	7	1.75122	1.73238	-15.82219	10.55
may	14	1.75125	1.73240	-15.82175	10.09
may	21	1.75129	1.73241	-15.82123	9.63
may	28	1.75133	1.73244	-15.82079	9.17
jun	4	1.75138	1.73246	-15.82027	8.71
jun	11	1.75143	1.73250	-15.81982	8.25
jun	18	1.75150	1.73253	-15.81929	7.79
jun	25	1.75155	1.73257	-15.81887	7.33
jul	2	1.75161	1.73260	-15.81839	6.87
jul	9	1.75167	1.73265	-15.81802	6.41
jul	16	1.75174	1.73269	-15.81756	5.95
jul	23	1.75180	1.73273	-15.81726	5.49
jul	30	1.75186	1.73277	-15.81690	5.03
ago	6	1.75191	1.73281	-15.81669	4.57
ago	13	1.75198	1.73285	-15.81639	4.11
ago	20	1.75203	1.73289	-15.81627	3.65
ago	27	1.75208	1.73293	-15.81610	3.19
sep	3	1.75212	1.73296	-15.81609	2.73
sep	10	1.75217	1.73299	-15.81600	2.27
sep	17	1.75220	1.73301	-15.81608	1.81
sep	24	1.75224	1.73303	-15.81611	1.35
oct	1	1.75226	1.73305	-15.81628	0.89
oct	8	1.75229	1.73306	-15.81638	0.43
oct	15	1.75231	1.73306	-15.81662	23.97
oct	22	1.75233	1.73307	-15.81680	23.51
oct	29	1.75233	1.73306	-15.81709	23.05
nov	5	1.75234	1.73305	-15.81731	22.59
nov	12	1.75234	1.73303	-15.81761	22.13
nov	19	1.75234	1.73301	-15.81786	21.67
nov	26	1.75233	1.73298	-15.81815	21.21
dic	3	1.75232	1.73295	-15.81839	20.75
dic	10	1.75231	1.73292	-15.81865	20.29
dic	17	1.75229	1.73288	-15.81887	19.83
dic	24	1.75228	1.73283	-15.81908	19.37

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

10320

		V	Sp		
		5.27	A0V		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	2.23128	2.21272	-30.62524	19.31
ene	8	2.23125	2.21268	-30.62538	18.85
ene	15	2.23122	2.21262	-30.62557	18.39
ene	22	2.23119	2.21257	-30.62562	17.93
ene	29	2.23115	2.21252	-30.62570	17.47
feb	5	2.23112	2.21247	-30.62563	17.01
feb	12	2.23109	2.21241	-30.62559	16.55
feb	19	2.23105	2.21237	-30.62543	16.09
feb	26	2.23102	2.21232	-30.62528	15.63
mar	5	2.23099	2.21228	-30.62501	15.17
mar	12	2.23097	2.21224	-30.62475	14.71
mar	19	2.23095	2.21221	-30.62440	14.25
mar	26	2.23093	2.21218	-30.62402	13.79
abr	2	2.23092	2.21216	-30.62360	13.33
abr	9	2.23091	2.21213	-30.62315	12.87
abr	16	2.23091	2.21212	-30.62265	12.41
abr	23	2.23092	2.21211	-30.62212	11.95
abr	30	2.23093	2.21211	-30.62159	11.49
may	7	2.23095	2.21211	-30.62101	11.03
may	14	2.23098	2.21212	-30.62045	10.57
may	21	2.23102	2.21214	-30.61983	10.11
may	28	2.23105	2.21216	-30.61927	9.65
jun	4	2.23110	2.21218	-30.61867	9.19
jun	11	2.23114	2.21221	-30.61813	8.73
jun	18	2.23121	2.21224	-30.61753	8.27
jun	25	2.23126	2.21228	-30.61705	7.81
jul	2	2.23133	2.21232	-30.61653	7.35
jul	9	2.23138	2.21236	-30.61612	6.89
jul	16	2.23146	2.21241	-30.61564	6.43
jul	23	2.23152	2.21245	-30.61534	5.97
jul	30	2.23159	2.21250	-30.61499	5.51
ago	6	2.23165	2.21255	-30.61480	5.05
ago	13	2.23172	2.21260	-30.61455	4.59
ago	20	2.23178	2.21264	-30.61449	4.13
ago	27	2.23184	2.21268	-30.61439	3.67
sep	3	2.23189	2.21273	-30.61446	3.21
sep	10	2.23195	2.21276	-30.61447	2.75
sep	17	2.23199	2.21280	-30.61466	2.29
sep	24	2.23204	2.21283	-30.61481	1.83
oct	1	2.23207	2.21285	-30.61512	1.37
oct	8	2.23210	2.21287	-30.61536	0.91
oct	15	2.23213	2.21288	-30.61575	0.45
oct	22	2.23215	2.21289	-30.61608	23.99
oct	29	2.23216	2.21289	-30.61653	23.53
nov	5	2.23218	2.21288	-30.61690	23.07
nov	12	2.23218	2.21287	-30.61736	22.61
nov	19	2.23218	2.21285	-30.61775	22.15
nov	26	2.23217	2.21282	-30.61820	21.69
dic	3	2.23217	2.21280	-30.61856	21.23
dic	10	2.23215	2.21276	-30.61895	20.77
dic	17	2.23214	2.21272	-30.61927	20.31
dic	24	2.23212	2.21267	-30.61958	19.85

10670

		V	Sp		
		4.03	A1Vnn		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	2.31036	2.29181	33.94973	19.39
ene	8	2.31034	2.29176	33.94982	18.93
ene	15	2.31031	2.29172	33.94976	18.47
ene	22	2.31028	2.29166	33.94976	18.01
ene	29	2.31025	2.29161	33.94964	17.55
feb	5	2.31021	2.29156	33.94957	17.09
feb	12	2.31018	2.29151	33.94938	16.63
feb	19	2.31014	2.29146	33.94924	16.17
feb	26	2.31012	2.29141	33.94901	15.71
mar	5	2.31008	2.29137	33.94882	15.25
mar	12	2.31006	2.29133	33.94856	14.79
mar	19	2.31003	2.29130	33.94833	14.33
mar	26	2.31003	2.29127	33.94808	13.87
abr	2	2.31001	2.29125	33.94785	13.41
abr	9	2.31001	2.29123	33.94761	12.95
abr	16	2.31001	2.29122	33.94740	12.49
abr	23	2.31003	2.29122	33.94723	12.03
abr	30	2.31004	2.29122	33.94705	11.57
may	7	2.31007	2.29123	33.94692	11.11
may	14	2.31010	2.29124	33.94681	10.65
may	21	2.31015	2.29127	33.94679	10.19
may	28	2.31019	2.29129	33.94674	9.73
jun	4	2.31025	2.29133	33.94679	9.27
jun	11	2.31029	2.29136	33.94683	8.81
jun	18	2.31037	2.29140	33.94700	8.35
jun	25	2.31043	2.29145	33.94711	7.89
jul	2	2.31050	2.29149	33.94733	7.43
jul	9	2.31056	2.29154	33.94752	6.97
jul	16	2.31065	2.29159	33.94785	6.51
jul	23	2.31071	2.29164	33.94809	6.05
jul	30	2.31079	2.29170	33.94845	5.59
ago	6	2.31085	2.29175	33.94873	5.13
ago	13	2.31093	2.29180	33.94917	4.67
ago	20	2.31099	2.29185	33.94948	4.21
ago	27	2.31105	2.29190	33.94991	3.75
sep	3	2.31110	2.29194	33.95024	3.29
sep	10	2.31117	2.29198	33.95071	2.83
sep	17	2.31121	2.29202	33.95104	2.37
sep	24	2.31126	2.29205	33.95147	1.91
oct	1	2.31130	2.29208	33.95180	1.45
oct	8	2.31134	2.29211	33.95223	0.99
oct	15	2.31137	2.29213	33.95253	0.53
oct	22	2.31140	2.29214	33.95291	0.07
oct	29	2.31142	2.29215	33.95319	23.61
nov	5	2.31144	2.29215	33.95355	23.15
nov	12	2.31146	2.29215	33.95379	22.69
nov	19	2.31146	2.29213	33.95408	22.23
nov	26	2.31147	2.29212	33.95428	21.77
dic	3	2.31147	2.29210	33.95452	21.31
dic	10	2.31146	2.29207	33.95467	20.85
dic	17	2.31145	2.29203	33.95483	20.39
dic	24	2.31144	2.29199	33.95493	19.93

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

15510

		V	Sp		
		4.26	G8V		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	3.34698	3.32843	-42.99028	20.42
ene	8	3.34695	3.32838	-42.99054	19.96
ene	15	3.34691	3.32832	-42.99087	19.50
ene	22	3.34688	3.32826	-42.99102	19.04
ene	29	3.34683	3.32820	-42.99121	18.58
feb	5	3.34679	3.32813	-42.99121	18.12
feb	12	3.34674	3.32807	-42.99126	17.66
feb	19	3.34669	3.32801	-42.99114	17.20
feb	26	3.34665	3.32794	-42.99105	16.74
mar	5	3.34660	3.32789	-42.99080	16.28
mar	12	3.34656	3.32783	-42.99057	15.82
mar	19	3.34652	3.32778	-42.99020	15.36
mar	26	3.34648	3.32773	-42.98984	14.90
abr	2	3.34645	3.32769	-42.98938	14.44
abr	9	3.34642	3.32764	-42.98892	13.98
abr	16	3.34640	3.32762	-42.98837	13.52
abr	23	3.34639	3.32758	-42.98780	13.07
abr	30	3.34638	3.32757	-42.98720	12.61
may	7	3.34639	3.32755	-42.98658	12.15
may	14	3.34640	3.32755	-42.98593	11.69
may	21	3.34642	3.32754	-42.98525	11.23
may	28	3.34644	3.32755	-42.98460	10.77
jun	4	3.34648	3.32756	-42.98393	10.31
jun	11	3.34652	3.32758	-42.98329	9.85
jun	18	3.34657	3.32761	-42.98261	9.39
jun	25	3.34662	3.32764	-42.98203	8.93
jul	2	3.34668	3.32767	-42.98142	8.47
jul	9	3.34674	3.32772	-42.98091	8.01
jul	16	3.34682	3.32776	-42.98037	7.55
jul	23	3.34688	3.32781	-42.97997	7.09
jul	30	3.34696	3.32787	-42.97956	6.63
ago	6	3.34702	3.32792	-42.97929	6.17
ago	13	3.34710	3.32798	-42.97898	5.71
ago	20	3.34717	3.32803	-42.97887	5.25
ago	27	3.34725	3.32809	-42.97873	4.79
sep	3	3.34731	3.32815	-42.97877	4.33
sep	10	3.34739	3.32820	-42.97877	3.87
sep	17	3.34744	3.32825	-42.97897	3.41
sep	24	3.34751	3.32830	-42.97913	2.95
oct	1	3.34756	3.32834	-42.97947	2.49
oct	8	3.34761	3.32838	-42.97975	2.03
oct	15	3.34765	3.32841	-42.98021	1.57
oct	22	3.34769	3.32843	-42.98062	1.11
oct	29	3.34772	3.32845	-42.98117	0.65
nov	5	3.34775	3.32846	-42.98163	0.19
nov	12	3.34777	3.32846	-42.98222	23.73
nov	19	3.34778	3.32845	-42.98273	23.27
nov	26	3.34778	3.32843	-42.98333	22.81
dic	3	3.34779	3.32842	-42.98382	22.35
dic	10	3.34778	3.32838	-42.98437	21.89
dic	17	3.34777	3.32835	-42.98482	21.43
dic	24	3.34775	3.32830	-42.98529	20.97

17378

		V	Sp		
		3.52	K0IV		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	3.73846	3.71991	-9.69133	20.82
ene	8	3.73845	3.71988	-9.69149	20.36
ene	15	3.73843	3.71984	-9.69175	19.90
ene	22	3.73841	3.71980	-9.69187	19.44
ene	29	3.73839	3.71975	-9.69207	18.98
feb	5	3.73836	3.71971	-9.69212	18.52
feb	12	3.73833	3.71966	-9.69225	18.06
feb	19	3.73830	3.71961	-9.69224	17.60
feb	26	3.73827	3.71957	-9.69229	17.14
mar	5	3.73823	3.71952	-9.69222	16.68
mar	12	3.73820	3.71948	-9.69220	16.22
mar	19	3.73817	3.71944	-9.69206	15.76
mar	26	3.73815	3.71940	-9.69195	15.30
abr	2	3.73812	3.71936	-9.69176	14.84
abr	9	3.73811	3.71933	-9.69158	14.38
abr	16	3.73809	3.71931	-9.69131	13.92
abr	23	3.73809	3.71928	-9.69105	13.46
abr	30	3.73808	3.71926	-9.69074	13.00
may	7	3.73809	3.71925	-9.69042	12.54
may	14	3.73810	3.71924	-9.69005	12.08
may	21	3.73812	3.71924	-9.68966	11.62
may	28	3.73814	3.71924	-9.68927	11.16
jun	4	3.73817	3.71925	-9.68885	10.70
jun	11	3.73820	3.71927	-9.68842	10.24
jun	18	3.73825	3.71928	-9.68795	9.78
jun	25	3.73829	3.71930	-9.68754	9.32
jul	2	3.73834	3.71933	-9.68709	8.86
jul	9	3.73838	3.71936	-9.68669	8.40
jul	16	3.73845	3.71939	-9.68623	7.94
jul	23	3.73850	3.71943	-9.68588	7.48
jul	30	3.73856	3.71947	-9.68548	7.02
ago	6	3.73861	3.71951	-9.68520	6.56
ago	13	3.73868	3.71955	-9.68484	6.10
ago	20	3.73873	3.71960	-9.68464	5.64
ago	27	3.73880	3.71964	-9.68439	5.18
sep	3	3.73885	3.71968	-9.68429	4.72
sep	10	3.73891	3.71973	-9.68411	4.26
sep	17	3.73896	3.71977	-9.68411	3.80
sep	24	3.73901	3.71980	-9.68405	3.34
oct	1	3.73905	3.71984	-9.68415	2.88
oct	8	3.73910	3.71987	-9.68417	2.42
oct	15	3.73914	3.71990	-9.68436	1.96
oct	22	3.73918	3.71992	-9.68448	1.50
oct	29	3.73921	3.71994	-9.68475	1.04
nov	5	3.73925	3.71995	-9.68493	0.58
nov	12	3.73927	3.71996	-9.68524	0.12
nov	19	3.73929	3.71997	-9.68547	23.66
nov	26	3.73931	3.71996	-9.68581	23.20
dic	3	3.73932	3.71995	-9.68606	22.74
dic	10	3.73933	3.71994	-9.68639	22.28
dic	17	3.73933	3.71992	-9.68664	21.82
dic	24	3.73934	3.71989	-9.68695	21.36

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

23693

		V	Sp		
		4.71	F7V		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	5.09878	5.08023	-57.44471	22.18
ene	8	5.09875	5.08017	-57.44520	21.72
ene	15	5.09871	5.08011	-57.44577	21.26
ene	22	5.09866	5.08004	-57.44617	20.80
ene	29	5.09860	5.07997	-57.44662	20.34
feb	5	5.09854	5.07988	-57.44688	19.88
feb	12	5.09847	5.07979	-57.44719	19.42
feb	19	5.09839	5.07971	-57.44731	18.96
feb	26	5.09831	5.07961	-57.44747	18.50
mar	5	5.09823	5.07952	-57.44745	18.04
mar	12	5.09815	5.07943	-57.44745	17.58
mar	19	5.09807	5.07934	-57.44728	17.12
mar	26	5.09800	5.07924	-57.44714	16.66
abr	2	5.09792	5.07916	-57.44683	16.20
abr	9	5.09785	5.07907	-57.44655	15.74
abr	16	5.09779	5.07900	-57.44612	15.28
abr	23	5.09773	5.07892	-57.44571	14.82
abr	30	5.09768	5.07886	-57.44518	14.36
may	7	5.09764	5.07880	-57.44466	13.90
may	14	5.09760	5.07875	-57.44404	13.44
may	21	5.09758	5.07870	-57.44343	12.98
may	28	5.09757	5.07868	-57.44277	12.52
jun	4	5.09757	5.07865	-57.44211	12.06
jun	11	5.09757	5.07864	-57.44141	11.60
jun	18	5.09759	5.07863	-57.44072	11.14
jun	25	5.09761	5.07863	-57.44004	10.68
jul	2	5.09765	5.07864	-57.43936	10.22
jul	9	5.09769	5.07867	-57.43872	9.76
jul	16	5.09775	5.07870	-57.43807	9.30
jul	23	5.09781	5.07874	-57.43752	8.84
jul	30	5.09788	5.07879	-57.43696	8.38
ago	6	5.09795	5.07885	-57.43651	7.92
ago	13	5.09803	5.07890	-57.43606	7.46
ago	20	5.09811	5.07897	-57.43576	7.00
ago	27	5.09820	5.07904	-57.43546	6.54
sep	3	5.09828	5.07912	-57.43532	6.08
sep	10	5.09837	5.07919	-57.43517	5.62
sep	17	5.09846	5.07926	-57.43521	5.16
sep	24	5.09855	5.07934	-57.43524	4.70
oct	1	5.09863	5.07941	-57.43546	4.24
oct	8	5.09871	5.07948	-57.43565	3.78
oct	15	5.09879	5.07954	-57.43604	3.32
oct	22	5.09886	5.07960	-57.43638	2.86
oct	29	5.09892	5.07965	-57.43692	2.40
nov	5	5.09898	5.07969	-57.43739	1.94
nov	12	5.09903	5.07972	-57.43803	1.48
nov	19	5.09907	5.07974	-57.43859	1.02
nov	26	5.09910	5.07975	-57.43931	0.56
dic	3	5.09913	5.07976	-57.43991	0.10
dic	10	5.09914	5.07974	-57.44063	23.64
dic	17	5.09914	5.07972	-57.44124	23.18
dic	24	5.09913	5.07968	-57.44193	22.72

24436

		V	Sp		
		0.18	B8Ia		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	5.26008	5.24153	-8.17771	22.34
ene	8	5.26008	5.24150	-8.17793	21.88
ene	15	5.26007	5.24148	-8.17826	21.42
ene	22	5.26006	5.24145	-8.17845	20.96
ene	29	5.26005	5.24141	-8.17872	20.50
feb	5	5.26003	5.24137	-8.17884	20.04
feb	12	5.26000	5.24133	-8.17905	19.58
feb	19	5.25997	5.24129	-8.17911	19.12
feb	26	5.25994	5.24124	-8.17925	18.66
mar	5	5.25991	5.24120	-8.17924	18.20
mar	12	5.25987	5.24115	-8.17930	17.74
mar	19	5.25984	5.24110	-8.17923	17.28
mar	26	5.25981	5.24105	-8.17922	16.82
abr	2	5.25977	5.24101	-8.17909	16.36
abr	9	5.25974	5.24097	-8.17901	15.90
abr	16	5.25971	5.24093	-8.17880	15.44
abr	23	5.25970	5.24089	-8.17865	14.98
abr	30	5.25968	5.24086	-8.17840	14.52
may	7	5.25967	5.24083	-8.17818	14.06
may	14	5.25966	5.24081	-8.17787	13.60
may	21	5.25967	5.24079	-8.17758	13.14
may	28	5.25967	5.24078	-8.17724	12.68
jun	4	5.25969	5.24077	-8.17691	12.22
jun	11	5.25970	5.24076	-8.17652	11.76
jun	18	5.25973	5.24076	-8.17614	11.30
jun	25	5.25975	5.24077	-8.17577	10.84
jul	2	5.25979	5.24078	-8.17537	10.38
jul	9	5.25982	5.24080	-8.17499	9.92
jul	16	5.25988	5.24082	-8.17459	9.46
jul	23	5.25991	5.24085	-8.17425	9.00
jul	30	5.25997	5.24088	-8.17388	8.54
ago	6	5.26001	5.24091	-8.17358	8.08
ago	13	5.26008	5.24095	-8.17325	7.62
ago	20	5.26012	5.24099	-8.17304	7.16
ago	27	5.26019	5.24103	-8.17278	6.70
sep	3	5.26024	5.24107	-8.17265	6.24
sep	10	5.26030	5.24112	-8.17247	5.78
sep	17	5.26035	5.24116	-8.17245	5.32
sep	24	5.26041	5.24121	-8.17238	4.86
oct	1	5.26046	5.24125	-8.17246	4.40
oct	8	5.26052	5.24129	-8.17247	3.94
oct	15	5.26057	5.24133	-8.17266	3.48
oct	22	5.26063	5.24137	-8.17277	3.02
oct	29	5.26067	5.24140	-8.17305	2.56
nov	5	5.26072	5.24143	-8.17323	2.10
nov	12	5.26076	5.24145	-8.17358	1.64
nov	19	5.26080	5.24147	-8.17382	1.18
nov	26	5.26084	5.24149	-8.17421	0.72
dic	3	5.26087	5.24150	-8.17448	0.26
dic	10	5.26090	5.24150	-8.17488	23.80
dic	17	5.26091	5.24150	-8.17516	23.34
dic	24	5.26093	5.24149	-8.17555	22.88

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

27288

V 3.55 Sp A2Vann

m	d	α h	α_c h	δ °	Hp h
ene	1	5.79940	5.78085	-14.81497	22.88
ene	8	5.79941	5.78083	-14.81529	22.42
ene	15	5.79940	5.78081	-14.81570	21.96
ene	22	5.79940	5.78078	-14.81597	21.50
ene	29	5.79938	5.78075	-14.81632	21.04
feb	5	5.79937	5.78071	-14.81651	20.58
feb	12	5.79934	5.78067	-14.81679	20.12
feb	19	5.79931	5.78063	-14.81690	19.66
feb	26	5.79928	5.78058	-14.81710	19.20
mar	5	5.79925	5.78053	-14.81712	18.74
mar	12	5.79921	5.78048	-14.81723	18.28
mar	19	5.79917	5.78044	-14.81717	17.82
mar	26	5.79914	5.78039	-14.81719	17.36
abr	2	5.79910	5.78034	-14.81706	16.90
abr	9	5.79907	5.78029	-14.81698	16.44
abr	16	5.79904	5.78025	-14.81677	15.98
abr	23	5.79902	5.78021	-14.81661	15.52
abr	30	5.79899	5.78017	-14.81634	15.06
may	7	5.79897	5.78013	-14.81610	14.60
may	14	5.79896	5.78011	-14.81575	14.14
may	21	5.79896	5.78008	-14.81544	13.68
may	28	5.79895	5.78006	-14.81506	13.22
jun	4	5.79896	5.78004	-14.81469	12.76
jun	11	5.79897	5.78003	-14.81426	12.30
jun	18	5.79899	5.78003	-14.81385	11.84
jun	25	5.79901	5.78003	-14.81342	11.38
jul	2	5.79904	5.78003	-14.81299	10.92
jul	9	5.79907	5.78004	-14.81255	10.46
jul	16	5.79911	5.78006	-14.81211	10.00
jul	23	5.79915	5.78008	-14.81173	9.54
jul	30	5.79920	5.78010	-14.81132	9.08
ago	6	5.79924	5.78013	-14.81098	8.62
ago	13	5.79930	5.78017	-14.81062	8.16
ago	20	5.79934	5.78020	-14.81037	7.70
ago	27	5.79940	5.78024	-14.81009	7.24
sep	3	5.79945	5.78029	-14.80993	6.78
sep	10	5.79951	5.78033	-14.80975	6.32
sep	17	5.79957	5.78037	-14.80971	5.86
sep	24	5.79963	5.78042	-14.80964	5.40
oct	1	5.79968	5.78046	-14.80973	4.94
oct	8	5.79974	5.78051	-14.80976	4.48
oct	15	5.79980	5.78055	-14.80997	4.02
oct	22	5.79985	5.78059	-14.81012	3.56
oct	29	5.79990	5.78063	-14.81044	3.10
nov	5	5.79996	5.78066	-14.81068	2.64
nov	12	5.80000	5.78069	-14.81108	2.18
nov	19	5.80005	5.78072	-14.81139	1.72
nov	26	5.80009	5.78074	-14.81185	1.26
dic	3	5.80012	5.78075	-14.81221	0.80
dic	10	5.80015	5.78076	-14.81269	0.34
dic	17	5.80018	5.78076	-14.81306	23.88
dic	24	5.80020	5.78075	-14.81354	23.42

27654

V 3.76 Sp G8III/IV

m	d	α h	α_c h	δ °	Hp h
ene	1	5.87134	5.85279	-20.87843	22.95
ene	8	5.87135	5.85277	-20.87881	22.49
ene	15	5.87134	5.85275	-20.87928	22.03
ene	22	5.87134	5.85272	-20.87961	21.57
ene	29	5.87132	5.85269	-20.88001	21.11
feb	5	5.87130	5.85265	-20.88025	20.65
feb	12	5.87128	5.85260	-20.88056	20.19
feb	19	5.87125	5.85256	-20.88071	19.73
feb	26	5.87121	5.85251	-20.88094	19.27
mar	5	5.87118	5.85246	-20.88099	18.81
mar	12	5.87114	5.85241	-20.88111	18.35
mar	19	5.87110	5.85236	-20.88106	17.89
mar	26	5.87106	5.85231	-20.88109	17.43
abr	2	5.87102	5.85226	-20.88095	16.97
abr	9	5.87099	5.85221	-20.88087	16.51
abr	16	5.87095	5.85217	-20.88064	16.05
abr	23	5.87093	5.85212	-20.88047	15.59
abr	30	5.87090	5.85208	-20.88016	15.13
may	7	5.87088	5.85204	-20.87989	14.67
may	14	5.87086	5.85201	-20.87951	14.21
may	21	5.87086	5.85198	-20.87917	13.75
may	28	5.87085	5.85196	-20.87874	13.29
jun	4	5.87086	5.85194	-20.87833	12.83
jun	11	5.87086	5.85193	-20.87785	12.37
jun	18	5.87089	5.85192	-20.87740	11.91
jun	25	5.87090	5.85192	-20.87692	11.45
jul	2	5.87093	5.85192	-20.87644	10.99
jul	9	5.87096	5.85194	-20.87596	10.53
jul	16	5.87100	5.85195	-20.87548	10.07
jul	23	5.87103	5.85197	-20.87505	9.61
jul	30	5.87108	5.85199	-20.87461	9.15
ago	6	5.87112	5.85202	-20.87422	8.69
ago	13	5.87118	5.85205	-20.87384	8.23
ago	20	5.87123	5.85209	-20.87356	7.77
ago	27	5.87129	5.85213	-20.87326	7.31
sep	3	5.87134	5.85218	-20.87308	6.85
sep	10	5.87140	5.85222	-20.87289	6.39
sep	17	5.87146	5.85227	-20.87285	5.93
sep	24	5.87152	5.85231	-20.87278	5.47
oct	1	5.87157	5.85236	-20.87287	5.01
oct	8	5.87164	5.85240	-20.87292	4.55
oct	15	5.87169	5.85245	-20.87315	4.09
oct	22	5.87175	5.85249	-20.87333	3.63
oct	29	5.87180	5.85253	-20.87368	3.17
nov	5	5.87185	5.85256	-20.87396	2.71
nov	12	5.87190	5.85259	-20.87441	2.25
nov	19	5.87195	5.85262	-20.87477	1.79
nov	26	5.87199	5.85264	-20.87529	1.33
dic	3	5.87202	5.85265	-20.87570	0.87
dic	10	5.87206	5.85266	-20.87624	0.41
dic	17	5.87208	5.85266	-20.87667	23.95
dic	24	5.87210	5.85265	-20.87721	23.49

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

28103

		V	Sp		
		3.71	F1V		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	5.95697	5.93842	-14.16478	23.03
ene	8	5.95698	5.93840	-14.16510	22.57
ene	15	5.95698	5.93838	-14.16551	22.11
ene	22	5.95697	5.93836	-14.16579	21.65
ene	29	5.95696	5.93833	-14.16614	21.19
feb	5	5.95695	5.93829	-14.16634	20.73
feb	12	5.95692	5.93825	-14.16661	20.27
feb	19	5.95689	5.93821	-14.16673	19.81
feb	26	5.95687	5.93816	-14.16694	19.35
mar	5	5.95683	5.93812	-14.16697	18.89
mar	12	5.95680	5.93807	-14.16708	18.43
mar	19	5.95676	5.93802	-14.16703	17.97
mar	26	5.95672	5.93797	-14.16706	17.51
abr	2	5.95668	5.93792	-14.16694	17.05
abr	9	5.95665	5.93788	-14.16688	16.59
abr	16	5.95662	5.93783	-14.16667	16.13
abr	23	5.95660	5.93779	-14.16653	15.68
abr	30	5.95657	5.93775	-14.16627	15.22
may	7	5.95656	5.93772	-14.16604	14.76
may	14	5.95654	5.93769	-14.16571	14.30
may	21	5.95654	5.93766	-14.16541	13.84
may	28	5.95653	5.93764	-14.16504	13.38
jun	4	5.95654	5.93762	-14.16469	12.92
jun	11	5.95654	5.93761	-14.16427	12.46
jun	18	5.95657	5.93760	-14.16387	12.00
jun	25	5.95658	5.93760	-14.16345	11.54
jul	2	5.95661	5.93760	-14.16303	11.08
jul	9	5.95663	5.93761	-14.16260	10.62
jul	16	5.95668	5.93762	-14.16217	10.16
jul	23	5.95671	5.93764	-14.16179	9.70
jul	30	5.95676	5.93767	-14.16139	9.24
ago	6	5.95680	5.93770	-14.16105	8.78
ago	13	5.95686	5.93773	-14.16070	8.32
ago	20	5.95690	5.93776	-14.16045	7.86
ago	27	5.95696	5.93780	-14.16017	7.40
sep	3	5.95701	5.93784	-14.16001	6.94
sep	10	5.95707	5.93789	-14.15982	6.48
sep	17	5.95712	5.93793	-14.15979	6.02
sep	24	5.95718	5.93798	-14.15971	5.56
oct	1	5.95724	5.93802	-14.15979	5.10
oct	8	5.95730	5.93807	-14.15982	4.64
oct	15	5.95735	5.93811	-14.16002	4.18
oct	22	5.95741	5.93815	-14.16017	3.72
oct	29	5.95746	5.93819	-14.16048	3.26
nov	5	5.95752	5.93822	-14.16071	2.80
nov	12	5.95756	5.93825	-14.16111	2.34
nov	19	5.95761	5.93828	-14.16142	1.88
nov	26	5.95765	5.93830	-14.16188	1.42
dic	3	5.95769	5.93832	-14.16222	0.96
dic	10	5.95772	5.93833	-14.16270	0.50
dic	17	5.95775	5.93833	-14.16307	0.04
dic	24	5.95777	5.93833	-14.16356	23.58

29271

		V	Sp		
		5.08	G5V		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	6.16132	6.14277	-74.75932	23.24
ene	8	6.16126	6.14268	-74.75992	22.78
ene	15	6.16119	6.14259	-74.76061	22.32
ene	22	6.16109	6.14248	-74.76114	21.86
ene	29	6.16099	6.14235	-74.76174	21.40
feb	5	6.16085	6.14220	-74.76216	20.94
feb	12	6.16071	6.14204	-74.76263	20.48
feb	19	6.16056	6.14187	-74.76293	20.02
feb	26	6.16039	6.14169	-74.76328	19.56
mar	5	6.16022	6.14151	-74.76344	19.10
mar	12	6.16004	6.14131	-74.76363	18.64
mar	19	6.15986	6.14112	-74.76364	18.18
mar	26	6.15967	6.14092	-74.76370	17.72
abr	2	6.15950	6.14074	-74.76357	17.26
abr	9	6.15932	6.14054	-74.76346	16.80
abr	16	6.15915	6.14037	-74.76319	16.34
abr	23	6.15899	6.14018	-74.76296	15.88
abr	30	6.15884	6.14002	-74.76257	15.42
may	7	6.15870	6.13986	-74.76219	14.96
may	14	6.15858	6.13973	-74.76168	14.50
may	21	6.15846	6.13958	-74.76121	14.04
may	28	6.15838	6.13948	-74.76063	13.58
jun	4	6.15830	6.13938	-74.76005	13.12
jun	11	6.15825	6.13931	-74.75940	12.66
jun	18	6.15820	6.13924	-74.75877	12.20
jun	25	6.15819	6.13921	-74.75811	11.74
jul	2	6.15819	6.13918	-74.75744	11.28
jul	9	6.15822	6.13919	-74.75677	10.82
jul	16	6.15825	6.13920	-74.75611	10.36
jul	23	6.15831	6.13925	-74.75550	9.90
jul	30	6.15839	6.13930	-74.75488	9.44
ago	6	6.15849	6.13939	-74.75434	8.98
ago	13	6.15859	6.13946	-74.75381	8.52
ago	20	6.15872	6.13958	-74.75339	8.06
ago	27	6.15885	6.13969	-74.75297	7.60
sep	3	6.15900	6.13984	-74.75270	7.14
sep	10	6.15915	6.13997	-74.75242	6.68
sep	17	6.15931	6.14012	-74.75232	6.22
sep	24	6.15948	6.14027	-74.75222	5.76
oct	1	6.15965	6.14043	-74.75229	5.30
oct	8	6.15981	6.14057	-74.75236	4.84
oct	15	6.15997	6.14072	-74.75262	4.38
oct	22	6.16012	6.14086	-74.75286	3.92
oct	29	6.16026	6.14099	-74.75330	3.46
nov	5	6.16039	6.14110	-74.75368	3.00
nov	12	6.16051	6.14120	-74.75426	2.54
nov	19	6.16061	6.14128	-74.75477	2.08
nov	26	6.16069	6.14134	-74.75546	1.62
dic	3	6.16075	6.14138	-74.75605	1.16
dic	10	6.16079	6.14139	-74.75679	0.70
dic	17	6.16081	6.14139	-74.75743	0.24
dic	24	6.16080	6.14136	-74.75819	23.78

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

30438

		V	Sp		
		-0.62	F0Ib		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	6.40786	6.38931	-52.70771	23.49
ene	8	6.40786	6.38928	-52.70831	23.03
ene	15	6.40785	6.38925	-52.70900	22.57
ene	22	6.40783	6.38921	-52.70954	22.11
ene	29	6.40780	6.38916	-52.71015	21.65
feb	5	6.40776	6.38910	-52.71059	21.19
feb	12	6.40771	6.38904	-52.71109	20.73
feb	19	6.40765	6.38897	-52.71141	20.27
feb	26	6.40759	6.38889	-52.71179	19.81
mar	5	6.40753	6.38882	-52.71198	19.35
mar	12	6.40746	6.38874	-52.71221	18.89
mar	19	6.40739	6.38866	-52.71225	18.43
mar	26	6.40732	6.38857	-52.71235	17.97
abr	2	6.40725	6.38849	-52.71225	17.51
abr	9	6.40718	6.38841	-52.71219	17.05
abr	16	6.40712	6.38833	-52.71196	16.59
abr	23	6.40706	6.38825	-52.71177	16.13
abr	30	6.40700	6.38818	-52.71142	15.67
may	7	6.40695	6.38811	-52.71109	15.21
may	14	6.40690	6.38805	-52.71061	14.75
may	21	6.40687	6.38799	-52.71018	14.29
may	28	6.40683	6.38794	-52.70963	13.83
jun	4	6.40682	6.38790	-52.70909	13.37
jun	11	6.40680	6.38786	-52.70846	12.91
jun	18	6.40680	6.38783	-52.70786	12.45
jun	25	6.40680	6.38782	-52.70722	11.99
jul	2	6.40681	6.38780	-52.70658	11.53
jul	9	6.40683	6.38780	-52.70591	11.07
jul	16	6.40686	6.38780	-52.70527	10.61
jul	23	6.40689	6.38782	-52.70466	10.15
jul	30	6.40693	6.38784	-52.70405	9.69
ago	6	6.40698	6.38788	-52.70350	9.23
ago	13	6.40704	6.38791	-52.70297	8.77
ago	20	6.40710	6.38796	-52.70254	8.31
ago	27	6.40717	6.38801	-52.70210	7.85
sep	3	6.40724	6.38807	-52.70180	7.39
sep	10	6.40731	6.38813	-52.70151	6.93
sep	17	6.40739	6.38820	-52.70138	6.47
sep	24	6.40747	6.38826	-52.70125	6.01
oct	1	6.40755	6.38833	-52.70129	5.55
oct	8	6.40763	6.38840	-52.70133	5.09
oct	15	6.40771	6.38846	-52.70156	4.63
oct	22	6.40779	6.38853	-52.70176	4.17
oct	29	6.40786	6.38859	-52.70217	3.71
nov	5	6.40793	6.38864	-52.70252	3.25
nov	12	6.40800	6.38869	-52.70307	2.79
nov	19	6.40806	6.38873	-52.70356	2.33
nov	26	6.40811	6.38876	-52.70422	1.87
dic	3	6.40816	6.38879	-52.70480	1.41
dic	10	6.40820	6.38880	-52.70552	0.95
dic	17	6.40822	6.38881	-52.70614	0.49
dic	24	6.40825	6.38880	-52.70690	0.03

32349

		V	Sp		
		-1.44	A0m...		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	6.76882	6.75027	-16.74683	23.85
ene	8	6.76884	6.75026	-16.74722	23.39
ene	15	6.76884	6.75025	-16.74770	22.93
ene	22	6.76884	6.75023	-16.74805	22.47
ene	29	6.76884	6.75020	-16.74848	22.01
feb	5	6.76883	6.75017	-16.74875	21.55
feb	12	6.76881	6.75014	-16.74910	21.09
feb	19	6.76879	6.75010	-16.74929	20.63
feb	26	6.76876	6.75006	-16.74956	20.17
mar	5	6.76873	6.75001	-16.74966	19.71
mar	12	6.76869	6.74997	-16.74984	19.25
mar	19	6.76865	6.74992	-16.74985	18.79
mar	26	6.76862	6.74987	-16.74994	18.33
abr	2	6.76858	6.74982	-16.74987	17.87
abr	9	6.76855	6.74977	-16.74986	17.41
abr	16	6.76851	6.74972	-16.74970	16.95
abr	23	6.76848	6.74968	-16.74962	16.49
abr	30	6.76845	6.74963	-16.74939	16.03
may	7	6.76843	6.74959	-16.74921	15.57
may	14	6.76840	6.74955	-16.74890	15.11
may	21	6.76840	6.74952	-16.74866	14.65
may	28	6.76838	6.74949	-16.74831	14.19
jun	4	6.76838	6.74946	-16.74799	13.73
jun	11	6.76838	6.74944	-16.74758	13.27
jun	18	6.76839	6.74943	-16.74722	12.81
jun	25	6.76840	6.74942	-16.74681	12.35
jul	2	6.76842	6.74941	-16.74641	11.89
jul	9	6.76843	6.74941	-16.74597	11.43
jul	16	6.76847	6.74942	-16.74557	10.97
jul	23	6.76849	6.74943	-16.74518	10.51
jul	30	6.76853	6.74944	-16.74479	10.05
ago	6	6.76857	6.74946	-16.74443	9.59
ago	13	6.76862	6.74949	-16.74408	9.13
ago	20	6.76866	6.74952	-16.74381	8.67
ago	27	6.76871	6.74955	-16.74353	8.21
sep	3	6.76876	6.74959	-16.74335	7.75
sep	10	6.76882	6.74963	-16.74316	7.29
sep	17	6.76887	6.74967	-16.74311	6.83
sep	24	6.76893	6.74972	-16.74302	6.37
oct	1	6.76898	6.74976	-16.74309	5.91
oct	8	6.76904	6.74981	-16.74312	5.45
oct	15	6.76910	6.74985	-16.74332	4.99
oct	22	6.76916	6.74990	-16.74347	4.53
oct	29	6.76921	6.74994	-16.74379	4.07
nov	5	6.76927	6.74998	-16.74404	3.61
nov	12	6.76933	6.75002	-16.74446	3.15
nov	19	6.76938	6.75005	-16.74480	2.69
nov	26	6.76943	6.75008	-16.74529	2.23
dic	3	6.76947	6.75010	-16.74569	1.77
dic	10	6.76951	6.75012	-16.74622	1.31
dic	17	6.76955	6.75013	-16.74664	0.85
dic	24	6.76958	6.75013	-16.74719	0.39

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

34834

		V	Sp		
		4.49	F0IV		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	7.22019	7.20164	-46.79507	0.30
ene	8	7.22021	7.20163	-46.79570	23.84
ene	15	7.22022	7.20162	-46.79641	23.38
ene	22	7.22021	7.20159	-46.79700	22.92
ene	29	7.22020	7.20156	-46.79766	22.46
feb	5	7.22018	7.20152	-46.79817	22.00
feb	12	7.22015	7.20148	-46.79874	21.54
feb	19	7.22011	7.20143	-46.79914	21.08
feb	26	7.22007	7.20137	-46.79962	20.62
mar	5	7.22002	7.20131	-46.79990	20.16
mar	12	7.21997	7.20124	-46.80024	19.70
mar	19	7.21991	7.20118	-46.80039	19.24
mar	26	7.21986	7.20110	-46.80061	18.78
abr	2	7.21979	7.20103	-46.80063	18.32
abr	9	7.21974	7.20096	-46.80070	17.86
abr	16	7.21968	7.20089	-46.80058	17.40
abr	23	7.21963	7.20082	-46.80052	16.94
abr	30	7.21957	7.20075	-46.80028	16.48
may	7	7.21953	7.20069	-46.80007	16.02
may	14	7.21948	7.20063	-46.79971	15.56
may	21	7.21945	7.20056	-46.79940	15.10
may	28	7.21941	7.20051	-46.79894	14.64
jun	4	7.21939	7.20047	-46.79851	14.18
jun	11	7.21936	7.20043	-46.79796	13.72
jun	18	7.21935	7.20039	-46.79745	13.26
jun	25	7.21934	7.20036	-46.79687	12.80
jul	2	7.21935	7.20034	-46.79629	12.34
jul	9	7.21935	7.20033	-46.79566	11.88
jul	16	7.21937	7.20032	-46.79507	11.42
jul	23	7.21939	7.20032	-46.79447	10.96
jul	30	7.21942	7.20033	-46.79387	10.50
ago	6	7.21945	7.20035	-46.79330	10.04
ago	13	7.21950	7.20037	-46.79277	9.58
ago	20	7.21954	7.20040	-46.79229	9.12
ago	27	7.21960	7.20044	-46.79183	8.66
sep	3	7.21965	7.20049	-46.79146	8.20
sep	10	7.21971	7.20053	-46.79112	7.74
sep	17	7.21978	7.20059	-46.79091	7.28
sep	24	7.21985	7.20064	-46.79071	6.82
oct	1	7.21992	7.20070	-46.79066	6.36
oct	8	7.21999	7.20076	-46.79062	5.90
oct	15	7.22007	7.20082	-46.79075	5.44
oct	22	7.22014	7.20088	-46.79087	4.98
oct	29	7.22021	7.20094	-46.79118	4.52
nov	5	7.22029	7.20099	-46.79147	4.06
nov	12	7.22036	7.20104	-46.79193	3.60
nov	19	7.22042	7.20109	-46.79235	3.14
nov	26	7.22048	7.20113	-46.79296	2.68
dic	3	7.22054	7.20117	-46.79349	2.22
dic	10	7.22059	7.20119	-46.79417	1.76
dic	17	7.22063	7.20121	-46.79477	1.30
dic	24	7.22066	7.20122	-46.79552	0.84

36795

		V	Sp		
		4.44	F6V		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	7.58344	7.56489	-22.34309	0.66
ene	8	7.58347	7.56489	-22.34357	0.20
ene	15	7.58349	7.56489	-22.34413	23.74
ene	22	7.58350	7.56488	-22.34457	23.28
ene	29	7.58350	7.56487	-22.34508	22.82
feb	5	7.58350	7.56484	-22.34546	22.36
feb	12	7.58349	7.56482	-22.34590	21.90
feb	19	7.58347	7.56479	-22.34619	21.44
feb	26	7.58345	7.56475	-22.34655	20.98
mar	5	7.58342	7.56471	-22.34675	20.52
mar	12	7.58339	7.56467	-22.34701	20.06
mar	19	7.58336	7.56462	-22.34711	19.60
mar	26	7.58332	7.56457	-22.34729	19.14
abr	2	7.58328	7.56452	-22.34729	18.68
abr	9	7.58325	7.56447	-22.34735	18.22
abr	16	7.58321	7.56442	-22.34725	17.76
abr	23	7.58318	7.56437	-22.34724	17.30
abr	30	7.58314	7.56432	-22.34705	16.84
may	7	7.58311	7.56427	-22.34692	16.38
may	14	7.58308	7.56423	-22.34665	15.92
may	21	7.58307	7.56419	-22.34644	15.46
may	28	7.58304	7.56415	-22.34611	15.00
jun	4	7.58303	7.56411	-22.34581	14.54
jun	11	7.58302	7.56408	-22.34540	14.08
jun	18	7.58302	7.56406	-22.34505	13.62
jun	25	7.58302	7.56404	-22.34462	13.16
jul	2	7.58303	7.56402	-22.34421	12.70
jul	9	7.58303	7.56401	-22.34375	12.24
jul	16	7.58306	7.56400	-22.34333	11.78
jul	23	7.58307	7.56400	-22.34289	11.32
jul	30	7.58310	7.56401	-22.34246	10.86
ago	6	7.58312	7.56402	-22.34204	10.40
ago	13	7.58317	7.56404	-22.34166	9.94
ago	20	7.58320	7.56406	-22.34132	9.48
ago	27	7.58324	7.56409	-22.34099	9.02
sep	3	7.58328	7.56412	-22.34073	8.56
sep	10	7.58334	7.56415	-22.34049	8.10
sep	17	7.58339	7.56419	-22.34036	7.64
sep	24	7.58344	7.56424	-22.34022	7.18
oct	1	7.58350	7.56428	-22.34022	6.72
oct	8	7.58356	7.56432	-22.34021	6.26
oct	15	7.58362	7.56437	-22.34035	5.80
oct	22	7.58368	7.56442	-22.34046	5.34
oct	29	7.58374	7.56447	-22.34074	4.88
nov	5	7.58380	7.56451	-22.34098	4.42
nov	12	7.58386	7.56455	-22.34138	3.96
nov	19	7.58392	7.56459	-22.34172	3.50
nov	26	7.58398	7.56463	-22.34222	3.04
dic	3	7.58403	7.56466	-22.34264	2.58
dic	10	7.58408	7.56469	-22.34321	2.12
dic	17	7.58412	7.56471	-22.34367	1.66
dic	24	7.58417	7.56472	-22.34428	1.20

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

44382

		V	Sp		
		4.00	Am		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	9.04707	9.02851	-66.47941	2.13
ene	8	9.04712	9.02854	-66.48011	1.67
ene	15	9.04717	9.02857	-66.48087	1.21
ene	22	9.04719	9.02857	-66.48158	0.75
ene	29	9.04721	9.02858	-66.48237	0.29
feb	5	9.04721	9.02855	-66.48309	23.83
feb	12	9.04720	9.02852	-66.48386	23.37
feb	19	9.04716	9.02848	-66.48452	22.91
feb	26	9.04713	9.02843	-66.48525	22.45
mar	5	9.04707	9.02836	-66.48584	21.99
mar	12	9.04701	9.02829	-66.48648	21.53
mar	19	9.04693	9.02820	-66.48696	21.06
mar	26	9.04686	9.02811	-66.48751	20.60
abr	2	9.04677	9.02801	-66.48788	20.14
abr	9	9.04668	9.02790	-66.48828	19.68
abr	16	9.04658	9.02779	-66.48851	19.22
abr	23	9.04649	9.02768	-66.48880	18.77
abr	30	9.04638	9.02756	-66.48889	18.31
may	7	9.04628	9.02744	-66.48901	17.85
may	14	9.04618	9.02733	-66.48895	17.39
may	21	9.04609	9.02721	-66.48894	16.93
may	28	9.04599	9.02710	-66.48875	16.46
jun	4	9.04591	9.02699	-66.48858	16.00
jun	11	9.04582	9.02689	-66.48823	15.54
jun	18	9.04575	9.02679	-66.48795	15.08
jun	25	9.04568	9.02670	-66.48751	14.62
jul	2	9.04563	9.02662	-66.48709	14.16
jul	9	9.04557	9.02655	-66.48654	13.70
jul	16	9.04554	9.02648	-66.48604	13.24
jul	23	9.04551	9.02644	-66.48545	12.78
jul	30	9.04549	9.02640	-66.48487	12.32
ago	6	9.04549	9.02639	-66.48422	11.86
ago	13	9.04550	9.02637	-66.48364	11.40
ago	20	9.04552	9.02638	-66.48303	10.94
ago	27	9.04555	9.02639	-66.48244	10.48
sep	3	9.04559	9.02643	-66.48187	10.02
sep	10	9.04565	9.02646	-66.48135	9.56
sep	17	9.04572	9.02652	-66.48089	9.10
sep	24	9.04579	9.02658	-66.48046	8.64
oct	1	9.04588	9.02667	-66.48012	8.18
oct	8	9.04598	9.02674	-66.47983	7.72
oct	15	9.04609	9.02684	-66.47966	7.27
oct	22	9.04619	9.02693	-66.47952	6.81
oct	29	9.04632	9.02704	-66.47953	6.35
nov	5	9.04643	9.02714	-66.47958	5.89
nov	12	9.04656	9.02724	-66.47978	5.43
nov	19	9.04667	9.02734	-66.47999	4.97
nov	26	9.04679	9.02744	-66.48038	4.51
dic	3	9.04690	9.02753	-66.48076	4.05
dic	10	9.04701	9.02761	-66.48131	3.59
dic	17	9.04709	9.02768	-66.48181	3.13
dic	24	9.04719	9.02774	-66.48250	2.67

45238

		V	Sp		
		1.67	A2IV		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	9.22455	9.20599	-69.80288	2.30
ene	8	9.22461	9.20603	-69.80357	1.84
ene	15	9.22467	9.20607	-69.80432	1.38
ene	22	9.22470	9.20608	-69.80503	0.92
ene	29	9.22472	9.20609	-69.80582	0.46
feb	5	9.22472	9.20606	-69.80655	0.00
feb	12	9.22471	9.20604	-69.80733	23.54
feb	19	9.22468	9.20599	-69.80801	23.08
feb	26	9.22464	9.20594	-69.80875	22.62
mar	5	9.22458	9.20586	-69.80937	22.16
mar	12	9.22451	9.20579	-69.81004	21.70
mar	19	9.22442	9.20569	-69.81055	21.24
mar	26	9.22434	9.20559	-69.81113	20.78
abr	2	9.22424	9.20547	-69.81153	20.32
abr	9	9.22414	9.20536	-69.81198	19.86
abr	16	9.22402	9.20523	-69.81224	19.40
abr	23	9.22391	9.20510	-69.81257	18.94
abr	30	9.22379	9.20497	-69.81271	18.48
may	7	9.22368	9.20484	-69.81287	18.02
may	14	9.22355	9.20470	-69.81284	17.56
may	21	9.22345	9.20456	-69.81288	17.10
may	28	9.22333	9.20444	-69.81272	16.64
jun	4	9.22323	9.20431	-69.81259	16.18
jun	11	9.22312	9.20419	-69.81228	15.72
jun	18	9.22303	9.20407	-69.81203	15.26
jun	25	9.22295	9.20397	-69.81162	14.80
jul	2	9.22287	9.20386	-69.81122	14.34
jul	9	9.22281	9.20379	-69.81068	13.88
jul	16	9.22276	9.20370	-69.81021	13.42
jul	23	9.22272	9.20365	-69.80963	12.96
jul	30	9.22269	9.20360	-69.80906	12.50
ago	6	9.22267	9.20357	-69.80841	12.04
ago	13	9.22267	9.20354	-69.80783	11.58
ago	20	9.22269	9.20355	-69.80722	11.12
ago	27	9.22271	9.20356	-69.80661	10.66
sep	3	9.22276	9.20360	-69.80602	10.20
sep	10	9.22281	9.20363	-69.80549	9.74
sep	17	9.22289	9.20370	-69.80500	9.28
sep	24	9.22297	9.20376	-69.80454	8.82
oct	1	9.22307	9.20386	-69.80417	8.36
oct	8	9.22317	9.20394	-69.80385	7.90
oct	15	9.22330	9.20405	-69.80365	7.44
oct	22	9.22341	9.20415	-69.80347	6.98
oct	29	9.22355	9.20428	-69.80344	6.52
nov	5	9.22368	9.20439	-69.80345	6.06
nov	12	9.22382	9.20451	-69.80361	5.60
nov	19	9.22395	9.20462	-69.80378	5.14
nov	26	9.22409	9.20474	-69.80414	4.68
dic	3	9.22421	9.20484	-69.80449	4.22
dic	10	9.22434	9.20494	-69.80500	3.76
dic	17	9.22444	9.20502	-69.80548	3.30
dic	24	9.22455	9.20510	-69.80615	2.84

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

50954

		V	Sp		
		3.99	F2IV		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	10.41422	10.39567	-74.13741	3.49
ene	8	10.41434	10.39576	-74.13801	3.03
ene	15	10.41446	10.39586	-74.13866	2.57
ene	22	10.41454	10.39592	-74.13934	2.11
ene	29	10.41462	10.39599	-74.14008	1.65
feb	5	10.41466	10.39601	-74.14082	1.19
feb	12	10.41471	10.39604	-74.14160	0.73
feb	19	10.41471	10.39603	-74.14234	0.27
feb	26	10.41472	10.39602	-74.14313	23.81
mar	5	10.41469	10.39598	-74.14385	23.35
mar	12	10.41466	10.39593	-74.14462	22.89
mar	19	10.41459	10.39586	-74.14527	22.43
mar	26	10.41454	10.39578	-74.14598	21.97
abr	2	10.41444	10.39568	-74.14656	21.51
abr	9	10.41435	10.39557	-74.14717	21.05
abr	16	10.41423	10.39544	-74.14763	20.59
abr	23	10.41413	10.39532	-74.14816	20.13
abr	30	10.41399	10.39517	-74.14850	19.67
may	7	10.41387	10.39503	-74.14887	19.21
may	14	10.41372	10.39487	-74.14906	18.75
may	21	10.41359	10.39471	-74.14932	18.29
may	28	10.41345	10.39455	-74.14938	17.83
jun	4	10.41331	10.39439	-74.14946	17.37
jun	11	10.41316	10.39423	-74.14935	16.91
jun	18	10.41304	10.39407	-74.14932	16.45
jun	25	10.41290	10.39392	-74.14908	15.99
jul	2	10.41278	10.39377	-74.14886	15.53
jul	9	10.41267	10.39364	-74.14848	15.07
jul	16	10.41256	10.39351	-74.14817	14.61
jul	23	10.41247	10.39341	-74.14769	14.15
jul	30	10.41239	10.39330	-74.14723	13.69
ago	6	10.41233	10.39323	-74.14666	13.23
ago	13	10.41228	10.39315	-74.14615	12.77
ago	20	10.41225	10.39311	-74.14555	12.31
ago	27	10.41223	10.39308	-74.14496	11.85
sep	3	10.41224	10.39308	-74.14433	11.39
sep	10	10.41226	10.39308	-74.14377	10.93
sep	17	10.41232	10.39312	-74.14320	10.47
sep	24	10.41237	10.39316	-74.14265	10.01
oct	1	10.41246	10.39325	-74.14214	9.55
oct	8	10.41255	10.39332	-74.14171	9.09
oct	15	10.41268	10.39343	-74.14133	8.63
oct	22	10.41280	10.39354	-74.14099	8.17
oct	29	10.41296	10.39368	-74.14076	7.71
nov	5	10.41310	10.39381	-74.14060	7.25
nov	12	10.41328	10.39396	-74.14055	6.79
nov	19	10.41343	10.39410	-74.14054	6.33
nov	26	10.41362	10.39427	-74.14069	5.87
dic	3	10.41378	10.39441	-74.14087	5.41
dic	10	10.41396	10.39456	-74.14119	4.95
dic	17	10.41411	10.39469	-74.14152	4.49
dic	24	10.41427	10.39483	-74.14203	4.03

51814

		V	Sp		
		5.16	F1V		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	10.60956	10.59100	56.96604	3.69
ene	8	10.60966	10.59109	56.96609	3.23
ene	15	10.60974	10.59115	56.96621	2.77
ene	22	10.60983	10.59121	56.96641	2.31
ene	29	10.60989	10.59126	56.96665	1.85
feb	5	10.60996	10.59131	56.96698	1.39
feb	12	10.61000	10.59133	56.96734	0.93
feb	19	10.61005	10.59136	56.96777	0.47
feb	26	10.61007	10.59137	56.96817	0.01
mar	5	10.61009	10.59138	56.96867	23.55
mar	12	10.61009	10.59136	56.96912	23.09
mar	19	10.61008	10.59135	56.96963	22.63
mar	26	10.61007	10.59131	56.97005	22.17
abr	2	10.61004	10.59128	56.97055	21.71
abr	9	10.61001	10.59123	56.97093	21.25
abr	16	10.60997	10.59118	56.97137	20.79
abr	23	10.60993	10.59112	56.97165	20.33
abr	30	10.60987	10.59106	56.97200	19.87
may	7	10.60982	10.59098	56.97221	19.41
may	14	10.60977	10.59092	56.97245	18.95
may	21	10.60972	10.59084	56.97251	18.49
may	28	10.60966	10.59077	56.97263	18.03
jun	4	10.60962	10.59070	56.97260	17.57
jun	11	10.60956	10.59063	56.97260	17.11
jun	18	10.60953	10.59057	56.97241	16.65
jun	25	10.60948	10.59050	56.97229	16.19
jul	2	10.60945	10.59044	56.97203	15.73
jul	9	10.60941	10.59039	56.97180	15.27
jul	16	10.60940	10.59035	56.97140	14.81
jul	23	10.60937	10.59030	56.97107	14.35
jul	30	10.60936	10.59027	56.97061	13.89
ago	6	10.60934	10.59024	56.97020	13.43
ago	13	10.60936	10.59023	56.96965	12.97
ago	20	10.60935	10.59022	56.96916	12.51
ago	27	10.60938	10.59022	56.96859	12.05
sep	3	10.60938	10.59022	56.96805	11.59
sep	10	10.60943	10.59024	56.96743	11.13
sep	17	10.60945	10.59026	56.96684	10.67
sep	24	10.60950	10.59030	56.96623	10.21
oct	1	10.60955	10.59033	56.96564	9.75
oct	8	10.60962	10.59038	56.96504	9.29
oct	15	10.60967	10.59043	56.96445	8.83
oct	22	10.60976	10.59050	56.96389	8.37
oct	29	10.60983	10.59055	56.96334	7.91
nov	5	10.60993	10.59063	56.96285	7.45
nov	12	10.61001	10.59070	56.96236	6.99
nov	19	10.61012	10.59079	56.96196	6.53
nov	26	10.61021	10.59086	56.96156	6.07
dic	3	10.61033	10.59096	56.96128	5.61
dic	10	10.61043	10.59103	56.96100	5.15
dic	17	10.61054	10.59112	56.96086	4.69
dic	24	10.61064	10.59119	56.96070	4.23

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

53910

		V	Sp		
		2.34	A1V		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	11.05270	11.03415	56.26118	4.13
ene	8	11.05280	11.03423	56.26115	3.67
ene	15	11.05289	11.03429	56.26122	3.21
ene	22	11.05298	11.03436	56.26136	2.75
ene	29	11.05305	11.03441	56.26156	2.29
feb	5	11.05312	11.03447	56.26183	1.83
feb	12	11.05317	11.03450	56.26215	1.37
feb	19	11.05322	11.03454	56.26255	0.91
feb	26	11.05325	11.03455	56.26294	0.45
mar	5	11.05328	11.03457	56.26342	23.99
mar	12	11.05329	11.03456	56.26387	23.53
mar	19	11.05329	11.03456	56.26438	23.07
mar	26	11.05329	11.03453	56.26482	22.61
abr	2	11.05327	11.03451	56.26533	22.15
abr	9	11.05324	11.03447	56.26576	21.69
abr	16	11.05321	11.03442	56.26622	21.23
abr	23	11.05318	11.03437	56.26655	20.77
abr	30	11.05313	11.03431	56.26695	20.31
may	7	11.05308	11.03424	56.26721	19.85
may	14	11.05303	11.03418	56.26750	19.39
may	21	11.05299	11.03411	56.26762	18.93
may	28	11.05293	11.03404	56.26780	18.47
jun	4	11.05289	11.03397	56.26783	18.01
jun	11	11.05283	11.03390	56.26789	17.55
jun	18	11.05280	11.03383	56.26775	17.09
jun	25	11.05274	11.03376	56.26769	16.63
jul	2	11.05271	11.03370	56.26747	16.17
jul	9	11.05266	11.03364	56.26729	15.71
jul	16	11.05265	11.03359	56.26693	15.25
jul	23	11.05261	11.03354	56.26664	14.79
jul	30	11.05260	11.03351	56.26621	14.33
ago	6	11.05257	11.03347	56.26583	13.87
ago	13	11.05258	11.03345	56.26530	13.41
ago	20	11.05256	11.03342	56.26482	12.95
ago	27	11.05257	11.03342	56.26426	12.49
sep	3	11.05257	11.03341	56.26372	12.03
sep	10	11.05260	11.03342	56.26309	11.57
sep	17	11.05262	11.03343	56.26250	11.11
sep	24	11.05266	11.03345	56.26187	10.65
oct	1	11.05269	11.03347	56.26126	10.19
oct	8	11.05275	11.03352	56.26062	9.73
oct	15	11.05280	11.03355	56.26000	9.27
oct	22	11.05287	11.03361	56.25940	8.81
oct	29	11.05293	11.03366	56.25881	8.35
nov	5	11.05302	11.03373	56.25825	7.89
nov	12	11.05310	11.03379	56.25772	7.43
nov	19	11.05320	11.03387	56.25725	6.97
nov	26	11.05329	11.03394	56.25679	6.51
dic	3	11.05340	11.03403	56.25643	6.05
dic	10	11.05350	11.03410	56.25609	5.59
dic	17	11.05361	11.03419	56.25587	5.13
dic	24	11.05371	11.03426	56.25564	4.67

54872

		V	Sp		
		2.56	A4V		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	11.25452	11.23597	20.40231	4.33
ene	8	11.25459	11.23601	20.40200	3.87
ene	15	11.25465	11.23605	20.40177	3.41
ene	22	11.25471	11.23609	20.40157	2.95
ene	29	11.25476	11.23612	20.40142	2.49
feb	5	11.25481	11.23615	20.40131	2.03
feb	12	11.25484	11.23617	20.40126	1.57
feb	19	11.25488	11.23619	20.40127	1.11
feb	26	11.25491	11.23620	20.40128	0.65
mar	5	11.25493	11.23621	20.40138	0.19
mar	12	11.25494	11.23621	20.40148	23.73
mar	19	11.25494	11.23621	20.40165	23.27
mar	26	11.25495	11.23620	20.40177	22.81
abr	2	11.25494	11.23618	20.40200	22.35
abr	9	11.25494	11.23616	20.40217	21.89
abr	16	11.25492	11.23614	20.40242	21.43
abr	23	11.25491	11.23610	20.40256	20.97
abr	30	11.25489	11.23607	20.40282	20.51
may	7	11.25487	11.23603	20.40298	20.05
may	14	11.25485	11.23600	20.40322	19.59
may	21	11.25484	11.23595	20.40331	19.13
may	28	11.25481	11.23591	20.40353	18.67
jun	4	11.25479	11.23587	20.40362	18.21
jun	11	11.25476	11.23583	20.40379	17.75
jun	18	11.25475	11.23579	20.40380	17.29
jun	25	11.25472	11.23574	20.40392	16.83
jul	2	11.25471	11.23570	20.40392	16.37
jul	9	11.25469	11.23567	20.40399	15.91
jul	16	11.25469	11.23563	20.40390	15.45
jul	23	11.25467	11.23560	20.40390	14.99
jul	30	11.25466	11.23557	20.40380	14.53
ago	6	11.25465	11.23555	20.40376	14.07
ago	13	11.25466	11.23553	20.40357	13.61
ago	20	11.25465	11.23551	20.40345	13.15
ago	27	11.25466	11.23550	20.40324	12.69
sep	3	11.25466	11.23549	20.40307	12.23
sep	10	11.25468	11.23549	20.40278	11.77
sep	17	11.25469	11.23549	20.40253	11.31
sep	24	11.25471	11.23550	20.40222	10.85
oct	1	11.25473	11.23551	20.40191	10.39
oct	8	11.25477	11.23554	20.40153	9.93
oct	15	11.25480	11.23556	20.40116	9.47
oct	22	11.25485	11.23559	20.40076	9.01
oct	29	11.25489	11.23562	20.40034	8.55
nov	5	11.25495	11.23565	20.39990	8.09
nov	12	11.25500	11.23569	20.39945	7.63
nov	19	11.25506	11.23573	20.39902	7.17
nov	26	11.25513	11.23578	20.39855	6.71
dic	3	11.25520	11.23583	20.39813	6.25
dic	10	11.25527	11.23587	20.39769	5.79
dic	17	11.25533	11.23592	20.39732	5.34
dic	24	11.25541	11.23596	20.39691	4.88

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

58001

		V	Sp		
		2.41	A0V SB		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	11.91630	11.89775	53.56918	4.99
ene	8	11.91641	11.89783	53.56900	4.53
ene	15	11.91649	11.89790	53.56894	4.07
ene	22	11.91659	11.89797	53.56894	3.61
ene	29	11.91666	11.89803	53.56902	3.15
feb	5	11.91674	11.89809	53.56917	2.69
feb	12	11.91680	11.89813	53.56941	2.23
feb	19	11.91687	11.89818	53.56970	1.77
feb	26	11.91691	11.89821	53.57004	1.31
mar	5	11.91695	11.89824	53.57045	0.85
mar	12	11.91698	11.89825	53.57087	0.39
mar	19	11.91700	11.89826	53.57136	23.93
mar	26	11.91701	11.89825	53.57180	23.48
abr	2	11.91701	11.89825	53.57232	23.02
abr	9	11.91700	11.89822	53.57279	22.55
abr	16	11.91698	11.89820	53.57329	22.09
abr	23	11.91696	11.89815	53.57369	21.64
abr	30	11.91693	11.89811	53.57416	21.18
may	7	11.91690	11.89806	53.57452	20.72
may	14	11.91686	11.89801	53.57490	20.26
may	21	11.91682	11.89794	53.57512	19.80
may	28	11.91677	11.89788	53.57542	19.34
jun	4	11.91673	11.89781	53.57556	18.88
jun	11	11.91668	11.89775	53.57573	18.42
jun	18	11.91665	11.89768	53.57571	17.96
jun	25	11.91659	11.89761	53.57577	17.50
jul	2	11.91656	11.89755	53.57567	17.04
jul	9	11.91651	11.89748	53.57560	16.58
jul	16	11.91648	11.89743	53.57533	16.12
jul	23	11.91643	11.89737	53.57514	15.66
jul	30	11.91641	11.89732	53.57481	15.20
ago	6	11.91637	11.89727	53.57451	14.74
ago	13	11.91636	11.89723	53.57404	14.28
ago	20	11.91633	11.89719	53.57363	13.82
ago	27	11.91633	11.89717	53.57311	13.36
sep	3	11.91631	11.89714	53.57262	12.90
sep	10	11.91632	11.89714	53.57200	12.44
sep	17	11.91631	11.89712	53.57144	11.98
sep	24	11.91634	11.89713	53.57080	11.52
oct	1	11.91635	11.89713	53.57019	11.06
oct	8	11.91639	11.89715	53.56950	10.60
oct	15	11.91641	11.89717	53.56886	10.14
oct	22	11.91647	11.89721	53.56819	9.68
oct	29	11.91651	11.89724	53.56755	9.22
nov	5	11.91658	11.89729	53.56690	8.76
nov	12	11.91664	11.89733	53.56629	8.30
nov	19	11.91672	11.89740	53.56571	7.84
nov	26	11.91680	11.89745	53.56515	7.38
dic	3	11.91690	11.89753	53.56465	6.92
dic	10	11.91699	11.89759	53.56419	6.46
dic	17	11.91708	11.89767	53.56383	6.00
dic	24	11.91718	11.89773	53.56348	5.54

58803

		V	Sp		
		5.15	F6V		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	12.07987	12.06132	-42.55209	5.16
ene	8	12.07995	12.06137	-42.55259	4.70
ene	15	12.08002	12.06143	-42.55307	4.24
ene	22	12.08009	12.06147	-42.55362	3.78
ene	29	12.08016	12.06152	-42.55417	3.32
feb	5	12.08022	12.06156	-42.55478	2.86
feb	12	12.08027	12.06160	-42.55538	2.40
feb	19	12.08031	12.06163	-42.55598	1.94
feb	26	12.08035	12.06165	-42.55659	1.48
mar	5	12.08038	12.06167	-42.55718	1.02
mar	12	12.08041	12.06168	-42.55777	0.56
mar	19	12.08042	12.06168	-42.55831	0.10
mar	26	12.08044	12.06169	-42.55888	23.64
abr	2	12.08044	12.06168	-42.55937	23.18
abr	9	12.08044	12.06166	-42.55987	22.72
abr	16	12.08043	12.06164	-42.56027	22.26
abr	23	12.08043	12.06162	-42.56072	21.80
abr	30	12.08040	12.06159	-42.56104	21.34
may	7	12.08039	12.06155	-42.56138	20.88
may	14	12.08036	12.06151	-42.56160	20.42
may	21	12.08035	12.06147	-42.56188	19.96
may	28	12.08031	12.06142	-42.56200	19.50
jun	4	12.08029	12.06137	-42.56215	19.04
jun	11	12.08025	12.06131	-42.56215	18.58
jun	18	12.08023	12.06126	-42.56224	18.12
jun	25	12.08019	12.06121	-42.56214	17.66
jul	2	12.08016	12.06115	-42.56209	17.20
jul	9	12.08012	12.06109	-42.56188	16.74
jul	16	12.08009	12.06104	-42.56177	16.28
jul	23	12.08006	12.06099	-42.56148	15.82
jul	30	12.08003	12.06094	-42.56124	15.36
ago	6	12.08000	12.06089	-42.56086	14.90
ago	13	12.07998	12.06085	-42.56059	14.44
ago	20	12.07996	12.06082	-42.56018	13.98
ago	27	12.07994	12.06079	-42.55982	13.52
sep	3	12.07993	12.06076	-42.55937	13.06
sep	10	12.07993	12.06074	-42.55902	12.60
sep	17	12.07993	12.06073	-42.55859	12.14
sep	24	12.07994	12.06073	-42.55823	11.68
oct	1	12.07995	12.06073	-42.55783	11.22
oct	8	12.07997	12.06074	-42.55754	10.76
oct	15	12.08001	12.06076	-42.55722	10.30
oct	22	12.08004	12.06078	-42.55699	9.84
oct	29	12.08009	12.06082	-42.55678	9.38
nov	5	12.08014	12.06085	-42.55667	8.92
nov	12	12.08021	12.06090	-42.55660	8.46
nov	19	12.08027	12.06094	-42.55659	8.00
nov	26	12.08035	12.06100	-42.55667	7.54
dic	3	12.08042	12.06105	-42.55682	7.08
dic	10	12.08051	12.06111	-42.55704	6.62
dic	17	12.08058	12.06117	-42.55730	6.16
dic	24	12.08067	12.06123	-42.55766	5.70

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

58948

		V	Sp		
		4.12	G8III		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	12.10531	12.08676	8.61117	5.18
ene	8	12.10538	12.08681	8.61074	4.72
ene	15	12.10544	12.08685	8.61040	4.26
ene	22	12.10551	12.08689	8.61006	3.80
ene	29	12.10556	12.08692	8.60977	3.34
feb	5	12.10561	12.08696	8.60951	2.88
feb	12	12.10566	12.08699	8.60931	2.42
feb	19	12.10570	12.08701	8.60915	1.96
feb	26	12.10573	12.08703	8.60902	1.50
mar	5	12.10576	12.08705	8.60894	1.04
mar	12	12.10579	12.08706	8.60890	0.58
mar	19	12.10580	12.08706	8.60892	0.12
mar	26	12.10582	12.08706	8.60892	23.66
abr	2	12.10582	12.08706	8.60901	23.20
abr	9	12.10582	12.08705	8.60908	22.74
abr	16	12.10582	12.08703	8.60923	22.28
abr	23	12.10582	12.08701	8.60930	21.82
abr	30	12.10581	12.08699	8.60949	21.36
may	7	12.10580	12.08696	8.60960	20.90
may	14	12.10578	12.08693	8.60980	20.44
may	21	12.10577	12.08689	8.60988	19.98
may	28	12.10575	12.08686	8.61009	19.52
jun	4	12.10574	12.08682	8.61020	19.06
jun	11	12.10571	12.08678	8.61039	18.60
jun	18	12.10571	12.08674	8.61044	18.14
jun	25	12.10568	12.08670	8.61061	17.68
jul	2	12.10566	12.08666	8.61068	17.22
jul	9	12.10564	12.08662	8.61083	16.76
jul	16	12.10563	12.08658	8.61082	16.30
jul	23	12.10561	12.08654	8.61094	15.84
jul	30	12.10560	12.08651	8.61094	15.38
ago	6	12.10558	12.08647	8.61101	14.92
ago	13	12.10557	12.08645	8.61093	14.46
ago	20	12.10556	12.08642	8.61095	14.00
ago	27	12.10556	12.08640	8.61087	13.54
sep	3	12.10555	12.08638	8.61084	13.08
sep	10	12.10556	12.08637	8.61067	12.62
sep	17	12.10556	12.08636	8.61057	12.16
sep	24	12.10557	12.08636	8.61038	11.70
oct	1	12.10558	12.08636	8.61021	11.24
oct	8	12.10560	12.08637	8.60993	10.78
oct	15	12.10562	12.08638	8.60968	10.32
oct	22	12.10566	12.08640	8.60936	9.86
oct	29	12.10569	12.08642	8.60904	9.40
nov	5	12.10574	12.08645	8.60866	8.94
nov	12	12.10578	12.08647	8.60828	8.48
nov	19	12.10584	12.08651	8.60787	8.02
nov	26	12.10590	12.08655	8.60743	7.56
dic	3	12.10596	12.08659	8.60699	7.10
dic	10	12.10602	12.08663	8.60654	6.65
dic	17	12.10609	12.08667	8.60612	6.19
dic	24	12.10616	12.08671	8.60565	5.73

59774

		V	Sp		
		3.32	A3Vvar		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	12.27505	12.25650	56.90693	5.35
ene	8	12.27517	12.25659	56.90671	4.89
ene	15	12.27526	12.25666	56.90663	4.43
ene	22	12.27536	12.25675	56.90660	3.97
ene	29	12.27545	12.25681	56.90667	3.51
feb	5	12.27554	12.25689	56.90679	3.05
feb	12	12.27561	12.25694	56.90702	2.59
feb	19	12.27568	12.25700	56.90730	2.13
feb	26	12.27573	12.25703	56.90764	1.67
mar	5	12.27579	12.25708	56.90805	1.21
mar	12	12.27582	12.25709	56.90850	0.75
mar	19	12.27585	12.25711	56.90899	0.29
mar	26	12.27586	12.25711	56.90946	23.83
abr	2	12.27587	12.25711	56.91001	23.37
abr	9	12.27586	12.25709	56.91051	22.91
abr	16	12.27585	12.25707	56.91105	22.45
abr	23	12.27583	12.25703	56.91149	21.99
abr	30	12.27580	12.25699	56.91199	21.53
may	7	12.27577	12.25693	56.91239	21.07
may	14	12.27573	12.25688	56.91282	20.61
may	21	12.27569	12.25681	56.91308	20.15
may	28	12.27564	12.25675	56.91342	19.69
jun	4	12.27560	12.25668	56.91360	19.23
jun	11	12.27554	12.25661	56.91381	18.77
jun	18	12.27550	12.25653	56.91383	18.31
jun	25	12.27544	12.25646	56.91392	17.85
jul	2	12.27539	12.25638	56.91385	17.39
jul	9	12.27534	12.25631	56.91380	16.93
jul	16	12.27530	12.25625	56.91356	16.47
jul	23	12.27525	12.25618	56.91339	16.01
jul	30	12.27521	12.25612	56.91307	15.55
ago	6	12.27516	12.25606	56.91278	15.09
ago	13	12.27514	12.25601	56.91231	14.63
ago	20	12.27510	12.25596	56.91191	14.17
ago	27	12.27509	12.25593	56.91138	13.71
sep	3	12.27506	12.25590	56.91089	13.25
sep	10	12.27506	12.25588	56.91025	12.79
sep	17	12.27505	12.25586	56.90968	12.33
sep	24	12.27506	12.25585	56.90901	11.87
oct	1	12.27506	12.25585	56.90838	11.41
oct	8	12.27510	12.25586	56.90766	10.95
oct	15	12.27512	12.25587	56.90699	10.49
oct	22	12.27516	12.25590	56.90629	10.03
oct	29	12.27520	12.25593	56.90561	9.57
nov	5	12.27527	12.25598	56.90492	9.11
nov	12	12.27533	12.25602	56.90427	8.65
nov	19	12.27541	12.25608	56.90365	8.19
nov	26	12.27549	12.25614	56.90305	7.73
dic	3	12.27558	12.25621	56.90251	7.27
dic	10	12.27568	12.25628	56.90202	6.81
dic	17	12.27578	12.25636	56.90161	6.36
dic	24	12.27588	12.25643	56.90122	5.90

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

60718

		V	Sp		
		0.77	B0.5IV		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	12.46361	12.44506	-63.21441	5.54
ene	8	12.46372	12.44514	-63.21481	5.08
ene	15	12.46384	12.44524	-63.21521	4.62
ene	22	12.46394	12.44532	-63.21571	4.16
ene	29	12.46404	12.44541	-63.21624	3.70
feb	5	12.46413	12.44547	-63.21685	3.24
feb	12	12.46422	12.44554	-63.21747	2.78
feb	19	12.46428	12.44559	-63.21813	2.32
feb	26	12.46435	12.44565	-63.21881	1.86
mar	5	12.46440	12.44568	-63.21950	1.40
mar	12	12.46445	12.44572	-63.22020	0.94
mar	19	12.46447	12.44573	-63.22089	0.48
mar	26	12.46450	12.44575	-63.22160	0.02
abr	2	12.46450	12.44574	-63.22225	23.56
abr	9	12.46451	12.44573	-63.22292	23.10
abr	16	12.46449	12.44571	-63.22351	22.64
abr	23	12.46449	12.44568	-63.22415	22.18
abr	30	12.46445	12.44564	-63.22466	21.72
may	7	12.46443	12.44559	-63.22519	21.26
may	14	12.46438	12.44553	-63.22560	20.80
may	21	12.46435	12.44547	-63.22607	20.34
may	28	12.46429	12.44540	-63.22637	19.88
jun	4	12.46424	12.44532	-63.22669	19.42
jun	11	12.46417	12.44524	-63.22685	18.96
jun	18	12.46412	12.44515	-63.22708	18.50
jun	25	12.46404	12.44506	-63.22712	18.04
jul	2	12.46398	12.44497	-63.22718	17.58
jul	9	12.46390	12.44488	-63.22707	17.12
jul	16	12.46385	12.44479	-63.22704	16.66
jul	23	12.46377	12.44470	-63.22681	16.20
jul	30	12.46371	12.44462	-63.22660	15.74
ago	6	12.46364	12.44454	-63.22624	15.28
ago	13	12.46359	12.44446	-63.22596	14.82
ago	20	12.46354	12.44440	-63.22551	14.36
ago	27	12.46349	12.44434	-63.22510	13.90
sep	3	12.46345	12.44429	-63.22457	13.44
sep	10	12.46343	12.44425	-63.22413	12.98
sep	17	12.46342	12.44422	-63.22358	12.52
sep	24	12.46341	12.44420	-63.22308	12.06
oct	1	12.46342	12.44420	-63.22253	11.60
oct	8	12.46344	12.44420	-63.22207	11.14
oct	15	12.46348	12.44423	-63.22157	10.68
oct	22	12.46352	12.44426	-63.22115	10.22
oct	29	12.46358	12.44431	-63.22073	9.76
nov	5	12.46365	12.44436	-63.22042	9.30
nov	12	12.46374	12.44443	-63.22014	8.84
nov	19	12.46382	12.44449	-63.21993	8.38
nov	26	12.46393	12.44458	-63.21981	7.92
dic	3	12.46403	12.44466	-63.21977	7.46
dic	10	12.46416	12.44476	-63.21981	7.00
dic	17	12.46427	12.44485	-63.21990	6.54
dic	24	12.46440	12.44495	-63.22012	6.08

61084

		V	Sp		
		1.59	M4III		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	12.53964	12.52109	-57.23010	5.62
ene	8	12.53974	12.52116	-57.23051	5.16
ene	15	12.53984	12.52124	-57.23092	4.70
ene	22	12.53993	12.52131	-57.23143	4.24
ene	29	12.54002	12.52139	-57.23195	3.78
feb	5	12.54010	12.52144	-57.23255	3.32
feb	12	12.54017	12.52150	-57.23315	2.86
feb	19	12.54023	12.52155	-57.23379	2.40
feb	26	12.54030	12.52160	-57.23445	1.94
mar	5	12.54034	12.52162	-57.23512	1.48
mar	12	12.54038	12.52166	-57.23579	1.02
mar	19	12.54040	12.52167	-57.23644	0.56
mar	26	12.54044	12.52168	-57.23711	0.10
abr	2	12.54044	12.52168	-57.23773	23.64
abr	9	12.54045	12.52167	-57.23835	23.18
abr	16	12.54044	12.52165	-57.23891	22.72
abr	23	12.54044	12.52163	-57.23950	22.26
abr	30	12.54042	12.52160	-57.23997	21.80
may	7	12.54040	12.52156	-57.24047	21.34
may	14	12.54036	12.52151	-57.24084	20.88
may	21	12.54034	12.52146	-57.24127	20.42
may	28	12.54030	12.52140	-57.24154	19.96
jun	4	12.54026	12.52134	-57.24183	19.50
jun	11	12.54020	12.52127	-57.24197	19.04
jun	18	12.54017	12.52120	-57.24218	18.58
jun	25	12.54011	12.52113	-57.24220	18.12
jul	2	12.54006	12.52105	-57.24225	17.66
jul	9	12.54000	12.52098	-57.24213	17.20
jul	16	12.53996	12.52090	-57.24209	16.74
jul	23	12.53990	12.52083	-57.24186	16.28
jul	30	12.53985	12.52076	-57.24167	15.82
ago	6	12.53979	12.52069	-57.24132	15.36
ago	13	12.53976	12.52063	-57.24105	14.90
ago	20	12.53971	12.52057	-57.24063	14.44
ago	27	12.53968	12.52052	-57.24024	13.98
sep	3	12.53964	12.52048	-57.23974	13.52
sep	10	12.53963	12.52044	-57.23933	13.06
sep	17	12.53962	12.52042	-57.23881	12.60
sep	24	12.53961	12.52041	-57.23835	12.14
oct	1	12.53962	12.52040	-57.23783	11.68
oct	8	12.53964	12.52040	-57.23742	11.22
oct	15	12.53967	12.52043	-57.23696	10.76
oct	22	12.53971	12.52045	-57.23658	10.30
oct	29	12.53976	12.52049	-57.23621	9.84
nov	5	12.53982	12.52052	-57.23594	9.38
nov	12	12.53989	12.52058	-57.23569	8.92
nov	19	12.53997	12.52064	-57.23553	8.46
nov	26	12.54006	12.52071	-57.23544	8.00
dic	3	12.54015	12.52078	-57.23543	7.54
dic	10	12.54025	12.52086	-57.23550	7.08
dic	17	12.54035	12.52093	-57.23563	6.62
dic	24	12.54046	12.52102	-57.23586	6.16

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

62896

		V	Sp		
		4.25	A4IV		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	12.91070	12.89215	-40.29342	5.99
ene	8	12.91078	12.89220	-40.29384	5.53
ene	15	12.91086	12.89226	-40.29423	5.07
ene	22	12.91093	12.89231	-40.29471	4.61
ene	29	12.91100	12.89237	-40.29517	4.15
feb	5	12.91107	12.89241	-40.29571	3.69
feb	12	12.91113	12.89246	-40.29622	3.23
feb	19	12.91119	12.89250	-40.29677	2.77
feb	26	12.91124	12.89254	-40.29731	2.31
mar	5	12.91128	12.89257	-40.29786	1.85
mar	12	12.91132	12.89259	-40.29840	1.39
mar	19	12.91135	12.89261	-40.29892	0.93
mar	26	12.91138	12.89263	-40.29944	0.47
abr	2	12.91139	12.89263	-40.29991	0.01
abr	9	12.91141	12.89263	-40.30039	23.55
abr	16	12.91141	12.89262	-40.30080	23.09
abr	23	12.91142	12.89261	-40.30124	22.63
abr	30	12.91141	12.89260	-40.30158	22.17
may	7	12.91141	12.89257	-40.30194	21.71
may	14	12.91139	12.89254	-40.30220	21.25
may	21	12.91139	12.89251	-40.30251	20.79
may	28	12.91137	12.89247	-40.30268	20.33
jun	4	12.91135	12.89243	-40.30288	19.87
jun	11	12.91132	12.89239	-40.30296	19.41
jun	18	12.91131	12.89234	-40.30311	18.95
jun	25	12.91127	12.89229	-40.30309	18.49
jul	2	12.91124	12.89224	-40.30312	18.03
jul	9	12.91120	12.89218	-40.30300	17.57
jul	16	12.91118	12.89213	-40.30297	17.11
jul	23	12.91114	12.89208	-40.30277	16.65
jul	30	12.91112	12.89203	-40.30262	16.19
ago	6	12.91108	12.89197	-40.30233	15.73
ago	13	12.91106	12.89193	-40.30214	15.27
ago	20	12.91102	12.89189	-40.30180	14.81
ago	27	12.91100	12.89185	-40.30152	14.35
sep	3	12.91098	12.89181	-40.30113	13.89
sep	10	12.91097	12.89179	-40.30085	13.43
sep	17	12.91096	12.89176	-40.30045	12.97
sep	24	12.91095	12.89175	-40.30013	12.51
oct	1	12.91095	12.89174	-40.29975	12.05
oct	8	12.91097	12.89174	-40.29948	11.59
oct	15	12.91099	12.89174	-40.29916	11.13
oct	22	12.91101	12.89175	-40.29892	10.67
oct	29	12.91105	12.89177	-40.29868	10.21
nov	5	12.91109	12.89180	-40.29854	9.75
nov	12	12.91114	12.89183	-40.29841	9.29
nov	19	12.91120	12.89187	-40.29837	8.83
nov	26	12.91127	12.89192	-40.29837	8.37
dic	3	12.91133	12.89196	-40.29845	7.91
dic	10	12.91141	12.89202	-40.29858	7.45
dic	17	12.91148	12.89207	-40.29877	6.99
dic	24	12.91157	12.89212	-40.29904	6.53

63608

		V	Sp		
		2.85	G8IIIvar		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	13.05427	13.03572	10.84106	6.13
ene	8	13.05434	13.03576	10.84059	5.67
ene	15	13.05440	13.03581	10.84024	5.21
ene	22	13.05447	13.03585	10.83987	4.75
ene	29	13.05453	13.03589	10.83958	4.29
feb	5	13.05459	13.03593	10.83928	3.83
feb	12	13.05464	13.03597	10.83909	3.37
feb	19	13.05469	13.03600	10.83891	2.91
feb	26	13.05474	13.03603	10.83879	2.45
mar	5	13.05477	13.03606	10.83871	1.99
mar	12	13.05481	13.03608	10.83870	1.53
mar	19	13.05483	13.03610	10.83872	1.07
mar	26	13.05486	13.03611	10.83876	0.61
abr	2	13.05488	13.03611	10.83886	0.15
abr	9	13.05489	13.03611	10.83898	23.69
abr	16	13.05490	13.03611	10.83915	23.23
abr	23	13.05491	13.03610	10.83928	22.77
abr	30	13.05490	13.03609	10.83949	22.31
may	7	13.05490	13.03606	10.83966	21.85
may	14	13.05489	13.03604	10.83989	21.39
may	21	13.05489	13.03601	10.84003	20.93
may	28	13.05488	13.03598	10.84027	20.47
jun	4	13.05487	13.03595	10.84043	20.01
jun	11	13.05484	13.03591	10.84064	19.55
jun	18	13.05484	13.03587	10.84074	19.09
jun	25	13.05481	13.03583	10.84094	18.63
jul	2	13.05480	13.03579	10.84103	18.17
jul	9	13.05477	13.03575	10.84119	17.71
jul	16	13.05476	13.03571	10.84120	17.25
jul	23	13.05473	13.03567	10.84133	16.79
jul	30	13.05472	13.03563	10.84133	16.33
ago	6	13.05469	13.03559	10.84140	15.87
ago	13	13.05468	13.03555	10.84132	15.41
ago	20	13.05466	13.03552	10.84134	14.95
ago	27	13.05465	13.03549	10.84123	14.49
sep	3	13.05463	13.03546	10.84119	14.03
sep	10	13.05462	13.03544	10.84100	13.57
sep	17	13.05461	13.03542	10.84089	13.11
sep	24	13.05461	13.03541	10.84066	12.65
oct	1	13.05461	13.03540	10.84048	12.19
oct	8	13.05463	13.03539	10.84017	11.73
oct	15	13.05464	13.03539	10.83991	11.27
oct	22	13.05466	13.03540	10.83956	10.81
oct	29	13.05468	13.03541	10.83923	10.35
nov	5	13.05472	13.03542	10.83880	9.89
nov	12	13.05475	13.03544	10.83841	9.43
nov	19	13.05480	13.03547	10.83797	8.97
nov	26	13.05485	13.03550	10.83752	8.51
dic	3	13.05490	13.03553	10.83704	8.05
dic	10	13.05496	13.03557	10.83657	7.59
dic	17	13.05502	13.03561	10.83611	7.14
dic	24	13.05509	13.03565	10.83564	6.68

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

64394

		V	Sp		
		4.23	G0V		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	13.21472	13.19617	27.76525	6.29
ene	8	13.21480	13.19622	27.76480	5.83
ene	15	13.21487	13.19627	27.76450	5.37
ene	22	13.21494	13.19632	27.76418	4.91
ene	29	13.21500	13.19637	27.76398	4.45
feb	5	13.21507	13.19642	27.76379	3.99
feb	12	13.21513	13.19645	27.76372	3.53
feb	19	13.21518	13.19650	27.76368	3.07
feb	26	13.21523	13.19653	27.76373	2.61
mar	5	13.21527	13.19656	27.76381	2.15
mar	12	13.21531	13.19658	27.76397	1.69
mar	19	13.21534	13.19661	27.76418	1.23
mar	26	13.21537	13.19662	27.76441	0.77
abr	2	13.21539	13.19663	27.76470	0.31
abr	9	13.21540	13.19663	27.76501	23.85
abr	16	13.21541	13.19662	27.76536	23.39
abr	23	13.21542	13.19661	27.76566	22.93
abr	30	13.21541	13.19660	27.76605	22.47
may	7	13.21541	13.19657	27.76638	22.01
may	14	13.21540	13.19655	27.76675	21.55
may	21	13.21540	13.19652	27.76702	21.09
may	28	13.21538	13.19648	27.76737	20.63
jun	4	13.21536	13.19644	27.76762	20.17
jun	11	13.21534	13.19640	27.76791	19.71
jun	18	13.21533	13.19636	27.76806	19.25
jun	25	13.21530	13.19631	27.76830	18.79
jul	2	13.21528	13.19627	27.76841	18.33
jul	9	13.21524	13.19622	27.76856	17.87
jul	16	13.21523	13.19617	27.76855	17.41
jul	23	13.21519	13.19613	27.76862	16.95
jul	30	13.21517	13.19608	27.76856	16.49
ago	6	13.21514	13.19604	27.76854	16.03
ago	13	13.21513	13.19600	27.76836	15.57
ago	20	13.21510	13.19596	27.76825	15.11
ago	27	13.21508	13.19593	27.76801	14.65
sep	3	13.21506	13.19589	27.76783	14.19
sep	10	13.21505	13.19587	27.76747	13.73
sep	17	13.21504	13.19584	27.76720	13.27
sep	24	13.21503	13.19583	27.76680	12.81
oct	1	13.21503	13.19581	27.76644	12.35
oct	8	13.21504	13.19581	27.76595	11.89
oct	15	13.21504	13.19580	27.76552	11.43
oct	22	13.21506	13.19581	27.76499	10.97
oct	29	13.21509	13.19581	27.76450	10.51
nov	5	13.21512	13.19583	27.76392	10.05
nov	12	13.21516	13.19584	27.76339	9.59
nov	19	13.21520	13.19587	27.76281	9.13
nov	26	13.21525	13.19590	27.76226	8.67
dic	3	13.21531	13.19594	27.76168	8.21
dic	10	13.21537	13.19597	27.76114	7.75
dic	17	13.21543	13.19602	27.76062	7.30
dic	24	13.21550	13.19606	27.76012	6.84

66249

		V	Sp		
		3.38	A3V		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	13.59660	13.57805	-0.70695	6.67
ene	8	13.59667	13.57809	-0.70743	6.21
ene	15	13.59673	13.57814	-0.70779	5.75
ene	22	13.59680	13.57818	-0.70821	5.29
ene	29	13.59686	13.57823	-0.70854	4.83
feb	5	13.59692	13.57827	-0.70892	4.37
feb	12	13.59698	13.57830	-0.70919	3.91
feb	19	13.59703	13.57834	-0.70948	3.46
feb	26	13.59708	13.57838	-0.70969	3.00
mar	5	13.59712	13.57841	-0.70990	2.54
mar	12	13.59716	13.57843	-0.71003	2.08
mar	19	13.59719	13.57846	-0.71015	1.62
mar	26	13.59723	13.57847	-0.71023	1.16
abr	2	13.59725	13.57849	-0.71026	0.70
abr	9	13.59727	13.57849	-0.71027	0.24
abr	16	13.59728	13.57849	-0.71024	23.78
abr	23	13.59730	13.57849	-0.71022	23.32
abr	30	13.59730	13.57848	-0.71013	22.86
may	7	13.59731	13.57847	-0.71005	22.40
may	14	13.59730	13.57845	-0.70993	21.94
may	21	13.59731	13.57843	-0.70987	21.48
may	28	13.59730	13.57841	-0.70971	21.02
jun	4	13.59730	13.57838	-0.70961	20.56
jun	11	13.59728	13.57835	-0.70945	20.10
jun	18	13.59728	13.57831	-0.70939	19.64
jun	25	13.59725	13.57827	-0.70921	19.18
jul	2	13.59724	13.57823	-0.70913	18.72
jul	9	13.59722	13.57819	-0.70896	18.26
jul	16	13.59721	13.57815	-0.70893	17.80
jul	23	13.59718	13.57811	-0.70878	17.34
jul	30	13.59716	13.57807	-0.70873	16.88
ago	6	13.59713	13.57803	-0.70859	16.42
ago	13	13.59712	13.57799	-0.70861	15.96
ago	20	13.59709	13.57795	-0.70850	15.50
ago	27	13.59708	13.57792	-0.70851	15.04
sep	3	13.59705	13.57789	-0.70844	14.58
sep	10	13.59705	13.57786	-0.70852	14.12
sep	17	13.59703	13.57784	-0.70851	13.66
sep	24	13.59703	13.57782	-0.70861	13.20
oct	1	13.59702	13.57780	-0.70864	12.74
oct	8	13.59703	13.57779	-0.70882	12.28
oct	15	13.59703	13.57779	-0.70892	11.82
oct	22	13.59705	13.57779	-0.70914	11.36
oct	29	13.59706	13.57779	-0.70933	10.90
nov	5	13.59709	13.57780	-0.70963	10.44
nov	12	13.59713	13.57781	-0.70989	9.98
nov	19	13.59716	13.57784	-0.71023	9.52
nov	26	13.59721	13.57786	-0.71057	9.06
dic	3	13.59726	13.57789	-0.71097	8.60
dic	10	13.59732	13.57792	-0.71135	8.14
dic	17	13.59738	13.57796	-0.71177	7.68
dic	24	13.59744	13.57800	-0.71219	7.22

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

67494

		V	Sp		
		4.96	K0III		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	13.85078	13.83223	-18.24074	6.93
ene	8	13.85085	13.83227	-18.24115	6.47
ene	15	13.85092	13.83232	-18.24149	6.01
ene	22	13.85099	13.83237	-18.24191	5.55
ene	29	13.85105	13.83242	-18.24226	5.09
feb	5	13.85112	13.83246	-18.24269	4.63
feb	12	13.85118	13.83250	-18.24304	4.17
feb	19	13.85123	13.83254	-18.24343	3.71
feb	26	13.85129	13.83258	-18.24376	3.25
mar	5	13.85133	13.83262	-18.24411	2.79
mar	12	13.85138	13.83265	-18.24440	2.33
mar	19	13.85141	13.83267	-18.24470	1.87
mar	26	13.85145	13.83270	-18.24496	1.41
abr	2	13.85147	13.83271	-18.24519	0.95
abr	9	13.85150	13.83273	-18.24539	0.49
abr	16	13.85152	13.83273	-18.24557	0.03
abr	23	13.85154	13.83273	-18.24575	23.57
abr	30	13.85155	13.83273	-18.24586	23.11
may	7	13.85156	13.83272	-18.24598	22.65
may	14	13.85156	13.83271	-18.24605	22.19
may	21	13.85157	13.83269	-18.24616	21.73
may	28	13.85156	13.83267	-18.24617	21.27
jun	4	13.85156	13.83264	-18.24622	20.81
jun	11	13.85154	13.83261	-18.24619	20.35
jun	18	13.85154	13.83258	-18.24624	19.89
jun	25	13.85152	13.83254	-18.24616	19.43
jul	2	13.85151	13.83250	-18.24615	18.97
jul	9	13.85148	13.83246	-18.24604	18.51
jul	16	13.85147	13.83242	-18.24604	18.05
jul	23	13.85144	13.83237	-18.24589	17.59
jul	30	13.85142	13.83233	-18.24582	17.13
ago	6	13.85139	13.83229	-18.24565	16.67
ago	13	13.85137	13.83225	-18.24560	16.21
ago	20	13.85134	13.83220	-18.24541	15.75
ago	27	13.85132	13.83217	-18.24532	15.29
sep	3	13.85130	13.83213	-18.24512	14.83
sep	10	13.85129	13.83210	-18.24506	14.37
sep	17	13.85127	13.83207	-18.24488	13.91
sep	24	13.85126	13.83205	-18.24480	13.45
oct	1	13.85125	13.83203	-18.24465	12.99
oct	8	13.85125	13.83202	-18.24463	12.53
oct	15	13.85126	13.83201	-18.24453	12.07
oct	22	13.85127	13.83201	-18.24455	11.61
oct	29	13.85128	13.83201	-18.24451	11.15
nov	5	13.85131	13.83202	-18.24459	10.69
nov	12	13.85135	13.83203	-18.24464	10.23
nov	19	13.85138	13.83205	-18.24478	9.77
nov	26	13.85143	13.83208	-18.24492	9.31
dic	3	13.85148	13.83211	-18.24515	8.85
dic	10	13.85154	13.83215	-18.24537	8.39
dic	17	13.85160	13.83218	-18.24566	7.93
dic	24	13.85167	13.83222	-18.24596	7.47

68895

		V	Sp		
		3.25	K2III		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	14.12671	14.10816	-26.78460	7.20
ene	8	14.12678	14.10820	-26.78496	6.74
ene	15	14.12685	14.10826	-26.78524	6.28
ene	22	14.12692	14.10831	-26.78563	5.82
ene	29	14.12699	14.10836	-26.78597	5.36
feb	5	14.12706	14.10841	-26.78640	4.91
feb	12	14.12713	14.10845	-26.78675	4.45
feb	19	14.12718	14.10850	-26.78716	3.99
feb	26	14.12725	14.10854	-26.78752	3.53
mar	5	14.12729	14.10858	-26.78793	3.07
mar	12	14.12735	14.10862	-26.78827	2.61
mar	19	14.12738	14.10865	-26.78863	2.15
mar	26	14.12743	14.10868	-26.78896	1.69
abr	2	14.12746	14.10870	-26.78928	1.23
abr	9	14.12749	14.10872	-26.78957	0.77
abr	16	14.12751	14.10873	-26.78984	0.31
abr	23	14.12754	14.10873	-26.79011	23.85
abr	30	14.12755	14.10873	-26.79032	23.39
may	7	14.12757	14.10873	-26.79053	22.93
may	14	14.12757	14.10872	-26.79070	22.47
may	21	14.12758	14.10870	-26.79090	22.01
may	28	14.12757	14.10868	-26.79100	21.55
jun	4	14.12758	14.10866	-26.79114	21.09
jun	11	14.12756	14.10863	-26.79119	20.63
jun	18	14.12756	14.10860	-26.79131	20.17
jun	25	14.12754	14.10856	-26.79130	19.71
jul	2	14.12753	14.10852	-26.79135	19.25
jul	9	14.12750	14.10848	-26.79129	18.79
jul	16	14.12749	14.10843	-26.79132	18.33
jul	23	14.12745	14.10839	-26.79120	17.87
jul	30	14.12743	14.10834	-26.79116	17.41
ago	6	14.12740	14.10830	-26.79099	16.95
ago	13	14.12738	14.10825	-26.79094	16.49
ago	20	14.12735	14.10821	-26.79074	16.03
ago	27	14.12732	14.10817	-26.79061	15.57
sep	3	14.12729	14.10813	-26.79038	15.11
sep	10	14.12728	14.10809	-26.79027	14.65
sep	17	14.12725	14.10806	-26.79003	14.19
sep	24	14.12724	14.10803	-26.78988	13.73
oct	1	14.12723	14.10801	-26.78965	13.27
oct	8	14.12723	14.10799	-26.78954	12.81
oct	15	14.12723	14.10798	-26.78935	12.35
oct	22	14.12724	14.10798	-26.78926	11.89
oct	29	14.12725	14.10798	-26.78912	11.43
nov	5	14.12728	14.10798	-26.78910	10.97
nov	12	14.12731	14.10800	-26.78903	10.51
nov	19	14.12735	14.10802	-26.78906	10.05
nov	26	14.12739	14.10804	-26.78909	9.59
dic	3	14.12744	14.10807	-26.78922	9.13
dic	10	14.12751	14.10811	-26.78934	8.67
dic	17	14.12756	14.10815	-26.78954	8.21
dic	24	14.12764	14.10819	-26.78976	7.75

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

68933

		V	Sp		
		2.06	K0IIIb		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	14.13257	14.11402	-36.47360	7.21
ene	8	14.13265	14.11408	-36.47391	6.75
ene	15	14.13273	14.11413	-36.47416	6.29
ene	22	14.13281	14.11419	-36.47453	5.83
ene	29	14.13288	14.11425	-36.47485	5.37
feb	5	14.13295	14.11430	-36.47529	4.91
feb	12	14.13303	14.11435	-36.47566	4.45
feb	19	14.13309	14.11440	-36.47611	3.99
feb	26	14.13315	14.11445	-36.47652	3.53
mar	5	14.13321	14.11450	-36.47698	3.07
mar	12	14.13326	14.11454	-36.47739	2.61
mar	19	14.13331	14.11457	-36.47783	2.15
mar	26	14.13336	14.11460	-36.47825	1.69
abr	2	14.13339	14.11462	-36.47867	1.23
abr	9	14.13342	14.11465	-36.47906	0.77
abr	16	14.13344	14.11466	-36.47943	0.31
abr	23	14.13347	14.11467	-36.47981	23.85
abr	30	14.13348	14.11466	-36.48013	23.39
may	7	14.13350	14.11466	-36.48046	22.93
may	14	14.13350	14.11465	-36.48073	22.47
may	21	14.13352	14.11463	-36.48104	22.01
may	28	14.13350	14.11461	-36.48124	21.55
jun	4	14.13351	14.11459	-36.48147	21.09
jun	11	14.13349	14.11455	-36.48161	20.63
jun	18	14.13349	14.11452	-36.48181	20.17
jun	25	14.13346	14.11448	-36.48188	19.71
jul	2	14.13344	14.11443	-36.48198	19.25
jul	9	14.13341	14.11439	-36.48197	18.79
jul	16	14.13339	14.11434	-36.48204	18.33
jul	23	14.13336	14.11429	-36.48196	17.87
jul	30	14.13333	14.11424	-36.48193	17.41
ago	6	14.13329	14.11419	-36.48176	16.95
ago	13	14.13327	14.11414	-36.48170	16.49
ago	20	14.13323	14.11409	-36.48147	16.03
ago	27	14.13320	14.11404	-36.48132	15.57
sep	3	14.13316	14.11400	-36.48103	15.11
sep	10	14.13314	14.11396	-36.48087	14.65
sep	17	14.13312	14.11393	-36.48056	14.19
sep	24	14.13310	14.11390	-36.48033	13.73
oct	1	14.13309	14.11387	-36.48001	13.27
oct	8	14.13309	14.11385	-36.47981	12.81
oct	15	14.13309	14.11384	-36.47952	12.35
oct	22	14.13309	14.11383	-36.47932	11.89
oct	29	14.13311	14.11384	-36.47907	11.43
nov	5	14.13314	14.11384	-36.47894	10.97
nov	12	14.13317	14.11386	-36.47877	10.51
nov	19	14.13321	14.11388	-36.47870	10.05
nov	26	14.13326	14.11391	-36.47862	9.59
dic	3	14.13332	14.11395	-36.47865	9.13
dic	10	14.13338	14.11399	-36.47868	8.67
dic	17	14.13344	14.11403	-36.47879	8.21
dic	24	14.13352	14.11408	-36.47893	7.75

69763

		V	Sp		
		5.72	B1.5III		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	14.30595	14.28740	-66.68369	7.38
ene	8	14.30609	14.28751	-66.68381	6.92
ene	15	14.30623	14.28763	-66.68388	6.46
ene	22	14.30636	14.28774	-66.68411	6.00
ene	29	14.30650	14.28787	-66.68433	5.54
feb	5	14.30663	14.28797	-66.68470	5.08
feb	12	14.30676	14.28809	-66.68505	4.62
feb	19	14.30688	14.28819	-66.68551	4.16
feb	26	14.30700	14.28830	-66.68596	3.71
mar	5	14.30710	14.28839	-66.68650	3.25
mar	12	14.30721	14.28848	-66.68703	2.79
mar	19	14.30729	14.28855	-66.68763	2.33
mar	26	14.30738	14.28863	-66.68822	1.87
abr	2	14.30744	14.28868	-66.68884	1.41
abr	9	14.30751	14.28874	-66.68946	0.95
abr	16	14.30755	14.28876	-66.69008	0.49
abr	23	14.30761	14.28880	-66.69072	0.03
abr	30	14.30762	14.28880	-66.69132	23.57
may	7	14.30765	14.28881	-66.69192	23.11
may	14	14.30764	14.28879	-66.69248	22.65
may	21	14.30766	14.28878	-66.69306	22.19
may	28	14.30763	14.28874	-66.69355	21.73
jun	4	14.30762	14.28870	-66.69405	21.27
jun	11	14.30757	14.28863	-66.69445	20.81
jun	18	14.30755	14.28858	-66.69490	20.35
jun	25	14.30748	14.28850	-66.69519	19.89
jul	2	14.30743	14.28842	-66.69550	19.43
jul	9	14.30735	14.28833	-66.69568	18.97
jul	16	14.30729	14.28824	-66.69590	18.51
jul	23	14.30721	14.28814	-66.69594	18.05
jul	30	14.30713	14.28804	-66.69601	17.59
ago	6	14.30704	14.28793	-66.69591	17.13
ago	13	14.30697	14.28784	-66.69588	16.67
ago	20	14.30688	14.28774	-66.69566	16.21
ago	27	14.30680	14.28764	-66.69547	15.75
sep	3	14.30672	14.28755	-66.69512	15.29
sep	10	14.30666	14.28747	-66.69485	14.83
sep	17	14.30659	14.28740	-66.69440	14.37
sep	24	14.30654	14.28734	-66.69402	13.91
oct	1	14.30650	14.28729	-66.69350	13.45
oct	8	14.30648	14.28724	-66.69307	12.99
oct	15	14.30647	14.28722	-66.69253	12.53
oct	22	14.30646	14.28721	-66.69207	12.07
oct	29	14.30649	14.28721	-66.69153	11.61
nov	5	14.30652	14.28723	-66.69111	11.15
nov	12	14.30657	14.28726	-66.69063	10.69
nov	19	14.30663	14.28730	-66.69025	10.23
nov	26	14.30672	14.28737	-66.68985	9.77
dic	3	14.30681	14.28744	-66.68959	9.31
dic	10	14.30692	14.28753	-66.68932	8.85
dic	17	14.30702	14.28761	-66.68916	8.39
dic	24	14.30716	14.28772	-66.68903	7.93

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

71683					
		V	Sp		
		-0.01	G2V		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	14.68444	14.66589	-60.92008	7.76
ene	8	14.68456	14.66598	-60.92019	7.30
ene	15	14.68467	14.66608	-60.92025	6.84
ene	22	14.68478	14.66617	-60.92046	6.38
ene	29	14.68490	14.66627	-60.92065	5.92
feb	5	14.68501	14.66635	-60.92099	5.46
feb	12	14.68512	14.66645	-60.92129	5.00
feb	19	14.68522	14.66653	-60.92172	4.54
feb	26	14.68533	14.66662	-60.92211	4.08
mar	5	14.68541	14.66670	-60.92261	3.62
mar	12	14.68550	14.66678	-60.92308	3.16
mar	19	14.68557	14.66684	-60.92363	2.70
mar	26	14.68566	14.66690	-60.92415	2.24
abr	2	14.68571	14.66695	-60.92472	1.78
abr	9	14.68577	14.66700	-60.92526	1.32
abr	16	14.68581	14.66702	-60.92583	0.86
abr	23	14.68586	14.66705	-60.92640	0.40
abr	30	14.68588	14.66706	-60.92694	23.94
may	7	14.68591	14.66707	-60.92748	23.48
may	14	14.68591	14.66706	-60.92799	23.02
may	21	14.68593	14.66705	-60.92852	22.56
may	28	14.68591	14.66702	-60.92897	22.10
jun	4	14.68591	14.66699	-60.92942	21.64
jun	11	14.68587	14.66694	-60.92979	21.18
jun	18	14.68586	14.66690	-60.93020	20.72
jun	25	14.68581	14.66683	-60.93047	20.26
jul	2	14.68578	14.66677	-60.93077	19.80
jul	9	14.68571	14.66669	-60.93093	19.34
jul	16	14.68568	14.66662	-60.93115	18.88
jul	23	14.68561	14.66654	-60.93120	18.42
jul	30	14.68555	14.66646	-60.93128	17.96
ago	6	14.68547	14.66637	-60.93120	17.50
ago	13	14.68541	14.66629	-60.93119	17.04
ago	20	14.68534	14.66620	-60.93099	16.58
ago	27	14.68528	14.66612	-60.93084	16.12
sep	3	14.68520	14.66604	-60.93053	15.66
sep	10	14.68515	14.66597	-60.93029	15.20
sep	17	14.68510	14.66591	-60.92989	14.74
sep	24	14.68505	14.66585	-60.92955	14.28
oct	1	14.68501	14.66580	-60.92908	13.82
oct	8	14.68499	14.66576	-60.92871	13.36
oct	15	14.68497	14.66573	-60.92821	12.90
oct	22	14.68497	14.66571	-60.92780	12.44
oct	29	14.68498	14.66571	-60.92729	11.98
nov	5	14.68500	14.66571	-60.92692	11.52
nov	12	14.68504	14.66573	-60.92647	11.06
nov	19	14.68508	14.66576	-60.92612	10.60
nov	26	14.68515	14.66580	-60.92575	10.14
dic	3	14.68522	14.66585	-60.92551	9.68
dic	10	14.68531	14.66592	-60.92525	9.22
dic	17	14.68539	14.66598	-60.92511	8.77
dic	24	14.68551	14.66606	-60.92498	8.31

71957					
		V	Sp		
		3.87	F2III		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	14.73659	14.71804	-5.75221	7.81
ene	8	14.73666	14.71808	-5.75265	7.35
ene	15	14.73672	14.71812	-5.75297	6.89
ene	22	14.73678	14.71817	-5.75338	6.43
ene	29	14.73685	14.71821	-5.75369	5.97
feb	5	14.73691	14.71826	-5.75408	5.51
feb	12	14.73697	14.71830	-5.75434	5.05
feb	19	14.73703	14.71835	-5.75466	4.60
feb	26	14.73709	14.71839	-5.75488	4.14
mar	5	14.73714	14.71843	-5.75513	3.68
mar	12	14.73719	14.71846	-5.75528	3.22
mar	19	14.73723	14.71850	-5.75544	2.76
mar	26	14.73728	14.71853	-5.75554	2.30
abr	2	14.73731	14.71855	-5.75563	1.84
abr	9	14.73735	14.71857	-5.75566	1.38
abr	16	14.73737	14.71859	-5.75569	0.92
abr	23	14.73741	14.71860	-5.75569	0.46
abr	30	14.73742	14.71861	-5.75565	24.00
may	7	14.73745	14.71861	-5.75560	23.54
may	14	14.73745	14.71860	-5.75553	23.08
may	21	14.73747	14.71859	-5.75548	22.62
may	28	14.73747	14.71858	-5.75537	22.16
jun	4	14.73748	14.71856	-5.75529	21.70
jun	11	14.73747	14.71854	-5.75516	21.24
jun	18	14.73748	14.71851	-5.75511	20.78
jun	25	14.73746	14.71848	-5.75496	20.32
jul	2	14.73745	14.71845	-5.75489	19.86
jul	9	14.73743	14.71841	-5.75475	19.40
jul	16	14.73743	14.71837	-5.75472	18.94
jul	23	14.73740	14.71833	-5.75457	18.48
jul	30	14.73738	14.71829	-5.75452	18.02
ago	6	14.73735	14.71825	-5.75439	17.56
ago	13	14.73733	14.71821	-5.75439	17.10
ago	20	14.73730	14.71816	-5.75427	16.64
ago	27	14.73728	14.71812	-5.75426	16.18
sep	3	14.73725	14.71808	-5.75416	15.72
sep	10	14.73723	14.71805	-5.75421	15.26
sep	17	14.73721	14.71801	-5.75415	14.80
sep	24	14.73719	14.71798	-5.75420	14.34
oct	1	14.73717	14.71795	-5.75418	13.88
oct	8	14.73717	14.71793	-5.75430	13.42
oct	15	14.73716	14.71791	-5.75433	12.96
oct	22	14.73716	14.71790	-5.75449	12.50
oct	29	14.73717	14.71789	-5.75457	12.04
nov	5	14.73718	14.71789	-5.75480	11.58
nov	12	14.73720	14.71789	-5.75497	11.12
nov	19	14.73723	14.71790	-5.75524	10.66
nov	26	14.73727	14.71792	-5.75547	10.20
dic	3	14.73731	14.71794	-5.75581	9.74
dic	10	14.73736	14.71796	-5.75610	9.28
dic	17	14.73740	14.71799	-5.75647	8.82
dic	24	14.73746	14.71802	-5.75681	8.36

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

73714

		V	Sp		
		3.25	M3/M4III		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	15.08883	15.07028	-25.36516	8.17
ene	8	15.08890	15.07032	-25.36546	7.71
ene	15	15.08897	15.07037	-25.36566	7.25
ene	22	15.08904	15.07042	-25.36598	6.79
ene	29	15.08911	15.07047	-25.36622	6.33
feb	5	15.08918	15.07052	-25.36657	5.87
feb	12	15.08925	15.07057	-25.36683	5.41
feb	19	15.08931	15.07062	-25.36718	4.95
feb	26	15.08938	15.07067	-25.36745	4.49
mar	5	15.08943	15.07072	-25.36778	4.03
mar	12	15.08949	15.07077	-25.36804	3.57
mar	19	15.08954	15.07080	-25.36834	3.11
mar	26	15.08960	15.07084	-25.36859	2.65
abr	2	15.08964	15.07088	-25.36886	2.19
abr	9	15.08968	15.07090	-25.36907	1.73
abr	16	15.08971	15.07093	-25.36930	1.27
abr	23	15.08976	15.07095	-25.36950	0.81
abr	30	15.08978	15.07096	-25.36969	0.35
may	7	15.08981	15.07097	-25.36985	23.89
may	14	15.08982	15.07097	-25.37000	23.43
may	21	15.08985	15.07097	-25.37016	22.97
may	28	15.08985	15.07096	-25.37026	22.51
jun	4	15.08986	15.07094	-25.37038	22.05
jun	11	15.08986	15.07092	-25.37045	21.59
jun	18	15.08987	15.07090	-25.37057	21.13
jun	25	15.08985	15.07087	-25.37059	20.67
jul	2	15.08985	15.07084	-25.37066	20.21
jul	9	15.08982	15.07080	-25.37065	19.75
jul	16	15.08982	15.07077	-25.37071	19.29
jul	23	15.08979	15.07072	-25.37065	18.83
jul	30	15.08977	15.07068	-25.37066	18.37
ago	6	15.08973	15.07063	-25.37056	17.91
ago	13	15.08972	15.07059	-25.37056	17.45
ago	20	15.08968	15.07054	-25.37042	16.99
ago	27	15.08965	15.07050	-25.37036	16.53
sep	3	15.08962	15.07045	-25.37019	16.07
sep	10	15.08960	15.07041	-25.37014	15.61
sep	17	15.08956	15.07037	-25.36995	15.15
sep	24	15.08954	15.07034	-25.36986	14.69
oct	1	15.08952	15.07030	-25.36966	14.23
oct	8	15.08951	15.07028	-25.36960	13.77
oct	15	15.08950	15.07025	-25.36942	13.31
oct	22	15.08950	15.07024	-25.36935	12.85
oct	29	15.08950	15.07023	-25.36921	12.39
nov	5	15.08951	15.07022	-25.36920	11.93
nov	12	15.08953	15.07022	-25.36912	11.47
nov	19	15.08956	15.07023	-25.36914	11.01
nov	26	15.08959	15.07024	-25.36911	10.55
dic	3	15.08963	15.07026	-25.36921	10.09
dic	10	15.08968	15.07029	-25.36927	9.63
dic	17	15.08973	15.07032	-25.36942	9.17
dic	24	15.08980	15.07035	-25.36955	8.71

74824

		V	Sp		
		4.07	A3V		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	15.31997	15.30142	-58.87769	8.40
ene	8	15.32007	15.30150	-58.87770	7.94
ene	15	15.32018	15.30158	-58.87766	7.48
ene	22	15.32029	15.30167	-58.87777	7.02
ene	29	15.32040	15.30177	-58.87784	6.56
feb	5	15.32051	15.30185	-58.87808	6.10
feb	12	15.32062	15.30195	-58.87826	5.64
feb	19	15.32072	15.30204	-58.87858	5.18
feb	26	15.32084	15.30213	-58.87886	4.72
mar	5	15.32093	15.30222	-58.87926	4.26
mar	12	15.32103	15.30230	-58.87962	3.80
mar	19	15.32111	15.30238	-58.88007	3.34
mar	26	15.32121	15.30245	-58.88050	2.88
abr	2	15.32127	15.30251	-58.88099	2.42
abr	9	15.32135	15.30258	-58.88146	1.96
abr	16	15.32141	15.30262	-58.88197	1.50
abr	23	15.32148	15.30267	-58.88248	1.04
abr	30	15.32151	15.30270	-58.88299	0.58
may	7	15.32157	15.30273	-58.88349	0.12
may	14	15.32158	15.30273	-58.88399	23.66
may	21	15.32163	15.30275	-58.88450	23.20
may	28	15.32163	15.30274	-58.88495	22.74
jun	4	15.32165	15.30273	-58.88541	22.28
jun	11	15.32163	15.30270	-58.88582	21.82
jun	18	15.32164	15.30267	-58.88626	21.36
jun	25	15.32161	15.30263	-58.88659	20.90
jul	2	15.32159	15.30259	-58.88694	20.44
jul	9	15.32155	15.30252	-58.88718	19.98
jul	16	15.32152	15.30247	-58.88747	19.52
jul	23	15.32147	15.30240	-58.88761	19.06
jul	30	15.32142	15.30233	-58.88777	18.60
ago	6	15.32135	15.30225	-58.88780	18.14
ago	13	15.32131	15.30218	-58.88788	17.68
ago	20	15.32124	15.30210	-58.88779	17.22
ago	27	15.32118	15.30202	-58.88773	16.76
sep	3	15.32111	15.30194	-58.88752	16.30
sep	10	15.32106	15.30187	-58.88739	15.84
sep	17	15.32100	15.30181	-58.88707	15.38
sep	24	15.32095	15.30174	-58.88682	14.92
oct	1	15.32090	15.30168	-58.88642	14.46
oct	8	15.32087	15.30164	-58.88611	14.00
oct	15	15.32084	15.30160	-58.88566	13.54
oct	22	15.32083	15.30157	-58.88529	13.08
oct	29	15.32082	15.30155	-58.88482	12.62
nov	5	15.32083	15.30154	-58.88446	12.16
nov	12	15.32086	15.30154	-58.88400	11.70
nov	19	15.32088	15.30155	-58.88365	11.24
nov	26	15.32094	15.30159	-58.88324	10.78
dic	3	15.32099	15.30162	-58.88297	10.32
dic	10	15.32106	15.30167	-58.88265	9.86
dic	17	15.32113	15.30172	-58.88244	9.40
dic	24	15.32123	15.30179	-58.88223	8.94

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

75458					
		V	Sp		
		3.29	K2III		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	15.42319	15.40463	58.88575	8.50
ene	8	15.42327	15.40470	58.88510	8.04
ene	15	15.42335	15.40476	58.88464	7.58
ene	22	15.42345	15.40483	58.88414	7.12
ene	29	15.42354	15.40491	58.88383	6.66
feb	5	15.42365	15.40499	58.88349	6.20
feb	12	15.42374	15.40507	58.88335	5.74
feb	19	15.42384	15.40516	58.88321	5.28
feb	26	15.42393	15.40523	58.88324	4.82
mar	5	15.42403	15.40532	58.88329	4.36
mar	12	15.42411	15.40538	58.88350	3.90
mar	19	15.42419	15.40546	58.88373	3.44
mar	26	15.42427	15.40551	58.88408	2.98
abr	2	15.42433	15.40557	58.88446	2.52
abr	9	15.42439	15.40561	58.88495	2.06
abr	16	15.42444	15.40565	58.88544	1.60
abr	23	15.42448	15.40567	58.88598	1.14
abr	30	15.42451	15.40569	58.88656	0.68
may	7	15.42453	15.40569	58.88716	0.22
may	14	15.42454	15.40569	58.88775	23.76
may	21	15.42455	15.40566	58.88833	23.30
may	28	15.42454	15.40564	58.88893	22.84
jun	4	15.42452	15.40560	58.88948	22.38
jun	11	15.42450	15.40556	58.89001	21.92
jun	18	15.42447	15.40550	58.89046	21.46
jun	25	15.42443	15.40545	58.89094	21.00
jul	2	15.42438	15.40537	58.89131	20.54
jul	9	15.42433	15.40531	58.89167	20.08
jul	16	15.42428	15.40522	58.89188	19.62
jul	23	15.42421	15.40514	58.89214	19.16
jul	30	15.42415	15.40506	58.89225	18.70
ago	6	15.42407	15.40497	58.89236	18.24
ago	13	15.42401	15.40488	58.89230	17.78
ago	20	15.42393	15.40479	58.89229	17.32
ago	27	15.42386	15.40470	58.89211	16.86
sep	3	15.42378	15.40462	58.89196	16.40
sep	10	15.42372	15.40453	58.89161	15.94
sep	17	15.42364	15.40445	58.89134	15.48
sep	24	15.42358	15.40437	58.89089	15.02
oct	1	15.42352	15.40430	58.89048	14.56
oct	8	15.42347	15.40424	58.88989	14.10
oct	15	15.42342	15.40418	58.88938	13.64
oct	22	15.42339	15.40413	58.88871	13.18
oct	29	15.42336	15.40409	58.88810	12.72
nov	5	15.42335	15.40406	58.88734	12.26
nov	12	15.42334	15.40403	58.88667	11.80
nov	19	15.42335	15.40402	58.88589	11.34
nov	26	15.42336	15.40401	58.88518	10.88
dic	3	15.42340	15.40403	58.88438	10.42
dic	10	15.42343	15.40404	58.88368	9.96
dic	17	15.42349	15.40407	58.88292	9.50
dic	24	15.42355	15.40410	58.88226	9.04

76440					
		V	Sp		
		4.11	K0III		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	15.64478	15.62623	-66.38502	8.72
ene	8	15.64490	15.62633	-66.38494	8.26
ene	15	15.64503	15.62644	-66.38479	7.80
ene	22	15.64516	15.62655	-66.38480	7.34
ene	29	15.64530	15.62667	-66.38478	6.88
feb	5	15.64544	15.62679	-66.38493	6.42
feb	12	15.64558	15.62691	-66.38504	5.96
feb	19	15.64571	15.62703	-66.38529	5.50
feb	26	15.64586	15.62715	-66.38550	5.04
mar	5	15.64598	15.62727	-66.38586	4.58
mar	12	15.64611	15.62739	-66.38618	4.12
mar	19	15.64622	15.62748	-66.38661	3.66
mar	26	15.64635	15.62759	-66.38701	3.20
abr	2	15.64644	15.62768	-66.38750	2.74
abr	9	15.64655	15.62777	-66.38797	2.28
abr	16	15.64662	15.62783	-66.38850	1.82
abr	23	15.64672	15.62791	-66.38902	1.37
abr	30	15.64677	15.62795	-66.38957	0.91
may	7	15.64684	15.62800	-66.39011	0.45
may	14	15.64687	15.62802	-66.39066	23.99
may	21	15.64693	15.62805	-66.39122	23.53
may	28	15.64694	15.62805	-66.39174	23.07
jun	4	15.64697	15.62805	-66.39227	22.61
jun	11	15.64695	15.62802	-66.39276	22.15
jun	18	15.64697	15.62800	-66.39326	21.69
jun	25	15.64693	15.62795	-66.39367	21.23
jul	2	15.64691	15.62790	-66.39410	20.77
jul	9	15.64685	15.62783	-66.39443	20.31
jul	16	15.64682	15.62777	-66.39479	19.85
jul	23	15.64675	15.62768	-66.39501	19.39
jul	30	15.64669	15.62760	-66.39525	18.93
ago	6	15.64660	15.62750	-66.39535	18.47
ago	13	15.64654	15.62741	-66.39550	18.01
ago	20	15.64645	15.62731	-66.39546	17.55
ago	27	15.64637	15.62721	-66.39546	17.09
sep	3	15.64627	15.62711	-66.39529	16.63
sep	10	15.64620	15.62701	-66.39519	16.17
sep	17	15.64612	15.62692	-66.39490	15.71
sep	24	15.64604	15.62684	-66.39466	15.25
oct	1	15.64597	15.62676	-66.39426	14.78
oct	8	15.64592	15.62669	-66.39395	14.32
oct	15	15.64588	15.62663	-66.39348	13.86
oct	22	15.64584	15.62659	-66.39308	13.40
oct	29	15.64583	15.62656	-66.39256	12.94
nov	5	15.64583	15.62653	-66.39214	12.48
nov	12	15.64585	15.62654	-66.39162	12.02
nov	19	15.64587	15.62654	-66.39120	11.56
nov	26	15.64592	15.62657	-66.39070	11.10
dic	3	15.64598	15.62661	-66.39034	10.64
dic	10	15.64606	15.62667	-66.38992	10.19
dic	17	15.64614	15.62673	-66.38962	9.73
dic	24	15.64626	15.62681	-66.38930	9.27

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

77622

V 3.71 Sp A2m

		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	15.86472	15.84617	4.41207	8.94
ene	8	15.86478	15.84621	4.41159	8.48
ene	15	15.86484	15.84624	4.41125	8.02
ene	22	15.86490	15.84628	4.41082	7.56
ene	29	15.86496	15.84632	4.41052	7.10
feb	5	15.86502	15.84637	4.41013	6.64
feb	12	15.86508	15.84641	4.40990	6.18
feb	19	15.86514	15.84646	4.40961	5.72
feb	26	15.86520	15.84650	4.40946	5.26
mar	5	15.86526	15.84655	4.40926	4.80
mar	12	15.86532	15.84659	4.40920	4.34
mar	19	15.86537	15.84663	4.40910	3.88
mar	26	15.86542	15.84667	4.40913	3.42
abr	2	15.86546	15.84670	4.40913	2.96
abr	9	15.86551	15.84673	4.40924	2.50
abr	16	15.86555	15.84676	4.40932	2.04
abr	23	15.86559	15.84678	4.40948	1.58
abr	30	15.86562	15.84680	4.40964	1.12
may	7	15.86565	15.84681	4.40985	0.66
may	14	15.86567	15.84682	4.41005	0.20
may	21	15.86570	15.84682	4.41026	23.74
may	28	15.86571	15.84682	4.41050	23.28
jun	4	15.86573	15.84681	4.41074	22.82
jun	11	15.86573	15.84680	4.41097	22.36
jun	18	15.86575	15.84678	4.41116	21.90
jun	25	15.86574	15.84676	4.41141	21.44
jul	2	15.86574	15.84673	4.41160	20.98
jul	9	15.86572	15.84670	4.41181	20.52
jul	16	15.86572	15.84666	4.41193	20.06
jul	23	15.86569	15.84663	4.41213	19.60
jul	30	15.86568	15.84659	4.41223	19.14
ago	6	15.86565	15.84655	4.41238	18.68
ago	13	15.86563	15.84650	4.41241	18.22
ago	20	15.86560	15.84646	4.41253	17.76
ago	27	15.86557	15.84642	4.41252	17.30
sep	3	15.86554	15.84637	4.41259	16.84
sep	10	15.86551	15.84633	4.41250	16.38
sep	17	15.86548	15.84629	4.41252	15.92
sep	24	15.86546	15.84625	4.41240	15.46
oct	1	15.86543	15.84621	4.41236	15.00
oct	8	15.86541	15.84618	4.41216	14.54
oct	15	15.86539	15.84615	4.41206	14.08
oct	22	15.86538	15.84612	4.41182	13.62
oct	29	15.86537	15.84610	4.41165	13.16
nov	5	15.86538	15.84608	4.41132	12.70
nov	12	15.86538	15.84607	4.41109	12.24
nov	19	15.86539	15.84607	4.41073	11.78
nov	26	15.86542	15.84607	4.41043	11.32
dic	3	15.86544	15.84607	4.41001	10.86
dic	10	15.86548	15.84608	4.40966	10.40
dic	17	15.86551	15.84610	4.40922	9.95
dic	24	15.86556	15.84612	4.40885	9.49

81724

V 4.91 Sp G8II/III

		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	16.71350	16.69495	-17.78304	9.79
ene	8	16.71356	16.69498	-17.78329	9.33
ene	15	16.71361	16.69501	-17.78341	8.87
ene	22	16.71367	16.69505	-17.78366	8.41
ene	29	16.71373	16.69509	-17.78380	7.95
feb	5	16.71379	16.69514	-17.78406	7.49
feb	12	16.71385	16.69518	-17.78419	7.03
feb	19	16.71392	16.69523	-17.78443	6.57
feb	26	16.71398	16.69528	-17.78454	6.11
mar	5	16.71404	16.69533	-17.78476	5.65
mar	12	16.71411	16.69538	-17.78484	5.19
mar	19	16.71417	16.69543	-17.78501	4.73
mar	26	16.71423	16.69548	-17.78507	4.27
abr	2	16.71428	16.69552	-17.78520	3.81
abr	9	16.71434	16.69556	-17.78522	3.35
abr	16	16.71438	16.69560	-17.78531	2.89
abr	23	16.71444	16.69563	-17.78531	2.43
abr	30	16.71448	16.69566	-17.78536	1.97
may	7	16.71453	16.69569	-17.78534	1.51
may	14	16.71456	16.69571	-17.78537	1.05
may	21	16.71460	16.69572	-17.78535	0.59
may	28	16.71463	16.69573	-17.78535	0.13
jun	4	16.71466	16.69574	-17.78532	23.67
jun	11	16.71467	16.69574	-17.78531	23.21
jun	18	16.71470	16.69573	-17.78531	22.75
jun	25	16.71470	16.69572	-17.78528	22.29
jul	2	16.71471	16.69570	-17.78527	21.83
jul	9	16.71470	16.69568	-17.78524	21.37
jul	16	16.71471	16.69566	-17.78526	20.91
jul	23	16.71469	16.69562	-17.78521	20.45
jul	30	16.71468	16.69559	-17.78522	19.99
ago	6	16.71465	16.69555	-17.78517	19.53
ago	13	16.71464	16.69551	-17.78520	19.07
ago	20	16.71461	16.69547	-17.78513	18.61
ago	27	16.71458	16.69543	-17.78515	18.15
sep	3	16.71454	16.69538	-17.78507	17.69
sep	10	16.71452	16.69534	-17.78511	17.23
sep	17	16.71448	16.69529	-17.78502	16.77
sep	24	16.71446	16.69525	-17.78504	16.31
oct	1	16.71442	16.69520	-17.78495	15.85
oct	8	16.71440	16.69517	-17.78499	15.39
oct	15	16.71437	16.69513	-17.78490	14.93
oct	22	16.71436	16.69510	-17.78494	14.47
oct	29	16.71434	16.69507	-17.78487	14.01
nov	5	16.71434	16.69504	-17.78495	13.55
nov	12	16.71434	16.69503	-17.78491	13.09
nov	19	16.71434	16.69501	-17.78500	12.63
nov	26	16.71436	16.69501	-17.78500	12.17
dic	3	16.71438	16.69501	-17.78512	11.71
dic	10	16.71441	16.69501	-17.78518	11.25
dic	17	16.71444	16.69502	-17.78535	10.79
dic	24	16.71448	16.69504	-17.78544	10.33

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

81833

		V	Sp		
		3.48	G8III-IV		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	16.72695	16.70840	38.87884	9.80
ene	8	16.72700	16.70842	38.87814	9.35
ene	15	16.72705	16.70846	38.87761	8.89
ene	22	16.72711	16.70849	38.87701	8.43
ene	29	16.72717	16.70854	38.87657	7.97
feb	5	16.72724	16.70858	38.87607	7.51
feb	12	16.72730	16.70863	38.87577	7.05
feb	19	16.72737	16.70869	38.87544	6.59
feb	26	16.72744	16.70874	38.87529	6.13
mar	5	16.72751	16.70880	38.87511	5.67
mar	12	16.72758	16.70885	38.87513	5.21
mar	19	16.72764	16.70891	38.87513	4.75
mar	26	16.72771	16.70896	38.87530	4.29
abr	2	16.72777	16.70901	38.87546	3.83
abr	9	16.72783	16.70905	38.87578	3.37
abr	16	16.72788	16.70909	38.87608	2.91
abr	23	16.72793	16.70912	38.87650	2.45
abr	30	16.72797	16.70915	38.87692	1.99
may	7	16.72801	16.70917	38.87743	1.53
may	14	16.72804	16.70919	38.87792	1.07
may	21	16.72807	16.70919	38.87846	0.61
may	28	16.72809	16.70920	38.87900	0.15
jun	4	16.72811	16.70919	38.87956	23.69
jun	11	16.72812	16.70918	38.88009	23.23
jun	18	16.72813	16.70916	38.88060	22.77
jun	25	16.72812	16.70914	38.88113	22.31
jul	2	16.72812	16.70911	38.88160	21.85
jul	9	16.72809	16.70907	38.88205	21.39
jul	16	16.72808	16.70903	38.88242	20.93
jul	23	16.72805	16.70899	38.88282	20.47
jul	30	16.72803	16.70893	38.88310	20.01
ago	6	16.72798	16.70888	38.88339	19.55
ago	13	16.72795	16.70882	38.88354	19.09
ago	20	16.72791	16.70877	38.88374	18.63
ago	27	16.72786	16.70871	38.88379	18.17
sep	3	16.72781	16.70865	38.88386	17.71
sep	10	16.72777	16.70859	38.88377	17.25
sep	17	16.72772	16.70853	38.88373	16.79
sep	24	16.72767	16.70847	38.88353	16.33
oct	1	16.72762	16.70841	38.88336	15.87
oct	8	16.72759	16.70835	38.88301	15.41
oct	15	16.72755	16.70830	38.88274	14.95
oct	22	16.72751	16.70825	38.88229	14.49
oct	29	16.72748	16.70821	38.88190	14.03
nov	5	16.72746	16.70817	38.88134	13.57
nov	12	16.72745	16.70814	38.88086	13.11
nov	19	16.72744	16.70811	38.88022	12.65
nov	26	16.72744	16.70809	38.87966	12.19
dic	3	16.72745	16.70808	38.87896	11.73
dic	10	16.72747	16.70808	38.87835	11.27
dic	17	16.72750	16.70808	38.87764	10.81
dic	24	16.72753	16.70808	38.87702	10.35

82396

		V	Sp		
		2.29	K2IIIb		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	16.85913	16.84058	-34.33067	9.94
ene	8	16.85919	16.84061	-34.33073	9.48
ene	15	16.85925	16.84065	-34.33068	9.02
ene	22	16.85932	16.84070	-34.33078	8.56
ene	29	16.85938	16.84075	-34.33078	8.10
feb	5	16.85946	16.84080	-34.33092	7.64
feb	12	16.85953	16.84086	-34.33096	7.18
feb	19	16.85960	16.84091	-34.33113	6.72
feb	26	16.85967	16.84097	-34.33120	6.26
mar	5	16.85974	16.84103	-34.33139	5.80
mar	12	16.85982	16.84109	-34.33148	5.34
mar	19	16.85988	16.84115	-34.33168	4.88
mar	26	16.85996	16.84120	-34.33178	4.42
abr	2	16.86002	16.84126	-34.33198	3.96
abr	9	16.86008	16.84131	-34.33210	3.50
abr	16	16.86014	16.84135	-34.33230	3.04
abr	23	16.86021	16.84140	-34.33244	2.58
abr	30	16.86025	16.84143	-34.33263	2.12
may	7	16.86031	16.84147	-34.33277	1.66
may	14	16.86034	16.84149	-34.33297	1.20
may	21	16.86040	16.84151	-34.33313	0.74
may	28	16.86042	16.84153	-34.33330	0.28
jun	4	16.86046	16.84154	-34.33347	23.82
jun	11	16.86047	16.84154	-34.33365	23.36
jun	18	16.86051	16.84154	-34.33383	22.90
jun	25	16.86051	16.84153	-34.33398	22.44
jul	2	16.86053	16.84152	-34.33415	21.98
jul	9	16.86051	16.84149	-34.33429	21.52
jul	16	16.86052	16.84147	-34.33446	21.06
jul	23	16.86050	16.84144	-34.33455	20.60
jul	30	16.86049	16.84140	-34.33469	20.14
ago	6	16.86046	16.84136	-34.33475	19.68
ago	13	16.86045	16.84132	-34.33487	19.22
ago	20	16.86041	16.84127	-34.33488	18.76
ago	27	16.86038	16.84122	-34.33495	18.30
sep	3	16.86033	16.84117	-34.33490	17.84
sep	10	16.86031	16.84112	-34.33494	17.38
sep	17	16.86026	16.84107	-34.33484	16.92
sep	24	16.86023	16.84102	-34.33482	16.46
oct	1	16.86019	16.84097	-34.33467	16.00
oct	8	16.86016	16.84093	-34.33462	15.54
oct	15	16.86013	16.84088	-34.33443	15.08
oct	22	16.86011	16.84085	-34.33435	14.62
oct	29	16.86009	16.84081	-34.33414	14.16
nov	5	16.86008	16.84079	-34.33405	13.70
nov	12	16.86008	16.84077	-34.33384	13.24
nov	19	16.86008	16.84075	-34.33374	12.78
nov	26	16.86010	16.84075	-34.33355	12.32
dic	3	16.86012	16.84075	-34.33349	11.86
dic	10	16.86015	16.84075	-34.33333	11.40
dic	17	16.86018	16.84076	-34.33328	10.94
dic	24	16.86023	16.84078	-34.33316	10.48

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

86796

		V	Sp		
		5.12	G5V		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	17.76391	17.74536	-51.84345	10.84
ene	8	17.76398	17.74540	-51.84324	10.38
ene	15	17.76404	17.74544	-51.84293	9.92
ene	22	17.76411	17.74550	-51.84277	9.46
ene	29	17.76419	17.74556	-51.84251	9.00
feb	5	17.76428	17.74562	-51.84242	8.54
feb	12	17.76436	17.74569	-51.84223	8.08
feb	19	17.76445	17.74576	-51.84219	7.62
feb	26	17.76454	17.74584	-51.84207	7.16
mar	5	17.76463	17.74592	-51.84210	6.70
mar	12	17.76473	17.74600	-51.84204	6.24
mar	19	17.76482	17.74608	-51.84213	5.78
mar	26	17.76492	17.74617	-51.84214	5.32
abr	2	17.76500	17.74624	-51.84228	4.86
abr	9	17.76510	17.74632	-51.84235	4.40
abr	16	17.76518	17.74639	-51.84255	3.94
abr	23	17.76527	17.74647	-51.84268	3.48
abr	30	17.76534	17.74653	-51.84292	3.02
may	7	17.76543	17.74659	-51.84311	2.56
may	14	17.76549	17.74664	-51.84340	2.10
may	21	17.76557	17.74669	-51.84364	1.64
may	28	17.76562	17.74673	-51.84395	1.18
jun	4	17.76568	17.74676	-51.84424	0.72
jun	11	17.76571	17.74678	-51.84458	0.26
jun	18	17.76577	17.74680	-51.84491	23.80
jun	25	17.76579	17.74681	-51.84524	23.34
jul	2	17.76582	17.74681	-51.84558	22.88
jul	9	17.76582	17.74679	-51.84592	22.42
jul	16	17.76584	17.74678	-51.84626	21.96
jul	23	17.76582	17.74675	-51.84655	21.50
jul	30	17.76582	17.74672	-51.84687	21.04
ago	6	17.76578	17.74668	-51.84713	20.58
ago	13	17.76577	17.74664	-51.84740	20.12
ago	20	17.76572	17.74658	-51.84758	19.66
ago	27	17.76568	17.74653	-51.84779	19.20
sep	3	17.76563	17.74646	-51.84789	18.74
sep	10	17.76559	17.74640	-51.84803	18.28
sep	17	17.76553	17.74634	-51.84802	17.82
sep	24	17.76548	17.74627	-51.84807	17.36
oct	1	17.76542	17.74620	-51.84797	16.90
oct	8	17.76537	17.74614	-51.84794	16.44
oct	15	17.76532	17.74608	-51.84774	15.98
oct	22	17.76528	17.74602	-51.84761	15.52
oct	29	17.76524	17.74597	-51.84733	15.06
nov	5	17.76521	17.74592	-51.84714	14.60
nov	12	17.76519	17.74588	-51.84679	14.14
nov	19	17.76518	17.74585	-51.84655	13.68
nov	26	17.76518	17.74583	-51.84616	13.22
dic	3	17.76519	17.74582	-51.84590	12.76
dic	10	17.76521	17.74582	-51.84551	12.30
dic	17	17.76524	17.74582	-51.84524	11.85
dic	24	17.76528	17.74584	-51.84487	11.39

91262

		V	Sp		
		0.03	A0Vvar		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	18.62741	18.60886	38.80353	11.71
ene	8	18.62743	18.60885	38.80284	11.25
ene	15	18.62746	18.60886	38.80228	10.79
ene	22	18.62749	18.60887	38.80163	10.33
ene	29	18.62753	18.60890	38.80111	9.87
feb	5	18.62758	18.60892	38.80051	9.41
feb	12	18.62763	18.60896	38.80009	8.95
feb	19	18.62768	18.60900	38.79961	8.49
feb	26	18.62774	18.60904	38.79932	8.03
mar	5	18.62780	18.60909	38.79897	7.57
mar	12	18.62787	18.60914	38.79882	7.11
mar	19	18.62793	18.60919	38.79864	6.65
mar	26	18.62800	18.60925	38.79866	6.19
abr	2	18.62806	18.60930	38.79865	5.73
abr	9	18.62813	18.60936	38.79882	5.27
abr	16	18.62819	18.60941	38.79897	4.81
abr	23	18.62826	18.60945	38.79930	4.35
abr	30	18.62832	18.60950	38.79959	3.89
may	7	18.62838	18.60954	38.80004	3.43
may	14	18.62843	18.60958	38.80045	2.97
may	21	18.62849	18.60961	38.80099	2.51
may	28	18.62853	18.60964	38.80149	2.05
jun	4	18.62858	18.60966	38.80209	1.59
jun	11	18.62861	18.60967	38.80264	1.13
jun	18	18.62864	18.60968	38.80325	0.67
jun	25	18.62866	18.60968	38.80384	0.21
jul	2	18.62868	18.60967	38.80444	23.75
jul	9	18.62868	18.60966	38.80500	23.29
jul	16	18.62869	18.60964	38.80556	22.83
jul	23	18.62868	18.60961	38.80610	22.37
jul	30	18.62867	18.60958	38.80659	21.91
ago	6	18.62865	18.60955	38.80705	21.45
ago	13	18.62863	18.60950	38.80745	20.99
ago	20	18.62860	18.60946	38.80785	20.53
ago	27	18.62856	18.60941	38.80815	20.07
sep	3	18.62852	18.60935	38.80844	19.61
sep	10	18.62848	18.60929	38.80861	19.15
sep	17	18.62843	18.60924	38.80880	18.69
sep	24	18.62838	18.60917	38.80886	18.23
oct	1	18.62833	18.60911	38.80893	17.77
oct	8	18.62828	18.60905	38.80883	17.31
oct	15	18.62823	18.60899	38.80879	16.85
oct	22	18.62818	18.60893	38.80858	16.39
oct	29	18.62814	18.60887	38.80841	15.93
nov	5	18.62810	18.60881	38.80805	15.47
nov	12	18.62807	18.60876	38.80777	15.01
nov	19	18.62804	18.60871	38.80731	14.55
nov	26	18.62802	18.60866	38.80691	14.09
dic	3	18.62800	18.60863	38.80634	13.63
dic	10	18.62799	18.60860	38.80586	13.17
dic	17	18.62799	18.60857	38.80523	12.71
dic	24	18.62799	18.60855	38.80469	12.25

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

92262

		V	Sp		
		6.86	F6V		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	18.82348	18.80493	-14.68464	11.90
ene	8	18.82351	18.80493	-14.68480	11.44
ene	15	18.82354	18.80494	-14.68485	10.98
ene	22	18.82358	18.80496	-14.68500	10.52
ene	29	18.82362	18.80498	-14.68504	10.06
feb	5	18.82367	18.80501	-14.68518	9.60
feb	12	18.82371	18.80504	-14.68519	9.14
feb	19	18.82376	18.80508	-14.68530	8.68
feb	26	18.82382	18.80512	-14.68528	8.22
mar	5	18.82388	18.80516	-14.68536	7.76
mar	12	18.82394	18.80521	-14.68530	7.30
mar	19	18.82399	18.80526	-14.68533	6.84
mar	26	18.82406	18.80530	-14.68522	6.38
abr	2	18.82411	18.80535	-14.68521	5.92
abr	9	18.82418	18.80540	-14.68506	5.46
abr	16	18.82423	18.80545	-14.68501	5.00
abr	23	18.82430	18.80549	-14.68483	4.54
abr	30	18.82435	18.80554	-14.68474	4.08
may	7	18.82442	18.80558	-14.68455	3.62
may	14	18.82447	18.80562	-14.68445	3.16
may	21	18.82453	18.80565	-14.68425	2.70
may	28	18.82457	18.80568	-14.68412	2.24
jun	4	18.82463	18.80571	-14.68394	1.78
jun	11	18.82466	18.80573	-14.68383	1.32
jun	18	18.82471	18.80574	-14.68367	0.86
jun	25	18.82474	18.80575	-14.68356	0.40
jul	2	18.82477	18.80576	-14.68344	23.94
jul	9	18.82478	18.80576	-14.68337	23.48
jul	16	18.82481	18.80576	-14.68328	23.02
jul	23	18.82481	18.80575	-14.68321	22.56
jul	30	18.82482	18.80573	-14.68316	22.10
ago	6	18.82481	18.80571	-14.68313	21.64
ago	13	18.82482	18.80569	-14.68312	21.18
ago	20	18.82479	18.80566	-14.68308	20.72
ago	27	18.82478	18.80563	-14.68311	20.26
sep	3	18.82475	18.80559	-14.68310	19.80
sep	10	18.82473	18.80555	-14.68315	19.34
sep	17	18.82470	18.80551	-14.68313	18.88
sep	24	18.82467	18.80546	-14.68320	18.42
oct	1	18.82463	18.80542	-14.68320	17.96
oct	8	18.82461	18.80537	-14.68328	17.50
oct	15	18.82457	18.80533	-14.68327	17.04
oct	22	18.82454	18.80528	-14.68336	16.58
oct	29	18.82451	18.80524	-14.68335	16.12
nov	5	18.82449	18.80520	-14.68346	15.66
nov	12	18.82447	18.80516	-14.68346	15.20
nov	19	18.82446	18.80513	-14.68357	14.74
nov	26	18.82445	18.80510	-14.68357	14.28
dic	3	18.82445	18.80508	-14.68371	13.82
dic	10	18.82445	18.80506	-14.68372	13.36
dic	17	18.82446	18.80504	-14.68387	12.90
dic	24	18.82448	18.80503	-14.68388	12.44

97649

		V	Sp		
		0.76	A7IV-V		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	19.86367	19.84512	8.92594	12.94
ene	8	19.86368	19.84511	8.92557	12.48
ene	15	19.86370	19.84510	8.92529	12.02
ene	22	19.86372	19.84510	8.92493	11.56
ene	29	19.86375	19.84511	8.92466	11.10
feb	5	19.86378	19.84512	8.92432	10.64
feb	12	19.86381	19.84514	8.92410	10.18
feb	19	19.86385	19.84517	8.92382	9.72
feb	26	19.86389	19.84519	8.92368	9.26
mar	5	19.86394	19.84523	8.92347	8.80
mar	12	19.86399	19.84526	8.92342	8.34
mar	19	19.86404	19.84530	8.92330	7.88
mar	26	19.86410	19.84534	8.92337	7.42
abr	2	19.86415	19.84539	8.92335	6.96
abr	9	19.86421	19.84543	8.92351	6.50
abr	16	19.86426	19.84547	8.92360	6.04
abr	23	19.86433	19.84552	8.92386	5.58
abr	30	19.86438	19.84556	8.92405	5.12
may	7	19.86444	19.84560	8.92438	4.66
may	14	19.86449	19.84564	8.92465	4.20
may	21	19.86456	19.84568	8.92505	3.74
may	28	19.86461	19.84571	8.92537	3.28
jun	4	19.86466	19.84574	8.92580	2.82
jun	11	19.86470	19.84577	8.92615	2.36
jun	18	19.86476	19.84579	8.92660	1.90
jun	25	19.86479	19.84581	8.92697	1.44
jul	2	19.86483	19.84582	8.92740	0.98
jul	9	19.86485	19.84583	8.92775	0.52
jul	16	19.86489	19.84583	8.92815	0.06
jul	23	19.86490	19.84583	8.92850	23.60
jul	30	19.86491	19.84582	8.92884	23.14
ago	6	19.86491	19.84581	8.92913	22.68
ago	13	19.86492	19.84579	8.92941	22.22
ago	20	19.86491	19.84577	8.92968	21.76
ago	27	19.86490	19.84574	8.92988	21.30
sep	3	19.86488	19.84571	8.93008	20.84
sep	10	19.86486	19.84568	8.93022	20.38
sep	17	19.86483	19.84564	8.93037	19.92
sep	24	19.86481	19.84560	8.93042	19.46
oct	1	19.86477	19.84556	8.93051	19.00
oct	8	19.86475	19.84551	8.93049	18.54
oct	15	19.86471	19.84547	8.93052	18.08
oct	22	19.86468	19.84542	8.93043	17.62
oct	29	19.86465	19.84538	8.93039	17.16
nov	5	19.86462	19.84533	8.93022	16.70
nov	12	19.86460	19.84529	8.93013	16.24
nov	19	19.86457	19.84524	8.92990	15.78
nov	26	19.86456	19.84521	8.92975	15.32
dic	3	19.86454	19.84517	8.92945	14.86
dic	10	19.86453	19.84514	8.92925	14.40
dic	17	19.86453	19.84511	8.92891	13.94
dic	24	19.86453	19.84509	8.92867	13.48

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

99240

		V	Sp		
		3.55	G5IV-Vvar		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	20.17982	20.16127	-66.12724	13.26
ene	8	20.17985	20.16127	-66.12676	12.80
ene	15	20.17986	20.16127	-66.12620	12.34
ene	22	20.17991	20.16129	-66.12571	11.88
ene	29	20.17995	20.16132	-66.12513	11.42
feb	5	20.18003	20.16137	-66.12464	10.96
feb	12	20.18009	20.16142	-66.12407	10.50
feb	19	20.18018	20.16150	-66.12362	10.04
feb	26	20.18027	20.16157	-66.12308	9.58
mar	5	20.18038	20.16167	-66.12268	9.12
mar	12	20.18049	20.16176	-66.12220	8.66
mar	19	20.18060	20.16186	-66.12187	8.20
mar	26	20.18073	20.16197	-66.12145	7.74
abr	2	20.18085	20.16209	-66.12120	7.28
abr	9	20.18098	20.16221	-66.12088	6.82
abr	16	20.18111	20.16233	-66.12073	6.36
abr	23	20.18126	20.16245	-66.12049	5.90
abr	30	20.18138	20.16257	-66.12043	5.44
may	7	20.18153	20.16269	-66.12032	4.98
may	14	20.18165	20.16280	-66.12037	4.52
may	21	20.18180	20.16292	-66.12036	4.06
may	28	20.18191	20.16302	-66.12051	3.60
jun	4	20.18204	20.16312	-66.12062	3.14
jun	11	20.18214	20.16321	-66.12089	2.68
jun	18	20.18227	20.16330	-66.12109	2.22
jun	25	20.18235	20.16337	-66.12142	1.76
jul	2	20.18244	20.16343	-66.12175	1.30
jul	9	20.18250	20.16348	-66.12217	0.84
jul	16	20.18258	20.16353	-66.12255	0.38
jul	23	20.18261	20.16355	-66.12300	23.92
jul	30	20.18266	20.16357	-66.12346	23.46
ago	6	20.18266	20.16356	-66.12395	23.00
ago	13	20.18268	20.16356	-66.12441	22.54
ago	20	20.18266	20.16352	-66.12487	22.08
ago	27	20.18265	20.16349	-66.12534	21.62
sep	3	20.18260	20.16343	-66.12578	21.16
sep	10	20.18257	20.16338	-66.12619	20.70
sep	17	20.18249	20.16330	-66.12653	20.24
sep	24	20.18244	20.16323	-66.12688	19.78
oct	1	20.18235	20.16313	-66.12713	19.32
oct	8	20.18228	20.16305	-66.12737	18.86
oct	15	20.18219	20.16295	-66.12748	18.40
oct	22	20.18211	20.16285	-66.12760	17.94
oct	29	20.18202	20.16274	-66.12757	17.48
nov	5	20.18195	20.16266	-66.12757	17.02
nov	12	20.18187	20.16256	-66.12739	16.56
nov	19	20.18180	20.16247	-66.12726	16.10
nov	26	20.18174	20.16239	-66.12695	15.64
dic	3	20.18169	20.16232	-66.12670	15.18
dic	10	20.18165	20.16225	-66.12628	14.72
dic	17	20.18162	20.16221	-66.12593	14.26
dic	24	20.18161	20.16216	-66.12541	13.80

102485

		V	Sp		
		4.13	F5V		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	20.78928	20.77073	-25.19399	13.87
ene	8	20.78930	20.77072	-25.19394	13.41
ene	15	20.78930	20.77071	-25.19382	12.95
ene	22	20.78932	20.77070	-25.19375	12.49
ene	29	20.78934	20.77070	-25.19360	12.03
feb	5	20.78937	20.77071	-25.19349	11.57
feb	12	20.78939	20.77072	-25.19329	11.11
feb	19	20.78943	20.77074	-25.19317	10.65
feb	26	20.78947	20.77076	-25.19293	10.19
mar	5	20.78951	20.77080	-25.19278	9.73
mar	12	20.78956	20.77083	-25.19251	9.27
mar	19	20.78960	20.77087	-25.19234	8.81
mar	26	20.78966	20.77091	-25.19203	8.35
abr	2	20.78971	20.77095	-25.19184	7.89
abr	9	20.78978	20.77100	-25.19152	7.43
abr	16	20.78983	20.77105	-25.19132	6.97
abr	23	20.78990	20.77109	-25.19098	6.51
abr	30	20.78996	20.77115	-25.19077	6.05
may	7	20.79003	20.77119	-25.19046	5.59
may	14	20.79009	20.77124	-25.19027	5.13
may	21	20.79017	20.77129	-25.18996	4.67
may	28	20.79023	20.77134	-25.18978	4.21
jun	4	20.79030	20.77138	-25.18953	3.75
jun	11	20.79035	20.77142	-25.18941	3.29
jun	18	20.79043	20.77146	-25.18919	2.83
jun	25	20.79047	20.77149	-25.18910	2.37
jul	2	20.79053	20.77152	-25.18897	1.91
jul	9	20.79057	20.77154	-25.18894	1.45
jul	16	20.79062	20.77157	-25.18886	0.99
jul	23	20.79064	20.77158	-25.18886	0.53
jul	30	20.79068	20.77159	-25.18887	0.07
ago	6	20.79069	20.77159	-25.18894	23.61
ago	13	20.79072	20.77159	-25.18899	23.15
ago	20	20.79072	20.77158	-25.18908	22.69
ago	27	20.79072	20.77156	-25.18920	22.23
sep	3	20.79071	20.77154	-25.18934	21.77
sep	10	20.79071	20.77152	-25.18947	21.31
sep	17	20.79068	20.77149	-25.18960	20.85
sep	24	20.79066	20.77146	-25.18977	20.39
oct	1	20.79063	20.77142	-25.18990	19.93
oct	8	20.79061	20.77138	-25.19007	19.47
oct	15	20.79058	20.77133	-25.19017	19.01
oct	22	20.79055	20.77129	-25.19032	18.55
oct	29	20.79051	20.77124	-25.19040	18.09
nov	5	20.79049	20.77119	-25.19053	17.63
nov	12	20.79046	20.77114	-25.19055	17.17
nov	19	20.79043	20.77110	-25.19066	16.71
nov	26	20.79041	20.77106	-25.19064	16.25
dic	3	20.79039	20.77102	-25.19070	15.79
dic	10	20.79037	20.77098	-25.19065	15.33
dic	17	20.79036	20.77095	-25.19068	14.87
dic	24	20.79036	20.77091	-25.19057	14.41

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

105199

		V	Sp		
		2.45	A7IV-V		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	21.31752	21.29897	62.68042	14.40
ene	8	21.31747	21.29889	62.67989	13.94
ene	15	21.31743	21.29884	62.67935	13.48
ene	22	21.31740	21.29879	62.67873	13.02
ene	29	21.31739	21.29876	62.67813	12.56
feb	5	21.31738	21.29873	62.67746	12.10
feb	12	21.31740	21.29872	62.67686	11.64
feb	19	21.31741	21.29872	62.67620	11.18
feb	26	21.31745	21.29874	62.67564	10.72
mar	5	21.31748	21.29877	62.67503	10.26
mar	12	21.31754	21.29881	62.67456	9.80
mar	19	21.31760	21.29886	62.67405	9.34
mar	26	21.31768	21.29892	62.67371	8.88
abr	2	21.31775	21.29899	62.67333	8.42
abr	9	21.31784	21.29907	62.67314	7.96
abr	16	21.31793	21.29914	62.67293	7.50
abr	23	21.31804	21.29923	62.67292	7.04
abr	30	21.31813	21.29931	62.67287	6.58
may	7	21.31824	21.29940	62.67302	6.12
may	14	21.31834	21.29949	62.67314	5.66
may	21	21.31845	21.29957	62.67347	5.20
may	28	21.31854	21.29965	62.67375	4.74
jun	4	21.31864	21.29972	62.67420	4.28
jun	11	21.31873	21.29979	62.67462	3.82
jun	18	21.31882	21.29985	62.67521	3.36
jun	25	21.31889	21.29991	62.67574	2.90
jul	2	21.31896	21.29995	62.67640	2.44
jul	9	21.31901	21.29999	62.67700	1.98
jul	16	21.31906	21.30001	62.67773	1.52
jul	23	21.31910	21.30003	62.67840	1.06
jul	30	21.31913	21.30003	62.67913	0.60
ago	6	21.31914	21.30004	62.67981	0.14
ago	13	21.31914	21.30001	62.68055	23.68
ago	20	21.31914	21.30000	62.68123	23.22
ago	27	21.31912	21.29996	62.68191	22.76
sep	3	21.31909	21.29992	62.68254	22.30
sep	10	21.31905	21.29986	62.68317	21.84
sep	17	21.31900	21.29981	62.68375	21.38
sep	24	21.31894	21.29973	62.68427	20.92
oct	1	21.31888	21.29966	62.68475	20.46
oct	8	21.31880	21.29957	62.68516	20.00
oct	15	21.31873	21.29949	62.68555	19.54
oct	22	21.31865	21.29939	62.68582	19.08
oct	29	21.31857	21.29930	62.68607	18.62
nov	5	21.31848	21.29919	62.68619	18.16
nov	12	21.31840	21.29909	62.68630	17.70
nov	19	21.31831	21.29898	62.68626	17.24
nov	26	21.31823	21.29888	62.68623	16.78
dic	3	21.31815	21.29878	62.68602	16.32
dic	10	21.31808	21.29868	62.68583	15.86
dic	17	21.31800	21.29859	62.68546	15.40
dic	24	21.31795	21.29850	62.68514	14.94

105858

		V	Sp		
		4.21	F6V		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	21.46963	21.45108	-65.27064	14.55
ene	8	21.46962	21.45105	-65.27018	14.09
ene	15	21.46960	21.45101	-65.26966	13.63
ene	22	21.46961	21.45099	-65.26914	13.17
ene	29	21.46961	21.45098	-65.26855	12.71
feb	5	21.46965	21.45099	-65.26799	12.25
feb	12	21.46967	21.45100	-65.26735	11.79
feb	19	21.46972	21.45104	-65.26679	11.33
feb	26	21.46977	21.45107	-65.26614	10.87
mar	5	21.46984	21.45113	-65.26558	10.41
mar	12	21.46991	21.45118	-65.26495	9.95
mar	19	21.46999	21.45126	-65.26443	9.49
mar	26	21.47009	21.45133	-65.26383	9.03
abr	2	21.47018	21.45142	-65.26336	8.57
abr	9	21.47029	21.45151	-65.26284	8.11
abr	16	21.47040	21.45161	-65.26246	7.65
abr	23	21.47052	21.45171	-65.26199	7.19
abr	30	21.47064	21.45182	-65.26170	6.73
may	7	21.47077	21.45193	-65.26135	6.27
may	14	21.47089	21.45204	-65.26118	5.81
may	21	21.47103	21.45215	-65.26092	5.35
may	28	21.47115	21.45226	-65.26085	4.89
jun	4	21.47128	21.45236	-65.26075	4.43
jun	11	21.47140	21.45246	-65.26081	3.97
jun	18	21.47153	21.45256	-65.26081	3.51
jun	25	21.47163	21.45265	-65.26097	3.05
jul	2	21.47174	21.45274	-65.26112	2.59
jul	9	21.47183	21.45281	-65.26141	2.13
jul	16	21.47193	21.45288	-65.26165	1.67
jul	23	21.47199	21.45293	-65.26202	1.21
jul	30	21.47207	21.45298	-65.26238	0.75
ago	6	21.47210	21.45300	-65.26283	0.29
ago	13	21.47216	21.45303	-65.26324	23.83
ago	20	21.47216	21.45303	-65.26372	23.37
ago	27	21.47218	21.45303	-65.26419	22.91
sep	3	21.47216	21.45300	-65.26470	22.45
sep	10	21.47216	21.45298	-65.26515	21.99
sep	17	21.47212	21.45293	-65.26561	21.53
sep	24	21.47209	21.45288	-65.26606	21.07
oct	1	21.47202	21.45280	-65.26645	20.61
oct	8	21.47197	21.45274	-65.26682	20.15
oct	15	21.47189	21.45265	-65.26711	19.69
oct	22	21.47183	21.45257	-65.26739	19.23
oct	29	21.47174	21.45246	-65.26755	18.77
nov	5	21.47167	21.45238	-65.26770	18.31
nov	12	21.47158	21.45227	-65.26772	17.85
nov	19	21.47151	21.45218	-65.26775	17.39
nov	26	21.47143	21.45208	-65.26761	16.93
dic	3	21.47137	21.45200	-65.26749	16.47
dic	10	21.47130	21.45191	-65.26721	16.01
dic	17	21.47125	21.45183	-65.26697	15.55
dic	24	21.47120	21.45176	-65.26656	15.09

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

108870

		V	Sp		
		4.69	K5V		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	22.08312	22.06456	-56.70020	15.16
ene	8	22.08311	22.06453	-56.69986	14.70
ene	15	22.08308	22.06449	-56.69947	14.24
ene	22	22.08308	22.06447	-56.69906	13.78
ene	29	22.08308	22.06444	-56.69857	13.32
feb	5	22.08310	22.06444	-56.69809	12.86
feb	12	22.08311	22.06443	-56.69754	12.40
feb	19	22.08314	22.06445	-56.69704	11.94
feb	26	22.08317	22.06446	-56.69644	11.48
mar	5	22.08321	22.06450	-56.69591	11.02
mar	12	22.08326	22.06453	-56.69531	10.56
mar	19	22.08331	22.06458	-56.69480	10.10
mar	26	22.08338	22.06462	-56.69419	9.64
abr	2	22.08345	22.06468	-56.69371	9.18
abr	9	22.08352	22.06474	-56.69315	8.72
abr	16	22.08360	22.06482	-56.69271	8.26
abr	23	22.08370	22.06489	-56.69219	7.80
abr	30	22.08378	22.06497	-56.69182	7.34
may	7	22.08388	22.06504	-56.69140	6.88
may	14	22.08398	22.06513	-56.69112	6.42
may	21	22.08409	22.06521	-56.69076	5.96
may	28	22.08419	22.06529	-56.69059	5.50
jun	4	22.08430	22.06538	-56.69037	5.04
jun	11	22.08439	22.06546	-56.69031	4.58
jun	18	22.08450	22.06554	-56.69018	4.12
jun	25	22.08459	22.06561	-56.69023	3.66
jul	2	22.08469	22.06568	-56.69025	3.20
jul	9	22.08477	22.06574	-56.69043	2.74
jul	16	22.08486	22.06581	-56.69055	2.28
jul	23	22.08492	22.06586	-56.69081	1.82
jul	30	22.08499	22.06590	-56.69107	1.36
ago	6	22.08504	22.06593	-56.69145	0.90
ago	13	22.08510	22.06597	-56.69177	0.44
ago	20	22.08512	22.06598	-56.69219	23.98
ago	27	22.08515	22.06599	-56.69261	23.52
sep	3	22.08515	22.06599	-56.69308	23.06
sep	10	22.08517	22.06598	-56.69351	22.60
sep	17	22.08515	22.06595	-56.69397	22.14
sep	24	22.08514	22.06593	-56.69443	21.68
oct	1	22.08510	22.06588	-56.69487	21.22
oct	8	22.08508	22.06584	-56.69527	20.76
oct	15	22.08503	22.06578	-56.69563	20.30
oct	22	22.08499	22.06573	-56.69598	19.84
oct	29	22.08493	22.06566	-56.69625	19.38
nov	5	22.08489	22.06559	-56.69649	18.92
nov	12	22.08483	22.06552	-56.69663	18.46
nov	19	22.08478	22.06545	-56.69677	18.00
nov	26	22.08472	22.06537	-56.69678	17.54
dic	3	22.08468	22.06531	-56.69678	17.08
dic	10	22.08463	22.06523	-56.69665	16.62
dic	17	22.08459	22.06517	-56.69654	16.16
dic	24	22.08455	22.06511	-56.69627	15.70

111449

		V	Sp		
		5.21	F7V		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	22.59779	22.57924	-20.59894	15.68
ene	8	22.59778	22.57921	-20.59892	15.22
ene	15	22.59777	22.57918	-20.59889	14.76
ene	22	22.59777	22.57915	-20.59884	14.30
ene	29	22.59776	22.57913	-20.59874	13.84
feb	5	22.59777	22.57911	-20.59864	13.38
feb	12	22.59777	22.57910	-20.59848	12.92
feb	19	22.59778	22.57909	-20.59834	12.46
feb	26	22.59779	22.57909	-20.59811	12.00
mar	5	22.59781	22.57910	-20.59791	11.54
mar	12	22.59783	22.57911	-20.59763	11.08
mar	19	22.59786	22.57912	-20.59739	10.62
mar	26	22.59790	22.57914	-20.59703	10.16
abr	2	22.59793	22.57917	-20.59675	9.70
abr	9	22.59797	22.57920	-20.59637	9.24
abr	16	22.59802	22.57923	-20.59606	8.78
abr	23	22.59807	22.57926	-20.59562	8.32
abr	30	22.59812	22.57931	-20.59529	7.86
may	7	22.59819	22.57935	-20.59485	7.40
may	14	22.59824	22.57939	-20.59452	6.94
may	21	22.59831	22.57943	-20.59405	6.48
may	28	22.59837	22.57948	-20.59373	6.02
jun	4	22.59844	22.57952	-20.59332	5.56
jun	11	22.59850	22.57957	-20.59303	5.10
jun	18	22.59858	22.57961	-20.59263	4.64
jun	25	22.59863	22.57965	-20.59239	4.18
jul	2	22.59870	22.57969	-20.59208	3.72
jul	9	22.59875	22.57973	-20.59190	3.26
jul	16	22.59882	22.57977	-20.59164	2.80
jul	23	22.59886	22.57980	-20.59152	2.34
jul	30	22.59891	22.57982	-20.59137	1.88
ago	6	22.59894	22.57984	-20.59134	1.42
ago	13	22.59899	22.57986	-20.59125	0.96
ago	20	22.59901	22.57987	-20.59127	0.50
ago	27	22.59904	22.57988	-20.59129	0.04
sep	3	22.59904	22.57988	-20.59139	23.58
sep	10	22.59906	22.57988	-20.59145	23.12
sep	17	22.59906	22.57987	-20.59159	22.66
sep	24	22.59906	22.57986	-20.59173	22.20
oct	1	22.59905	22.57983	-20.59191	21.74
oct	8	22.59904	22.57981	-20.59208	21.28
oct	15	22.59902	22.57978	-20.59226	20.82
oct	22	22.59901	22.57975	-20.59246	20.36
oct	29	22.59898	22.57971	-20.59263	19.90
nov	5	22.59896	22.57967	-20.59282	19.44
nov	12	22.59894	22.57963	-20.59297	18.98
nov	19	22.59891	22.57958	-20.59315	18.52
nov	26	22.59889	22.57954	-20.59326	18.06
dic	3	22.59886	22.57949	-20.59340	17.60
dic	10	22.59884	22.57945	-20.59346	17.14
dic	17	22.59882	22.57940	-20.59358	16.68
dic	24	22.59880	22.57936	-20.59358	16.22

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

112440

		V	Sp		
		3.97	G8II-III		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	22.79276	22.77421	23.68171	15.87
ene	8	22.79275	22.77417	23.68145	15.41
ene	15	22.79273	22.77414	23.68116	14.95
ene	22	22.79272	22.77410	23.68084	14.49
ene	29	22.79271	22.77407	23.68052	14.03
feb	5	22.79270	22.77405	23.68017	13.57
feb	12	22.79270	22.77403	23.67985	13.11
feb	19	22.79270	22.77401	23.67950	12.65
feb	26	22.79271	22.77401	23.67922	12.19
mar	5	22.79272	22.77401	23.67890	11.73
mar	12	22.79274	22.77401	23.67867	11.27
mar	19	22.79276	22.77402	23.67841	10.81
mar	26	22.79279	22.77404	23.67828	10.35
abr	2	22.79282	22.77406	23.67810	9.89
abr	9	22.79286	22.77409	23.67806	9.43
abr	16	22.79290	22.77412	23.67799	8.97
abr	23	22.79296	22.77415	23.67808	8.51
abr	30	22.79300	22.77419	23.67812	8.05
may	7	22.79307	22.77423	23.67831	7.59
may	14	22.79312	22.77427	23.67846	7.13
may	21	22.79319	22.77431	23.67878	6.67
may	28	22.79325	22.77436	23.67903	6.21
jun	4	22.79332	22.77440	23.67942	5.75
jun	11	22.79338	22.77444	23.67975	5.29
jun	18	22.79345	22.77449	23.68025	4.83
jun	25	22.79351	22.77453	23.68065	4.37
jul	2	22.79357	22.77456	23.68117	3.91
jul	9	22.79362	22.77460	23.68160	3.45
jul	16	22.79369	22.77463	23.68218	2.99
jul	23	22.79373	22.77466	23.68264	2.53
jul	30	22.79378	22.77469	23.68318	2.07
ago	6	22.79381	22.77470	23.68364	1.61
ago	13	22.79385	22.77472	23.68419	1.15
ago	20	22.79387	22.77473	23.68463	0.69
ago	27	22.79389	22.77474	23.68511	0.23
sep	3	22.79390	22.77474	23.68551	23.77
sep	10	22.79392	22.77473	23.68596	23.31
sep	17	22.79392	22.77472	23.68632	22.85
sep	24	22.79391	22.77471	23.68667	22.39
oct	1	22.79390	22.77469	23.68696	21.93
oct	8	22.79390	22.77466	23.68725	21.47
oct	15	22.79388	22.77464	23.68748	21.01
oct	22	22.79386	22.77460	23.68766	20.55
oct	29	22.79384	22.77456	23.68782	20.09
nov	5	22.79382	22.77452	23.68792	19.63
nov	12	22.79379	22.77448	23.68800	19.17
nov	19	22.79376	22.77443	23.68799	18.71
nov	26	22.79374	22.77439	23.68800	18.25
dic	3	22.79371	22.77434	23.68790	17.79
dic	10	22.79369	22.77429	23.68782	17.33
dic	17	22.79366	22.77424	23.68763	16.87
dic	24	22.79364	22.77419	23.68749	16.41

112623

		V	Sp		
		3.49	A3V		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	22.83073	22.81218	-51.20670	15.91
ene	8	22.83071	22.81213	-51.20645	15.45
ene	15	22.83068	22.81208	-51.20616	14.99
ene	22	22.83066	22.81205	-51.20582	14.53
ene	29	22.83064	22.81201	-51.20542	14.07
feb	5	22.83064	22.81199	-51.20499	13.61
feb	12	22.83064	22.81196	-51.20451	13.15
feb	19	22.83065	22.81196	-51.20403	12.69
feb	26	22.83065	22.81195	-51.20347	12.23
mar	5	22.83068	22.81196	-51.20294	11.77
mar	12	22.83070	22.81197	-51.20234	11.31
mar	19	22.83073	22.81200	-51.20180	10.85
mar	26	22.83077	22.81202	-51.20116	10.39
abr	2	22.83082	22.81206	-51.20062	9.93
abr	9	22.83087	22.81209	-51.20001	9.47
abr	16	22.83093	22.81214	-51.19949	9.01
abr	23	22.83100	22.81219	-51.19888	8.55
abr	30	22.83107	22.81225	-51.19841	8.09
may	7	22.83115	22.81231	-51.19787	7.63
may	14	22.83122	22.81237	-51.19747	7.17
may	21	22.83132	22.81244	-51.19699	6.71
may	28	22.83140	22.81250	-51.19667	6.25
jun	4	22.83149	22.81257	-51.19630	5.79
jun	11	22.83157	22.81264	-51.19610	5.33
jun	18	22.83168	22.81271	-51.19581	4.87
jun	25	22.83176	22.81277	-51.19571	4.41
jul	2	22.83185	22.81284	-51.19557	3.95
jul	9	22.83192	22.81290	-51.19560	3.49
jul	16	22.83201	22.81296	-51.19557	3.03
jul	23	22.83207	22.81301	-51.19570	2.57
jul	30	22.83215	22.81306	-51.19582	2.11
ago	6	22.83219	22.81309	-51.19608	1.65
ago	13	22.83226	22.81313	-51.19628	1.19
ago	20	22.83229	22.81315	-51.19661	0.73
ago	27	22.83233	22.81317	-51.19694	0.27
sep	3	22.83234	22.81318	-51.19735	23.81
sep	10	22.83237	22.81319	-51.19772	23.35
sep	17	22.83236	22.81317	-51.19815	22.89
sep	24	22.83237	22.81316	-51.19858	22.43
oct	1	22.83235	22.81313	-51.19903	21.97
oct	8	22.83234	22.81310	-51.19944	21.51
oct	15	22.83230	22.81306	-51.19984	21.05
oct	22	22.83228	22.81302	-51.20023	20.59
oct	29	22.83223	22.81296	-51.20057	20.13
nov	5	22.83220	22.81291	-51.20087	19.67
nov	12	22.83215	22.81284	-51.20111	19.21
nov	19	22.83211	22.81278	-51.20134	18.75
nov	26	22.83206	22.81271	-51.20146	18.29
dic	3	22.83202	22.81265	-51.20156	17.83
dic	10	22.83197	22.81258	-51.20155	17.37
dic	17	22.83193	22.81252	-51.20154	16.91
dic	24	22.83189	22.81245	-51.20139	16.45

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

112724

		V	Sp		
		3.50	K0III		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	22.84038	22.82183	66.31914	15.92
ene	8	22.84029	22.82171	66.31884	15.46
ene	15	22.84023	22.82163	66.31846	15.00
ene	22	22.84015	22.82154	66.31801	14.54
ene	29	22.84010	22.82147	66.31753	14.08
feb	5	22.84005	22.82139	66.31698	13.62
feb	12	22.84002	22.82135	66.31643	13.16
feb	19	22.83999	22.82131	66.31582	12.70
feb	26	22.83999	22.82129	66.31524	12.24
mar	5	22.83999	22.82127	66.31461	11.78
mar	12	22.84001	22.82129	66.31406	11.32
mar	19	22.84003	22.82130	66.31346	10.86
mar	26	22.84009	22.82134	66.31299	10.40
abr	2	22.84014	22.82138	66.31247	9.94
abr	9	22.84022	22.82144	66.31209	9.48
abr	16	22.84029	22.82150	66.31170	9.02
abr	23	22.84039	22.82158	66.31148	8.56
abr	30	22.84048	22.82166	66.31122	8.10
may	7	22.84060	22.82176	66.31114	7.64
may	14	22.84070	22.82185	66.31104	7.18
may	21	22.84083	22.82194	66.31115	6.72
may	28	22.84094	22.82204	66.31120	6.26
jun	4	22.84106	22.82214	66.31145	5.80
jun	11	22.84117	22.82224	66.31166	5.34
jun	18	22.84129	22.82233	66.31208	4.88
jun	25	22.84140	22.82242	66.31243	4.42
jul	2	22.84151	22.82250	66.31295	3.96
jul	9	22.84160	22.82258	66.31342	3.50
jul	16	22.84169	22.82264	66.31406	3.04
jul	23	22.84177	22.82270	66.31464	2.58
jul	30	22.84184	22.82275	66.31533	2.12
ago	6	22.84189	22.82279	66.31596	1.66
ago	13	22.84194	22.82281	66.31672	1.20
ago	20	22.84198	22.82284	66.31740	0.74
ago	27	22.84200	22.82284	66.31815	0.28
sep	3	22.84201	22.82285	66.31884	23.82
sep	10	22.84201	22.82282	66.31959	23.36
sep	17	22.84200	22.82281	66.32027	22.90
sep	24	22.84197	22.82276	66.32095	22.44
oct	1	22.84194	22.82273	66.32158	21.98
oct	8	22.84189	22.82266	66.32221	21.52
oct	15	22.84185	22.82260	66.32277	21.06
oct	22	22.84178	22.82252	66.32328	20.60
oct	29	22.84172	22.82244	66.32375	20.14
nov	5	22.84163	22.82234	66.32414	19.68
nov	12	22.84156	22.82225	66.32449	19.22
nov	19	22.84147	22.82214	66.32473	18.76
nov	26	22.84139	22.82204	66.32495	18.30
dic	3	22.84129	22.82192	66.32503	17.84
dic	10	22.84121	22.82181	66.32508	17.38
dic	17	22.84111	22.82169	66.32499	16.92
dic	24	22.84103	22.82159	66.32490	16.46

112748

		V	Sp		
		3.51	M2III		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	22.85067	22.83212	24.71811	15.93
ene	8	22.85065	22.83208	24.71785	15.47
ene	15	22.85063	22.83204	24.71756	15.01
ene	22	22.85062	22.83200	24.71724	14.55
ene	29	22.85061	22.83197	24.71691	14.09
feb	5	22.85060	22.83195	24.71656	13.63
feb	12	22.85060	22.83193	24.71623	13.17
feb	19	22.85060	22.83191	24.71588	12.71
feb	26	22.85061	22.83191	24.71559	12.25
mar	5	22.85062	22.83190	24.71526	11.79
mar	12	22.85064	22.83191	24.71501	11.33
mar	19	22.85065	22.83192	24.71475	10.87
mar	26	22.85069	22.83193	24.71460	10.41
abr	2	22.85071	22.83195	24.71441	9.95
abr	9	22.85076	22.83198	24.71436	9.49
abr	16	22.85080	22.83201	24.71428	9.03
abr	23	22.85085	22.83204	24.71436	8.57
abr	30	22.85090	22.83208	24.71438	8.11
may	7	22.85096	22.83212	24.71456	7.65
may	14	22.85102	22.83216	24.71470	7.19
may	21	22.85109	22.83221	24.71502	6.73
may	28	22.85114	22.83225	24.71526	6.27
jun	4	22.85122	22.83230	24.71565	5.81
jun	11	22.85127	22.83234	24.71598	5.35
jun	18	22.85135	22.83238	24.71647	4.89
jun	25	22.85140	22.83242	24.71687	4.43
jul	2	22.85147	22.83246	24.71738	3.97
jul	9	22.85152	22.83250	24.71782	3.51
jul	16	22.85158	22.83253	24.71840	3.05
jul	23	22.85163	22.83256	24.71887	2.59
jul	30	22.85168	22.83259	24.71942	2.13
ago	6	22.85171	22.83261	24.71988	1.67
ago	13	22.85175	22.83262	24.72043	1.21
ago	20	22.85177	22.83263	24.72089	0.75
ago	27	22.85180	22.83264	24.72138	0.29
sep	3	22.85180	22.83264	24.72179	23.83
sep	10	22.85182	22.83264	24.72224	23.37
sep	17	22.85182	22.83263	24.72261	22.91
sep	24	22.85182	22.83261	24.72298	22.45
oct	1	22.85181	22.83259	24.72328	21.99
oct	8	22.85180	22.83257	24.72358	21.53
oct	15	22.85179	22.83254	24.72382	21.07
oct	22	22.85177	22.83251	24.72402	20.61
oct	29	22.85175	22.83247	24.72419	20.15
nov	5	22.85172	22.83243	24.72430	19.69
nov	12	22.85170	22.83239	24.72438	19.23
nov	19	22.85167	22.83234	24.72439	18.77
nov	26	22.85165	22.83230	24.72440	18.31
dic	3	22.85162	22.83225	24.72432	17.85
dic	10	22.85160	22.83220	24.72424	17.39
dic	17	22.85157	22.83215	24.72406	16.93
dic	24	22.85155	22.83210	24.72391	16.47

Posiciones aparentes de estrellas brillantes, 2022

(a las 0^h del meridiano 90° W.G.)

115102

		V	Sp		
		4.41	K1III		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	23.33309	23.31454	-32.41698	16.41
ene	8	23.33307	23.31450	-32.41690	15.95
ene	15	23.33305	23.31445	-32.41680	15.49
ene	22	23.33304	23.31442	-32.41666	15.03
ene	29	23.33302	23.31439	-32.41647	14.57
feb	5	23.33302	23.31436	-32.41624	14.11
feb	12	23.33301	23.31433	-32.41596	13.65
feb	19	23.33301	23.31432	-32.41567	13.19
feb	26	23.33301	23.31431	-32.41532	12.73
mar	5	23.33302	23.31431	-32.41497	12.27
mar	12	23.33303	23.31431	-32.41455	11.81
mar	19	23.33305	23.31431	-32.41415	11.35
mar	26	23.33308	23.31432	-32.41366	10.89
abr	2	23.33310	23.31434	-32.41324	10.43
abr	9	23.33314	23.31436	-32.41273	9.97
abr	16	23.33318	23.31439	-32.41228	9.51
abr	23	23.33323	23.31442	-32.41173	9.05
abr	30	23.33328	23.31446	-32.41129	8.59
may	7	23.33334	23.31450	-32.41076	8.13
may	14	23.33340	23.31454	-32.41033	7.67
may	21	23.33347	23.31459	-32.40980	7.21
may	28	23.33353	23.31464	-32.40942	6.75
jun	4	23.33360	23.31468	-32.40896	6.29
jun	11	23.33367	23.31473	-32.40864	5.83
jun	18	23.33375	23.31478	-32.40822	5.37
jun	25	23.33381	23.31483	-32.40797	4.91
jul	2	23.33389	23.31488	-32.40767	4.45
jul	9	23.33395	23.31493	-32.40752	3.99
jul	16	23.33402	23.31497	-32.40728	3.53
jul	23	23.33408	23.31501	-32.40722	3.07
jul	30	23.33414	23.31505	-32.40713	2.61
ago	6	23.33418	23.31508	-32.40718	2.15
ago	13	23.33424	23.31511	-32.40716	1.69
ago	20	23.33427	23.31513	-32.40729	1.23
ago	27	23.33431	23.31515	-32.40740	0.77
sep	3	23.33432	23.31516	-32.40763	0.31
sep	10	23.33435	23.31517	-32.40780	23.85
sep	17	23.33436	23.31517	-32.40807	23.39
sep	24	23.33437	23.31516	-32.40833	22.93
oct	1	23.33436	23.31515	-32.40865	22.47
oct	8	23.33437	23.31513	-32.40893	22.01
oct	15	23.33435	23.31511	-32.40925	21.55
oct	22	23.33434	23.31508	-32.40956	21.09
oct	29	23.33431	23.31504	-32.40986	20.63
nov	5	23.33430	23.31500	-32.41014	20.17
nov	12	23.33427	23.31496	-32.41039	19.71
nov	19	23.33424	23.31492	-32.41064	19.25
nov	26	23.33421	23.31486	-32.41082	18.79
dic	3	23.33419	23.31482	-32.41100	18.33
dic	10	23.33416	23.31477	-32.41110	17.87
dic	17	23.33413	23.31472	-32.41121	17.41
dic	24	23.33411	23.31466	-32.41121	16.95

115623

		V	Sp		
		4.42	F8IV		
		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	23.44095	23.42240	23.52551	16.52
ene	8	23.44093	23.42235	23.52531	16.06
ene	15	23.44091	23.42231	23.52505	15.60
ene	22	23.44089	23.42227	23.52479	15.14
ene	29	23.44087	23.42224	23.52451	14.68
feb	5	23.44086	23.42220	23.52421	14.22
feb	12	23.44085	23.42218	23.52391	13.76
feb	19	23.44084	23.42216	23.52360	13.30
feb	26	23.44085	23.42214	23.52333	12.84
mar	5	23.44085	23.42213	23.52303	12.38
mar	12	23.44086	23.42213	23.52280	11.92
mar	19	23.44087	23.42213	23.52255	11.46
mar	26	23.44090	23.42214	23.52241	11.00
abr	2	23.44092	23.42216	23.52223	10.54
abr	9	23.44095	23.42218	23.52216	10.08
abr	16	23.44098	23.42220	23.52207	9.62
abr	23	23.44104	23.42223	23.52214	9.16
abr	30	23.44108	23.42226	23.52214	8.70
may	7	23.44114	23.42230	23.52229	8.24
may	14	23.44119	23.42234	23.52241	7.78
may	21	23.44126	23.42238	23.52270	7.32
may	28	23.44131	23.42242	23.52291	6.86
jun	4	23.44138	23.42246	23.52326	6.40
jun	11	23.44144	23.42251	23.52356	5.94
jun	18	23.44152	23.42255	23.52402	5.48
jun	25	23.44157	23.42259	23.52439	5.02
jul	2	23.44164	23.42263	23.52488	4.56
jul	9	23.44170	23.42267	23.52529	4.10
jul	16	23.44176	23.42271	23.52584	3.64
jul	23	23.44181	23.42275	23.52628	3.18
jul	30	23.44187	23.42278	23.52681	2.72
ago	6	23.44190	23.42280	23.52725	2.26
ago	13	23.44195	23.42283	23.52780	1.80
ago	20	23.44198	23.42284	23.52823	1.34
ago	27	23.44201	23.42286	23.52872	0.88
sep	3	23.44203	23.42287	23.52911	0.42
sep	10	23.44206	23.42287	23.52957	23.96
sep	17	23.44206	23.42287	23.52993	23.50
sep	24	23.44207	23.42286	23.53030	23.04
oct	1	23.44207	23.42285	23.53060	22.58
oct	8	23.44207	23.42284	23.53092	22.12
oct	15	23.44206	23.42282	23.53116	21.66
oct	22	23.44205	23.42279	23.53138	21.20
oct	29	23.44203	23.42276	23.53156	20.74
nov	5	23.44202	23.42272	23.53170	20.28
nov	12	23.44200	23.42269	23.53181	19.82
nov	19	23.44197	23.42264	23.53185	19.36
nov	26	23.44195	23.42260	23.53189	18.90
dic	3	23.44193	23.42256	23.53185	18.44
dic	10	23.44191	23.42251	23.53181	17.98
dic	17	23.44188	23.42246	23.53168	17.52
dic	24	23.44186	23.42241	23.53158	17.06

Posiciones aparentes de la estrella Polar, 2020

(a las 0^h del meridiano 90° W.G.)

11767

(V = 1.97Sp = F7:Ib-IIv SB)

		α	α_c	δ	Hp
m	d	h	h	°	h
ene	1	3.00796	2.98941	89.36035	20.09
ene	2	3.00767	2.98911	89.36043	20.02
ene	3	3.00732	2.98876	89.36051	19.95
ene	4	3.00691	2.98835	89.36059	19.89
ene	5	3.00645	2.98788	89.36067	19.82
ene	6	3.00595	2.98738	89.36074	19.75
ene	7	3.00544	2.98686	89.36080	19.69
ene	8	3.00493	2.98635	89.36086	19.62
ene	9	3.00443	2.98585	89.36091	19.56
ene	10	3.00396	2.98538	89.36095	19.49
ene	11	3.00352	2.98494	89.36099	19.42
ene	12	3.00310	2.98451	89.36103	19.36
ene	13	3.00269	2.98410	89.36108	19.29
ene	14	3.00228	2.98369	89.36112	19.23
ene	15	3.00187	2.98328	89.36117	19.16
ene	16	3.00144	2.98284	89.36122	19.09
ene	17	3.00098	2.98238	89.36127	19.03
ene	18	3.00049	2.98188	89.36133	18.96
ene	19	2.99997	2.98136	89.36138	18.89
ene	20	2.99941	2.98080	89.36143	18.83
ene	21	2.99884	2.98022	89.36147	18.76
ene	22	2.99825	2.97964	89.36150	18.70
ene	23	2.99768	2.97906	89.36153	18.63
ene	24	2.99713	2.97851	89.36155	18.56
ene	25	2.99661	2.97799	89.36157	18.50
ene	26	2.99613	2.97751	89.36159	18.43
ene	27	2.99569	2.97706	89.36161	18.37
ene	28	2.99526	2.97663	89.36163	18.30
ene	29	2.99483	2.97619	89.36166	18.23
ene	30	2.99437	2.97573	89.36170	18.17
ene	31	2.99386	2.97521	89.36173	18.10
feb	1	2.99330	2.97465	89.36177	18.03
feb	2	2.99269	2.97404	89.36180	17.97
feb	3	2.99207	2.97341	89.36182	17.90
feb	4	2.99144	2.97279	89.36183	17.84
feb	5	2.99084	2.97218	89.36183	17.77
feb	6	2.99027	2.97161	89.36182	17.70
feb	7	2.98973	2.97107	89.36182	17.64
feb	8	2.98921	2.97056	89.36181	17.57
feb	9	2.98873	2.97006	89.36181	17.50
feb	10	2.98825	2.96958	89.36180	17.44
feb	11	2.98777	2.96910	89.36180	17.37
feb	12	2.98729	2.96861	89.36180	17.31
feb	13	2.98678	2.96811	89.36180	17.24
feb	14	2.98625	2.96757	89.36181	17.17
feb	15	2.98569	2.96701	89.36181	17.11
feb	16	2.98511	2.96642	89.36181	17.04
feb	17	2.98450	2.96582	89.36180	16.97
feb	18	2.98389	2.96521	89.36179	16.91
feb	19	2.98329	2.96461	89.36177	16.84
feb	20	2.98272	2.96403	89.36174	16.78
feb	21	2.98219	2.96350	89.36171	16.71
feb	22	2.98170	2.96301	89.36168	16.64
feb	23	2.98125	2.96256	89.36165	16.58
feb	24	2.98082	2.96213	89.36162	16.51
feb	25	2.98041	2.96171	89.36160	16.44
feb	26	2.97997	2.96127	89.36158	16.38
feb	27	2.97951	2.96080	89.36157	16.31
feb	28	2.97899	2.96028	89.36156	16.25
mar	1	2.97844	2.95973	89.36154	16.18
mar	2	2.97787	2.95916	89.36151	16.11
mar	3	2.97729	2.95858	89.36148	16.05
mar	4	2.97674	2.95802	89.36143	15.98
mar	5	2.97621	2.95750	89.36138	15.91
mar	6	2.97573	2.95702	89.36133	15.85
mar	7	2.97529	2.95657	89.36127	15.78
mar	8	2.97488	2.95616	89.36122	15.72
mar	9	2.97449	2.95577	89.36117	15.65
mar	10	2.97410	2.95538	89.36112	15.58
mar	11	2.97372	2.95500	89.36107	15.52
mar	12	2.97333	2.95460	89.36103	15.45
mar	13	2.97291	2.95418	89.36099	15.39
mar	14	2.97248	2.95374	89.36095	15.32
mar	15	2.97202	2.95328	89.36090	15.25
mar	16	2.97155	2.95281	89.36086	15.19
mar	17	2.97107	2.95233	89.36080	15.12
mar	18	2.97060	2.95186	89.36074	15.05
mar	19	2.97015	2.95142	89.36067	14.99
mar	20	2.96975	2.95102	89.36060	14.92
mar	21	2.96941	2.95067	89.36053	14.86
mar	22	2.96911	2.95037	89.36045	14.79
mar	23	2.96884	2.95010	89.36039	14.72
mar	24	2.96859	2.94985	89.36032	14.66
mar	25	2.96833	2.94958	89.36027	14.59
mar	26	2.96805	2.94929	89.36021	14.53
mar	27	2.96772	2.94897	89.36016	14.46
mar	28	2.96737	2.94861	89.36011	14.39
mar	29	2.96698	2.94822	89.36005	14.33
mar	30	2.96660	2.94784	89.35998	14.26
mar	31	2.96623	2.94747	89.35990	14.20
abr	1	2.96590	2.94714	89.35982	14.13
abr	2	2.96561	2.94684	89.35973	14.06
abr	3	2.96536	2.94660	89.35965	14.00
abr	4	2.96515	2.94639	89.35956	13.93
abr	5	2.96497	2.94620	89.35948	13.87
abr	6	2.96480	2.94604	89.35940	13.80
abr	7	2.96465	2.94588	89.35932	13.73
abr	8	2.96448	2.94571	89.35925	13.67
abr	9	2.96431	2.94553	89.35918	13.60
abr	10	2.96411	2.94533	89.35911	13.54
abr	11	2.96390	2.94511	89.35904	13.47
abr	12	2.96366	2.94488	89.35897	13.40
abr	13	2.96343	2.94464	89.35889	13.34
abr	14	2.96319	2.94441	89.35881	13.27
abr	15	2.96299	2.94420	89.35872	13.21
abr	16	2.96282	2.94403	89.35863	13.14

Posiciones aparentes de la estrella Polar, 2020

(a las 0^h del meridiano 90° W.G.)

11767

(V = 1.97Sp = F7:Ib-IIv SB)

		α	α_c	δ	Hp
m	d	h	h	°	h
abr	17	2.96270	2.94392	89.35853	13.08
abr	18	2.96265	2.94386	89.35844	13.01
abr	19	2.96263	2.94384	89.35835	12.94
abr	20	2.96265	2.94385	89.35827	12.88
abr	21	2.96265	2.94385	89.35819	12.81
abr	22	2.96264	2.94383	89.35812	12.75
abr	23	2.96258	2.94377	89.35805	12.68
abr	24	2.96250	2.94368	89.35799	12.62
abr	25	2.96238	2.94357	89.35791	12.55
abr	26	2.96226	2.94345	89.35783	12.48
abr	27	2.96216	2.94334	89.35775	12.42
abr	28	2.96208	2.94327	89.35765	12.35
abr	29	2.96205	2.94323	89.35756	12.29
abr	30	2.96206	2.94324	89.35746	12.22
may	1	2.96211	2.94329	89.35736	12.16
may	2	2.96219	2.94337	89.35727	12.09
may	3	2.96230	2.94347	89.35718	12.02
may	4	2.96241	2.94358	89.35710	11.96
may	5	2.96252	2.94369	89.35702	11.89
may	6	2.96262	2.94379	89.35694	11.83
may	7	2.96271	2.94387	89.35687	11.76
may	8	2.96278	2.94393	89.35680	11.70
may	9	2.96282	2.94398	89.35672	11.63
may	10	2.96286	2.94402	89.35665	11.56
may	11	2.96290	2.94405	89.35657	11.50
may	12	2.96296	2.94411	89.35648	11.43
may	13	2.96304	2.94419	89.35639	11.37
may	14	2.96318	2.94433	89.35630	11.30
may	15	2.96337	2.94452	89.35621	11.24
may	16	2.96362	2.94476	89.35612	11.17
may	17	2.96390	2.94504	89.35604	11.10
may	18	2.96419	2.94532	89.35597	11.04
may	19	2.96446	2.94559	89.35590	10.97
may	20	2.96469	2.94581	89.35584	10.91
may	21	2.96488	2.94600	89.35579	10.84
may	22	2.96503	2.94615	89.35572	10.78
may	23	2.96518	2.94629	89.35565	10.71
may	24	2.96533	2.94644	89.35558	10.65
may	25	2.96551	2.94662	89.35550	10.58
may	26	2.96572	2.94683	89.35542	10.52
may	27	2.96598	2.94709	89.35533	10.45
may	28	2.96627	2.94738	89.35525	10.39
may	29	2.96660	2.94771	89.35517	10.32
may	30	2.96695	2.94805	89.35509	10.25
may	31	2.96732	2.94841	89.35502	10.19
jun	1	2.96768	2.94877	89.35496	10.12
jun	2	2.96803	2.94912	89.35490	10.06
jun	3	2.96837	2.94945	89.35484	9.99
jun	4	2.96868	2.94976	89.35479	9.93
jun	5	2.96898	2.95005	89.35473	9.86
jun	6	2.96926	2.95033	89.35468	9.80
jun	7	2.96953	2.95060	89.35462	9.73
jun	8	2.96982	2.95089	89.35455	9.67
jun	9	2.97012	2.95119	89.35449	9.60
jun	10	2.97047	2.95154	89.35442	9.53
jun	11	2.97087	2.95193	89.35435	9.47
jun	12	2.97131	2.95238	89.35428	9.40
jun	13	2.97181	2.95286	89.35422	9.34
jun	14	2.97232	2.95337	89.35417	9.27
jun	15	2.97282	2.95387	89.35413	9.21
jun	16	2.97328	2.95433	89.35409	9.14
jun	17	2.97370	2.95474	89.35406	9.08
jun	18	2.97408	2.95511	89.35403	9.01
jun	19	2.97443	2.95546	89.35399	8.95
jun	20	2.97478	2.95580	89.35394	8.88
jun	21	2.97514	2.95617	89.35389	8.82
jun	22	2.97554	2.95657	89.35384	8.75
jun	23	2.97598	2.95701	89.35378	8.69
jun	24	2.97646	2.95748	89.35372	8.62
jun	25	2.97697	2.95799	89.35367	8.56
jun	26	2.97750	2.95852	89.35363	8.49
jun	27	2.97804	2.95906	89.35359	8.43
jun	28	2.97859	2.95959	89.35355	8.36
jun	29	2.97912	2.96012	89.35352	8.30
jun	30	2.97963	2.96063	89.35350	8.23
jul	1	2.98012	2.96111	89.35347	8.17
jul	2	2.98058	2.96157	89.35345	8.10
jul	3	2.98103	2.96202	89.35343	8.03
jul	4	2.98146	2.96245	89.35340	7.97
jul	5	2.98190	2.96289	89.35337	7.90
jul	6	2.98236	2.96334	89.35334	7.84
jul	7	2.98284	2.96382	89.35331	7.77
jul	8	2.98336	2.96434	89.35327	7.71
jul	9	2.98393	2.96491	89.35324	7.64
jul	10	2.98454	2.96552	89.35321	7.58
jul	11	2.98518	2.96615	89.35319	7.51
jul	12	2.98583	2.96679	89.35318	7.45
jul	13	2.98644	2.96740	89.35318	7.38
jul	14	2.98701	2.96796	89.35318	7.32
jul	15	2.98752	2.96847	89.35319	7.25
jul	16	2.98800	2.96895	89.35319	7.19
jul	17	2.98846	2.96941	89.35318	7.12
jul	18	2.98893	2.96988	89.35317	7.06
jul	19	2.98943	2.97038	89.35315	6.99
jul	20	2.98997	2.97091	89.35313	6.93
jul	21	2.99054	2.97148	89.35311	6.86
jul	22	2.99114	2.97208	89.35310	6.80
jul	23	2.99177	2.97270	89.35309	6.73
jul	24	2.99240	2.97333	89.35308	6.67
jul	25	2.99304	2.97396	89.35308	6.60
jul	26	2.99366	2.97458	89.35309	6.54
jul	27	2.99425	2.97517	89.35310	6.47
jul	28	2.99483	2.97574	89.35312	6.40
jul	29	2.99537	2.97628	89.35314	6.34
jul	30	2.99589	2.97680	89.35315	6.27
jul	31	2.99640	2.97731	89.35316	6.21

Posiciones aparentes de la estrella Polar, 2020

(a las 0^h del meridiano 90° W.G.)

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(V = 1.97Sp = F7:Ib-IIv SB)

		α	α_c	δ	Hp
m	d	h	h	°	h
ago	1	2.99690	2.97781	89.35317	6.14
ago	2	2.99741	2.97832	89.35318	6.08
ago	3	2.99795	2.97885	89.35319	6.01
ago	4	2.99851	2.97942	89.35319	5.95
ago	5	2.99912	2.98002	89.35319	5.88
ago	6	2.99977	2.98066	89.35320	5.82
ago	7	3.00044	2.98133	89.35322	5.75
ago	8	3.00112	2.98201	89.35324	5.69
ago	9	3.00178	2.98267	89.35327	5.62
ago	10	3.00240	2.98328	89.35331	5.56
ago	11	3.00297	2.98385	89.35336	5.49
ago	12	3.00349	2.98437	89.35340	5.43
ago	13	3.00398	2.98486	89.35344	5.36
ago	14	3.00447	2.98534	89.35346	5.30
ago	15	3.00498	2.98585	89.35349	5.23
ago	16	3.00551	2.98638	89.35351	5.17
ago	17	3.00609	2.98696	89.35353	5.10
ago	18	3.00669	2.98756	89.35355	5.04
ago	19	3.00732	2.98819	89.35357	4.97
ago	20	3.00796	2.98882	89.35361	4.91
ago	21	3.00859	2.98945	89.35364	4.84
ago	22	3.00922	2.99007	89.35369	4.78
ago	23	3.00981	2.99067	89.35374	4.71
ago	24	3.01038	2.99123	89.35379	4.65
ago	25	3.01092	2.99177	89.35384	4.58
ago	26	3.01143	2.99228	89.35390	4.52
ago	27	3.01192	2.99276	89.35395	4.45
ago	28	3.01240	2.99324	89.35400	4.39
ago	29	3.01288	2.99372	89.35404	4.32
ago	30	3.01338	2.99422	89.35408	4.26
ago	31	3.01390	2.99474	89.35412	4.19
sep	1	3.01446	2.99531	89.35416	4.12
sep	2	3.01506	2.99590	89.35420	4.06
sep	3	3.01568	2.99652	89.35425	3.99
sep	4	3.01631	2.99715	89.35431	3.93
sep	5	3.01693	2.99776	89.35438	3.86
sep	6	3.01751	2.99834	89.35445	3.80
sep	7	3.01804	2.99886	89.35453	3.73
sep	8	3.01852	2.99934	89.35460	3.67
sep	9	3.01896	2.99978	89.35468	3.60
sep	10	3.01939	3.00020	89.35474	3.54
sep	11	3.01981	3.00063	89.35480	3.47
sep	12	3.02027	3.00108	89.35486	3.41
sep	13	3.02075	3.00157	89.35491	3.34
sep	14	3.02127	3.00209	89.35497	3.28
sep	15	3.02182	3.00263	89.35502	3.21
sep	16	3.02238	3.00319	89.35509	3.15
sep	17	3.02293	3.00374	89.35516	3.08
sep	18	3.02347	3.00428	89.35523	3.02
sep	19	3.02399	3.00479	89.35531	2.95
sep	20	3.02447	3.00527	89.35539	2.89
sep	21	3.02493	3.00572	89.35548	2.82
sep	22	3.02535	3.00614	89.35557	2.76
sep	23	3.02574	3.00653	89.35565	2.69
sep	24	3.02611	3.00690	89.35573	2.63
sep	25	3.02648	3.00727	89.35581	2.56
sep	26	3.02686	3.00765	89.35588	2.49
sep	27	3.02726	3.00805	89.35595	2.43
sep	28	3.02770	3.00849	89.35602	2.36
sep	29	3.02817	3.00896	89.35609	2.30
sep	30	3.02866	3.00945	89.35616	2.23
oct	1	3.02917	3.00995	89.35625	2.17
oct	2	3.02966	3.01044	89.35634	2.10
oct	3	3.03012	3.01090	89.35644	2.04
oct	4	3.03053	3.01130	89.35654	1.97
oct	5	3.03089	3.01166	89.35665	1.91
oct	6	3.03120	3.01197	89.35675	1.84
oct	7	3.03148	3.01225	89.35684	1.78
oct	8	3.03176	3.01253	89.35693	1.71
oct	9	3.03205	3.01282	89.35701	1.65
oct	10	3.03237	3.01314	89.35709	1.58
oct	11	3.03273	3.01350	89.35717	1.51
oct	12	3.03311	3.01388	89.35725	1.45
oct	13	3.03351	3.01427	89.35734	1.38
oct	14	3.03390	3.01466	89.35743	1.32
oct	15	3.03429	3.01504	89.35752	1.25
oct	16	3.03465	3.01540	89.35762	1.19
oct	17	3.03498	3.01573	89.35773	1.12
oct	18	3.03527	3.01601	89.35784	1.06
oct	19	3.03552	3.01627	89.35794	0.99
oct	20	3.03574	3.01649	89.35805	0.93
oct	21	3.03594	3.01668	89.35815	0.86
oct	22	3.03613	3.01687	89.35825	0.80
oct	23	3.03631	3.01705	89.35834	0.73
oct	24	3.03652	3.01726	89.35843	0.66
oct	25	3.03675	3.01749	89.35852	0.60
oct	26	3.03702	3.01776	89.35861	0.53
oct	27	3.03732	3.01806	89.35870	0.47
oct	28	3.03763	3.01836	89.35880	0.40
oct	29	3.03794	3.01866	89.35891	0.34
oct	30	3.03820	3.01893	89.35902	0.27
oct	31	3.03842	3.01914	89.35914	0.21
nov	1	3.03858	3.01930	89.35926	0.14
nov	2	3.03870	3.01941	89.35937	0.07
nov	3	3.03877	3.01948	89.35948	0.01
nov	4	3.03884	3.01954	89.35959	23.94
nov	5	3.03891	3.01961	89.35968	23.88
nov	6	3.03900	3.01971	89.35978	23.81
nov	7	3.03912	3.01983	89.35987	23.75
nov	8	3.03927	3.01997	89.35996	23.68
nov	9	3.03944	3.02014	89.36005	23.62
nov	10	3.03961	3.02031	89.36015	23.55
nov	11	3.03977	3.02046	89.36025	23.48
nov	12	3.03991	3.02060	89.36036	23.42
nov	13	3.04002	3.02070	89.36047	23.35
nov	14	3.04008	3.02076	89.36059	23.29

Posiciones aparentes de la estrella Polar, 2020

(a las 0^h del meridiano 90° W.G.)

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(V = 1.97Sp = F7:Ib-IIv SB)

		α	α_c	δ	Hp
m	d	h	h	°	h
nov	15	3.04011	3.02079	89.36070	23.22
nov	16	3.04011	3.02078	89.36081	23.16
nov	17	3.04007	3.02075	89.36092	23.09
nov	18	3.04002	3.02069	89.36103	23.03
nov	19	3.03996	3.02063	89.36113	22.96
nov	20	3.03991	3.02058	89.36122	22.89
nov	21	3.03988	3.02055	89.36131	22.83
nov	22	3.03989	3.02056	89.36140	22.76
nov	23	3.03993	3.02059	89.36149	22.70
nov	24	3.03999	3.02065	89.36159	22.63
nov	25	3.04006	3.02071	89.36170	22.57
nov	26	3.04009	3.02074	89.36181	22.50
nov	27	3.04008	3.02072	89.36193	22.43
nov	28	3.04000	3.02064	89.36205	22.37
nov	29	3.03987	3.02050	89.36216	22.30
nov	30	3.03969	3.02032	89.36227	22.24
dic	1	3.03950	3.02013	89.36237	22.17
dic	2	3.03931	3.01994	89.36246	22.10
dic	3	3.03913	3.01976	89.36255	22.04
dic	4	3.03899	3.01961	89.36264	21.97
dic	5	3.03887	3.01949	89.36272	21.91
dic	6	3.03877	3.01939	89.36281	21.84
dic	7	3.03868	3.01929	89.36289	21.78
dic	8	3.03858	3.01919	89.36299	21.71
dic	9	3.03846	3.01907	89.36309	21.64
dic	10	3.03831	3.01892	89.36319	21.58
dic	11	3.03813	3.01873	89.36329	21.51
dic	12	3.03791	3.01851	89.36339	21.45
dic	13	3.03765	3.01824	89.36349	21.38
dic	14	3.03736	3.01795	89.36359	21.31
dic	15	3.03705	3.01764	89.36368	21.25
dic	16	3.03673	3.01731	89.36376	21.18
dic	17	3.03641	3.01700	89.36384	21.12
dic	18	3.03611	3.01670	89.36392	21.05
dic	19	3.03584	3.01642	89.36399	20.98
dic	20	3.03561	3.01618	89.36407	20.92
dic	21	3.03540	3.01597	89.36414	20.85
dic	22	3.03521	3.01578	89.36422	20.79
dic	23	3.03501	3.01557	89.36431	20.72
dic	24	3.03476	3.01532	89.36441	20.65
dic	25	3.03446	3.01501	89.36450	20.59
dic	26	3.03409	3.01464	89.36460	20.52
dic	27	3.03367	3.01422	89.36469	20.46
dic	28	3.03323	3.01377	89.36477	20.39
dic	29	3.03279	3.01333	89.36484	20.32
dic	30	3.03237	3.01290	89.36490	20.26
dic	31	3.03197	3.01251	89.36496	20.19
ene	1	3.03161	3.01214	89.36502	20.13

Constelaciones, 2022

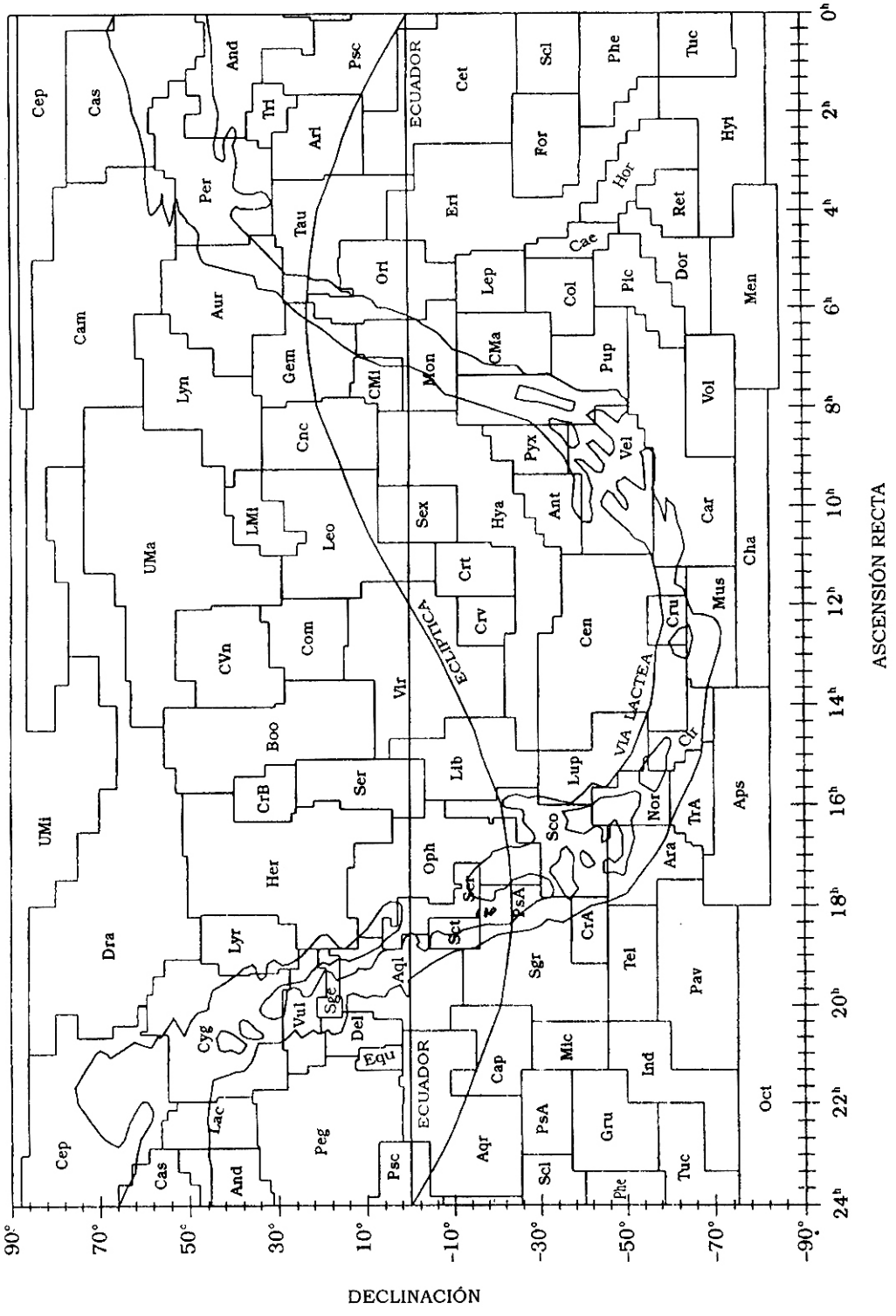
Nombres y significados

Nominativo	Genitivo	Abreviatura	Significado
Andromeda	Andromedae	And	Andrómeda, hija de Casiopea y Cefeo
Antlia	Antliae	Ant	Máquina neumática
Apus	Apodis	Aps	Ave del paraíso
Aquarius	Aquarii	Aqr	Aguador
Aquila	Aquilae	Aql	Aguila
Ara	Arae	Ara	Altar
Aries	Arietis	Ari	Carnero
Auriga	Aurigae	Aur	Cochero
Bootes	Bootis	Boo	Boyero o pastor
Caelum	Caeli	Cae	Buril
Camelopardalis	Camaleopardalis	Cam	Jirafa
Cancer	Cancri	Cnc	Cangrejo
Canes Venatici	Canum Venaticorum	CVn	Lebreles o perros de caza
Canis Major	Canis Majoris	CMa	Can mayor
Canis Minor	Canis Minoris	CMi	Can menor
Capricornus	Capricorni	Cap	Cabra marina
Carina	Carinae	Car	Carena o quilla
Cassiopeia	Cassiopeiae	Cas	Casiopea, reina
Centaurus	Centauri	Cen	Centauro
Cepheus	Cephei	Cep	Cefeo, rey
Cetus	Ceti	Cet	Cetáceo o ballena
Chamaleon	Chamaleontis	Cha	Camaleón
Circinus	Circini	Cir	Compás
Columba	Columbae	Col	Paloma
Coma Berenices	Comae Berenices	Com	Cabellera de Berenice
Corona Australis	Coronae Australis	CrA	Corona austral
Corona Borealis	Coronae Borealis	CrB	Corona boreal
Corvus	Corvi	Crv	Cuervo
Crater	Crateris	Crt	Copa
Crux	Crucis	Cru	Cruz del sur
Cygnus	Cygni	Cyg	Cisne
Delphinus	Delphini	Del	Delfín
Dorado	Doradus	Dor	Pez dorado
Draco	Draconis	Dra	Dragón
Equuleus	Equulei	Equ	Caballo menor
Eridanus	Eridani	Eri	Río
Fornax	Fornacis	For	Horno
Gemini	Geminorum	Gem	Gemelos
Grus	Gruis	Gru	Grulla
Hercules	Herculis	Her	Hércules
Horologium	Horologii	Hor	Reloj
Hydra	Hydrae	Hya	Serpiente marina hembra
Hydrus	Hydri	Hyi	Serpiente marina macho
Indus	Indi	Ind	Indio
Lacerta	Lacertae	Lac	Lagartija
Leo	Leonis	Leo	León
Leo Minor	Leonis Minoris	LMi	León menor
Lepus	Leporis	Lep	Liebre
Libra	Librae	Lib	Balanza
Lupus	Lupi	Lup	Lobo
Lynx	Lyncis	Lyn	Lince

Constelaciones, 2022

Nominativo	Genitivo	Abreviatura	Significado
Lyra	Lyrae	Lyr	Lira
Mensa	Mensae	Men	Mesa o altiplano
Microscopium	Microscopii	Mic	Microscopio
Monoceros	Monocerotis	Mon	Unicornio
Musca	Muscae	Mus	Mosca
Norma	Normae	Nor	Escuadra o regla
Octantis	Octantis	Oct	Octante
Ophiuchus	Ophiuchi	Oph	Serpentero, Ofiuco
Orionis	Orionis	Ori	Cazador
Pavo	Pavonis	Pav	Pavo real, pavón
Pegasus	Pegasi	Peg	Pegaso
Perseus	Persei	Per	Salvador de Andrómeda
Phoenix	Phoenicis	Phe	Fénix
Pictor	Pictoris	Pic	Caballete de pintor
Pisces	Piscium	Psc	Peces
Piscis Austrinus	Piscis Austrini	PsA	Pez austral
Puppis	Puppis	Pup	Popa
Pyxis	Pyxidis	Pyx	Compás o brújula
Reticulum	Reticuli	Ret	Retícula
Sagitta	Sagittae	Sge	Flecha
Sagittarius	Sagittarii	Sgr	Arquero
Scorpius	Scorpii	Sco	Escorpión
Sculptor	Sculptoris	Scl	Escultor
Scutum	Scuti	Sct	Escudo
Serpents	Serpentis	Ser	Serpiente
Sextans	Sextantis	Sex	Sextante
Taurus	Tauri	Tau	Toro
Telescopium	Telescopii	Tel	Telescopio
Triangulum	Trianguli	Tri	Triángulo
Triangulum-Australe	Trianguli-Australis	TrA	Triángulo austral
Tucana	Tucanae	Tuc	Tucán
Ursa Major	Ursae Majoris	UMa	Osa mayor
Ursa Minor	Ursae Minoris	UMi	Osa menor
Vela	Velorum	Vel	Vela
Virgo	Virginis	Vir	Virgen
Volans	Volantis	Vol	Pez volador
Vulpecula	Vulpeculae	Vul	Zorra

Diagrama de constelaciones, 2022



Objetos Messier, 2022

M	NGC	α h	α m	α s	δ º	δ ‘	δ “	const	v	tipo	descripción
110	205	0	40	24	+ 41	41	37	And	8	E6	Satélite de M31
032	221	0	42	42	+ 40	52	36	And	8	E2	Satélite de M31
031	224	0	42	42	+ 41	16	36	And	4	S	Galaxia de Andrómeda
103	581	1	33	12	+ 60	42	8	Cas	7	ca	
033	598	1	33	54	+ 30	39	17	Tri	7	Sc	
074	628	1	36	42	+ 15	47	26	Psc	10	Sc	
076	650	1	42	18	+ 51	34	9	Per	12	np	Nebulosa, Pequeña Mancuerna
077	1068	2	42	42	- 0	1	22	Cet	9	Sbp	Galaxia Seyfert
034	1039	2	42	0	+ 42	47	4	Per	6	ca	
045		3	47	18	+ 24	5	56	Tau	1	ca	Pléyades
079	1904	5	24	30	- 24	33	6	Lep	8	cg	
038	1912	5	28	42	+ 35	50	15	Aur	6	ca	
001	1952	5	34	30	+ 22	1	13	Tau	8	rsn	Nebulosa del Cangrejo
042	1976	5	35	24	- 5	27	2	Ori		ne	Nebulosa de Orión
036	1960	5	36	6	+ 34	8	3	Aur	6	ca	
078	2068	5	46	42	+ 0	3	5	Ori		nr	
037	2099	5	52	24	+ 32	33	10	Aur	6	ca	
035	2168	6	8	54	+ 24	20	5	Gem	5	ca	
041	2287	6	47	0	- 20	44	5	CMa	5	ca	
050	2323	7	3	12	- 8	20	1	Mon	7	ca	
047*	2422	7	36	36	- 14	30	4	Pup	5	ca	
046	2437	7	41	48	- 14	49	6	Pup	6	ca	
093	2447	7	44	42	- 23	52	13	Pup	6	ca	
048*	2548	8	13	48	- 5	48	3	Hya	5	ca	
044	2632	8	40	1	+ 19	59	1	Cnc	4	ca	El Pesebre o La Colmena
067	2682	8	50	24	+ 11	49	5	Cnc	6	ca	Cúmulo muy viejo
081	3031	9	55	30	+ 69	4	0	UMa	8	Sb	
082	3034	9	55	48	+ 69	41	1	UMa	9	gPec	
095	3351	10	40	0	+ 11	42	3	Leo	10	SBb	Miembro del grupo de Leo
096	3368	10	46	48	+ 11	49	14	Leo	9	Sbp	Miembro del grupo de Leo
105	3379	10	47	48	+ 12	35	3	Leo	9	E1	
108	3556	11	11	30	+ 55	40	2	UMa	11	Sc	
097	3587	11	14	48	+ 55	1	5	UMa	12	np	Nebulosa de la Lechuza
065	3623	11	18	54	+ 13	5	14	Leo	9	Sa	Miembro del grupo de Leo
066	3627	11	20	12	+ 12	59	3	Leo	8	Sb	Miembro del grupo de Leo
109	3992	11	57	42	+ 53	23	1	UMa	11	Sb	
098	4192	12	13	48	+ 14	54	2	Com	11	Sb	
099	4254	12	18	48	+ 14	25	12	Com	10	Sc	Miembro del cúmulo de Virgo
106	4258	12	19	0	+ 47	18	2	CVn	9	Sbp	Gran espiral
061	4303	12	21	54	+ 4	28	3	Vir	10	Sc	Miembro del cúmulo de Virgo
040		12	22	24	+ 58	5	13	UMa	9		Estrella binaria
100	4321	12	22	54	+ 15	49	2	Com	11	Sc	Miembro del cúmulo de Virgo
084	4374	12	25	6	+ 12	53	12	Vir	9	S0	Miembro del cúmulo de Virgo
085	4382	12	25	24	+ 18	11	2	Com	9	S0	Miembro del cúmulo de Virgo
086	4406	12	26	6	+ 13	7	12	Vir	10	E3	
049	4472	12	29	48	+ 8	0	12	Vir	9	E4	Elíptica gigante, cúmulo de Virgo
087	4486	12	30	48	+ 12	24	22	Vir	9	E0	Elíptica gigante, cúmulo de Virgo
088	4501	12	32	0	+ 14	25	3	Com	10	Sc	Espiral, cúmulo de Virgo
091*	4548	12	35	24	+ 14	30	21	Com	11	SBb	
089	4552	12	35	42	+ 12	33	22	Vir	10	E0	
090	4569	12	36	48	+ 13	10	3	Vir	10	Sb	Miembro del cúmulo de Virgo
058	4579	12	37	42	+ 11	49	12	Vir	9	SB	Miembro del cúmulo de Virgo
068	4590	12	39	30	- 26	45	7	Hya	8	cg	
104	4594	12	40	0	- 11	37	3	Vir	9	Sb	Galaxia del Sombrero, en Virgo
059	4621	12	42	0	+ 11	39	2	Vir	10	E5	Probable miembro de Virgo

Objetos Messier, 2022

M	NGC	α h	α m	α s	δ °	δ ‘	δ “	const	v	tipo	descripción
060	4649	12	43	42	+ 11	33	20	Vir	9	E2	Elíptica del cúmulo de Virgo
094	4736	12	50	54	+ 41	7	26	CVn	8	Sbp	
064	4826	12	56	42	+ 21	41	2	Com	9	Sb	Con región obscura en el centro
053	5024	13	12	54	+ 18	10	13	Com	8	cg	
063	5055	13	15	48	+ 42	2	4	CVn	10	Sb	Galaxia de la Margarita
051	5194	13	29	54	+ 47	12	4	CVn	8	Sc	Galaxia del Remolino
083	5236	13	37	0	- 29	52	6	Hya	10	Sc	
003	5272	13	42	12	+ 28	23	26	CVn	6	cg	Contiene muchas variables
101	5457	14	3	12	+ 54	21	9	UMa	10	Sc	
102*	5866	15	6	30	+ 55	46	4	Dra	11	E6p	
005	5904	15	18	36	+ 2	5	15	Ser	6	cg	Con asimetría poco común
080	6093	16	17	3	- 22	58	3	Sco	8	cg	
004	6121	16	23	36	- 26	32	5	Sco	6	cg	Cúmulo más cercano a la Tierra
107	6171	16	32	30	- 13	3	15	Oph	9	cg	
013	6205	16	41	42	+ 36	28	2	Her	6	cg	Gran cúmulo globular
012	6218	16	47	12	- 1	57	2	Oph	7	cg	
010	6254	16	57	64	- 4	6	7	Oph	7	cg	
062	6266	17	1	12	- 30	7	11	Oph	7	cg	
019	6273	17	2	36	- 26	16	11	Oph	7	cg	Cúmulo elongado
092	6341	17	17	6	+ 43	8	12	Her	6	cg	
009	6333	17	19	12	- 18	30	59	Oph	7	cg	
014	6402	17	37	36	- 3	15	2	Oph	8	cg	
006	6405	17	40	6	- 32	13	5	Sco	5	ca	
023	6494	17	56	48	- 19	1	5	Sgr	7	ca	
020	6514	18	2	18	- 23	2	5	Sgr	0	ne	Nebulosa Trífida
008	6523	18	3	48	- 24	22	59	Sgr	0	ne	Nebulosa de la Laguna
021	6531	18	4	36	- 22	30	5	Sgr	7	ca	
024		18	16	54	- 18	29	3	Sgr	5		Parte del bulbo de la Vía Láctea
016	6611	18	18	48	- 13	47	8	Ser		ne	
018	6613	18	19	54	- 17	8	3	Sgr	8	ca	
017	6618	18	20	48	- 16	11	5	Sgr		ne	Nebulosa Omega
028	6626	18	24	30	- 24	52	10	Sgr	7	cg	
069	6637	18	31	24	- 32	21	2	Sgr	9	cg	Pequeño
025	4725	18	31	36	- 19	15	12	Sgr	7	ca	
022	6656	18	36	24	- 23	54	1	Sgr	6	cg	
070	6681	18	43	12	- 32	18	8	Sgr	10	cg	Cercano a M69
026	6694	18	45	12	- 9	24	16	Sct	9	ca	Brillante
011	6705	18	51	6	- 6	16	15	Sct	6	ca	Gran cúmulo
057	6720	18	53	36	+ 33	2	5	Lyr	9	np	Nebulosa del Anillo
054	6715	18	55	6	- 30	29	5	Sgr	9	cg	Difícil observación
056	6779	19	16	36	+ 30	11	3	Lyr	8	cg	
055	6809	19	40	0	- 30	58	13	Sgr	7	cg	
071	6838	19	53	48	+ 18	47	1	Sge	9	cg	
027	6853	19	59	36	+ 22	43	11	Vul	8	np	Nebulosa de la Mancuerna
075	6864	20	6	6	- 21	55	32	Sgr	8	cg	Cúmulo lejano
029	6913	20	23	54	+ 38	32	5	Cyg	7	ca	
072	6981	20	53	30	- 12	32	18	Aqr	10	cg	Nebulosa Saturno
073	6994	20	59	0	- 12	38	13	Aqr	11	ca	Cuatro estrellas
015	7078	21	30	0	+ 12	10	21	Peg	6	cg	Cúmulo compacto
039	7092	21	32	12	+ 48	26	24	Cyg	5	ca	Cúmulo disperso
002	7089	21	33	30	- 0	49	11	Aqr	6	cg	
030	7099	21	40	24	- 23	11	15	Cap	8	cg	Cuasi elíptico
052	7654	23	24	12	+ 61	35	7	Cas	7	ca	Cúmulo rico

*Existe controversia en la identificación de estos objetos.

Lluvias de estrellas, 2022

Lluvias de estrellas observables a simple vista

Nombre	inicia		máximo		termina		α		δ		obj./h	Cometa asociado
	m	d	m	d	m	d	h	m	°	‘		
Cuadrántidas	ene	01	ene	03	ene	05	15	18	+49	41	120	
Cancerínidas	ene	01	ene	17	ene	24	08	42	+20	28	4	
Centáuridas	ene	28	feb	07	feb	21	14	00	-59	56	6	
Leónidas	feb	15	feb	24	mar	10	11	12	+16	23	2	
Nórmidas	feb	25	mar	13	mar	22	16	36	-51	56	8	
Virgínidas	ene	25	mar	25	abr	15	13	00	-04	30	5	
Líridas	abr	16	abr	22	abr	25	18	06	+34	49	15	C/Thatcher (1861 G1)
Púpidas	abr	15	abr	24	abr	28	07	18	-45	18	26	P/Grigg-Skjellerup
Acuáridas	abr	19	may	06	may	28	22	30	-01	66	60	P/Halley
Sagitáridas	abr	15	may	20	jul	15	16	30	-22	30	5	
Pegásidas	jul	07	jul	10	jul	13	22	42	+15	70	3	
Fenícidas	jul	10	jul	13	jul	16	02	06	-48	47		
Piscis Austrínidas	jul	15	jul	28	ago	10	22	42	-30	35	5	
Acuáridas	jul	12	jul	28	ago	19	22	36	-16	41	20	
Capricórnidas	jul	03	jul	30	ago	15	20	30	-10	23	4	
Acuáridas(sur)	jul	25	ago	04	ago	15	22	18	-15	34	2	
Acuáridas(norte)	jul	15	ago	09	ago	25	22	18	-05	42	4	
Perséidas	jul	17	ago	12	ago	24	03	06	+58	59	140	P/Swift-Tuttle
Cígnidas	ago	03	ago	18	ago	25	19	06	+59	25	3	
Acuáridas(norte)	ago	11	ago	20	ago	31	21	48	-06	31	3	
Aurígidas	ago	25	sep	01	sep	05	05	36	+42	66	10	
Aurigidas	sep	05	sep	09	oct	10	04	00	+47	64	6	
Píscidas	sep	01	sep	20	sep	30	00	18	-01	26	3	
Dracónidas	oct	06	oct	09	oct	10	17	30	+54	20	21	P/Giacobini-Zinner
Gemínidas	oct	14	oct	18	oct	27	06	48	+27	70	2	C/Ikeya (1964 N1)
Oriónidas	oct	02	oct	21	nov	07	06	18	+16	66	20	P/Halley
Táuridas (sur)	oct	01	nov	05	nov	25	03	30	+13	27	5	P/Encke
Táuridas (norte)	oct	01	nov	12	nov	25	03	54	+22	29	5	P/Encke
Leonidas	nov	14	nov	17	nov	21	10	12	+22	71	100	P/Tempel-Tuttle
Monocéridas	nov	15	nov	22	nov	25	07	48	+01	65		
Oriónidas	nov	26	dic	02	dic	15	05	30	+23	28	3	
Fenícidas	nov	28	dic	06	dic	09	01	12	-53	18		D/Blanpain (1819 W1)
Pupi vélidas	dic	01	dic	07	dic	15	08	12	-45	40	10	
Monocéridas	nov	27	dic	09	dic	17	15	00	+08	42	3	D/Mellish (1917 F1)
Hídridas	dic	03	dic	12	dic	15	08	30	+02	58	2	
Gemínidas	dic	07	dic	14	dic	17	07	30	+33	35	120	Phaethon
Coma Berenícidas	dic	12	dic	20	ene	23	11	42	+25	65	5	
Úrsidas	dic	17	dic	22	dic	26	15	00	+76	33	10	P/Tuttle

Eventos Planetarios, 2022

Hora del meridiano 90º W.G.

Mes		Eventos	
d	h	objeto	suceso
Enero			
1	17	Luna	Perigeo
2	13	Luna	Luna Nueva
3	19	Mercurio	3º al norte de la Luna
4	1	Tierra	Perihelio
4	11	Saturno	4º al norte de la Luna
5	18	Júpiter	4º al norte de la Luna
7	4	Neptuno	4º al norte de la Luna
7	5	Mercurio	Elongación máxima al E(19º)
8	19	Venus	Conjunción inferior
9	12	Luna	Cuarto Creciente
11	5	Urano	1.5º al norte de la Luna
13	19	Mercurio	Estacionario
14	3	Luna	Apogeo
16	9	Plutón	Conjunción con el Sol
17	18	Luna	Luna Llena
18	14	Urano	Estacionario
23	4	Mercurio	Conjunción inferior
25	8	Luna	Cuarto Menguante
29	2	Venus	Estacionario
29	9	Marte	2º al norte de la Luna
29	20	Venus	10º al norte de la Luna
30	1	Luna	Perigeo
30	18	Mercurio	8º al norte de la Luna
Febrero			
1	0	Luna	Luna Nueva
2	15	Júpiter	4º al norte de la Luna
3	15	Neptuno	4º al norte de la Luna
3	16	Mercurio	Estacionario
4	13	Saturno	Conjunción con el Sol
7	14	Urano	1.2º al norte de la Luna
8	8	Luna	Cuarto Creciente
10	21	Luna	Apogeo
12	16	Venus	Máximo brillo
12	19	Venus	7º al norte de Martes
16	11	Luna	Luna Llena
16	15	Mercurio	Elongación máxima al O(26º)
23	17	Luna	Cuarto Menguante
26	16	Luna	Perigeo
27	0	Venus	9º al norte de la Luna
27	3	Marte	4º al norte de la Luna
28	14	Mercurio	4º al norte de la Luna
28	18	Saturno	4º al norte de la Luna
Marzo			
2	7	Mercurio	0.7º al sur de Saturno
2	12	Luna	Luna Nueva
5	8	Júpiter	Conjunción con el Sol
7	0	Urano	0.8º al norte de la Luna
10	5	Luna	Cuarto Creciente
10	17	Luna	Apogeo
12	8	Venus	4º al norte de la Luna
13	6	Neptuno	Conjunción con el Sol
18	1	Luna	Luna Llena
20	3	Venus	Elongación máxima al O(47º)
20	10	Sol	Equinoccio
20	16	Mercurio	1.3º al sur de Júpiter
23	18	Luna	Perigeo
25	0	Luna	Cuarto Menguante
27	21	Marte	4º al norte de la Luna
28	4	Venus	7º al norte de la Luna
28	6	Saturno	4º al norte de la Luna
29	7	Venus	2º al norte de la Luna
30	9	Júpiter	4º al norte de la Luna
30	13	Neptuno	4º al norte de la Luna
Abril			
1	0	Luna	Luna Nueva
2	17	Mercurio	Conjunción superior
3	11	Urano	0.6º al norte de la Luna
4	16	Marte	0.3º al sur de Saturno
7	13	Luna	Apogeo
9	1	Luna	Cuarto Creciente
12	14	Júpiter	0.1º al norte de Neptuno
16	13	Luna	Luna Llena
19	9	Luna	Perigeo
23	6	Luna	Cuarto Menguante
24	15	Saturno	5º al norte de la Luna
25	16	Marte	4º al norte de la Luna
26	20	Venus	4º al norte de la Luna
26	21	Neptuno	4º al norte de la Luna
27	2	Júpiter	4º al nortede la Luna
27	13	Venus	0.007º al sur de Neptuno
29	2	Mercurio	Elongación máxima al E(21º)
30	13	Venus	0.2º al sur de Júpiter
30	14	Luna	Luna Nueva
30	15	Plutón	Estacionario
Mayo			
2	8	Mercurio	1.8º al norte de la Luna
5	1	Urano	Conjunción con el Sol
5	7	Luna	Apogeo
8	18	Luna	Cuarto Creciente
10	17	Mercurio	Estacionario
15	22	Luna	Luna Llena
17	9	Luna	Perigeo
17	17	Marte	0.6º al sur de Neptuno
21	13	Mercurio	Conjunción inferior
21	23	Saturno	4º al norte de la Luna
22	13	Luna	Cuarto Menguante
24	4	Neptuno	4º al norte de la Luna
24	13	Marte	3º al norte de la Luna
24	18	Júpiter	3º al norte de la Luna
26	21	Venus	0.2º al norte de la Luna
28	8	Urano	0.3º al norte de la Luna
28	18	Marte	0.6º al sur de Júpiter
30	6	Luna	Luna Nueva
Junio			
1	19	Luna	Apogeo
2	18	Mercurio	Estacionario
5	8	Saturno	Estacionario
7	9	Luna	Cuarto Creciente
11	7	Venus	1.6º al sur de Urano
14	6	Luna	Luna Llena
14	17	Luna	Perigeo
16	9	Mercurio	Elongación máxima al O(23º)
18	6	Saturno	4º al norte de la Luna
20	11	Neptuno	4º al norte de la Luna
20	21	Luna	Cuarto Menguante
21	3	Sol	Solsticio
21	8	Júpiter	3º al norte de la Luna
22	12	Marte	0.9º al norte de la Luna
23	8	Mercurio	3º al norte de Aldebarán
24	16	Urano	0.05º al norte de la Luna
26	2	Venus	3º al sur de la Luna
27	2	Mercurio	4º al sur de la Luna
28	17	Neptuno	Estacionario

Eventos Planetarios, 2022

Hora del meridiano 90° W.G.

Mes		Eventos	
d	h	objeto	suceso
28	21	Luna	Luna Nueva
29	0	Luna	Apogeo
Julio			
1	18	Venus	4° al norte de Aldebarán
4	1	Tierra	Afelio
6	20	Luna	Cuarto Creciente
13	3	Luna	Perigeo
13	13	Luna	Luna Llena
15	14	Saturno	4° al norte de la Luna
16	14	Mercurio	Conjunción superior
17	19	Neptuno	3° al norte de la Luna
18	19	Júpiter	2° al norte de la Luna
19	20	Plutón	Oposición
20	8	Luna	Cuarto Menguante
21	11	Marte	1.1° al sur de la Luna
22	0	Urano	0.2° al sur de la Luna
26	4	Luna	Apogeo
26	8	Venus	4° al sur de la Luna
28	12	Luna	Luna Nueva
29	6	Júpiter	Estacionario
Agosto			
1	3	Marte	1.4° al sur de Urano
3	23	Mercurio	0.7° al norte de reg
5	5	Luna	Cuarto Creciente
7	4	Venus	7° al sur de poll
10	11	Luna	Perigeo
11	20	Luna	Luna Llena
11	22	Saturno	4° al norte de la Luna
14	4	Neptuno	3° al norte de la Luna
14	11	Saturno	Oposición
15	4	Júpiter	1.9° al norte de la Luna
18	9	Urano	0.6° al sur de la Luna
18	23	Luna	Cuarto Menguante
19	6	Marte	3° al sur de la Luna
22	16	Luna	Apogeo
24	9	Urano	Estacionario
25	15	Venus	4° al sur de la Luna
27	2	Luna	Luna Nueva
27	10	Mercurio	Elongación máxima al E(27°)
29	5	Mercurio	7° al sur de la Luna
Septiembre			
3	12	Luna	Cuarto Creciente
4	19	Venus	0.8° al norte de reg
7	12	Luna	Perigeo
8	5	Saturno	4° al norte de la Luna
8	19	Marte	4° al norte de Aldebarán
9	14	Mercurio	Estacionario
10	4	Luna	Luna Llena
10	13	Neptuno	3° al norte de la Luna
11	9	Júpiter	1.8° al norte de la Luna
14	17	Urano	0.8° al norte de la Luna
16	16	Neptuno	Oposición
16	20	Marte	4° al sur de la Luna
17	16	Luna	Cuarto Menguante
19	9	Luna	Apogeo
22	19	Sol	Equinoccio
23	1	Mercurio	Conjunción inferior
25	16	Luna	Luna Nueva
26	14	Júpiter	Oposición

Mes		Eventos	
d	h	objeto	suceso
Octubre			
1	9	Mercurio	Estacionario
2	18	Luna	Cuarto Creciente
4	11	Luna	Perigeo
5	10	Saturno	4° al norte de la Luna
7	21	Neptuno	3° al norte de la Luna
8	12	Júpiter	2° al norte de la Luna
8	12	Plutón	Estacionario
8	15	Mercurio	Elongación máxima al O(18°)
9	15	Luna	Luna Llena
12	1	Urano	0.8° al sur de la Luna
14	23	Marte	4° al sur de la Luna
17	4	Luna	Apogeo
17	11	Luna	Cuarto Menguante
22	15	Venus	Conjunción superior
23	3	Saturno	Estacionario
25	5	Luna	Luna Nueva
29	9	Luna	Perigeo
30	5	Marte	Estacionario
Noviembre			
1	1	Luna	Cuarto Creciente
1	15	Saturno	4° al norte Luna
4	2	Neptuno	3° al norte de la Luna
4	14	Júpiter	2° al norte de la Luna
8	5	Luna	Luna Llena
8	7	Urano	0.7° al sur de la Luna
8	11	Mercurio	Conjunción superior
9	2	Urano	Oposición
11	8	Marte	2° al sur de la Luna
14	1	Luna	Apogeo
16	7	Luna	Cuarto Menguante
23	17	Luna	Luna Nueva
24	7	Júpiter	Estacionario
25	20	Luna	Perigeo
28	23	Saturno	4° al norte de la Luna
30	9	Luna	Cuarto Creciente
30	20	Marte	distmin
Diciembre			
1	7	Neptuno	3° al norte de la Luna
1	19	Júpiter	3° al norte de la Luna
4	4	Neptuno	Estacionario
5	12	Urano	0.7° al sur de la Luna
7	22	Luna	Luna Llena
7	22	Marte	0.5°al sur de la Luna
8	0	Marte	Oposición
11	18	Luna	Apogeo
16	3	Luna	Cuarto Menguante
21	9	Mercurio	Elongación máxima al E(20°)
21	16	Sol	Solsticio
21	22	Marte	8° al norte de Aldebarán
23	4	Luna	Luna Nueva
24	2	Luna	Perigeo
24	5	Venus	3° al norte de la Luna
24	13	Mercurio	4° al norte de la Luna
26	10	Saturno	4° al norte de la Luna
28	14	Neptuno	3° al norte de la Luna
28	21	Mercurio	Estacionario
29	3	Mercurio	1.4° al norte de Venus
29	5	Júpiter	2° al norte de la Luna
29	19	Luna	Cuarto Creciente

Pasos cenitales del sol, 2022

Para algunas poblaciones de la República Mexicana

Hora del meridiano 90° W.G.

Población	mes	día	φ = δ h	φ = δ m	Paso cenital h	Paso cenital m
Aguascalientes						
Calvillo	may	30	12	9.7	12	36.7
Aguascalientes	may	30	17	34.6	12	34.9
Puertecitos	may	31	8	6.8	12	34.9
Puertecitos	jul	11	23	41.6	12	42.7
Aguascalientes	jul	12	14	11.0	12	43.0
Calvillo	jul	12	19	42.7	12	44.8
Baja California Sur						
San José del Cabo	jun	10	18	41.4	13	6.3
San José del Cabo	jul	1	11	55.7	13	10.7
Campeche						
Lerma	may	12	11	38.5	11	47.0
Escarcega	may	13	21	27.5	11	47.5
Carmen Isla	may	14	1	17.3	11	51.9
Champoton	may	17	2	2.4	11	47.4
Dzibalchen	may	17	13	56.6	11	43.5
Iturbide	may	18	3	7.5	11	43.0
Campeche	may	19	8	31.4	11	46.8
Bolonchenticul	may	20	2	42.7	11	43.7
Becal	may	22	6	46.3	11	44.9
Becal	jul	21	2	31.5	11	54.7
Bolonchenticul	jul	23	6	54.7	11	53.7
Campeche	jul	24	1	19.9	11	56.9
Iturbide	jul	25	6	52.5	11	53.1
Dzibalchen	jul	25	20	13.1	11	53.7
Champoton	jul	26	8	8.5	11	57.6
Carmen Isla	jul	29	9	28.8	12	2.0
Escarcega	jul	29	13	21.1	11	57.6
Lerma	jul	30	23	33.6	11	57.1
Colima						
Manzanillo	may	15	18	49.6	12	41.9
Colima	may	16	14	25.8	12	39.5
Colima	jul	26	19	54.8	12	49.7
Manzanillo	jul	27	15	37.8	12	52.1
Chiapas						
Suchiate	abr	29	15	51.3	11	54.2
Puerto Madero	abr	29	19	13.4	11	59.3
Cacahuaton	abr	30	16	51.7	11	54.1
Las Margaritas	may	2	12	57.2	11	57.6
Jaltenango	may	3	15	39.9	11	56.0
Comitán	may	4	23	32.0	11	53.5
Chiapa de Corzo	may	6	14	17.8	11	56.9
Ocosingo	may	7	7	54.7	11	53.1
Pichucalco	may	9	15	8.1	11	57.1
Catazaja	may	10	9	45.1	11	52.7
Catazaja	ago	2	1	53.8	12	2.6
Pichucalco	ago	2	20	40.9	12	7.0
Ocosingo	ago	5	4	28.2	12	2.6
Chiapa de Corzo	ago	5	22	17.8	12	6.3
Comitán	ago	7	13	25.5	12	2.5
Jaltenango	ago	8	21	44.3	12	4.8
Las Margaritas	ago	10	0	47.4	12	6.0
Cacahuaton	ago	11	21	25.3	12	2.1
Puerto Madero	ago	12	19	19.5	12	7.0
Suchiate	ago	12	22	45.8	12	1.9
Ciudad de México						
Tlalpan	may	16	19	19.1	12	21.2
Ciudad Universitaria	may	17	0	9.1	12	21.3
Ixtapalapa	may	17	2	34.8	12	20.9
Tacubaya	may	17	7	37.0	12	21.4
Chapultepec	may	17	9	26.8	12	21.3
México	may	17	10	53.1	12	21.1
Atzcapotzalco	may	17	15	57.2	12	21.3
Atzcapotzalco	jul	25	18	10.4	12	31.5
México	jul	25	23	20.0	12	31.3
Chapultepec	jul	26	0	46.8	12	31.5
Tacubaya	jul	26	2	35.9	12	31.5
Ixtapalapa	jul	26	7	36.3	12	31.1
Ciudad Universitaria	jul	26	10	1.1	12	31.5
Tlalpan	jul	26	14	56.1	12	31.4
Durango						
Santa María Ocotlán	jun	8	18	19.3	12	45.6
Santa María Ocotlán	jul	3	12	25.1	12	50.8
Guerrero						
San Marcos	may	6	21	33.2	12	22.2
Acapulco	may	7	1	39.1	12	24.4
Petatlán	may	9	15	41.5	12	29.8
Chilpancingo	may	9	17	15.4	12	22.7
Zihuatanejo	may	10	0	57.0	12	30.9
Coyuca de Catalán	may	12	18	41.1	12	27.2
Teloloapan	may	12	22	0.4	12	24.1
Taxco	may	13	16	17.3	12	23.0
Taxco	jul	29	18	36.9	12	33.1
Teloloapan	jul	30	13	0.2	12	34.2
Coyuca de Catalán	jul	30	16	23.1	12	37.3
Zihuatanejo	ago	2	10	41.9	12	40.8
Chilpancingo	ago	2	18	31.2	12	32.5
Petatlán	ago	2	20	7.0	12	39.6
Acapulco	ago	5	10	44.8	12	33.9
San Marcos	ago	5	14	53.9	12	31.6
Guanajuato						
Abasolo	may	22	7	37.9	12	27.0
Celaya	may	22	16	44.2	12	28.1
Salamanca	may	22	22	51.1	12	29.6
Irapuato	may	23	11	47.0	12	30.3
San Miguel de Allende	may	24	18	59.6	12	28.0
Guanajuato	may	25	8	46.9	12	30.1
León	may	25	23	11.8	12	31.8
Dolores Hidalgo	may	26	4	15.7	12	28.9
Xichu	may	27	0	10.3	12	25.6
Xichu	jul	16	8	8.1	12	34.5
Dolores Hidalgo	jul	17	4	17.3	12	38.1
Leon	jul	17	9	18.3	12	41.1
Guanajuato	jul	18	0	0.4	12	39.5

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Población	mes	día	φ = δ h	φ = δ m	Paso cenital h	Paso cenital m
San Miguel de Allende	jul	18	13	46.5	12	37.4
Irapuato	jul	19	21	18.6	12	39.9
Salamanca	jul	20	10	12.6	12	39.3
Celaya	jul	20	16	26.7	12	37.8
Abasolo	jul	21	1	40.5	12	36.7
Hidalgo						
Apan	may	18	11	38.5	12	18.2
Tezontepec	may	19	12	13.0	12	19.9
Tulancingo	may	20	11	41.7	12	18.2
Pachuca	may	20	17	4.7	12	19.6
Real del Monte	may	20	18	20.6	12	19.4
Nopala	may	21	8	3.5	12	19.4
Huichapan	may	21	22	40.2	12	23.4
Pisa Flores	may	26	9	26.0	12	21.2
Pisa Flores	jul	16	23	9.9	12	30.3
Huichapan	jul	21	10	34.9	12	33.2
Nopala	jul	22	1	25.9	12	29.2
Real del Monte	jul	22	15	10.6	12	29.3
Pachuca	jul	22	16	27.9	12	29.6
Tulancingo	jul	22	21	57.0	12	28.1
Tezontepec	jul	23	21	36.3	12	30.0
Apan	jul	24	22	22.6	12	28.3
Jalisco						
Cihuatlán	may	16	13	49.0	12	42.8
Tecatitlán	may	17	14	59.6	12	37.8
Cocula	may	22	1	18.6	12	40.1
Puerto Vallarta	may	23	4	16.3	12	45.9
Guadalajara	may	23	16	10.6	12	38.5
Lagos de Moreno	may	27	8	18.1	12	33.0
Colotlán	jun	1	10	28.1	12	39.1
Colotlán	jul	10	21	9.1	12	46.6
Lagos de Moreno	jul	16	0	8.4	12	42.0
Guadalajara	jul	19	16	49.8	12	48.0
Puerto Vallarta	jul	20	4	49.0	12	55.5
Cocula	jul	21	7	55.8	12	49.9
Tecatitlán	jul	25	19	9.0	12	48.0
Cihuatlán	jul	26	20	32.3	12	53.0
México						
San Antonio del Rosa	may	13	1	11.5	12	25.8
Ixtapan de la Sal	may	14	20	32.9	12	23.2
Tenancingo	may	15	9	33.8	12	22.9
Popocatépetl	may	15	15	27.2	12	19.0
Ozumba	may	15	16	46.1	12	19.7
Amecameca	may	16	2	20.6	12	19.6
Tlalmanalco	may	16	11	7.4	12	19.8
Chalco	may	16	16	53.3	12	20.2
Naucalpan	may	17	15	35.6	12	21.5
Huexotla	may	17	16	0.8	12	20.1
Texcoco	may	17	19	40.2	12	20.1
Tlalnepantla	may	17	22	18.6	12	21.4
Otumba	may	18	16	4.1	12	19.6
Tecamac	may	18	16	44.7	12	20.5
Atlacomulco	may	19	3	28.4	12	20.2
Atlacomulco	jul	24	6	20.5	12	30.2
Tecamac	jul	24	17	10.6	12	30.6
Otumba	jul	24	17	52.0	12	29.8
Tlalnepantla	jul	25	11	42.0	12	31.5
Texcoco	jul	25	14	23.2	12	30.3
Huexotla	jul	25	18	6.7	12	30.2
Naucalpan	jul	25	18	32.4	12	31.6
Chalco	jul	26	17	24.6	12	30.4
Tlalmanalco	jul	26	23	16.8	12	30.0
Amecameca	jul	27	8	1.8	12	29.8
Ozumba	jul	27	17	43.5	12	29.9
Popocatépetl	jul	27	19	3.9	12	29.2
Tenancingo	jul	28	1	2.3	12	33.1
Ixtapan de la Sal	jul	28	14	4.5	12	33.4
San Antonio del Rosa	jul	30	9	47.0	12	35.9
Michoacán						
Tacámbaro	may	16	13	20.9	12	30.4
Uruapan	may	17	8	59.8	12	32.8
Pátzcuaro	may	17	22	25.8	12	31.0
Janitzio	may	18	2	10.3	12	31.2
Morelia	may	18	16	35.5	12	29.4
Cotija	may	19	4	32.8	12	35.5
Zacapu	may	19	5	29.6	12	31.8
Maravatio	may	19	13	45.7	12	26.4
Maravatio	jul	23	20	1.8	12	36.5
Zacapu	jul	24	4	20.2	12	41.9
Cotija	jul	24	5	16.6	12	45.5
Morelia	jul	24	17	20.0	12	39.5
Janitzio	jul	25	7	49.3	12	41.3
Pátzcuaro	jul	25	11	34.6	12	41.2
Uruapan	jul	26	1	13.6	12	43.0
Tacámbaro	jul	26	21	0.9	12	40.6
Morelos						
Cuautla	may	14	17	23.3	12	20.4
Oaxtepec	may	15	3	1.0	12	20.4
Cuernavaca	may	15	4	30.2	12	21.5
Huitzilac	may	15	16	4.9	12	21.6
Huitzilac	jul	27	18	25.5	12	31.8
Cuernavaca	jul	28	6	4.6	12	31.7
Oaxtepec	jul	28	7	33.4	12	30.6
Cuautla	jul	28	17	17.5	12	30.5
Nayarit						
Ixtlán del Río	may	25	11	21.3	12	42.6
Tepic	may	28	7	38.2	12	45.0
San BLas	may	28	11	51.6	12	46.6
Mezcaltitán	may	30	21	56.2	12	47.6
Acaponeta	jun	4	11	38.7	12	47.9
Acaponeta	jul	7	19	35.5	12	54.6
Mezcaltitán	jul	12	9	44.0	12	55.7
San BLas	jul	14	20	20.5	12	55.2
Tepic	jul	15	0	37.7	12	53.7
Ixtlán del Río	jul	17	21	23.0	12	51.8

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Para algunas poblaciones de la República Mexicana

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Población	mes	día	φ = δ h	φ = δ m	Paso cenital h	Paso cenital m
Oaxaca						
Puerto Angel	may	2	22	9.3	12	11.2
Huatulco	may	3	12	17.1	12	10.4
Salina Cruz	may	4	15	45.9	12	5.8
Tehuantepec	may	5	6	14.3	12	5.8
Miahuatlán	may	5	6	20.0	12	11.3
Juchitán de Zaragoza	may	5	14	41.7	12	5.0
Guichicovi	may	7	13	41.1	12	5.7
Putla	may	7	17	53.9	12	16.5
Oaxaca de Juárez	may	7	21	11.2	12	11.6
Etla	may	8	9	52.8	12	11.9
Tlaxiaco	may	8	15	23.0	12	15.4
Guelatao	may	8	20	15.6	12	10.7
Valle Nacional	may	10	4	47.1	12	9.8
Ocotepec	may	10	15	51.0	12	10.2
Huautla	may	11	23	10.7	12	12.0
Huautla	jul	31	12	1.5	12	22.0
Ocotepec	ago	1	19	43.2	12	20.2
Valle Nacional	ago	2	6	51.8	12	19.7
Guelatao	ago	3	15	42.2	12	20.4
Tlaxiaco	ago	3	20	40.4	12	25.2
Etla	ago	4	2	14.7	12	21.5
Oaxaca de Juárez	ago	4	15	0.6	12	21.2
Putla	ago	4	18	21.8	12	26.1
Guichicovi	ago	4	22	39.6	12	15.3
Juchitán de Zaragoza	ago	6	22	9.7	12	14.2
Miahuatlán	ago	7	6	35.3	12	20.4
Tehuantepec	ago	7	6	40.9	12	14.9
Salina Cruz	ago	7	21	20.9	12	14.8
Huatulco	ago	9	1	10.2	12	19.0
Puerto Angel	ago	9	15	24.5	12	19.7
Puebla						
Chila Asunción	may	11	8	18.0	12	16.0
Tepeji de Rodríguez	may	13	18	46.7	12	16.3
Izucar de Matamoros	may	13	20	56.3	12	18.4
Tecali	may	15	2	54.1	12	16.4
Atlixco	may	15	3	52.4	12	18.3
Popocatépetl	may	15	15	27.2	12	19.0
Tonantzintla	may	15	16	37.5	12	17.8
Puebla de Zaragoza	may	15	17	32.4	12	17.3
Cholula	may	15	19	41.1	12	17.8
Cualtlancingo	may	15	22	17.2	12	17.6
Huejotzingo	may	16	5	39.0	12	18.2
Tlaltenango	may	16	6	51.0	12	17.9
S. Martín Texmeluca	may	16	18	49.2	12	18.3
Huauchinango	may	20	23	8.5	12	16.9
Huauchinango	jul	22	10	17.2	12	26.9
S. Martín Texmeluca	jul	26	15	26.5	12	28.5
Tlaltenango	jul	27	3	32.9	12	28.1
Huejotzingo	jul	27	4	44.5	12	28.4
Cualtlancingo	jul	27	12	6.4	12	27.8
Cholula	jul	27	14	45.4	12	28.0
Puebla de Zaragoza	jul	27	16	56.4	12	27.5
Tonantzintla	jul	27	17	52.3	12	28.0
Popocatépetl	jul	27	19	3.9	12	29.2
Atlixco	jul	28	6	42.2	12	28.5
Tecali	jul	28	7	40.2	12	26.6
Izucar de Matamoros	jul	29	13	52.8	12	28.5
Tepeji de Rodriguez	jul	29	16	4.8	12	26.4
Chila Asuncion	ago	1	3	7.3	12	26.0
Querétaro						
San Juan del Río	may	22	0	27.0	12	24.8
Querétaro	may	23	1	26.2	12	26.5
Cadereyta	may	23	14	22.1	12	24.2
Jalpan	may	26	12	43.5	12	23.1
Arroyo Seco	may	28	13	0.0	12	24.2
Arroyo Seco	jul	14	19	10.7	12	32.8
Jalpan	jul	16	19	48.4	12	32.1
Cadereyta	jul	19	18	40.4	12	33.8
Querétaro	jul	20	7	37.1	12	36.1
San Juan del Río	jul	21	8	46.8	12	34.6
Quintana Roo						
Xkalak	may	12	8	14.4	11	35.9
Chetumal	may	13	10	21.2	11	37.7
Santa Cruz Chico	may	15	6	28.5	11	37.2
Carrillo Puerto	may	18	2	52.7	11	36.8
Cozumel	may	22	16	35.9	11	32.7
Kantunil Kin	may	25	20	37.4	11	35.0
Cabo Catoche	may	28	21	54.8	11	33.9
Cabo Catoche	jul	14	10	4.9	11	42.5
Kantunil Kin	jul	17	11	55.7	11	44.3
Cozumel	jul	20	16	35.1	11	42.4
Carrillo Puerto	jul	25	7	7.1	11	46.9
Santa Cruz Chico	jul	28	4	6.8	11	47.4
Chetumal	jul	30	0	38.8	11	47.9
Xkalak	jul	31	2	57.8	11	46.0
San Luis Potosí						
Tamanzuchale	may	26	19	27.8	12	20.4
Río Verde	may	31	2	21.2	12	25.8
San Luis Potosí	jun	1	17	27.8	12	29.9
Arista	jun	5	22	18.1	12	30.1
Arista	jul	6	8	35.7	12	36.4
San Luis Potosí	jul	10	14	0.5	12	37.5
Río Verde	jul	12	5	19.7	12	33.8
Tamanzuchale	jul	16	12	55.9	12	29.4
Sinaloa						
Rosario	jun	9	17	43.3	12	50.8
Mazatlán	jun	12	19	17.6	12	53.7
Mazatlán	jun	29	11	13.8	12	57.3
Rosario	jul	2	12	58.3	12	55.6
Tabasco						
Tapijulapa	may	9	9	13.7	11	55.8
Astapa	may	10	14	1.3	11	56.6
Tierra Colorada	may	11	6	37.2	11	55.1
Villahermosa	may	11	9	35.1	11	56.2
Comalcalco	may	12	12	2.6	11	57.4
Ignacio Allende	may	12	23	43.2	11	55.9
Ignacio Allende	jul	30	11	15.4	12	6.1

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Población	mes	día	φ = δ h	φ = δ m	Paso cenital h	Paso cenital m
Comalcalco	jul	30	23	9.0	12	7.5
Villahermosa	ago	1	1	50.3	12	6.2
Tierra Colorada	ago	1	4	48.0	12	5.1
Astapa	ago	1	21	34.8	12	6.5
Tapijulapa	ago	3	2	39.3	12	5.5
Tamaulipas						
Ocampo	may	24	9	28.9	12	22.4
Jaumave	jun	18	5	52.7	12	26.8
Jaumave	jun	24	1	18.6	12	28.1
Ocampo	jul	18	23	28.5	12	31.8
Tlaxcala						
Cuauhutotohuatlan	may	16	1	29.7	12	17.2
Huamantla	may	16	22	9.4	12	16.3
Tlaxcala	may	16	22	28.8	12	17.5
Tlaxcala	jul	26	11	43.0	12	27.7
Huamantla	jul	26	12	2.7	12	26.4
Cuauhutotohuatlan	jul	27	8	52.5	12	27.4
Veracruz						
Pl. Vicente	may	10	19	14.8	12	7.9
Minatitlán	may	11	8	51.0	12	2.7
Coatzacoalcos	may	12	0	50.9	12	2.2
Tierra Blanca	may	13	6	5.2	12	10.0
Tehuipango	may	13	12	57.1	12	12.8
Tlacotalpan	may	13	21	52.1	12	7.2
Tamarindo	may	14	12	26.5	12	10.1
Alvarado	may	14	13	52.0	12	7.6
Orizaba	may	14	21	48.3	12	12.9
Córdoba	may	15	2	12.9	12	12.3
Pico de Orizaba	may	15	16	41.0	12	13.6
Rizo	may	15	18	53.0	12	8.2
Huatusco	may	16	4	49.9	12	12.4
Veracruz	may	16	10	7.7	12	9.1
Actopan	may	17	18	26.5	12	11.0
Jalapa	may	17	20	57.6	12	12.2
Martínez de la Torre	may	20	9	44.9	12	12.9
Papantla	may	22	7	25.5	12	14.1
Coatzintla	may	22	11	59.7	12	14.6
Tihuatlán	may	23	18	5.4	12	15.1
Tuxpan	may	25	0	20.8	12	14.7
Chicontepec	may	25	3	6.5	12	17.8
Ixcatepec	may	26	15	39.8	12	17.2
Tantoyuca	may	27	7	46.4	12	18.2
Tantoyuca	jul	16	0	39.6	12	27.2
Ixcatepec	jul	16	16	48.6	12	26.3
Chicontepec	jul	18	5	36.2	12	27.1
Tuxpan	jul	18	8	19.6	12	24.0
Tihuatlán	jul	19	14	52.8	12	24.7
Coatzintla	jul	20	21	16.6	12	24.3
Papantla	jul	21	1	52.7	12	23.9
Martínez de la Torre	jul	22	23	56.0	12	22.8
Jalapa	jul	25	13	4.4	12	22.4
Actopan	jul	25	15	38.3	12	21.2
Veracruz	jul	27	0	17.2	12	19.3
Huatusco	jul	27	5	33.4	12	22.5
Rizo	jul	27	15	34.3	12	18.4
Pico de Orizaba	jul	27	17	48.8	12	23.8
Córdoba	jul	28	8	21.2	12	22.4
Orizaba	jul	28	12	47.6	12	23.1
Alvarado	jul	28	20	52.7	12	17.8
Tamarindo	jul	28	22	19.8	12	20.2
Tlacotalpan	jul	29	12	56.0	12	17.4
Tehuipango	jul	29	22	0.8	12	22.9
Tierra Blanca	jul	30	4	54.1	12	20.1
Coatzacoalcos	jul	31	10	20.5	12	12.3
Minatitlán	ago	1	2	34.3	12	12.7
Pl. Vicente	ago	1	16	15.5	12	17.8
Yucatán						
Becanchen	may	19	11	50.2	11	41.5
Maxcanu	may	23	0	33.1	11	44.9
Celestum	may	24	11	49.4	11	46.6
Mérida	may	25	4	12.3	11	43.7
Tzimin	may	26	0	41.7	11	37.8
Progreso	may	27	0	10.3	11	44.0
Telchac	may	27	6	28.3	11	42.4
Chavihau	may	27	8	37.6	11	41.8
Chavihau	jul	15	23	48.8	11	50.6
Telchac	jul	16	1	56.3	11	51.3
Progreso	jul	16	8	8.1	11	52.9
Tzimin	jul	17	7	48.0	11	47.0
Mérida	jul	18	4	31.3	11	53.0
Celestum	jul	18	21	5.2	11	56.0
Maxcanu	jul	20	8	29.6	11	54.6
Becanchen	jul	23	21	59.4	11	51.6
Zacatecas						
Nochistlán	may	27	9	23.9	12	36.7
Juchipila	may	27	16	40.4	12	37.8
Villanueva	jun	3	7	56.9	12	37.9
Jerez	jun	5	22	36.9	12	38.7
Obs. Astronómico	jun	6	18	55.1	12	37.0
Pánuco	jun	8	9	7.7	12	37.4
Calera	jun	9	5	24.2	12	38.2
Fresnillo	jun	12	10	17.2	12	39.5
Fresnillo	jun	29	20	32.4	12	43.1
Calera	jul	3	1	29.3	12	43.2
Pánuco	jul	3	21	50.5	12	42.6
Obs. Astronómico	jul	5	11	57.7	12	42.9
Jerez	jul	6	8	16.5	12	44.9
Villanueva	jul	8	23	28.7	12	44.8
Juchipila	jul	15	15	36.1	12	46.7
Nochistlán	jul	15	23	1.5	12	45.6

Fases de la Luna, 2022

Hora del meridiano 90º W.G.

Luna Nueva

mes	d	h	m
ene	2	12	33
ene	31	23	46
mar	2	11	35
abr	1	0	24
abr	30	14	28
may	30	5	30
jun	28	20	52
jul	28	11	55
ago	27	2	17
sep	25	15	55
oct	25	4	49
nov	23	16	57
dic	23	4	17

Cuarto Creciente

mes	d	h	m
ene	9	12	11
feb	8	7	50
mar	10	4	45
abr	9	0	48
may	8	18	21
jun	7	8	48
jul	6	20	14
ago	5	5	7
sep	3	12	8
oct	2	18	14
nov	1	0	37
nov	30	8	37
dic	29	19	21

Luna Llena

mes	d	h	m
ene	17	17	48
feb	16	10	56
mar	18	1	18
abr	16	12	55
may	15	22	14
jun	14	5	52
jul	13	12	38
ago	11	19	36
sep	10	3	59
oct	9	14	55
nov	8	5	2
dic	7	22	8
..	..	..	..

Cuarto Menguante

mes	d	h	m
ene	25	7	41
feb	23	16	32
mar	24	23	37
abr	23	5	56
may	22	12	43
jun	20	21	11
jul	20	8	19
ago	18	22	36
sep	17	15	52
oct	17	11	15
nov	16	7	27
dic	16	2	56
..	..	..	..

Crepúsculos, salidas y puestas de Sol, 2022

Hora local

LATITUD 30º

	AM	CM	SS	PS	CV	AV		AM	CM	SS	PS	CV	AV
	h m	h m	h m	h m	h m	h m		h m	h m	h m	h m	h m	h m
Ene 1	5 31	6 30	6 56	17 12	17 38	18 37	Jul 6	3 29	4 37	5 05	19 05	19 32	20 40
7	5 32	6 31	6 57	17 16	17 42	18 41	12	3 33	4 41	5 08	19 04	19 30	20 38
13	5 33	6 31	6 57	17 21	17 47	18 45	18	3 38	4 44	5 11	19 01	19 28	20 34
19	5 32	6 30	6 56	17 26	17 52	18 50	24	3 43	4 48	5 14	18 58	19 25	20 30
25	5 31	6 28	6 54	17 31	17 57	18 54	30	3 48	4 52	5 18	18 55	19 21	20 24
31	5 29	6 26	6 51	17 37	18 02	18 59	Ago 5	3 53	4 56	5 22	18 50	19 16	20 18
Feb 6	5 26	6 22	6 47	17 42	18 07	19 03	11	3 58	5 00	5 25	18 45	19 10	20 12
12	5 22	6 18	6 42	17 47	18 11	19 07	17	4 03	5 04	5 29	18 39	19 04	20 04
18	5 17	6 13	6 37	17 51	18 16	19 11	23	4 08	5 07	5 32	18 33	18 57	19 57
24	5 11	6 07	6 31	17 56	18 20	19 15	29	4 12	5 11	5 35	18 26	18 50	19 49
Mar 2	5 05	6 01	6 25	18 00	18 24	19 19	Sep 4	4 17	5 14	5 39	18 19	18 43	19 40
8	4 59	5 54	6 18	18 04	18 28	19 23	10	4 21	5 18	5 42	18 11	18 35	19 32
14	4 52	5 47	6 11	18 08	18 32	19 27	16	4 25	5 21	5 45	18 04	18 28	19 24
20	4 44	5 40	6 04	18 12	18 35	19 31	22	4 29	5 25	5 48	17 56	18 20	19 16
26	4 36	5 33	5 56	18 15	18 39	19 36	28	4 32	5 28	5 52	17 49	18 13	19 08
Abr 1	4 28	5 25	5 49	18 19	18 43	19 40	Oct 4	4 36	5 31	5 55	17 42	18 06	19 01
7	4 20	5 18	5 42	18 22	18 47	19 44	10	4 39	5 35	5 59	17 35	17 59	18 54
13	4 13	5 11	5 35	18 26	18 51	19 49	16	4 43	5 39	6 03	17 28	17 52	18 48
19	4 05	5 04	5 29	18 30	18 55	19 54	22	4 47	5 42	6 07	17 22	17 46	18 42
25	3 57	4 58	5 23	18 34	18 59	19 59	28	4 50	5 47	6 11	17 16	17 41	18 37
May 1	3 50	4 52	5 17	18 38	19 03	20 05	Nov 3	4 54	5 51	6 16	17 11	17 36	18 33
7	3 44	4 46	5 12	18 41	19 07	20 10	9	4 58	5 55	6 20	17 07	17 32	18 29
13	3 38	4 42	5 08	18 45	19 11	20 16	15	5 03	6 00	6 25	17 04	17 29	18 27
19	3 33	4 38	5 04	18 49	19 16	20 21	21	5 07	6 05	6 30	17 02	17 27	18 25
25	3 28	4 35	5 02	18 53	19 19	20 26	27	5 11	6 09	6 35	17 00	17 26	18 24
31	3 25	4 33	5 00	18 56	19 23	20 31	Dic 3	5 15	6 14	6 40	17 00	17 26	18 25
Jun 6	3 23	4 31	4 59	18 59	19 26	20 35	9	5 19	6 18	6 44	17 01	17 27	18 26
12	3 22	4 31	4 58	19 02	19 29	20 38	15	5 23	6 22	6 48	17 02	17 29	18 28
18	3 22	4 31	4 59	19 04	19 31	20 40	21	5 26	6 25	6 52	17 05	17 31	18 30
24	3 24	4 33	5 00	19 05	19 32	20 41	27	5 29	6 28	6 54	17 08	17 35	18 34
30	3 26	4 35	5 02	19 05	19 33	20 41	Ene 2	5 31	6 30	6 56	17 12	17 38	18 37

LATITUD 25º

	AM	CM	SS	PS	CV	AV		AM	CM	SS	PS	CV	AV
	h m	h m	h m	h m	h m	h m		h m	h m	h m	h m	h m	h m
Ene 1	5 24	6 20	6 45	17 22	17 47	18 44	7	4 28	5 22	5 45	18 19	18 42	19 37
7	5 26	6 22	6 47	17 27	17 51	18 48	13	4 21	5 16	5 40	18 22	18 45	19 40
13	5 27	6 22	6 47	17 31	17 56	18 51	19	4 15	5 11	5 34	18 25	18 48	19 44
19	5 27	6 22	6 47	17 36	18 00	18 55	25	4 08	5 05	5 29	18 27	18 51	19 48
25	5 26	6 21	6 45	17 40	18 04	18 59	May 1	4 03	5 00	5 24	18 30	18 54	19 52
31	5 25	6 19	6 43	17 44	18 08	19 03	7	3 57	4 56	5 20	18 33	18 58	19 56
Feb 6	5 22	6 16	6 40	17 49	18 12	19 06	13	3 52	4 52	5 17	18 36	19 01	20 01
12	5 19	6 13	6 36	17 53	18 16	19 10	19	3 48	4 49	5 14	18 39	19 04	20 05
18	5 15	6 09	6 32	17 56	18 19	19 13	25	3 45	4 47	5 12	18 42	19 08	20 09
24	5 11	6 04	6 27	18 00	18 23	19 16	31	3 43	4 45	5 10	18 45	19 11	20 13
Mar 2	5 06	5 59	6 22	18 03	18 26	19 19	Jun 6	3 41	4 44	5 10	18 48	19 14	20 16
8	5 00	5 53	6 16	18 06	18 29	19 22	12	3 41	4 44	5 10	18 50	19 16	20 19
14	4 54	5 47	6 10	18 09	18 31	19 25	18	3 41	4 45	5 10	18 52	19 18	20 21
20	4 48	5 41	6 04	18 11	18 34	19 27	24	3 42	4 46	5 12	18 53	19 19	20 22
26	4 41	5 35	5 58	18 14	18 37	19 30	30	3 45	4 48	5 14	18 54	19 20	20 23
Abr 1	4 35	5 29	5 52	18 17	18 40	19 34	Jul 6	3 47	4 50	5 16	18 54	19 19	20 22

Crepúsculos, salidas y puestas de Sol, 2022

Hora local

LATITUD 25°

	AM	CM	SS	PS	CV	AV		AM	CM	SS	PS	CV	AV
	h m	h m	h m	h m	h m	h m		h m	h m	h m	h m	h m	h m
12	3 51	4 53	5 18	18 53	19 18	20 20	10	4 40	5 33	5 56	17 38	18 01	18 54
18	3 54	4 56	5 21	18 51	19 16	20 18	16	4 43	5 36	5 59	17 32	17 55	18 48
24	3 58	4 59	5 24	18 49	19 14	20 14	22	4 45	5 39	6 02	17 27	17 50	18 43
30	4 02	5 02	5 27	18 46	19 10	20 10	28	4 48	5 42	6 05	17 22	17 46	18 39
Ago 5	4 07	5 05	5 30	18 42	19 06	20 05	Nov 3	4 51	5 45	6 09	17 18	17 42	18 36
11	4 10	5 08	5 32	18 38	19 02	19 59	9	4 54	5 49	6 13	17 15	17 39	18 33
17	4 14	5 11	5 35	18 33	18 57	19 53	15	4 58	5 53	6 17	17 12	17 37	18 31
23	4 18	5 14	5 37	18 27	18 51	19 47	21	5 01	5 57	6 21	17 11	17 35	18 30
29	4 21	5 16	5 40	18 22	18 45	19 40	27	5 05	6 01	6 25	17 10	17 35	18 30
Sep 4	4 24	5 19	5 42	18 15	18 39	19 33	Dic 3	5 09	6 05	6 30	17 10	17 35	18 31
10	4 27	5 21	5 44	18 09	18 32	19 26	9	5 12	6 09	6 34	17 11	17 36	18 33
16	4 30	5 24	5 46	18 03	18 26	19 19	15	5 16	6 12	6 37	17 13	17 38	18 35
22	4 33	5 26	5 49	17 56	18 19	19 12	21	5 19	6 16	6 41	17 16	17 41	18 37
28	4 35	5 28	5 51	17 50	18 13	19 06	27	5 22	6 18	6 43	17 19	17 44	18 41
Oct 4	4 38	5 31	5 53	17 44	18 06	18 59	Ene 2	5 24	6 21	6 45	17 23	17 48	18 44

LATITUD 20°

	AM	CM	SS	PS	CV	AV		AM	CM	SS	PS	CV	AV
	h m	h m	h m	h m	h m	h m		h m	h m	h m	h m	h m	h m
Ene 1	5 17	6 11	6 35	17 32	17 56	18 51	May 1	4 13	5 08	5 31	18 24	18 47	19 42
7	5 19	6 13	6 37	17 36	18 00	18 54	7	4 09	5 04	5 27	18 26	18 49	19 45
13	5 20	6 14	6 38	17 40	18 04	18 58	13	4 05	5 01	5 25	18 28	18 52	19 48
19	5 21	6 14	6 38	17 44	18 08	19 01	19	4 02	4 59	5 23	18 31	18 55	19 52
25	5 21	6 14	6 37	17 48	18 11	19 04	25	3 59	4 57	5 21	18 33	18 57	19 55
31	5 20	6 13	6 36	17 52	18 15	19 07	31	3 57	4 56	5 20	18 36	19 00	19 58
Feb 6	5 19	6 11	6 34	17 55	18 18	19 10	Jun 6	3 56	4 55	5 20	18 38	19 02	20 01
12	5 16	6 08	6 31	17 58	18 21	19 13	12	3 56	4 56	5 20	18 40	19 04	20 04
18	5 13	6 05	6 27	18 01	18 23	19 15	18	3 57	4 56	5 21	18 41	19 06	20 06
24	5 10	6 01	6 23	18 03	18 26	19 17	24	3 58	4 58	5 22	18 43	19 07	20 07
Mar 2	5 06	5 57	6 19	18 06	18 28	19 19	30	4 00	4 59	5 24	18 43	19 08	20 07
8	5 01	5 52	6 14	18 08	18 30	19 21	Jul 6	4 03	5 02	5 26	18 44	19 08	20 07
14	4 56	5 47	6 09	18 09	18 31	19 23	12	4 05	5 04	5 28	18 43	19 07	20 06
20	4 51	5 42	6 04	18 11	18 33	19 24	18	4 08	5 06	5 30	18 42	19 06	20 04
26	4 45	5 37	5 59	18 13	18 35	19 26	24	4 12	5 09	5 33	18 40	19 04	20 01
Abr 1	4 40	5 31	5 54	18 14	18 37	19 28	30	4 15	5 11	5 35	18 38	19 01	19 58
7	4 34	5 26	5 48	18 16	18 38	19 31	Ago 5	4 18	5 14	5 37	18 35	18 58	19 54
13	4 28	5 21	5 44	18 18	18 40	19 33	11	4 21	5 16	5 39	18 31	18 54	19 49
19	4 23	5 16	5 39	18 20	18 42	19 36	17	4 24	5 18	5 41	18 27	18 50	19 44
25	4 18	5 12	5 35	18 22	18 44	19 39	23	4 26	5 20	5 42	18 23	18 45	19 39

Crepúsculos, salidas y puestas de Sol, 2022

Hora local

LATITUD 20º

	AM	CM	SS	PS	CV	AV		AM	CM	SS	PS	CV	AV
	h m	h m	h m	h m	h m	h m		h m	h m	h m	h m	h m	h m
29	4 28	5 21	5 44	18 18	18 40	19 33	Nov 3	4 48	5 40	6 03	17 24	17 47	18 39
Sep 4	4 31	5 23	5 45	18 13	18 35	19 27	9	4 50	5 43	6 06	17 22	17 45	18 38
10	4 32	5 24	5 46	18 07	18 29	19 21	15	4 53	5 46	6 09	17 20	17 43	18 37
16	4 34	5 26	5 48	18 02	18 24	19 15	21	4 56	5 49	6 13	17 19	17 43	18 36
22	4 36	5 27	5 49	17 56	18 18	19 09	27	4 59	5 53	6 16	17 19	17 43	18 37
28	4 37	5 28	5 50	17 51	18 13	19 04	Dic 3	5 02	5 56	6 20	17 20	17 44	18 38
Oct 4	4 39	5 30	5 52	17 45	18 07	18 58	9	5 05	6 00	6 24	17 21	17 45	18 40
10	4 40	5 31	5 53	17 40	18 02	18 54	15	5 09	6 03	6 27	17 23	17 47	18 42
16	4 42	5 33	5 55	17 36	17 58	18 49	21	5 12	6 07	6 31	17 26	17 50	18 45
22	4 43	5 35	5 57	17 31	17 54	18 45	27	5 15	6 09	6 33	17 29	17 53	18 48
28	4 45	5 37	6 00	17 28	17 50	18 42	Ene 2	5 17	6 12	6 36	17 33	17 57	18 51

LATITUD 15º

	AM	CM	SS	PS	CV	AV		AM	CM	SS	PS	CV	AV
	h m	h m	h m	h m	h m	h m		h m	h m	h m	h m	h m	h m
Ene 1	5 10	6 03	6 26	17 42	18 05	18 58	Jul 6	4 16	5 12	5 35	18 34	18 58	19 54
7	5 12	6 05	6 28	17 45	18 08	19 01	12	4 18	5 14	5 37	18 34	18 57	19 53
13	5 14	6 06	6 29	17 49	18 12	19 04	18	4 20	5 16	5 39	18 33	18 57	19 52
19	5 15	6 07	6 30	17 52	18 15	19 07	24	4 23	5 18	5 41	18 32	18 55	19 50
25	5 15	6 07	6 30	17 55	18 18	19 10	30	4 25	5 20	5 42	18 30	18 53	19 47
31	5 15	6 07	6 29	17 58	18 21	19 12	Ago 5	4 28	5 21	5 44	18 28	18 51	19 44
Feb 6	5 14	6 05	6 28	18 01	18 23	19 14	11	4 30	5 23	5 45	18 25	18 48	19 40
12	5 13	6 04	6 26	18 03	18 25	19 16	17	4 32	5 24	5 46	18 22	18 44	19 36
18	5 11	6 01	6 23	18 05	18 27	19 17	23	4 33	5 25	5 47	18 18	18 40	19 32
24	5 08	5 58	6 20	18 07	18 28	19 18	29	4 35	5 26	5 47	18 14	18 36	19 27
Mar 2	5 05	5 55	6 16	18 08	18 30	19 19	Sep 4	4 36	5 26	5 48	18 10	18 31	19 22
8	5 01	5 51	6 12	18 09	18 31	19 20	10	4 37	5 27	5 48	18 05	18 27	19 17
14	4 57	5 47	6 08	18 10	18 32	19 21	16	4 37	5 27	5 49	18 01	18 22	19 12
20	4 53	5 43	6 04	18 11	18 32	19 22	22	4 38	5 28	5 49	17 56	18 17	19 07
26	4 48	5 38	6 00	18 12	18 33	19 23	28	4 38	5 28	5 50	17 51	18 13	19 03
Abr 1	4 44	5 34	5 55	18 12	18 34	19 24	Oct 4	4 39	5 29	5 50	17 47	18 08	18 58
7	4 39	5 30	5 51	18 13	18 35	19 25	10	4 39	5 29	5 51	17 43	18 04	18 54
13	4 34	5 25	5 47	18 14	18 36	19 27	16	4 40	5 30	5 52	17 39	18 01	18 51
19	4 30	5 21	5 43	18 15	18 37	19 29	22	4 41	5 31	5 53	17 36	17 57	18 48
25	4 26	5 18	5 40	18 16	18 38	19 30	28	4 42	5 33	5 55	17 33	17 55	18 45
May 1	4 22	5 15	5 37	18 17	18 40	19 33	Nov 3	4 44	5 35	5 57	17 30	17 53	18 44
7	4 18	5 12	5 34	18 19	18 42	19 35	9	4 45	5 37	5 59	17 29	17 51	18 42
13	4 15	5 09	5 32	18 21	18 44	19 38	15	4 47	5 39	6 02	17 28	17 50	18 42
19	4 13	5 08	5 31	18 23	18 46	19 40	21	4 50	5 42	6 05	17 27	17 50	18 42
25	4 11	5 06	5 30	18 24	18 48	19 43	27	4 52	5 45	6 08	17 28	17 51	18 43
31	4 10	5 06	5 29	18 26	18 50	19 46	Dic 3	4 55	5 48	6 11	17 29	17 52	18 45
Jun 6	4 09	5 06	5 29	18 28	18 52	19 48	9	4 58	5 51	6 15	17 30	17 54	18 47
12	4 10	5 06	5 30	18 30	18 54	19 50	15	5 01	5 55	6 18	17 33	17 56	18 49
18	4 10	5 07	5 31	18 32	18 55	19 52	21	5 04	5 58	6 21	17 36	17 59	18 52
24	4 12	5 08	5 32	18 33	18 57	19 53	27	5 07	6 01	6 24	17 39	18 02	18 55
30	4 13	5 10	5 34	18 34	18 57	19 54	Ene 2	5 10	6 03	6 26	17 42	18 05	18 58

Eclipses 2022

Hora del meridiano 90º W.G.

Ocurrirán cuatro eclipses, dos de Sol y dos de Luna.

I.- Eclipse parcial de sol el 30 de abril de 2022. No se observará en la República Mexicana.
El inicio del eclipse se observará al noroeste de la Antártida, y el último contacto al este de la costa norte de Chile. El eclipse se observara, en Chile, Argentina, sur de Bolivis, Paraguay, extremo sur de Brasil y Uruguay, en el extremo sur del Océano Pacífico y del Océano Atlantico frente a las costas de Argentina.

Circunstancias del eclipse	*mes*	*día*	*h*	*m*	*s*
Inicia eclipse parcial	abr	30	12	45	18
Máximo del eclipse parcial	abr	30	14	41	23
Fin del eclipse parcial	abr	30	16	38	1

II.- Eclipse total de Luna del 15 al 16 de mayo de 2022. Se observará en el República Mexicana.
Se observará como eclipse parcial en al este de Asia, África, Europa, en América, los océanos Atlántico y Pacífico; el eclipse se observará como total en África, Europa y América, los océanos Atlántico y Pacífico.

Circunstancias del eclipse	*mes*	*día*	*h*	*m*	*s*
Inicia eclipse penumbral	may	15	19	30	42
Inicia el eclipse parcial umbral	may	15	20	27	30
Inicia eclipse total umbral	may	15	21	28	42
Máximo del eclipse total umbral	may	15	22	11	30
Finaliza eclipse total umbral	may	15	22	54	24
Finaliza eclipse parcial umbral	may	15	23	55	31
Finaliza eclipse penumbral	may	16	0	52	30

III.- Eclipse parcial de sol el 25 de octubre de 2022. No se observará en le República Mexicana.
El eclipse se observará en Islandia, Europa, exceptuando el suroeste de España, noreste de África, la península Arábiga y el este de Asia.

Circunstancias del eclipse	*mes*	*día*	*h*	*m*	*s*
Inicia el eclipse	oct	25	2	58	18
Máximo del eclipse	oct	25	5	0	6
Termina el eclipse	oct	25	7	2	18

Eclipses 2022

Hora del meridiano 90º W.G.

IV.- Eclipse total de Luna el 8 de noviembre de 2022. Se observará en el República Mexicana. Se observará en América, al norte del Océano Atlántico, el Océano Pacífico, Asía y el este de Europa.

Circunstancias del eclipse	*mes*	*día*	*h*	*m*	*s*
Inicia eclipse penumbral	nov	8	2	0	36
Inicia el eclipse parcial umbral	nov	8	3	8	55
Inicia eclipse total umbral	nov	8	4	16	18
Máximo del eclipse total umbral	nov	8	4	59	12
Finaliza eclipse total umbral	nov	8	5	42	1
Finaliza eclipse parcial umbral	nov	8	6	49	24
Finaliza eclipse penumbral	nov	8	7	57	54

Poblaciones de la República Méxicana, 2022

Coordenadas geográficas (Anuario del Observatorio 1984)

ESTADO Población	latitud ° ‘ “	longitud ° ‘ “	alt m	δm ° ‘	Δδm ‘/año
Aguascalientes					
Aguascalientes	21 52 43	102 18 4	1888	5 21	-7
Asientos	22 14 18	102 5 29	2164	5 16	-7
Calvillo	21 50 45	102 44 14	1702	5 31	-7
Jesús María	21 57 45	102 20 48	1907	5 22	-7
Puertecito	21 57 52	102 15 15	2052	5 20	-7
Rincón de Romos	22 13 49	102 19 22	1957	5 22	-7
Baja California					
Bailador Isla	31 56 56	116 5 12	0	10 47	-5
Cedros Isla	28 3 53	115 11 35	0	9 54	-5
Ensenada	31 51 10	116 38 9	2	10 53	-5
Granito Isla	29 33 0	113 32 0	0	9 44	-5
Guadalupe Isla	29 10 45	118 19 30	0	10 44	-4
Mejía Isla	29 33 8	113 35 18	0	9 45	-5
Mexicali	32 40 0	115 27 0	0	10 45	-5
Miramar Isla	30 2 30	114 31 30	0	10 4	-5
Salsipuedes Isla	28 44 0	112 50 30	0	9 25	-5
San Benito Isla	28 18 8	115 36 12	0	10 2	-5
San Felipe	31 1 36	114 49 46	0	10 19	-5
San Jerónimo Isla	29 47 20	115 48 14	0	10 20	-5
San Pedro Mártir	31 2 39	115 27 49	2800	10 28	-5
San Quintin	30 22 16	115 59 10	0	10 28	-5
Baja California Sur					
Asunción Isla	27 6 21	114 18 15	0	9 32	-5
Catalina Isla	25 35 35	110 47 48	0	8 26	-5
Cerralvo Isla	24 22 0	109 55 29	0	8 3	-6
Coronados Isla	26 6 12	111 15 38	0	8 37	-5
Danaznte Isla	25 48 0	111 12 0	0	8 34	-5
El Triunfo	23 48 13	110 8 41	432	8 3	-6
Espíritu Santo Isla	24 34 43	110 21 30	0	8 11	-6
José del Cabo	23 4 8	109 40 36	7	7 51	-6
La Paz	24 9 41	110 20 44	10	8 8	-5
Miraflores	23 22 25	109 48 33	183	7 55	-6
Muleje	26 53 33	111 46 41	35	8 52	-5
Roca Alijos Isla	24 58 6	113 44 47	0	9 5	-5
San Bartolo	23 44 16	109 52 15	353	7 58	-6
San Marcos Isla	27 14 35	112 5 23	0	9 0	-5
Santa Inés Isla	27 2 34	111 53 28	0	8 55	-5
Santiago	23 28 24	109 43 21	98	7 54	-6
Tortugas Isla	27 26 59	111 52 59	0	8 59	-5
Campeche					
Becal	20 26 34	90 1 36	12	0 -32	-8
Bolonchenticul	20 0 21	89 44 53	14	0 -39	-8
Calkiní	20 22 21	90 3 3	52	0 -31	-8
Campeche	19 50 47	90 32 14	5	0 -11	-8
Carmen	18 38 22	91 50 16	3	0 39	-8
Carmen Isla	18 38 44	91 50 16	0	0 39	-8
Champotón	19 21 4	90 43 0	27	0 -2	-8
Dzibalchen	19 27 41	89 43 55	100	0 -36	-8

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Escárcega	18	36	25	90	43	55	75	0	4	-8
Hontún	19	34	49	90	11	12	50	0	-21	-8
Holpechén	19	44	47	89	50	35	56	0	-34	-8
Iturbide	19	34	58	89	36	4	110	0	-41	-8
Lerma	18	15	39	90	36	12	5	0	2	-8
Palizada	19	6	13	92	4	42	46	0	44	-8
Pital	18	33	3	91	7	41	20	0	17	-8
Río Desempeño	18	29	50	89	54	6	200	0	-23	-8
Sabancury	18	58	34	91	10	51	2	0	16	-8
Xicalango	18	37	55	91	53	38	2	0	41	-8
Coahuila										
Acuña	29	19	33	100	55	51	200	4	57	-7
Allende	28	20	36	100	51	6	374	4	53	-7
Cuatro Ciénegas	26	58	19	102	4	9	742	5	24	-7
Jiménez	29	4	21	100	40	21	290	4	49	-7
Laguna de Jaco	27	57	28	103	57	6	1350	6	16	-7
Monclova	26	54	14	101	25	8	586	5	6	-7
Muzquiz	27	52	51	101	30	56	504	5	11	-7
Parras	25	27	0	102	10	0	1683	5	23	-7
Piedras Negras	28	42	25	100	31	2	220	4	44	-7
Sabinas	27	50	34	101	7	23	340	5	0	-7
Saltillo	25	26	37	100	59	22	1599	4	52	-7
San Pedro de Colonias	25	45	24	102	59	1	1103	5	44	-7
Sierra Mojada	27	17	8	103	42	7	1256	6	7	-7
Torreón	25	32	18	103	27	55	1140	5	56	-7
Unión	28	14	0	100	44	30	0	4	49	-7
Viesca	25	20	46	102	48	19	1093	5	39	-7
Zaragoza	28	30	36	100	52	8	540	4	54	-7
Colima										
Colima	19	14	29	103	43	47	508	5	50	-7
Madrid	19	4	57	103	52	38	120	5	53	-7
Manzanillo	19	3	15	104	19	46	3	6	2	-6
Socorro Isla	18	42	57	110	56	53	0	7	46	-5
Tecomán	18	54	31	103	52	38	80	5	53	-7
Chiapas										
Acapetahua	15	16	20	92	41	59	23	1	29	-8
Arista	15	56	8	93	48	41	0	1	57	-8
Cacahuanton	14	59	31	92	9	46	630	1	15	-8
Catazajá	17	43	56	92	1	57	7	0	52	-8
Cintalapa	16	41	58	93	43	24	545	1	50	-8
Comitan	16	15	12	92	7	41	1530	1	5	-8
Chiapa De Corzo	16	42	28	93	1	5	415	1	29	-8
Escuintla	15	18	53	92	39	58	110	1	28	-8
Huixtla	15	7	41	92	28	34	28	1	23	-8
Jaltenango	15	52	12	92	43	35	677	1	26	-8
Juárez	17	39	8	93	9	47	152	1	27	-8
La Grandeza	15	30	46	92	13	38	1950	1	13	-8
Las Margaritas	15	32	35	93	5	46	1512	1	39	-8
Mapastepec	15	25	52	92	54	27	85	1	34	-8
Mazatan	14	51	43	92	25	59	35	1	24	-8

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Ocosingo	16	54	38	92	5	45	908	0	59	-8
Ocozocoautla	16	45	55	93	22	37	864	1	39	-8
Pichucalco	17	31	46	93	7	24	100	1	27	-8
Pueblo Nuevo	15	12	37	92	35	7	28	1	26	-8
Puerto Madero	14	42	59	93	25	37	2	1	54	-8
San Bartolomé	16	19	29	92	33	36	804	1	17	-8
Suchiate	14	40	23	92	9	12	22	1	17	-8
Tonalá	16	5	14	93	45	21	55	1	55	-8
Tuxtla Gutiérrez	16	45	20	93	6	46	528	1	31	-8
Villa Flores	16	14	8	93	16	3	610	1	39	-8
Yajalon	17	10	57	92	20	24	849	1	5	-8
Chihuahua										
Ahumada 30	37	18	106	31	121	181	7	33	-6	
Camargo	27	41	49	105	10	9	1653	6	45	-6
Ciénaga de Ortiz	28	8	15	106	12	11	1300	7	11	-6
Ciudad Guerrero	28	32	57	107	29	27	2000	7	43	-6
Ciudad Jiménez	27	7	52	104	55	29	1381	6	37	-6
Ciudad Juárez	31	44	19	106	29	15	1144	7	39	-6
Coyame	29	27	42	105	5	44	1062	6	52	-6
Cuchillo Parado	29	26	34	104	52	58	900	6	46	-6
Cusihuiriachi	28	14	25	106	50	13	1985	7	26	-6
Chihuahua	28	38	12	106	4	42	1430	7	11	-6
Chinipas	27	23	34	108	32	22	1640	7	57	-6
Galeana	30	6	52	107	37	51	1431	7	56	-6
Guadalupe	31	23	27	106	6	13	1113	7	27	-6
Guadalupe y Calvo	26	6	6	106	58	2	1100	7	17	-6
Guerrero	28	32	57	107	29	18	2000	7	42	-6
Meoqui	28	16	36	105	29	16	1155	6	55	-6
Namiquipa	29	15	5	107	24	34	1828	7	45	-6
Ocampo	28	10	59	108	22	27	1732	7	59	-6
Ojinaga	29	33	53	104	25	23	841	6	35	-7
Parral Hidalgo del	26	56	4	105	39	58	1661	6	53	-6
Placer de Guadalupe	29	9	41	105	22	57	900	6	57	-6
San Buenaventura	29	50	47	107	29	10	1574	7	51	-6
San Ignacio	27	10	21	106	19	28	970	7	9	-6
Santa Bárbara	26	48	13	105	49	1	1969	6	56	-6
Santa Isabel	28	20	34	106	22	1	1630	7	16	-6
Satevo	27	57	17	106	6	32	1368	7	8	-6
Temosachic	28	57	12	107	49	50	1900	7	52	-6
Valle de Zaragoza	27	27	40	105	48	35	900	6	59	-6
Valle del Rosario	27	19	5	106	17	41	1480	7	9	-6
Distrito Federal										
Álamo	19	23	55	99	8	30	2246	4	6	-7
Azcapotzalco	19	28	48	99	11	7	2277	4	7	-7
Ciudad Universitaria	19	20	1	99	10	54	2280	4	7	-7
Ciudad Universitaria	19	19	50	99	11	3	2280	4	7	-7
Coyoacán	19	20	54	99	9	45	2278	4	7	-7
Cuajimalpa	19	21	33	99	18	1	2783	4	10	-7
Chapultepec	19	25	11	99	10	52	2310	4	7	-7
Churubusco	19	21	17	99	8	56	2260	4	6	-7
Guadalupe Hidalgo	19	29	9	99	6	56	2200	4	5	-7

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Ixtacalco	19	23	22	99	7	16	2261	4	6	-7
Ixtapalapa	19	21	22	99	5	30	2280	4	5	-7
La Piedad	19	24	3	99	9	20	2253	4	6	-7
México	19	25	59	99	7	58	2233	4	6	-7
Mixcoac	19	22	37	99	10	55	2200	4	7	-7
Mixquic	19	13	28	98	57	52	2260	4	2	-7
Nativitas	19	23	12	99	8	48	2246	4	6	-7
San Jerónimo	19	19	33	99	13	20	2394	4	8	-7
San Simón	19	22	36	99	8	39	2100	4	6	-7
Tacubaya	19	24	10	99	11	40	2298	4	7	-7
Tláhuac	19	16	6	99	0	16	2264	4	3	-7
Tlalpan	19	17	16	99	9	57	2294	4	7	-7
Villa Obregón	19	20	41	99	11	21	2340	4	7	-7
Xochimilco	19	15	44	99	6	7	2274	4	5	-7
Durango										
Ciudad Lerdo	25	32	14	103	31	28	1135	5	57	-7
Cuencame	24	52	18	103	38	6	1889	5	58	-7
Durango	24	1	31	104	40	11	1889	6	19	-7
Gómez Palacio	25	34	18	103	30	17	1195	5	57	-7
Guanacevi	25	55	59	105	57	31	2230	6	55	-6
Inde	25	54	45	105	10	16	2049	6	37	-6
Llano Grande	23	52	2	105	12	7	2406	6	30	-6
Mezquital	23	28	57	104	22	18	1468	6	11	-7
Nazas	25	13	40	104	6	53	1264	6	10	-7
Nombre de Dios	23	51	4	104	15	25	1855	6	9	-7
Pueblo Nuevo	23	22	35	105	22	18	1982	6	32	-6
San Juan de Guadalupe	24	37	0	102	45	8	1520	5	36	-7
San Juan del Río	24	46	45	104	23	22	1737	6	15	-7
Santa María del Oro	25	56	53	105	19	56	1871	6	41	-6
Santa María Ocotlán	22	54	44	104	36	10	365	6	14	-7
Santiago Papasquiaro	25	2	47	105	25	30	1716	6	39	-6
Tamazula	24	58	11	106	58	13	240	7	12	-6
Tayoltita	24	6	27	105	55	30	500	6	46	-6
Tepehuanes	25	21	19	105	47	9	1967	6	48	-6
Tizonazo	25	58	4	105	15	33	1981	6	39	-6
Topia	25	12	19	106	34	34	1851	7	5	-6
Tlahualilo	26	6	31	103	26	21	1132	5	57	-7
Guerrero										
Acapulco	16	50	21	99	55	1	82	4	31	-7
Acayahualco	18	13	30	99	28	52	790	4	17	-7
Coahuayutla	18	18	52	101	48	37	358	5	10	-7
Coatepec	18	20	22	99	42	56	1260	4	23	-7
Coyuca de Catalán	18	20	2	100	39	0	210	4	45	-7
Chaucingo	18	18	7	99	6	53	810	4	8	-7
Chilpancingo	17	33	10	99	30	3	1360	4	19	-7
Huamuxtitlán	17	48	37	99	34	2	1125	4	20	-7
Iguana	18	21	1	99	32	24	731	4	18	-7
La Unión	17	58	52	101	48	49	174	5	11	-7
Mayanalan	18	10	29	99	26	1	0	4	16	-7
Mezcala	17	56	13	99	36	6	420	4	21	-7
Pericotepec	17	57	40	100	13	0	770	4	35	-7

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Petatlán	17	32	8	101	17	0	0	5	0	-7
Placeres de Oro	18	14	31	100	53	57	0	4	50	-7
San Jerónimo	17	5	55	100	28	26	0	4	43	-7
San Luis de la Loma	17	15	42	100	53	48	0	4	52	-7
San Marcos	16	47	31	99	20	41	210	4	18	-7
Santa Fetepetlapa	18	33	5	99	25	19	1090	4	15	-7
Taxco	18	33	16	99	36	20	1755	4	19	-7
Teloloapan	18	22	6	99	52	31	1620	4	26	-7
Tonalapa del Río	18	20	38	99	41	6	750	4	22	-7
Tepantitlancoa	18	0	26	100	17	6	820	4	37	-7
Tepecoacuilco	18	17	10	99	27	55	1012	4	17	-7
Tetela del Río	17	59	7	100	4	50	350	4	32	-7
Tlacozotitlán	17	53	29	99	7	51	560	4	10	-7
Tlapehuala	18	14	21	100	31	18	235	4	42	-7
Zihuatanejo	17	38	14	101	33	48	0	5	6	-7
Zirándaro	18	29	4	100	58	0	193	4	51	-7
Guanajuato										
Abasolo	20	26	59	100	31	48	1760	4	39	-7
Acámbaro	20	2	1	100	43	24	1947	4	44	-7
Apaseo	20	32	37	100	41	7	1767	4	43	-7
Apaseo el Alto	20	27	25	100	37	13	1853	4	41	-7
Atarjea	21	16	5	99	43	5	1258	4	18	-7
C. González	21	28	44	101	12	52	2140	4	55	-7
Celaya	20	31	24	100	48	55	1808	4	46	-7
Cerano	20	6	41	101	23	26	1500	5	0	-7
Comonfort	20	43	15	100	45	51	1795	4	44	-7
Coroneo	20	11	42	100	21	59	1998	4	35	-7
Cortazar	20	28	59	100	52	58	1800	4	47	-7
Cubilete E.	21	0	25	101	22	30	2480	4	59	-7
Cuerámaro	20	37	36	101	40	23	1785	5	6	-7
Dolores Hidalgo	21	9	32	100	56	0	1987	4	48	-7
Guanajuato	21	1	1	101	15	20	2050	4	56	-7
Huanímaro	20	22	1	101	29	45	2459	5	2	-7
Ibarra	21	28	53	101	32	23	2110	5	3	-7
Irapuato	20	40	28	101	20	51	1795	4	58	-7
Iturbide	21	0	3	100	23	4	1100	4	35	-7
Jaral del Progreso	20	22	11	101	13	45	1743	4	56	-7
Jerécuaro	20	9	3	100	30	43	1100	4	39	-7
León	21	7	22	101	41	0	1885	5	6	-7
Manuel Doblado	20	43	49	101	57	14	1795	5	12	-7
Mora	21	8	47	100	19	0	2128	4	33	-7
Moroleón	20	7	54	101	11	36	1772	4	55	-7
Pénjamo	20	25	44	101	43	22	1700	5	7	-7
Pueblo Nuevo	20	31	35	101	22	18	1714	4	59	-7
Purísisma de Bustos	21	1	48	101	52	36	1780	5	11	-7
Romita	20	52	14	101	31	7	1792	5	2	-7
Salamanca	20	34	22	101	11	39	1721	4	55	-7
Salvatierra	20	12	56	100	53	46	1749	4	48	-7
San Diego de la Unión	21	27	56	100	52	25	2080	4	47	-7
San Fco. del Rincón	21	1	2	101	51	36	1721	5	10	-7
San Juan de los Llanos	21	16	47	101	19	4	1000	4	58	-7

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San José	20	56	13	100	58	32	2002	4	49	-7
San Luis de la Paz	21	17	57	100	30	52	2020	4	38	-7
San Miguel de Allende	20	54	52	100	44	47	1870	4	44	-7
Santa Catarina	21	8	27	100	14	10	1845	4	31	-7
Santa Cruz Galeana	20	38	35	100	59	50	1000	4	50	-7
Santiago Maravatío	20	10	28	100	59	38	1790	4	50	-7
Silao	20	56	24	101	25	59	1780	5	0	-7
Tarandacuaro	20	1	14	100	32	3	1920	4	39	-7
Tarimoro	20	17	39	100	45	20	1790	4	44	-7
Tierra Blanca	21	6	9	100	4	44	1760	4	27	-7
Uriangato	20	8	46	100	8	10	1800	4	30	-7
Valle de Santiago	20	23	31	101	11	21	1760	4	55	-7
Victoria	21	12	23	100	13	9	1760	4	31	-7
Villa Ocampo	21	38	52	101	28	50	2420	5	1	-7
Villagrán	20	29	40	100	59	52	1790	4	50	-7
Xichu	21	18	0	100	3	37	1334	4	27	-7
Yuriria	20	12	51	100	8	19	1882	4	30	-7
Hidalgo										
Acayuca	20	1	48	98	50	30	2570	3	57	-7
Actopan	20	16	12	96	56	42	2069	3	5	-8
Ahuehueco	21	1	43	98	54	24	2500	3	57	-7
Altajayucan	20	24	40	99	20	59	1898	4	9	-7
Apan	19	39	35	98	24	10	2493	3	47	-8
Atotonilco Grande	20	17	6	98	40	13	2138	3	52	-7
Bonanza	20	43	12	99	14	36	1900	4	6	-7
Chapantongo	20	17	16	99	24	50	2145	4	11	-7
Chapulhuacan	21	9	29	98	54	22	1500	3	57	-7
Chicautla	20	19	54	99	13	49	1884	4	7	-7
Epazoyuca	20	1	33	98	37	26	2461	3	51	-7
Huasca	20	12	12	98	34	42	1900	3	50	-7
Huautla	21	2	3	98	16	54	1900	3	40	-8
Huejutla	21	8	43	98	24	58	2490	3	44	-8
Huichapan	20	22	37	99	38	58	2102	4	17	-7
Ixmiquilpan	20	29	4	99	13	5	1745	4	6	-7
Metztitlán	20	35	45	98	45	30	1353	3	54	-7
Mexquititlán	20	32	0	98	38	27	1421	3	51	-7
Nopala	20	15	19	98	38	52	2437	3	52	-7
Orizatlán	21	10	35	98	36	40	1900	3	49	-7
Pachuca	20	7	44	98	43	54	2426	3	54	-7
Pisa Flores	21	11	44	99	0	15	1900	3	59	-7
Real del Monte	20	8	23	98	40	21	2679	3	52	-7
San Agustín Tlaxiaca	20	7	5	98	53	6	2372	3	58	-7
San Gabriel	19	52	44	98	36	58	1900	3	52	-7
San Juanico	19	54	14	98	40	17	1900	3	53	-7
San Pablo	20	38	38	98	55	21	1900	3	58	-7
Santa Mónica	19	58	55	98	37	16	1900	3	52	-7
Singuilucan	20	1	52	98	19	59	2714	3	44	-8
Tasquillo	20	33	7	99	18	21	1720	4	8	-7
Tepetitlán	20	11	14	99	22	59	2000	4	11	-7
Tezontepec	19	52	44	98	49	10	2326	3	57	-7
Tianguistengo	20	44	0	98	37	34	1687	3	50	-7

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ESTADO Población	latitud °	‘	“	longitud °	‘	“	alt m	δm °	‘	Δδm ‘/año
Tulancingo	20	4	58	98	22	8	2222	3	45	-8
Tlaxcoapan	20	5	40	99	13	29	2100	4	7	-7
Yolotepec	20	23	36	99	4	31	1900	4	2	-7
Zempoala	19	54	54	98	40	2	2532	3	53	-7
Zimapán	20	44	20	99	22	58	1813	4	10	-7
Jalisco										
Ameca	20	32	47	104	2	46	1235	5	58	-7
Atoyac	20	0	40	103	31	12	1350	5	46	-7
Autlán de Navarro	19	46	13	104	22	4	688	6	3	-7
Bolaños	21	46	31	103	46	58	910	5	54	-7
Cabo Corriente	20	24	42	105	40	50	81	6	30	-6
Carranza	19	44	46	103	46	18	0	5	51	-7
Cihuatlán	19	14	8	104	33	36	0	6	6	-6
Ciudad Guzmán	19	42	13	103	27	53	1507	5	45	-7
Cocula	20	23	55	103	49	27	1432	5	53	-7
Colotlán	22	6	51	103	16	8	0	5	43	-7
Encarnación de Díaz	21	31	37	102	14	6	1814	5	19	-7
Guachinango	20	34	38	104	22	59	1285	6	5	-7
Guadalajara	20	42	32	103	23	9	1567	5	44	-7
Guerrero	21	59	4	103	35	52	1785	5	50	-7
Hostotipaquillo	21	3	46	104	4	21	1079	5	59	-7
Huejuquilla	22	37	42	103	53	58	1480	5	58	-7
La Barca	20	16	37	102	32	53	1517	5	26	-7
La Rosa	19	45	7	103	10	2	0	5	39	-7
Lagos de Moreno	21	21	20	101	55	24	1942	5	12	-7
Ojuelos	21	52	5	101	35	20	2254	5	4	-7
Puerto Vallarta	20	36	56	105	14	42	5	6	22	-6
San Miguel del Alto	21	1	52	102	24	12	2385	5	23	-7
San Pedro Analco	21	14	54	103	57	57	0	5	57	-7
Talpa de Allende	20	23	41	104	49	52	1039	6	13	-6
Tapatitlán	20	48	48	102	45	41	1764	5	31	-7
Tecatitlán	19	28	16	103	18	30	1036	5	42	-7
Tecomates	19	33	8	104	29	18	0	6	5	-6
Tecaltiche	21	26	11	102	34	32	2240	5	27	-7
Tequila	20	53	33	103	50	8	1215	5	54	-7
Unión de Tula	19	57	37	104	16	7	1385	6	1	-7
México										
Acambay	19	57	18	99	50	47	2552	4	23	-7
Amecameca	19	7	36	98	46	0	2468	3	57	-7
Analco de Becerra	19	15	34	100	1	26	2511	4	28	-7
Atlacomulco	19	48	7	98	52	48	2526	3	59	-7
Ayotla	19	18	55	98	56	8	2251	4	1	-7
Chalco	19	15	53	98	54	12	2280	4	0	-7
Chapa de Mota	19	47	24	99	31	23	3070	4	15	-7
Chicoloapan	19	25	3	98	54	11	2235	4	0	-7
Chimalhuacán	19	25	45	98	56	57	2255	4	1	-7
Coatlinchan	19	27	4	98	52	34	2200	3	59	-7
Ecatzingo de Hidalgo	18	57	2	98	45	29	2340	3	58	-7
Huexotla	19	28	50	98	52	25	2200	3	59	-7
Huixquilucan	19	21	47	99	21	39	2750	4	12	-7
Ixtapan de la Sal	18	50	13	99	40	28	1900	4	21	-7

Poblaciones de la República Méxicana, 2022

Coordenadas geográficas (Anuario del Observatorio 1984)

ESTADO Población	latitud °	‘	“	longitud °	‘	“	alt m	δm °	‘	Δδm ‘/año
Ixtlahuaca	19	52	54	98	51	39	2640	3	58	-7
Jilotepec	19	57	13	99	31	45	2525	4	15	-7
Lerma	19	17	16	99	30	34	2599	4	16	-7
Los Reyes	19	21	27	98	52	42	2200	4	0	-7
Naucalpan	19	28	36	99	13	45	2298	4	8	-7
Otumba	19	41	59	98	45	33	2349	3	56	-7
Ozumba	19	2	3	98	47	50	2500	3	58	-7
Progreso Industrial	19	37	37	99	20	32	2449	4	11	-7
Popocatépetl	19	1	17	98	37	34	5452	3	54	-7
Popocatépetl	19	5	3	98	39	12	5450	3	54	-7
Remedios	19	28	25	99	15	2	2383	4	9	-7
San Antonio del Rosario	18	24	4	100	18	43	3350	4	36	-7
San Cristóbal	19	24	24	99	19	40	2239	4	11	-7
San Pedro Atzcapotzaltongo	19	37	38	99	18	54	2420	4	10	-7
San Pedro Atzompa	19	40	56	99	0	36	2243	4	2	-7
Sultepec	18	50	0	99	51	44	2336	4	25	-7
Tecámac	19	42	21	98	58	10	2300	4	1	-7
Temascalapa	19	49	37	98	54	11	2347	3	59	-7
Temascaltepec	19	2	24	100	2	47	1640	4	29	-7
Tenancingo	18	57	51	99	35	45	2022	4	18	-7
Teoloyucan	19	44	48	99	10	53	2280	4	6	-7
Texcoco	19	30	52	98	52	57	2278	3	59	-7
Tlalmanalco	19	12	36	98	48	27	2412	3	58	-7
Tlalnepantla	19	32	20	99	11	39	2278	4	7	-7
Toluca	19	17	33	99	39	38	2680	4	19	-7
Michoacán										
Aguililla	18	44	17	102	44	9	970	5	30	-7
Agostitlán	19	32	6	100	37	13	2500	4	42	-7
Apatzingán	19	4	54	102	15	31	682	5	19	-7
Apo	19	26	38	102	25	2	0	5	23	-7
Ario de Rosales	19	12	21	101	44	19	2050	5	8	-7
Buenavista	19	12	3	102	35	35	586	5	27	-7
Coahuayana	18	45	9	103	40	30	20	5	49	-7
Cotija	19	48	41	102	42	26	1751	5	29	-7
Hidalgo	19	41	19	100	33	23	2360	4	40	-7
Huajumbaro	19	40	52	100	44	29	2390	4	45	-7
Irimbo	19	41	54	100	28	58	2015	4	39	-7
Janitzio	19	34	27	101	39	11	2120	5	6	-7
Jiquilpan	19	59	31	102	43	16	1654	5	29	-7
La Huacana	18	57	36	101	48	39	550	5	10	-7
Los Reyes	19	35	23	102	28	57	1280	5	24	-7
Maravatío	19	53	33	100	26	43	2080	4	37	-7
Morelia	19	42	16	101	11	30	1941	4	55	-7
Ostula	18	29	50	103	28	19	229	5	45	-7
Panindicuaro	19	59	7	102	45	40	1638	5	30	-7
Parácuaro	19	8	46	103	13	32	586	5	40	-7
Paracho	19	38	44	102	3	1	1567	5	15	-7
Pátzcuaro	19	32	24	101	37	0	2174	5	5	-7
Penjamillo	20	6	31	101	55	40	1645	5	12	-7
Piedad de Cavadas	20	20	44	102	1	32	1696	5	14	-7
Pueblo Viejo	19	46	16	101	34	3	2210	5	4	-7

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ESTADO Población	latitud °	‘	“	longitud °	‘	“	alt m	δm °	‘	Δδm ‘/año
Puruándiro	20	5	21	101	30	59	1994	5	2	-7
San Pedro Jacuaro	19	43	1	100	38	49	2004	4	42	-7
Senguio	19	44	11	100	21	31	2030	4	36	-7
Tacámbaro	19	13	52	101	27	34	1577	5	2	-7
Tequicheo	18	54	0	100	44	21	440	4	46	-7
Tepalcatepec	19	11	31	102	50	35	320	5	32	-7
Tumbiscatio	18	31	33	102	22	28	820	5	22	-7
Turicato	19	3	0	101	25	14	795	5	1	-7
Tuzantla	19	12	19	100	34	39	640	4	41	-7
Uruapan	19	24	56	102	3	46	1634	5	15	-7
Villa Madero	19	23	30	101	16	34	800	4	57	-7
Zacapu	19	49	11	101	47	34	1980	5	9	-7
Zamora	19	59	17	102	18	52	1567	5	20	-7
Zinapécuaro	19	53	5	100	40	32	1920	4	43	-7
Zitácuaro	19	25	51	100	21	50	1781	4	36	-7
Morelos										
Acapatzingo	18	54	11	99	13	17	1465	4	9	-7
Acatlipa	18	49	30	99	13	42	1215	4	10	-7
Ahuacatitlán	18	58	42	99	15	19	1955	4	10	-7
Atlatlahuacan	18	56	5	98	53	53	1656	4	1	-7
Coatetelco	18	43	55	99	19	48	1029	4	12	-7
Cuajomulco	19	2	2	99	12	17	2651	4	9	-7
Cuautla	18	48	20	98	57	13	1309	4	3	-7
Cuernavaca	18	54	54	99	14	14	1542	4	10	-7
Chapultepec	18	55	11	99	12	49	1492	4	9	-7
Huautla	18	26	24	99	1	44	1075	4	6	-7
Huitzilac	19	1	39	99	16	2	2540	4	10	-7
Itzamatitlán	18	53	58	99	1	30	1235	4	4	-7
Jojutla	18	36	39	99	10	52	890	4	9	-7
Oaxtepec	18	54	2	98	58	11	1385	4	3	-7
San Miguel	18	41	42	98	48	40	1403	4	0	-7
Tejalpa	18	53	43	99	9	57	1337	4	8	-7
Tepalcingo	18	35	34	98	50	43	1220	4	1	-7
Tetelcingo	18	51	55	98	55	47	1425	4	2	-7
Xiutepec	18	52	31	99	10	27	1355	4	8	-7
Xochitepec	18	47	4	99	13	50	1154	4	10	-7
Yautepec	18	52	38	99	3	46	1282	4	5	-7
Yecapixtla	18	52	56	98	51	55	1603	4	0	-7
Nayarit										
Acaponeta	22	29	21	105	21	41	30	6	29	-6
Amatlán de Jara	21	23	9	104	8	47	1150	6	1	-7
Huajimic	21	41	29	104	18	18	1170	6	5	-7
Ixtapan	21	18	16	105	9	44	0	6	22	-6
Ixtlán del Río	21	2	9	104	22	16	1042	6	5	-7
Jesús María	22	15	9	104	31	10	610	6	11	-7
Mezcaltitán	21	54	18	105	28	39	0	6	30	-6
Ruíz	21	57	29	105	8	35	24	6	23	-6
San Blas	21	32	27	105	17	16	2	6	25	-6
San Martín de Bolaños	21	29	42	104	1	35	0	5	59	-7
Tepic	21	30	47	104	53	42	915	6	17	-6
Tuxpan	21	54	10	104	8	6	39	6	2	-7

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ESTADO Población	latitud °	‘	“	longitud °	‘	“	alt m	δm °	‘	Δδm ‘/año
Nuevo León										
Agualeguas	26	18	38	99	33	3	207	4	12	-7
Aramberri	24	6	10	99	49	3	1076	4	19	-7
Cadereyta Jiménez	25	35	34	99	59	54	360	4	25	-7
Cerralvo	26	5	32	99	36	29	345	4	14	-7
China	25	42	30	99	13	55	163	4	3	-7
Doctor Arroyo	23	40	23	100	10	52	1766	4	29	-7
Galeana	24	49	41	100	3	53	1654	4	26	-7
García	25	48	49	100	35	21	697	4	41	-7
Lampazos de Naranjo	27	1	32	100	30	33	340	4	41	-7
Linares	24	51	39	99	34	5	684	4	12	-7
Los Aldamas	26	3	58	99	11	30	288	4	2	-7
Mier y Noriega	23	25	19	100	7	11	1681	4	27	-7
Montemorelos	25	11	34	99	49	31	432	4	20	-7
Monterrey	25	40	11	100	18	26	538	4	33	-7
Parras	26	30	5	99	31	5	165	4	11	-7
Sabinas Hidalgo	26	29	59	100	10	9	313	4	30	-7
Salinas Victoria	25	57	34	100	18	0	464	4	33	-7
Santiago Huajuco	25	25	35	100	8	17	445	4	28	-7
Vallecillo	26	39	41	99	58	2	274	4	25	-7
Villa Aldama	26	29	49	100	25	50	469	4	38	-7
Zaragoza	23	50	52	99	36	19	1377	4	13	-7
Oaxaca										
Ayutla	18	1	48	96	39	46	733	3	6	-8
Ayoquezco	16	41	13	96	50	2	0	3	16	-8
Ayotzintepec	17	40	38	96	8	17	64	2	53	-8
Coatzopan	18	2	56	96	45	31	1922	3	8	-8
Colotepec	15	53	33	96	56	28	0	3	23	-8
Cuicatlán	17	48	11	96	57	36	595	3	15	-8
Chacalapa	15	55	20	95	55	48	555	2	56	-8
Chalcatongo	17	1	57	97	34	24	2365	3	34	-8
Ecatepec	16	17	8	95	52	39	1690	2	53	-8
Ejutla de Crespo	16	33	48	96	43	44	1440	3	14	-8
Etla	17	12	17	96	47	49	1640	3	13	-8
Guichicovi	16	58	35	95	13	52	297	2	31	-8
Guelatao	17	19	15	96	29	34	1698	3	4	-8
Guelatao	17	19	10	96	29	31	1600	3	4	-8
Huajuapan de León	17	48	30	97	46	31	1680	3	36	-8
Huamelulas Pedro	16	1	39	95	40	1	1030	2	49	-8
Huatulco	15	49	44	96	19	11	325	3	7	-8
Huautla	18	7	53	96	50	45	1714	3	10	-8
Jamiltepec	16	16	33	97	49	23	240	3	43	-8
Juchitlán de Zaragoza	16	25	56	95	1	31	38	2	29	-8
Juguila	16	14	6	97	17	45	1500	3	30	-8
Juxtlahuaca	17	20	11	98	0	56	1650	3	44	-8
Lachiguiri	16	23	9	97	20	8	1780	3	31	-8
Loxicha	16	0	31	96	37	20	1885	3	14	-8
Mazatlán	17	2	11	95	26	48	642	2	37	-8
Miahuatlán	16	20	1	96	35	44	1607	3	12	-8
Nejapa	16	36	50	95	58	48	1000	2	54	-8
Niltepec	16	33	47	94	36	48	110	2	16	-8

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ESTADO Población	latitud ° ‘ “	longitud ° ‘ “	alt m	δm ° ‘	Δδm ‘/año
Nochixtlán	17 27 33	97 13 29	2200	3 23	-8
Oaxaca de Juárez	17 3 43	96 43 18	1550	3 12	-8
Ocotepec	17 47 53	96 23 47	1636	3 0	-8
Ojitlán	18 3 42	96 23 31	0	2 58	-8
Ojitlán	18 3 35	96 23 34	233	2 58	-8
Pluma Hidalgo	15 54 50	96 25 30	1475	3 9	-8
Pochutla	15 44 21	96 27 57	163	3 11	-8
Puerto Ángel	15 39 24	96 29 35	20	3 13	-8
Putla	17 1 28	97 56 2	1248	3 43	-8
Quiechapa	16 25 34	96 14 54	1900	3 2	-8
Quiotepec	17 54 8	96 59 0	845	3 15	-8
Salinas Cruz	16 9 37	95 12 11	70	2 35	-8
San Jerónimo Ixtepec	16 33 58	95 6 1	121	2 30	-8
San Miguel Peras	16 56 22	97 0 16	50	3 20	-8
San Vicente Coatlán	16 23 15	96 50 42	0	3 18	-8
Santa María del Mar	16 13 24	94 51 33	0	2 25	-8
Silacayoapan	17 30 14	98 8 38	1720	3 47	-8
Soladevega	16 31 1	96 58 22	1580	3 21	-8
Soyaltepec	18 12 12	96 28 57	0	3 0	-8
Suchixtepec	17 58 28	97 39 26	2842	3 32	-8
Tamazulapan	17 40 30	97 34 19	0	3 31	-8
Tecomavaca	17 57 34	97 1 5	660	3 16	-8
Tehuantepec	16 19 57	95 13 46	100	2 35	-8
Teotitlán del Camino	18 7 53	97 4 26	1067	3 16	-8
Teposcolula	17 30 45	97 29 16	2155	3 30	-8
Tequisistlán	16 24 21	95 36 2	1000	2 45	-8
Teutla	17 59 0	96 42 54	1338	3 7	-8
Tezoatlán	17 40 24	97 48 42	1500	3 37	-8
Tlaxiaco	17 15 59	97 40 58	1210	3 36	-8
Tlocula de Matamoros	16 57 19	96 28 43	1650	3 6	-8
Tololapan	16 40 4	96 18 12	0	3 2	-8
Tuxtepec	18 5 24	96 6 50	91	2 51	-8
Valle Nacional	17 40 43	96 17 59	65	2 58	-8
Villa Alta	17 20 41	96 9 8	1138	2 55	-8
Yacuane	17 14 25	97 27 3	0	3 30	-8
Yautepec	16 25 52	95 58 11	1100	2 55	-8
Yautepec	16 30 15	96 6 18	1000	2 58	-8
Yalalag	17 11 20	96 10 48	1186	2 57	-8
Zaniza	16 39 7	97 20 19	0	3 30	-8
Zimatlán	16 52 0	96 46 34	1609	3 14	-8
Puebla					
Acatepec	19 1 16	98 18 24	2174	3 46	-8
Acatlán de Osorio	18 12 6	98 3 6	1213	3 42	-8
Ahuatempan	18 24 47	98 0 58	1810	3 40	-8
Atezcal	18 23 51	97 43 28	1847	3 33	-8
Atlixco	18 54 32	98 26 27	1881	3 50	-8
Cacalotepec	19 0 3	98 17 28	2337	3 45	-8
Canoa	19 8 55	98 6 4	2000	3 40	-8
Canal de Morelos	18 44 8	97 25 20	2337	3 23	-8
Coronanc	19 7 11	98 17 58	2230	3 45	-8
Coxcatlán	18 15 55	97 8 55	1217	3 18	-8

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ESTADO Población	latitud °	‘	“	longitud °	‘	“	alt m	δm °	‘	Δδm ‘/año
Oyotzingo	19	11	49	98	26	18	2322	3	49	-8
Cualtlancingo	19	5	16	98	16	14	2118	3	45	-8
Chachapa	19	2	47	98	5	35	2298	3	40	-8
Chiautla de Tapia	18	17	28	98	35	55	1025	3	55	-7
Chila Asunción	17	58	26	97	51	11	1676	3	37	-8
Cholula	19	3	45	98	18	15	2150	3	46	-8
Huauchinango	20	10	51	98	2	58	1472	3	36	-8
Huejotzingo	19	9	29	98	24	22	2291	3	48	-8
Hueyotlipan	19	5	6	98	12	32	2195	3	43	-8
Ixtaccihuatl	19	11	11	98	38	38	5146	3	54	-7
Izúcar de Matamoros	18	36	6	98	27	42	1326	3	51	-7
La Malinche	19	13	48	98	1	47	4461	3	38	-8
Loreto	19	3	24	98	11	5	2221	3	43	-8
Molcaxac	18	44	9	97	54	8	1874	3	36	-8
Momoxpan	19	4	13	98	15	54	2159	3	45	-8
Moyotzingo	19	14	35	98	24	11	2271	3	48	-8
Nextetelco	19	7	13	98	20	21	1500	3	46	-8
Nopalucan	19	12	59	97	49	10	2490	3	32	-8
Ocotlán	19	8	37	98	17	3	2243	3	45	-8
Ocoyucan	18	58	30	98	17	58	2152	3	46	-8
Pantepec	20	31	29	97	56	14	738	3	32	-8
Petlaltzingo	18	4	59	97	55	12	1325	3	39	-8
Popocatépetl	19	1	17	98	37	34	5452	3	54	-7
Puebla de Zaragoza	19	2	30	98	11	48	2162	3	43	-8
Resurrección	19	6	4	98	7	36	2366	3	41	-8
San Andrés Chalchico	18	59	10	97	26	52	2540	3	23	-8
San Antonio	19	6	3	98	9	31	2296	3	42	-8
San Aparicio	18	29	42	97	16	51	1771	3	21	-8
San Baltazar	19	1	24	98	12	18	2142	3	43	-8
Sanctorum	19	5	51	98	15	8	2000	3	44	-8
San Juan de los Llanos	19	27	54	97	41	3	2380	3	28	-8
San Martín Texmelucan	19	16	59	98	25	59	2278	3	48	-8
San Salvador el Seco	19	8	7	97	38	32	2450	3	28	-8
Santa María Chiamecati	18	38	47	98	4	46	2000	3	41	-8
Santa Rita Tlahuapan	19	19	56	98	35	9	2291	3	52	-7
Santiago Xalitzintla	19	4	36	98	30	53	2000	3	51	-7
Tecali	18	53	58	97	57	59	2240	3	37	-8
Tecamachalco	18	52	57	97	43	49	2055	3	31	-8
Tehuacán de las Gran	18	27	51	97	23	20	1676	3	24	-8
Temextatiloyan	19	5	22	98	12	46	2183	3	43	-8
Tepeaca	18	57	43	97	54	8	2257	3	35	-8
Tepeji Rodríguez	18	34	47	97	55	45	1746	3	37	-8
Tetela de Ocampo	19	49	15	97	48	10	1790	3	30	-8
Teziutlán	19	49	30	97	21	17	1990	3	18	-8
Tlacotepec	18	40	54	97	39	9	1977	3	30	-8
Tlaltenango	19	10	10	98	20	36	2246	3	46	-8
Tlancualpican	18	25	41	98	41	41	1100	3	57	-7
Tlaxcalanzingo	19	1	44	98	16	24	2173	3	45	-8
Tonantzintla	19	1	58	98	18	50	2147	3	46	-8
Xalmimilulco	18	12	32	98	22	46	2248	3	50	-8
Xochimehuacan	19	5	23	98	11	51	2200	3	43	-8
Xonacatepec	19	5	12	98	6	8	2209	3	40	-8

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Zacapoaxtla	19	52	49	97	35	2	2045	3	24	-8
Zacatlán de las Manzanas	19	56	7	97	57	27	2059	3	34	-8
Zapotitlán	18	19	56	97	28	23	2407	3	26	-8
Zautla	19	43	6	97	40	21	2020	3	27	-8
Zinacatepec	18	19	57	97	14	41	1139	3	20	-8
Querétaro										
Amealco	20	11	17	100	8	38	2075	4	30	-7
Arroyo Seco	21	32	54	99	41	13	1008	4	17	-7
Boye	20	40	58	99	44	47	1000	4	19	-7
Cadereyta	20	41	41	99	48	58	2077	4	21	-7
Ezequiel Montes	20	40	2	99	53	54	1000	4	23	-7
Huimilpan	20	22	39	100	16	32	2307	4	33	-7
Jalpan	21	13	8	99	28	16	860	4	11	-7
Querétaro	20	35	36	100	23	11	1000	4	35	-7
San Juan del Río	20	23	30	99	59	49	1978	4	26	-7
Tequisquiapan	20	31	26	99	53	42	1717	4	23	-7
Tolimán	20	54	35	99	55	45	1535	4	24	-7
Quintana Roo										
Ascensión	19	46	31	87	28	0	0	-1	57	-8
Cabo Catoche	21	36	25	87	6	21	157	-2	24	-8
Carrillo Puerto	19	34	50	88	2	38	30	-1	35	-8
Contoy	21	31	45	86	48	12	0	-2	34	-8
Cozumel	20	31	20	86	57	12	0	-2	21	-8
Chetumal	18	29	39	88	17	56	0	-1	18	-8
Filomeno Mata	19	52	8	88	23	47	0	-1	25	-8
Icaiche	18	4	17	89	10	7	183	0	-45	-8
Kantunil Kin	21	6	14	87	29	12	20	-2	6	-8
Leona Vicario	20	59	23	87	12	22	0	-2	15	-8
Polyuc	19	36	50	88	33	58	0	-1	17	-8
Put	19	39	8	89	24	46	0	0	-48	-8
Saban	20	2	12	88	32	16	0	-1	21	-8
Santa Cruz Chico	18	56	3	88	9	44	0	-1	26	-8
Tulum	20	12	34	87	25	34	150	-2	2	-8
Vigía Chico	19	46	27	87	35	2	0	-1	53	-8
Xkalak	18	13	32	87	50	50	0	-1	31	-8
Xkanha	19	6	13	89	20	5	0	0	-47	-8
San Luis Potosí										
Ahualco	22	23	56	101	9	58	1902	4	54	-7
Alaquines	22	7	41	99	35	27	1300	4	14	-7
Arista	22	38	46	100	51	2	1560	4	46	-7
Arriaga	21	54	44	101	22	58	2660	4	59	-7
Cárdenas	21	59	49	99	38	28	1201	4	15	-7
Catorce	23	41	34	100	53	23	2756	4	47	-7
Cerritos	22	25	55	100	16	51	1153	4	32	-7
Ciudad del Maíz	22	24	8	99	36	9	1239	4	14	-7
Charcas	23	7	47	101	6	37	2057	4	53	-7
Guadalcázar	22	37	1	100	23	56	1673	4	35	-7
Matehuala	23	38	41	100	38	26	1615	4	41	-7
Moctezuma	22	45	7	101	5	0	1777	4	52	-7
Pastora	22	8	2	100	3	25	920	4	26	-7

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Ramos	22	49	59	101	55	3	2210	5	13	-7
Rio Verde	21	55	52	99	59	38	991	4	24	-7
Salinas de Puente Blanco	22	37	44	101	43	0	2099	5	8	-7
San Luis Potosí	22	9	10	100	58	38	1877	4	49	-7
Santa Catarina	21	39	37	99	29	36	898	4	12	-7
Santa María del Río	21	48	4	100	44	9	1703	4	43	-7
Santo Domingo	23	19	35	101	44	6	1971	5	9	-7
Tamazunchale	21	16	0	98	47	18	206	3	53	-7
Tamuin	21	0	18	98	46	30	275	3	54	-7
Tancanhuitz	21	36	11	98	57	57	241	3	58	-7
Valles	21	59	4	99	0	58	95	3	59	-7
Vieja	22	2	29	99	25	16	10	4	9	-7
Villa de Reyes	21	48	19	100	56	0	1819	4	48	-7
Zaragozas José de	22	2	8	100	43	53	1925	4	43	-7
Sinaloa										
Altata	24	38	0	107	55	53	2	7	29	-6
Badiraguato	25	21	40	107	33	7	300	7	25	-6
Cosalá	24	24	38	106	41	44	300	7	3	-6
Culiacán	24	48	36	107	23	57	84	7	19	-6
El Fuerte	26	25	14	108	39	0	0	7	53	-6
La Laguna	26	34	58	108	27	25	600	7	50	-6
Mazatlán	23	11	55	106	25	20	3	6	53	-6
Mocorito	25	29	0	107	55	13	838	7	33	-6
Navolato	24	45	57	107	41	48	12	7	25	-6
Rosario	22	59	29	105	51	13	32	6	41	-6
San Blas	26	4	38	108	45	53	37	7	53	-6
San José de Gracia	26	8	38	107	53	38	750	7	36	-6
Santa María	25	33	56	109	10	26	46	7	57	-6
Sinaloa	25	49	26	108	13	29	55	7	41	-6
Soyatita	25	44	21	107	18	36	1200	7	22	-6
Topolobampo	25	36	1	109	2	52	3	7	55	-6
Sonora										
Agua Prieta	31	19	42	109	33	44	1050	8	47	-6
Aguiabampo	26	21	58	109	8	59	7	8	2	-6
Álamos	27	1	16	108	56	2	410	8	2	-6
Altar	30	42	46	111	44	12	0	9	24	-5
Antimonio	30	44	34	112	36	49	61	9	40	-5
Arizpe	30	20	9	110	10	22	870	8	51	-6
Bacanora	28	59	2	109	23	21	446	8	25	-6
Bacerac	30	21	41	108	49	25	937	8	24	-6
Baroyeca	27	38	32	109	29	33	0	8	18	-6
Buenavista	27	51	3	109	52	24	111	8	26	-6
Caborca	30	41	50	112	9	29	305	9	31	-5
Cananea	30	58	57	110	18	1	1489	8	59	-6
Carbo	29	41	0	110	57	29	464	9	1	-6
Carbón	29	41	0	110	57	29	464	9	1	-6
Cedros	27	45	39	109	17	26	475	8	14	-6
Ciudad Obregón	27	29	35	109	56	0	100	8	25	-6
Conicarit	27	14	18	109	5	5	145	8	7	-6
Cucurpe	30	19	51	110	42	18	803	9	1	-6
Guaymas	27	55	28	110	53	31	0	8	45	-5

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Hermosillo	29	4	29	110	57	36	237	8	56	-6
Huatabampo	26	49	36	109	38	46	20	8	15	-6
Imuris	30	46	38	110	51	58	826	9	8	-6
Libertad	29	54	12	112	45	7	0	9	35	-5
Macoyahui	27	19	36	108	54	28	201	8	4	-6
Magdalena	30	37	45	111	3	42	693	9	11	-6
Moctezuma	29	48	10	109	41	41	677	8	37	-6
Minas Nuevas	27	3	29	109	0	33	520	8	4	-6
Movas	28	9	40	109	26	34	260	8	20	-6
Naco	31	19	53	109	57	5	1340	8	55	-6
Nacori Grande	29	3	37	110	2	44	634	8	39	-6
Nacozari	30	22	25	109	41	28	1040	8	42	-6
Navojoa	27	4	52	109	27	13	40	8	13	-6
Nogales	31	19	49	110	56	42	1120	9	14	-6
Nabas	28	27	40	109	31	35	170	8	24	-6
Puerto Libertad	29	54	34	102	40	52	8	5	50	-7
Punta Peñasco	31	18	9	113	32	57	61	10	1	-5
Quiriego	27	31	11	109	15	7	251	8	12	-6
Rayón	29	42	47	110	34	36	560	8	54	-6
Sahuaripa	29	3	18	109	13	31	460	8	22	-6
San José de Pimas	28	42	47	110	21	2	415	8	42	-6
Santa Ana	30	32	38	111	7	26	687	9	11	-6
Santa Clara	31	40	41	114	29	30	0	10	20	-5
Soyopa	28	45	49	109	38	7	272	8	28	-6
Suaqui Grande	28	23	44	109	53	30	272	8	31	-6
Tiburón	28	45	55	112	41	56	0	9	23	-5
Torín	27	34	30	110	13	19	64	8	31	-6
Tubutama	30	53	4	111	28	16	682	9	21	-5
Ures	29	25	45	110	23	29	432	8	48	-6
Yabaros	26	42	12	109	30	45	2	8	11	-6
Tabasco										
Álvaro Obregón	18	13	19	92	40	4	33	1	8	-8
Astapa	17	46	42	92	59	18	134	1	21	-8
Cárdenas	18	0	42	93	22	10	4	1	31	-8
Comalcalco	18	15	54	93	13	7	5	1	25	-8
Francisco I. Madero	18	25	18	92	44	28	72	1	9	-8
Huimanguillo	17	52	10	93	27	31	193	1	35	-8
Ignacio Allende	18	23	10	92	50	51	32	1	13	-8
Tacotalpa	17	35	47	92	49	26	60	1	17	-8
Tapijulapa	17	27	52	92	46	50	0	1	17	-8
Teapa	17	33	14	92	57	12	50	1	21	-8
Tenosique	17	28	45	91	25	33	60	0	34	-8
Tierra Colorada	17	57	22	92	37	46	144	1	9	-8
Villahermosa	17	59	15	92	55	0	10	1	18	-8
Xicoténcatl	17	30	35	92	40	52	206	1	13	-8
Tamaulipas										
Abasolo	24	4	0	98	22	38	61	3	38	-7
Aldama Presas	22	55	6	98	4	12	98	3	31	-8
Altamira	22	23	40	97	55	47	26	3	28	-8
Antiguo Morelos	22	33	3	99	5	9	178	4	0	-7
Burgos	24	57	1	98	46	57	193	3	50	-7

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Camargo	26	19	1	98	49	55	68	3	51	-7
Casas	23	43	44	98	44	27	120	3	49	-7
Ciudad Victoria	23	44	6	99	7	51	321	4	0	-7
Cruillas	24	45	32	98	30	59	265	3	42	-7
Güémez	23	55	18	99	0	28	220	3	57	-7
Guerrero	26	46	45	99	20	22	34	4	6	-7
Jaumave	23	24	30	99	22	28	735	4	7	-7
Jiménez	24	12	56	99	28	44	101	4	10	-7
Llera	23	19	11	99	1	15	290	3	57	-7
Magiscatzin	22	48	29	98	42	1	56	3	49	-7
Matamoros	25	52	45	97	31	9	12	3	11	-7
Méndez	25	7	11	98	34	12	128	3	43	-7
Mier	26	25	57	99	8	41	80	4	0	-7
Miquihuana	23	34	15	99	46	32	1892	4	18	-7
Ocampo	20	50	32	99	20	14	348	4	9	-7
Padilla	24	0	39	98	46	27	153	3	50	-7
Reynosa	26	5	50	98	16	42	38	3	34	-7
San Carlos	24	34	50	98	56	26	432	3	54	-7
San Fernando	24	50	56	98	9	30	55	3	31	-7
Tampico	22	13	0	97	51	19	12	3	26	-8
Tula	22	59	50	99	42	55	1173	4	16	-7
Villagrán	24	28	33	99	20	21	363	4	6	-7
Xicoténcatl	22	59	48	98	56	35	131	3	55	-7
Tlaxcala										
Apizaco	19	24	59	98	8	27	2408	3	40	-8
Calpulalpan	19	35	37	98	34	18	2578	3	51	-7
Cuaula	19	36	10	98	38	44	2703	3	53	-7
Cuauhutotohuatlán	19	7	7	98	10	9	2308	3	42	-8
Huamantla	19	18	53	97	55	39	2553	3	35	-8
Tenancingo	19	8	47	98	11	57	2281	3	43	-8
Tlaxcala	19	19	4	98	14	9	2252	3	43	-8
San Aparicio	19	6	0	98	9	30	2293	3	42	-8
San Juan de los Llanos	19	27	54	97	41	0	2448	3	28	-8
San Martín Texmelucan	19	16	59	98	25	59	2278	3	48	-8
Veracruz										
Acayucan	17	56	42	95	54	43	88	2	46	-8
Acayucan	17	56	34	94	54	13	88	2	17	-8
Acayucan	17	56	42	94	54	48	158	2	17	-8
Actopan	19	30	11	96	36	45	311	2	59	-8
Alvarado	18	46	14	95	45	56	9	2	38	-8
Ciudad Azueta	18	4	43	95	42	18	0	2	39	-8
Coatepec	19	27	8	96	57	1	1252	3	8	-8
Coatzacoalcos	18	8	56	94	24	40	2	2	2	-8
Coatzintla	20	29	6	97	26	12	144	3	18	-8
Córdoba	18	53	34	96	55	52	924	3	10	-8
Cosamaloapan	18	21	46	95	48	32	96	2	41	-8
Coscomatepec	19	4	23	97	2	5	1588	3	12	-8
Cuatotolopan	18	7	16	95	18	7	23	2	28	-8
Cuichapa	18	46	28	96	52	8	642	3	8	-8
Chiconamel	21	14	0	98	27	36	158	3	45	-7
Chicontepec	20	58	31	98	9	54	595	3	37	-8

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General Alemán	18	11	32	96	5	44	18	2	50	-8
Hidalgotitlán	17	46	20	94	38	47	77	2	11	-8
Huatusco	19	9	1	96	57	9	1344	3	9	-8
Huayacocotla	20	32	27	98	28	38	2100	3	46	-7
Inalambrica	19	10	50	96	7	36	0	2	46	-8
Ixcatepec	21	14	23	98	0	14	295	3	32	-8
Ixhuatlán	20	41	30	98	0	35	306	3	34	-8
Jalapa	19	31	35	96	54	51	1427	3	7	-8
Lobos	21	28	0	97	13	3	0	3	10	-8
Martínez de la Torre	20	3	58	97	2	36	151	3	9	-8
Minatitlán	17	58	47	94	32	27	64	2	6	-8
Misantla	19	56	2	96	50	24	410	3	4	-8
Mocayapan	18	12	49	94	50	17	340	2	14	-8
Naolingo	19	39	15	96	51	51	1605	3	5	-8
Nautla	20	12	43	95	45	38	4	2	32	-8
Orizaba	18	50	58	97	5	47	1284	3	14	-8
Ozuluama	21	39	46	97	51	0	229	3	27	-8
Pantepec	20	31	29	97	56	14	738	3	32	-8
Papantla	20	26	53	97	19	7	298	3	15	-8
Perote	19	33	52	97	14	24	2465	3	16	-8
Pico Orizaba	19	2	0	97	15	42	5700	3	18	-8
P. Vicente	17	50	5	95	48	35	95	2	43	-8
Rizo	19	3	17	95	55	8	0	2	41	-8
Rodríguez Clara	17	59	28	95	24	9	148	2	31	-8
Sacrificios	19	10	26	96	5	27	0	2	45	-8
San Andrés Tuxtla	18	26	42	95	11	53	361	2	23	-8
San Andrés Tuxtla	18	26	40	95	13	1	323	2	24	-8
San Carlos	19	24	17	96	21	25	136	2	52	-8
San Juan de Ulua	19	12	26	96	7	46	0	2	46	-8
San Juan Evangelista	17	52	59	95	8	12	88	2	24	-8
San Martín	18	33	48	95	10	48	1738	2	22	-8
Santiaguillo	19	8	29	95	48	23	0	2	37	-8
Tamarindo	18	45	23	96	22	49	80	2	55	-8
Tamiahua	21	16	26	97	26	29	4	3	17	-8
Tantoyucan	21	21	7	98	13	31	217	3	38	-8
Tehuipango	18	31	14	97	3	31	2382	3	15	-8
Teocelo de Diaz	19	23	8	96	57	47	1218	3	9	-8
Tepetzintla	21	10	43	96	49	48	351	2	59	-8
Tesechoacan	18	8	12	95	39	47	0	2	38	-8
Tierra Blanca	18	27	3	96	21	28	60	2	56	-8
Tihuatlán	20	43	26	97	32	23	222	3	21	-8
Tlacojalpan	18	13	57	95	57	13	91	2	46	-8
Tlacotalpan	18	36	40	95	39	54	320	2	36	-8
Tlaliscoyan	18	48	7	96	3	26	84	2	46	-8
Tlapacoyan	19	58	13	97	12	35	504	3	14	-8
Tonayan	19	40	54	96	54	45	0	3	6	-8
Tuxpan	20	57	18	97	23	59	14	3	16	-8
Veracruz	19	12	2	96	8	13	14	2	47	-8
Verde	19	11	50	96	3	59	0	2	45	-8
Xico	19	25	17	97	0	11	0	3	10	-8
Zongolica	18	40	10	96	59	26	1294	3	12	-8

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Yucatán										
Becanchen	19	52	32	89	13	3	0	0	-56	-8
Celestum	20	51	36	90	24	5	3	0	-22	-8
Cuyo	21	31	9	87	40	48	8	-2	2	-8
Chancenote	20	59	36	87	46	56	0	-1	55	-8
Chavihau	21	21	28	89	7	7	0	-1	10	-8
Espita	21	0	36	88	18	27	22	-1	36	-8
Halachó	20	28	44	90	4	51	6	0	-31	-8
Huhi	20	43	42	89	10	0	15	-1	4	-8
Izamal	20	56	16	88	57	14	14	-1	13	-8
Maxcanu	20	35	11	89	59	55	8	0	-34	-8
Mérida	20	59	0	89	38	43	9	0	-49	-8
Molas	20	49	0	89	37	48	10	0	-49	-8
Progreso	21	18	0	89	39	30	8	0	-51	-8
San Felipe	21	34	8	88	13	58	0	-1	43	-8
Sisal	21	9	59	90	1	55	0	0	-37	-8
Tekax	20	12	18	98	17	20	35	3	42	-8
Telchac	21	20	35	89	15	50	10	-1	5	-8
Tzimin	21	8	1	88	9	6	17	-1	43	-8
Valladolid	20	41	24	88	12	23	20	-1	38	-8
Yalkubul	21	31	26	88	36	55	0	-1	29	-8
Zacatecas										
Calera	22	57	2	102	42	10	2236	5	32	-7
Concepción del Oro	24	36	54	101	25	43	2070	5	2	-7
Chalchihuites	23	28	42	103	53	15	2321	6	0	-7
Fresnillo	23	10	35	102	52	39	2250	5	36	-7
Guadalupe	22	45	30	102	31	9	2265	5	27	-7
Jerez	22	38	51	102	59	48	2027	5	38	-7
Juchipila	21	24	46	103	7	29	1350	5	39	-7
Nieves	23	59	41	103	1	12	2017	5	41	-7
Nochistlán	21	21	47	102	50	55	1930	5	33	-7
Observatorio Astronómico	22	43	56	102	32	26	2717	5	27	-7
Observatorio Astronómico	22	46	1	102	32	56	2425	5	28	-7
Ojo Caliente	22	34	44	102	15	20	2114	5	21	-7
Ojuelos	21	52	5	101	35	20	2000	5	4	-7
Pánuco	22	52	45	102	32	30	2321	5	28	-7
Pinos	22	17	54	101	34	23	2419	5	4	-7
Río Grande	23	49	40	103	2	17	2000	5	41	-7
San Juan del Mezquital	24	17	28	103	23	47	2000	5	51	-7
Sombrerete	23	37	53	103	38	30	2351	5	55	-7
Tlaltenango	21	47	0	103	18	44	1724	5	44	-7
Valparaíso	22	46	13	103	34	5	2140	5	51	-7
Villa de Cos	23	17	40	102	20	55	2050	5	24	-7
Villanueva	22	21	16	102	53	13	1955	5	35	-7
Zacatecas	22	46	30	102	34	45	2496	5	28	-7

Zonas horarias

Las zonas horarias dividen a la Tierra en 24 franjas de 15° de anchura; las letras representan el código de uso con los que se corrige la hora del Meridiano de Greenwich. Además de señalarse en el encabezado del mapa, en la tabla se indica el número de horas que deberán sumarse, algebraicamente, a la hora del Meridiano de Greenwich. El mapa se tomó del Standard Time Zones, del Astronomical Phenomena, 1998.

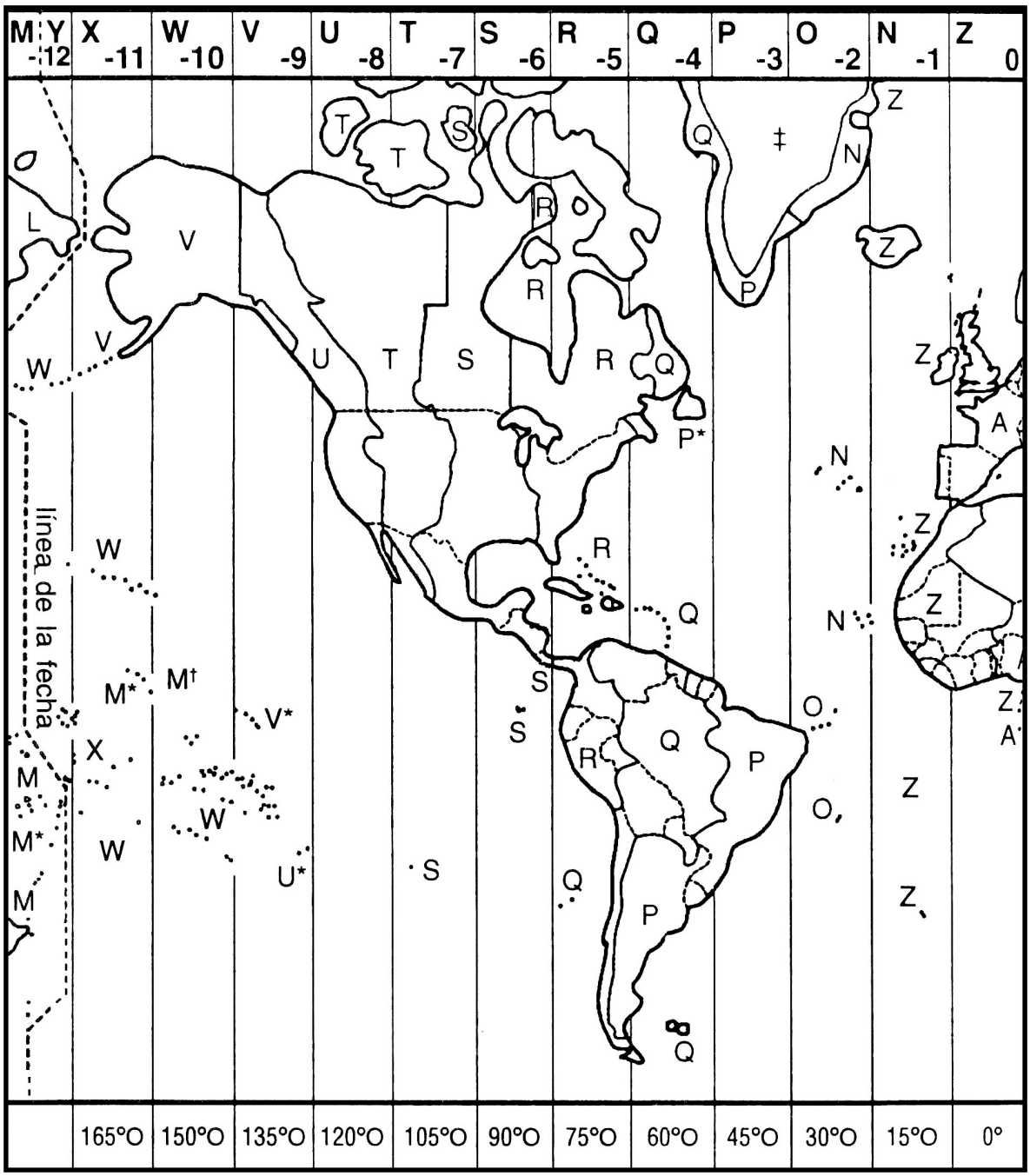
° ’	zona	h	m
00	Z	0	
+15	A	+ 1	
+30	B	+ 2	
+45	C	+ 3	
+52 30	C*	+ 3	30
+60	D	+ 4	
+67 30	D*	+ 4	30
+75	E	+ 5	
+82 30	E*	+ 5	30

° ’	zona	h	m
+90	F	+ 6	
+97 30	F*	+ 6	30
+105	G	+ 7	
+120	H	+ 8	
+135	I	+ 9	
+142 30	I*	+ 9	30
+150	K	+ 10	
+157 30	K*	+ 10	30
+165	L	+ 11	

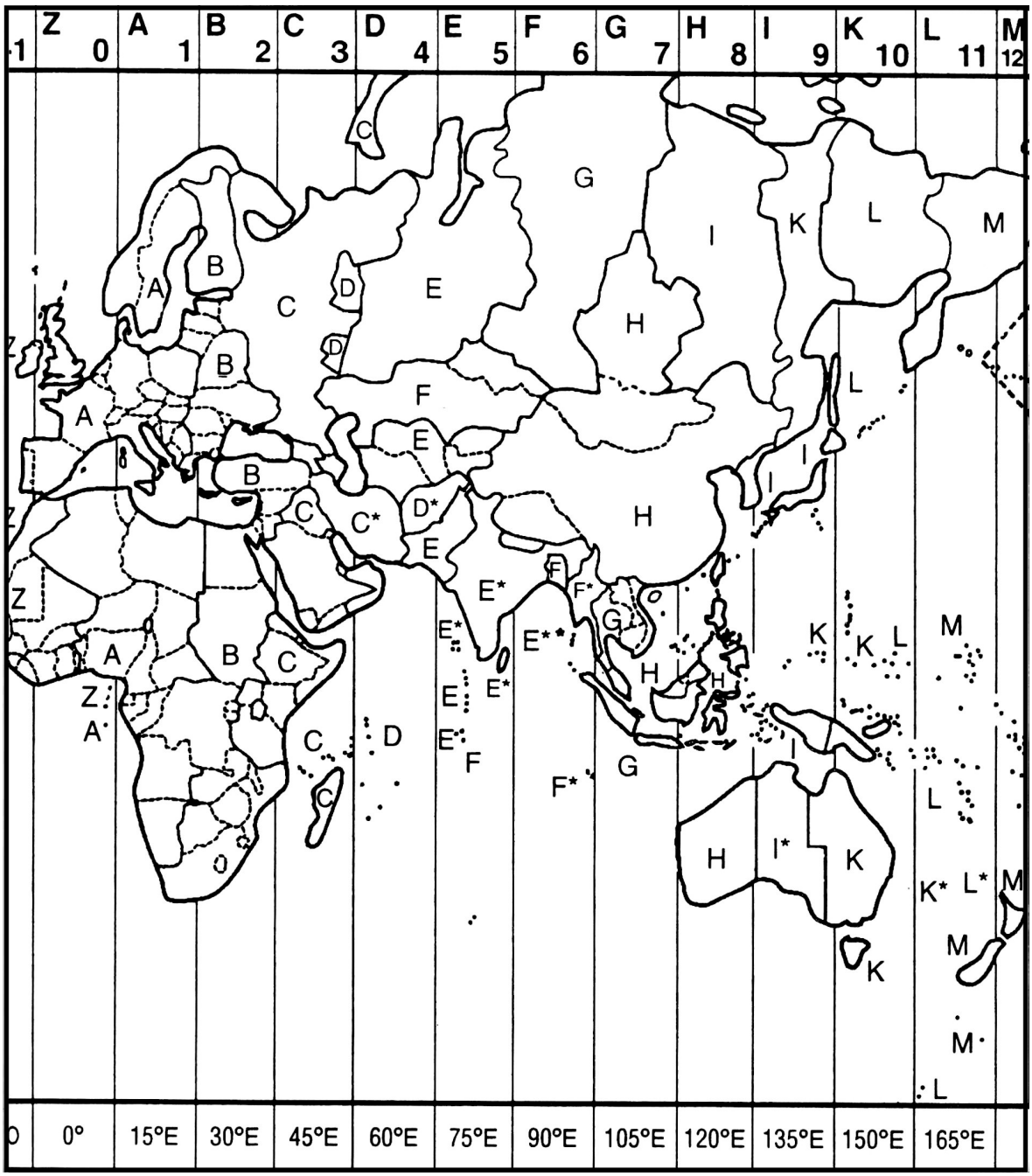
° ’	zona	h	m
+180	M	+ 12	
+187 30	M*	+ 12	30
-15	N	- 1	
-30	O	- 2	
-45	P	- 3	
-52 30	P*	- 3	30
-60	Q	- 4	
-75	R	- 5	
-90	S	- 6	

° ’	zona	h	m
-105	T	- 7	
-120	U	- 8	
-127 30	U*	- 8	30
-135	V	- 9	
-142 30	V*	- 9	30
-150	W	- 10	
-165	X	- 11	
-180	Y	- 12	

Mapa de zonas horarias



Mapa de zonas horarias



Hora Legal en los Estados Unidos Mexicanos

Sistema de cuatro husos horarios en los Estados Unidos Mexicanos
(Diario Oficial de la Federación: 31-01-2015)

Artículo 1. La presente Ley es de aplicación general y regirá en todo el territorio de los Estados Unidos Mexicanos, sus disposiciones son de orden público e interés general, su aplicación y vigilancia estará a cargo del Ejecutivo Federal por conducto de las dependencias que conforme a la Ley Orgánica de la Administración Pública Federal tengan asignada competencia sobre la materia que regula el presente ordenamiento.

Artículo 2. Se reconoce para los Estados Unidos Mexicanos la aplicación y vigencia de los husos horarios 75 grados, 90 grados, 105 grados y 120 grados al oeste del meridiano de Greenwich y los horarios que les corresponden conforme a su ubicación, aceptando los acuerdos tomados en la Conferencia Internacional de Meridianos de 1884, que establece el meridiano cero (*Artículo reformado Diario Oficial de la Federación 31-01-2015).*

Artículo 3. Para el efecto de la aplicación de esta Ley, se establecen dentro del territorio nacional las siguientes zonas horarias y se reconocen los meridianos que les correspondan:

I. Zona Centro: Referida al meridiano 90 grados al oeste de Greenwich y que comprende la mayor parte del territorio nacional, con la salvedad de lo establecido en los numerales II, III, IV y V de este mismo artículo *(Fracción reformada Diario Oficial de la Federación 31-01-2015).*

II. Zona Pacífico: Referida al meridiano 105 oeste y que comprende los territorios de los estados de Baja California Sur; Chihuahua; Nayarit, con excepción del municipio de Bahía de Banderas, el cual se regirá conforme a la fracción anterior en lo relativo a la Zona Centro; Sinaloa y Sonora (Fracción reformada *Diario Oficial de la Federación* 06-01-2010).

III. Zona Noroeste: Referida al meridiano 120 oeste y que comprende el territorio del Estado de Baja California (Fracción reformada *Diario Oficial de la Federación* 31-01-2015).

IV. Zona Sureste: Referida al meridiano 75 oeste y que comprende el territorio del Estado de Quintana Roo (Fracción adicionada *Diario Oficial de la Federación* 31-01-2015).

V. Las islas, arrecifes y cayos quedarán comprendidos dentro del meridiano al cual corresponda su situación geográfica y de acuerdo a los instrumentos de derecho internacional aceptados (Fracción recorrida *Diario Oficial de la Federación* 31-01-2015).

Artículo 4. El sistema normal de medición del tiempo en la República, que se establece con la aplicación de los husos horarios y su correspondiente hora en los artículos que anteceden, podrá ser modificado mediante decreto del Honorable Congreso de la Unión que establezca horarios estacionales.

Artículo 5. Cualquier propuesta de establecimiento o modificación de horarios estacionales deberá ser presentada al Honorable Congreso de la Unión, a más tardar el 15 de noviembre del año inmediato anterior al que se pretende modificar el horario. El decreto respectivo deberá ser emitido a más tardar el 15 de diciembre del mismo año.

Artículo 6. En el caso del establecimiento de horarios estacionales, el Ejecutivo Federal en coordinación con los Ejecutivos Estatales y del Distrito Federal, difundirán, con la anticipación debida, el Decreto por medio del cual se establece dicho horario, para el conocimiento de la población.

Artículo 7. Las dependencias de los ejecutivos federal, y estatales y del Distrito Federal, en el ámbito de sus respectivas competencias, tomarán las medidas necesarias a efecto de implementar de forma eficiente los horarios estacionales decretados.

Centros astronómicos en la República Mexicana

Centro Astronómico	latitud ° ‘ “	longitud ° ‘ “	altura s.n.m.m.	ubicación
Universidad Nacional Autónoma de México Instituto de Astronomía				
BAJA CALIFORNIA				
San Pedro Mártir	31 02 39	115 27 49	2800	Telescopio 2.12 m
	31 02 43	115 28 00	2790	Telescopio 1.50 m
PUEBLA				
Tonantzintla	19 01 58	98 18 50	2147	Telescopio 1 m
Centro de Radioastronomía y Astrofísica, UNAM.				
MICHOACÁN				
Morelia	19 42 16	101 11 30	1941	
Instituto Nacional de Astrofísica, Óptica y Electrónica, SEP.				
PUEBLA				
Tonantzintla	19 01 58	98 18 50	2147	
SONORA				
Observatorio Cananea Guillermo Haro	31 03 10	110 18 19	2480	Telescopio 2.1 m
Departamento de Astronomía, Universidad de Guanajuato				
GUANAJUATO				
Guanajuato	21 03 10	101 19 28	2425	Mineral de la Luz
Universidad Autónoma de Zacatecas				
ZACATECAS				
Observatorio astronómico	22 43 56	102 32 26	2425	Cd. Universitaria
Observatorio astronómico	22 46 01	102 32 56	2714	Cerro de la Virgen
Sociedad Astronómica de México				
CIUDAD DE MÉXICO				
Observatorio Luis G. León	19 23 56	99 8 29	2246	Col. Álamos, Cd. de México
ESTADO DE MÉXICO				
Observatorio Chapa de Mota	19 47 24	99 31 23	3070	Municipio de Chapa de Mota
Universidad Autónoma de Sinaloa				
SINALOA				
Observatorio Cosala	24 24 5	106 36 36	595	Municipio de Cosala
Instituto de Geofísica				
MEXART*: Observatorio de centelleo interplanetario	19 48 39	101 41 39		Michoacán Coeneo
* Mexican Array Radiotelescope				

Refracción

Presentamos un método gráfico para determinar la refracción atmosférica en función de la distancia cenital, temperatura o presión. Las gráficas se obtuvieron mediante interpolación polinomial de quinto, sexto, séptimo y noveno orden, de los valores tabulados y publicados por el Observatorio Pulkovo, en el Anuario Astronómico de la URSS, y por Pulkova, 1956, cuarta edición (Academia de Ciencias de la URSS, Moscú, Leningrado); y Abalakin, 1985, quinta edición (Observatorio Astronómico Central, Academia de Ciencias de la URSS, Leningrado).

De la gráfica de corrección por distancia cenital obtenemos la refracción media r dada en minutos de arco, en función de la distancia cenital dada en grados. Ésta se obtiene de la regresión polinomial de noveno orden, dada por la ecuación

r= a+b1*z+b2*z2+b3*z3+b4*z4+b5*z5+b6*z6+b7*z7+b8*z8+b9*z9 ,

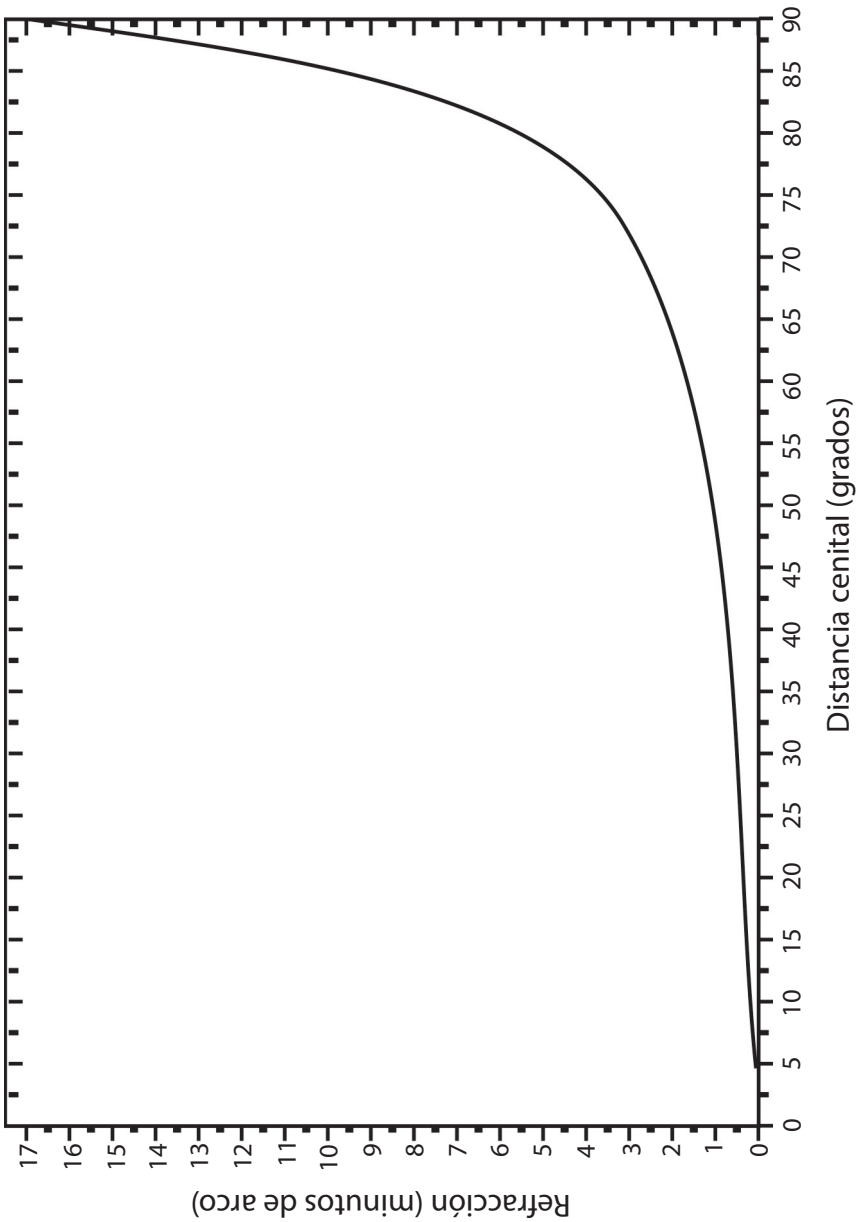
donde r está dada en minutos de arco, y sus coeficientes son:

a	$-7.64878\ 10^{-4}$	b5	$1.22379\ 10^{-6}$
b_1	0.02752	b6	$-2.70552\ 10^{-8}$
b_2	-0.00384	b7	$3.52568\ 10^{-10}$
b_3	$5.03936\ 10^{-4}$	b8	$-2.50309\ 10^{-12}$
b_4	$-3.28953\ 10^{-5}$	b9	$7.48708\ 10^{-15}$

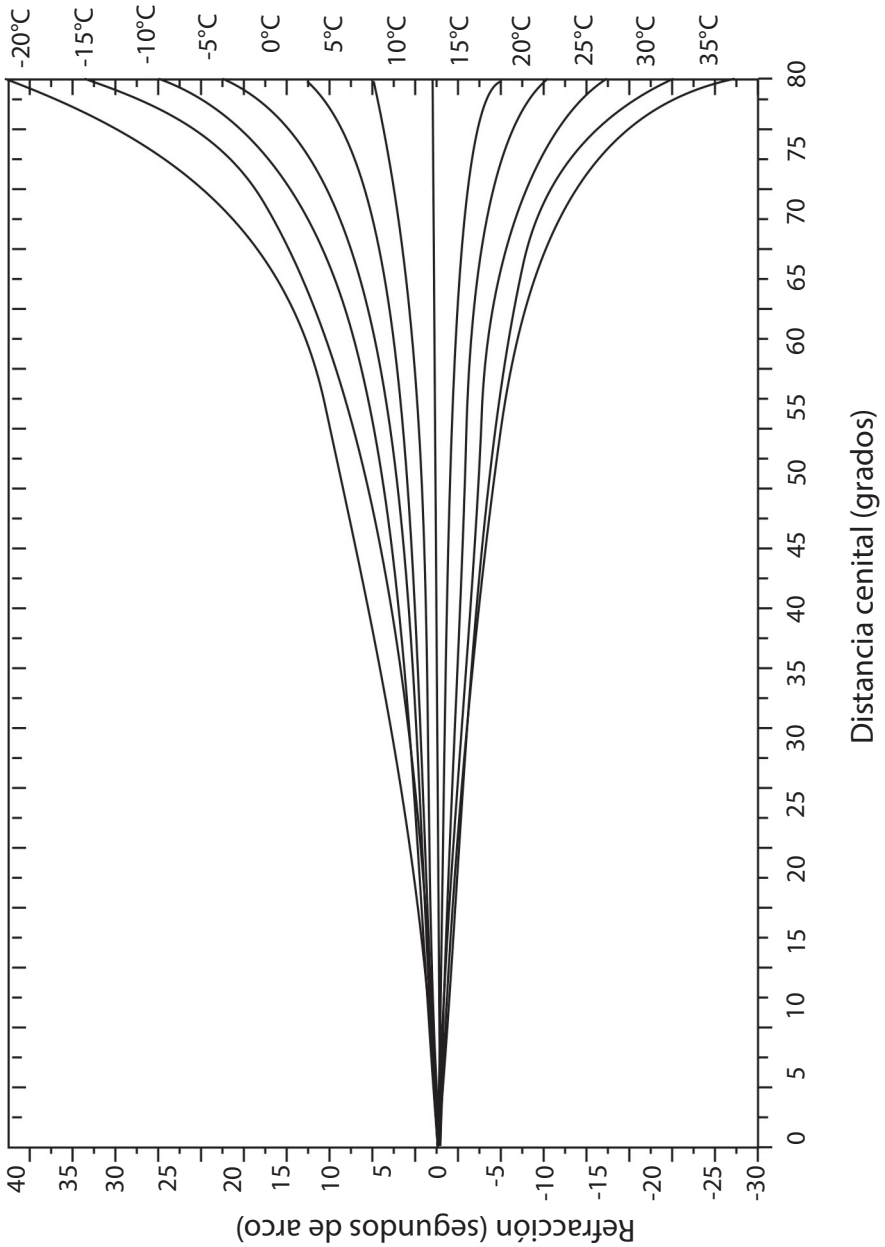
Con la gráfica de corrección por temperatura, se determina el valor en segundos de arco, que se deberá sumar algebraicamente a la refracción media. Cada curva corresponde a las temperaturas, en grados centígrados, señaladas al extremo derecho de cada una de ellas.

De la gráfica de corrección por presión se obtienen los valores en segundos de arco, que se deberán sumar algebraicamente a la refracción media. A la derecha de cada curva se muestran las variaciones de la refracción en función de la presión barométrica B, en mm.

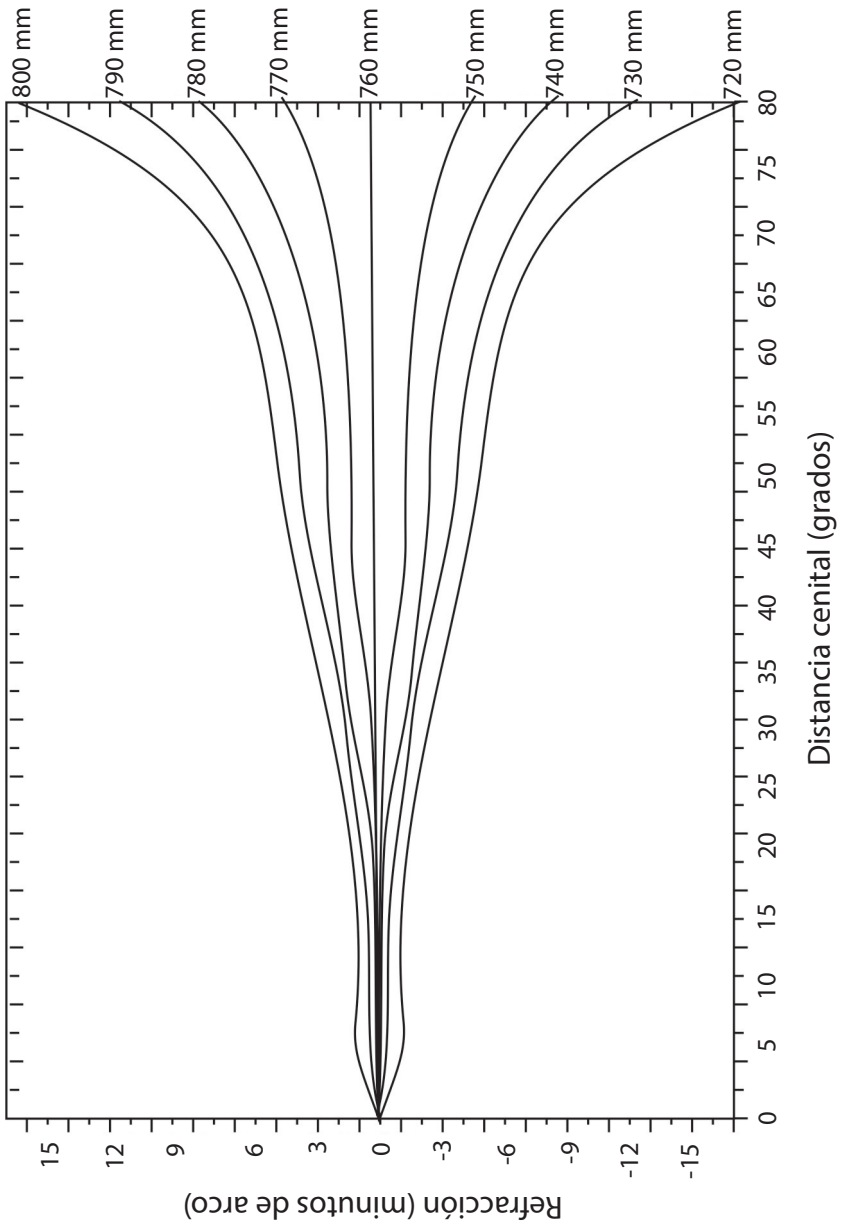
Corrección por distancia cenital



Corrección por temperatura



Corrección por presión



Abreviaturas

Dia juliano
Abreviaturas:
d: día
ds: día de la semana
dj: día juliano

Hora sideral
Abreviaturas:
dj: día juliano

Sol
Abreviaturas:
α: ascensión recta
δ: declinación
hp: hora del paso por el meridiano
vh: variación horaria
Δ: distancia geocéntrica
UA: unidad astronómica

Luna
Abreviaturas:
dj: día juliano
α: ascensión recta
δ: declinación
hp: hora del paso por el meridiano
Δ: distancia geocéntrica en radios terrestres
sd: semidiámetro
pax: paralaje horizontal
DT: diámetro terrestre

Planetas
Abreviaturas:
α: ascensión recta
δ: declinación
Δ: distancia geocéntrica
UA: unidad astronómica
hp: hora del paso por el meridiano

Sistema de constantes y parámetros
Abreviaturas:
α: ascensión recta, d: declinación, f: latitud
UA: unidad astronómica, rad: radianes
DJ: día Juliano
1g: aceleración de la gravedad en la superficie terrestre o Normal

Nomenclatura de las estrellas brillantes
Abreviaturas:
α: ascensión recta
δ: declinación
N: número del catálogo de estrellas brillantes en el Bright Star Catalog de la Universidad de Yale. E.U.A.

Posiciones medias de estrellas brillantes
Abreviaturas:
NBSC: número de estrella en: Bright Star Catalog. Yale University, EUA
NH: número en el Catálogo Hiparco
V: magnitud
SP: tipo espectral
nom: nombre de la estrella en clasificación Bayer

Posiciones aparentes de estrellas brillantes
Abreviaturas de términos astronómicos:
α: ascensión recta
α_c: ascensión recta en el sistema de referencia intermedio
δ: declinación
Hp: hora del paso

Posiciones aparentes de la polar
Abreviaturas:
α: ascensión recta
α_c:ascensión recta coordenadas intermedias
δ: declinación
hp: hora del paso por el meridiano

Lluvias de estrellas
Abreviaturas:
α: ascensión recta
δ: declinación
vel: velocidad de incidencia en km/s
Núm: número de estrellas fugaces por hora

Eventos planetarios
Abreviaturas:
E: Separación angular al Este (E).
Medida geocéntrica que se refiere a la separación angular entre los centros de los objetos
(véase sección de explicaciones).
O: Separación angular al Oeste(O).
AC: acimut
a: altura
*: ocultación
**: eclipse

Crepúsculos Salidas y puestas del Sol
AM: inicia el crepúsculo astronómico matutino; CM: inicia el crepúsculo civil matutino;
SS: salida del Sol; PS: puesta del Sol; CV: termina el crepúsculo civil vespertino;
AV: termina el crepúsculo astronómico vespertino.
(Para el cálculo de la hora legal, véase la sección *Explicaciones*).

Objetos Messier
Abreviaturas:
M: número de objeto Messier; NGC: número en el Nuevo Catálogo General
const: constelación; v: magnitud; tipo: tipo morfológico;
α: ascensión recta; d: declinación (ambas para J2000)
E: galaxia elíptica; S: galaxia espiral; SB: galaxia espiral barrada; Pec: peculiar
ca: cúmulo abierto; cg: cúmulo globular;
rsn: remanente de supernova; np: nebulosa planetaria;
nr: nebulosa de reflexión; ne: nebulosa de emisión;
(véase la sección de explicaciones para obtener r información sobre morfología).

Poblaciones de la República Mexicana
Abreviaturas:
alt: altura sobre el nivel del mar
δm: declinación magnética para el 1 de del 2006
Δδm: Variación de la declinación magnética por año

Glosario: Términos astronómicos básicos

Acimut o azimut. Distancia angular medida hacia el Este, desde el Norte geográfico, hasta el punto definido por la intersección con el horizonte del círculo vertical que pasa por un objeto celeste. También es común referirla al Sur geográfico.

Adviento. Período litúrgico de cuatro semanas que precede a la Navidad.

Afelio. Punto en el cual un cuerpo en órbita en torno al Sol alcanza su r distancia a éste.

Altitud o Altura. Distancia angular entre el horizonte y el cuerpo celeste. Se mide a lo largo del gran círculo que pasa por el objeto astronómico y el cenit del lugar. Es positiva cuando el objeto está sobre el horizonte y negativa cuando está por debajo.

Ángulo horario. Distancia angular entre el meridiano del lugar y el círculo horario que pasa por el objeto celeste. Se mide en el plano del ecuador celeste.

Anuario astronómico. Guía de posiciones de objetos celestes y acontecimientos astronómicos que se publica cada año.

Año anomalístico. Paso sucesivo de la Tierra por su perihelio. Su duración es de 365.25964 días.

Año civil. Intervalo de 365 días que rige las actividades civiles, sociales o religiosas de la ría de los países del mundo; y es la parte entera de la duración del año trópico. Para su buen funcionamiento es necesario que en cada año, la posición del Sol en el cielo corresponda al mismo día. Para lograrlo se agrega el día 29 de cada cuatro años, omitiéndose para aquellos años seculares (múltiplos de 100), que no sean divisibles entre 400. (Véase la sección *Explicaciones*, en Calendarios)

Año sideral. Tiempo que le toma a la Tierra en dar una vuelta completa alrededor del Sol, respecto de las estrellas fijas. Su duración es de 365.25636 días.

Año trópico. Tiempo que transcurre entre los dos equinoccios o bien el tiempo que le toma al Sol pasar dos veces consecutivas por el primer punto de Aries. Su duración es de 365.24219 días.

Apogeo. Punto orbital más alejado de un cuerpo, respecto de la Tierra.

Ascensión recta. Ángulo en el plano del ecuador celeste, que mide la separación entre los círculos horarios del punto Vernal y de un objeto celeste.

Asteroides. Pequeños objetos rocosos del Sistema Solar, cuyos diámetros son del orden de 400 km, en promedio. Se les localiza principalmente en el llamado Cinturón de Asteroides, entre las órbitas de Marte y Júpiter. Otros grupos se identifican como los Apolo, Amor y Trollanos.

Astrología. Un sistema de fundamentos subjetivos, no científico, con el que se pretende explicar el carácter y comportamiento humanos, tomando como base las posiciones de los astros.

Azimut. Véase Acimut.

Calendario. Conjunto de normas establecidas para medir el transcurso del tiempo en años, meses y días.

Calendario Gregoriano. Calendario introducido por el Papa Gregorio XIII en 1582, con el que modificó el calendario Juliano. Consiste en agregar un día en todos los años que sean divisibles por cuatro; a estos se les llaman años bisiestos. Se exceptúan aquellos años seculares, o de final de siglo, que no sean divisibles por cuatrocientos. Los años 1800, 1900 y 2100 no son años bisiestos, en cambio 1600 y 2000 sí lo son.

Calendario Juliano. Año de 365.25 días exactamente; según la tradición, César lo instituyó en el año 45 a.C. y fue modificado por el papa Gregorio XIII en 1582 d.C.

Carnaval. Los tres días que preceden a la cuaresma. Fiestas celebradas durante estos días, consistentes en mascaradas, bailes y otros regocijos bulliciosos.

Catálogo. En Astronomía, tabla en la que se enumeran y enlistan objetos astronómicos, y en la que se caracterizan sus propiedades.

Cenit o Zenit. Punto de la esfera celeste que se encuentra exactamente encima del observador.

Ciclo Solar. Relativo al calendario, es el período de veintiocho años al final del cual el año comienza con el mismo día.

Ciclo de actividad solar. Ciclo cuya duración es de 11 años aproximadamente. Se percibe por el aumento en la cantidad de manchas, ráfagas y protuberancias solares.

Círculo horario. Gran círculo en la bóveda celeste, que contiene a los polos celestes y algún objeto astronómico.

Conjunción. Evento que se produce cuando dos objetos celestes alcanzan la misma longitud eclíptica o ascensión recta.

Conjunción inferior. Suceso astronómico de Mercurio o Venus cuando alguno de ellos se encuentra exactamente entre el Sol y la Tierra.
Conjunción superior. Evento astronómico de Mercurio o Venus cuando el Sol se encuentra entre el planeta y la Tierra.

Cometa. Cuerpo que orbita alrededor del Sol, con núcleo de polvo y hielos de unos 10 km de diámetro. Cuando se acerca al Sol, sus materiales sólidos se su-

Glosario: Términos astronómicos básicos

bliman, de tal modo que al ser arrastrados por el viento solar producen una cauda cometaria; sus dimensiones pueden alcanzar más de cien millones de kilómetros.

Constelación. Grupo de estrellas cuya asociación esquemática o mítica, sirve para identificar cierta región de la esfera celeste; en la actualidad, dichos grupos han sido definidos por la Unión Astronómica Internacional, para delimitar con precisión las regiones de la esfera celeste. El cielo se ha dividido en 88 constelaciones.

Coordenadas geográficas. Latitud y longitud de un punto de la superficie terreste, relativas al centro de la Tierra.

Coordenadas celestes eclípticas. Latitud y longitud de un punto de la bóveda celeste relativas al plano de la órbita de la Tierra. Pueden ser geocéntricas o heliocéntricas.

Coordenadas celestes ecuatoriales. Ascensión Recta y Declinación de un punto de la bóveda celeste relativas al plano del ecuador terrestre. Pueden ser geocéntricas o heliocéntricas.

Corona solar. Región más externa de la atmósfera solar, caracterizada por una temperatura de varios millones de grados. Se logra observar durante los eclipses totales de Sol. Otras estrellas también poseen corona.

Crepúsculo. Intervalo de tiempo que precede a la salida del Sol o que sigue después de su puesta, durante el cual el cielo está parcialmente iluminado. Puede ser crepúsculo civil, cuando se habla del tiempo que ocupa el Sol en recorrer la distancia cenital entre 90o 50' y 96o; náutico entre 96o y 102o, y astronómico, entre 102o y 108o.

Culminación. Paso de un objeto celeste por el meridiano del observador. Punto en el que alcanza la máxima altura en su movimiento diurno.

Cúmulo abierto o galáctico. Conglomerado estelar de cientos de estrellas cuya distribución tiende hacia el plano de la Galaxia.

Cúmulo globular. Grupo estelar de forma casi esférica que se encuentra fuera del plano de la Galaxia. Su número de estrellas va de unos cientos de miles a decenas de millones, muchas de ellas son estrellas tardías.

Declinación. Distancia angular en la esfera celeste que se mide desde el ecuador celeste, a lo largo del círculo horario definido por el objeto celeste. Es positiva al norte y negativa al sur.

Declinación magnética. Desviación de las líneas del campo magnético de la Tierra, respecto de la línea norte sur geográfica. Esta es una propiedad física que varía con el tiempo y depende del lugar donde se mide.

Deflexión de la vertical. Diferencia angular entre el cenit astronómico y el cenit geodésico.

Día Juliano. Intervalo de tiempo en días, a partir del 1 de del año 4713 a.C., al medio día del meridiano de Greewich.

Día medio. Tiempo transcurrido entre dos pasos sucesivos del Sol medio o ficticio, por el meridiano. Su duración es de 24 horas.

Día sideral. Tiempo que transcurre entre dos pasos sucesivos del punto vernal o de alguna estrella por el meridiano. Su duración es de 23 horas, 56 minutos, 4.098904 segundos.

Día solar. Tiempo transcurrido entre dos tránsitos consecutivos del Sol por el meridiano. Por su variación durante el año, se hizo necesario definir el día solar medio. Dicha variación es causada por la irregularidad de la rotación de la Tierra y de su movimiento en torno al Sol.

Diámetro angular. Ángulo que subtiende el diámetro aparente de un cuerpo celeste cercano. Para la Luna y el Sol dicho ángulo es de 30' aproximadamente.

Distancia cenital. Distancia angular de un cuerpo celeste, medida desde el cenit.

Distancia media. Parámetro de una órbita elíptica, definido por la longitud del semieje r.

Eclipse. Paso de un cuerpo celeste por la sombra de otro, haciendo que la fuente que lo ilumina quede oculta por el primero.

Eclipse anular de Sol. Ocurre cuando el diámetro aparente de la Luna es menor que el solar. Parte del disco solar se muestra como un anillo alrededor de la Luna.

Eclipse lunar. Paso de la Luna por la sombra de la Tierra. Puede ser total umbral, cuando la Luna se encuentra dentro de la umbra de la Tierra; parcial umbral cuando parte del disco lunar se encuentra dentro de ella. Será total penumbral, cuando el disco de la Luna sólo se encuentra en la penumbra de la Tierra; y parcial penumbral o simplemente parcial, cuando parte del disco lunar se encuentra en la penumbra terrestre.

Eclíptica, plano de la. Plano medio de la órbita de la Tierra alrededor del Sol.

Eclíptica. Trayectoria aparente que describe el Sol en la bóveda celeste, a lo largo del año. Es llamada así porque los eclipses ocurren cuando la Luna se encuentra en el plano que la contiene.

Ecuación del tiempo. Diferencia entre los ángulos horarios del Sol verdadero y el Sol medio o ficticio. Dife-

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rencia entre el tiempo solar aparente y el tiempo solar medio.

Ecuador. Gran círculo en la superficie de un cuerpo, que resulta de la intersección de ésta con el plano que pasa por su centro y es perpendicular al eje de rotación del cuerpo.

Ecuador celeste. Proyección del ecuador de la Tierra, en la bóveda celeste.

Edad de la Luna. Término dado en astronomía para el número de días transcurridos después de la Luna Nueva.

Efemérides. Predicción de la posición de un astro. Lista de posiciones astronómicas y otros datos que cambian con el tiempo.

Elementos orbitales. Parámetros que caracterizan la órbita de un cuerpo que se mueve en torno a otro.

Elongación. Ángulo geocéntrico entre un planeta y el Sol medido en el plano definido por el planeta, el Sol y la Tierra. Las elongaciones planetarias fluctúan entre 0o y 180o, al Este o al Oeste del Sol.

Elongación máxima. Valor máximo de la elongación de un planeta interior.

Epacta. Número de días en que el año solar excede al lunar (casi 11 días). Edad de la Luna el 1 de de cada año.

Epifanía. Fiesta que celebra la iglesia cristiana el día 6 de , para conmemorar la adoración de Jesucristo por los Reyes Magos. Manifestación de Dios a los paganos.

Equinoccio Vernal. Día del año en el que se inicia la primavera en el hemisferio norte. La duración del día y la noche son iguales. Nodo ascendente de la eclíptica sobre el ecuador celeste. Momento en el que la longitud aparente del Sol es cero.

Era. Sistema de notación cronológica, relativa a la fecha en que ocurrió algún suceso importante.

Esfera celeste. Esfera imaginaria donde parecen estar colocados a la misma distancia todos los objetos celestes. En su centro está la Tierra cuyo plano ecuatorial contiene al ecuador terrestre; sus polos son la intersección de la proyección del eje de rotación de la Tierra con dicha esfera.

Espectral, tipo. Clasificación de las estrellas con base en su espectro, de acuerdo con su temperatura superficial. Se han caracterizado los tipos principales: O, B, A, F, G, K, M y además C(R y N) y S. También se puede clasificar por su luminosidad como 0, I, II, II, IV, V, VI y VII.

Estacionario, punto. Posición en la cual la variación de la ascensión recta de un planeta es momentáneamente nula.

Estaciones. Intervalos del año definidos por el tiempo en que el Sol permanece entre aquellos puntos orbitales caracterizados por los solsticios y equinoccios. Son llamadas Primavera, Verano, Otoño e Invierno. El clima en la Tierra es diferente en cada una de ellas, debido a la inclinación de su eje de rotación respecto del plano de la eclíptica.

Estrella. Esfera de gas incandescente cuya fuente de energía son las reacciones termonucleares.

Excentricidad de una órbita. Para una órbita elíptica, el cociente de la distancia entre los focos y el diámetro r de la órbita. Parámetro que especifica la forma de una sección cónica.

Fase. Se dice del aspecto o forma aparente que presenta un planeta o luna, visto a distancia. Es la fracción del disco iluminado por el Sol.

Fases de la Luna. Forma aparente de la Luna. luna nueva, cuarto creciente, luna llena y cuarto menguante, se definen como los tiempos en los que la longitud de la Luna difieren de las del Sol en 0o, 90o, 180o y 270o , respectivamente.

Galaxia. Conglomerado de millones de estrellas, gas y polvo. Se clasifican según su morfología en: elípticas (E), espirales (S) e irregulares (I). Las espirales también pueden presentar núcleos que tienen forma de barra (SB).

Geocéntrico. Con referencia o perteneciente al centro de la Tierra.

Geodesia. Ciencia que trata de la forma y las medidas de la Tierra.

Gravitación. Campo de fuerza al que se debe la atracción de las masas en el Universo.

Greenwich. Región conurbada de Londres donde se encontraba el observatorio astronómico. El meridiano de este lugar se toma como origen de los meridianos, por lo que es llamado meridiano cero.

Hégira o Héjira. Éra de los mahometanos, que se cuenta desde la puesta del Sol del 16 de de año 622 d.C., día en que Mahoma huyó de la Meca al salir hacia la ciudad de Medina.

Heliocéntrico. Con referencia o perteneciente al centro del Sol.

Hora civil o legal. Hora regida por el Sol medio o ficticio. Hora referida a un meridiano horario o huso horario. La Tierra se divide en 24 husos horarios, que se

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obtienen al dividir entre 15 los 360° de la circunferencia del ecuador.

Hora local. Hora regida por la posición del Sol verdadero. Cuando éste pasa por el meridiano del lugar, define las 12 horas o el mediodía locales.

Hora sideral. Tiempo transcurrido desde el paso del meridiano del lugar por el primer punto de Aries. El día sideral es 3m 55.91s menor que el día solar. Se refiere al tiempo medido basado en las estrellas fijas. Véase tiempo sideral.

Hora universal. Hora local de Greenwich. La hora local de algún punto de la superficie de la Tierra se obtiene restando a la hora de Greenwich la longitud del lugar convertida a horas.

Horizonte. Plano perpendicular a la línea que va del observador al cenit del lugar. Gran círculo formado por la intersección de la esfera celeste con el plano perpendicular a la línea que une al observador con el cenit del lugar, llamado horizonte astronómico u horizonte del observador.

Inclinación. En Astronomía, ángulo entre el plano de una órbita y otro de referencia. Elemento orbital que especifica la orientación de una órbita.

Júpiter. Planeta gigante del Sistema Solar. Después de Venus es el planeta más brillante del sistema solar. Véanse tablas de parámetros físicos y orbitales de planetas, y satélites de los planetas.

Latitud celeste. Distancia angular en la esfera celeste medida al norte o al sur del plano de la eclíptica. Se mide a lo largo del gran círculo que pasa por los polos de la eclíptica y el cuerpo celeste.

Latitud terrestre. Distancia angular en la Tierra, medida al norte o al sur del ecuador, a lo largo de algún meridiano.

Lluvia de estrellas. Fenómeno luminoso causado por la caída de pequeñísimas partículas dejadas por los cometas. Se observan como estelas luminosas a las que, tradicionalmente, se los nombran estrellas fugaces, las cuales parecen surgir de un punto en el cielo llamado radiante. Se han clasificado unas 18 lluvias de estrellas, las cuales reciben el nombre de la constelación donde se ubica su respectivo radiante.

Longitud (geográfica). Distancia angular medida en el plano del ecuador, al Este o al Oeste del meridiano de Greenwich.

Longitud eclíptica. Distancia angular de un cuerpo celeste medida sobre el plano de la eclíptica, a partir del primer punto de Aries.

Luminosidad. Cantidad total de energía radiada por un cuerpo celeste en la unidad de tiempo.

Luna. Satélite natural de la Tierra. Después del Sol es el objeto más brillante del cielo. Véase tabla de satélites de los planetas.

Lunación. Período de tiempo entre dos lunas nuevas consecutivas. Su duración aproximada es de 29.5 días.

Luna llena. Fase durante la cual el disco lunar está totalmente iluminado; ocurre cuando la luna se encuentra en oposición al Sol respecto de la Tierra.

Luna nueva. Fase durante la cual el disco lunar no se ve iluminado ocurre cuando la Luna se encuentra en conjunción con el Sol.

Magnitud. Medida logarítmica del brillo de un objeto celeste, considerado como una fuente puntual.

Magnitud de un eclipse de Luna. Fracción del diámetro lunar obscurecido por la sombra de la Tierra, en el máximo del eclipse lunar.

Magnitud de un eclipse de Sol. Fracción del diámetro solar ocultado por la Luna, en el máximo del eclipse de Sol.

Marte. Planeta rocoso del Sistema Solar que, a simple vista, se aprecia de color rojizo. Véanse tablas de parámetros físicos y orbitales de planetas, y satélites de los planetas.

Masa. Medida inherente a la cantidad de materia de un cuerpo.

Mercurio. Planeta rocoso del Sistema Solar que por su distancia heliocéntrica es el más cercano al Sol. Véanse tablas de parámetros físicos y orbitales de planetas, y satélites de los planetas.

Meridiano. Círculo máximo en la esfera celeste que pasa por los polos y el cenit del observador.

Meridiano 90° W.G. Meridiano que atraviesa la Península de Yucatán. Se encuentra 90° al Oeste del meridiano de Greenwich en Inglaterra. Define al huso horario (S) de 6 horas al Oeste de Greenwich, llamado Hora del Centro en la República Mexicana. Difiere de la hora local de la ciudad de México en 36 minutos 37 segundos.

Meteorito. Dícese de algún fragmento de roca o metal del medio interplanetario, una vez que ha sufrido una colisión contra un planeta, satélite o, en general, con algún cuerpo del Sistema Solar.

Messier, catálogo. Enlistado de aquellos objetos celestes que al ser vistos con telescopios pequeños, son de aspecto difuso. Contiene cúmulos estelares, nebulosas y galaxias. Fue elaborado por Charles Messier.

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Movimiento directo. Dirección de la rotación o del movimiento de traslación de un planeta o satélite, visto desde el polo norte de la eclíptica, cuyo sentido es contrario al de las manecillas del reloj.

Movimiento retrógrado. Dirección de la rotación de un planeta o satélite visto desde el polo norte de la eclíptica, cuyo sentido es el de las manecillas del reloj.

Nadir. Punto de la esfera celeste diametralmente opuesto al cenit. Dícese de aquel punto, del otro lado de la Tierra, ubicado por debajo de nosotros.
Nebulosa. Nube de materia interestelar.

Nebulosa planetaria. Envolvente de gas alrededor de una estrella con masa parecida a la del Sol, arrojada por ella misma a consecuencia de un estado avanzado de su evolución.

Neptuno. Planeta gaseoso del Sistema Solar. Véanse tablas de parámetros físicos y orbitales de planetas, y satélites de los planetas.

Nodo. El punto de intersección entre dos grandes círculos celestes. Los eclipses de Luna y de Sol ocurren cuando ambos se encuentran cerca de los nodos de intersección de sus trayectorias orbitales.

Número de Oro, o Áureo. En terminos astronómicos, ciclo lunar de diez y nueve años, al cabo de los cuales las fases de la Luna vuelven a sucederse en los mismos días del año.

Ocultación. Efecto de cubrimiento de un objeto celeste por otro de r diámetro aparente, específicamente el paso de la Luna frente a una estrella o planeta.

Oposición. Configuración geocéntrica del Sol y un planeta exterior en la que sus longitudes aparentes difieren en 180°.

Órbita. Trayectoria de un cuerpo celeste en torno a otro.

Paso superior por el meridiano. Tránsito de un objeto celeste por el meridiano del observador.

Pentecostés. Fiesta de los judíos instituida en memoria de la ley de Jehová, que les fue dada en el Monte Sinaí. En la Iglesia Católica festividad de la venida del Espíritu Santo.

Perigeo. Punto en el cual un cuerpo en órbita en torno a la Tierra alcanza su menor distancia a ésta.
Perihelio. Punto en el cual un cuerpo en órbita en torno al Sol alcanza su menor distancia a éste.

Penumbra. Región intermedia entre la sombra y la zona iluminada. También se refiere a la región desde la que un eclipse se ve como parcial. Componente exterior de la sombra que proyecta un objeto iluminado por una fuente de luz.

Planeta. Cuerpo celeste esférico cuyo tamaño es r de 1000 km de diámetro. No emite luz propia. Su masa es tal que la energía liberada por las reacciones nucleares en su interior no son suficientes para que se convierta en estrella. Actualmente se han encontrado evidencias de la existencia de planetas que orbitan algunas estrellas.

Plutón. Planeta del Sistema Solar cuya órbita es la más alejada del Sol. Véanse tablas de parámetros físicos y orbitales de planetas, y satélites de los planetas.
Polar. Estrella Polar (a UMi). Se localiza a sólo 0.9o del Polo Norte Celeste.

Precesión. Movimiento progresivo y uniforme del eje de rotación de un cuerpo que rota libremente, sujeto a la torca ejercida por una fuerza gravitatoria externa. En la Tierra, la precesión es causada por la acción de la fuerza gravitatoria del Sol y la Luna sobre su deformación ecuatorial .

Primer punto de Aries. Punto imaginario donde se intersectan el ecuador celeste y la eclíptica. Cuando el Sol pasa por dicho punto, su declinación cambia de negativa a positiva. No existe ninguna estrella en esta posición.

Puesta del Sol. Momento en que el limbo superior del Sol desaparece bajo el horizonte del observador.

Polo norte celeste. Punto de intersección de la proyección del eje de rotación terrestre con la esfera celeste.

Punto Vernal. Véase primer punto de Aries.

Quincuagésima. Domínica que precede a la Cuaresma.

Ramadán. Noveno mes del año lunar de los musulmanes.

Revolución. Órbita de un cuerpo alrededor de otro.

Rosh Hashanah. Año Nuevo de los Judíos.

Salida del Sol. Momento en que el limbo superior del Sol sale por el horizonte del observador.

Saros. Ciclo lunar babilónico de 6585.32 días, o 18 años, 11.33 días o 223 lunaciones, después del cual el Sol y la Luna regresan a una misma posición relativa en el cielo. Significa repetición en griego.
Satélite. Cuerpo en órbita alrededor de otro. Luna de un planeta.

Saturno. Planeta gaseoso del Sistema Solar con un gran número de anillos. Véanse tablas de parámetros físicos y orbitales de planetas, y satélites de los planetas.

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Segundo. En el sistema internacional, duración de 9 192 631 770 ciclos de la radiación dada por la transición entre los dos niveles hiperfinos del estado base del Cesio 133.

Semana Santa. Semana que culmina con la Pascua, la cual se festeja en el primer domingo que sigue a la primera luna llena, después del equinoccio de primavera.

Septuagésima. Domínica que celebra la Iglesia Católica tres semanas antes de la primera de cuaresma.

Sideral. Relativo a las estrellas.

Sistema de referencia. Lugar y tiempo desde donde se mide o registra un evento.

Sol. Estrella más cercana a la Tierra.

Sol medio. Sol imaginario o ficticio, que se desplaza en la bóveda celeste a velocidad constante. No está sujeto a las variaciones del Sol verdadero debidas a la elipticidad de la órbita terrestre. Se usa para definir el tiempo solar medio.

Solsticio. Uno de dos puntos en los cuales el Sol parece estar en sus puntos Norte y Sur más extremos. Puntos de la eclíptica que están a la máxima distancia del ecuador celeste. En el hemisferio norte, el solsticio de verano ocurre alrededor del 21 de y el de invierno cerca del 22 de aproximadamente. Estas fechas corresponden al día más largo y corto del año, respectivamente.

Sombras volantes. Franjas de luz y sombra que se observan justo antes y después de la fase de totalidad de un eclipse de Sol.

Sucot. Fiesta judía de la cosecha.

Tiempo atómico internacional. Escala de tiempo que resulta del análisis de las mediciones de tiempos atómicos en varias ciudades del mundo, regulada por el Bureau International des Poids et Mesures. La unidad de tiempo es el segundo internacional de tiempo.

Tiempo solar medio. Medida de tiempo basada en el movimiento diurno de Sol medio o ficticio, suponiendo un movimiento de rotación terrestre uniforme.

Tiempo sideral. Medida de tiempo basada en el movimiento diurno del punto Vernal. Está dado por la razón de rotación terrestre respecto a las estrellas.

Tiempo universal. Medida de tiempo basada en el movimiento diurno del Sol. Hora local en el meridiano de Greenwich; se determina por la observación del movimiento diurno de las estrellas.

Tierra. Planeta rocoso del Sistema Solar. Véanse tablas de parámetros físicos y orbitales de planetas, y satélites de los planetas.

Tránsito. Paso de un objeto celeste por un meridiano. Paso de un cuerpo frente a otro de r diámetro aparente.

Umbra. En un eclipse, la región desde donde se observa al cuerpo celeste totalmente oculto. Umbra, en latín, significa sombra.

Unidad astronómica o U.A. Distancia media entre la Tierra y el Sol; 150 millones de kilómetros, aproximadamente.

Urano. Planeta gaseoso del Sistema Solar con 9 anillos. Véanse tablas de parámetros físicos y orbitales de planetas, y satélites de los planetas.

Venus. Planeta rocoso del Sistema Solar que se muestra desde la Tierra como el de r brillo. Véanse tablas de parámetros físicos y orbitales de planetas, y satélites de los planetas.

Yom Kippur. Día del perdón entre los judíos.

Zenit o Cenit. Ver Cenit.

Zodiaco. Banda imaginaria de constelaciones a través de la cual se mueve el Sol, la Luna y los planetas durante el año.

Apéndice

Explicaciones generales al contenido del Anuario

Con la abreviatura W. G., debemos leer Oeste del meridiano de Greenwich, ésta se mantiene en toda la publicación, a menos que se indique otra referencia.

Calendario

En un sentido general los calendarios son sistemas de cómputo de días, con ellos se rige la vida social, civil y religiosa de los grupos humanos. Se construyen mediante la combinación de diferentes unidades de tiempo. Se han ideado diversas estructuras funcionales por medio de la aplicación de ciertos algoritmos o procedimientos matemáticos, con los que se pretende seguir la duración de diversos ciclos astronómicos. Ejemplos de ellos son los relacionados al movimiento aparente del Sol, la Luna, Venus o algunas estrellas brillantes, los cuales contienen implícitamente el movimiento de traslación y rotación de la Tierra, así como el de la Luna en torno a la Tierra.

El *año civil*, es el intervalo de 365 días que se utiliza en la ría de los países del mundo, y es la parte entera de la duración del año trópico (el ciclo de las estaciones). Para su buen funcionamiento se requiere que cada año para una fecha dada, la posición aproximada del Sol corresponda a la del año anterior. Para lograrlo se hace necesario corregirlo de acuerdo a las siguientes reglas:

Si el año es divisible exactamente entre 4, durará 366 días, al cual se le llama año *bisiesto*.

Los años seculares (múltiplos de 100) no serán bisiestos, excepto si son divisibles entre 400.

Como ejemplos de ello tenemos que los años 1700, 1800 y 1900 no fueron bisisestos; en cambio el año1600 y el 2000 sí lo fueron.

Aquellos años contados de acuerdo a la Era Cristiana tienen su origen numérico en el año 1; este y los años subsecuentes se nombran después de Cristo (d. C.) y los precedentes como antes de Cristo (a.C.). En nuestros días, el calendario adoptado por la ría de los países del mundo es el Calendario Gregoriano, institutido por el Papa Gregorio XIII en 1582. En aquel año introdujo la corrección al calendario Juliano en 10 días, al decretar que al día 4 de le siguiría el 15 de .

En Astronomía, con el propósito de manejar los años numéricamente, el año 1 a.C. se define como el año cero. Los años contados antes de la era cristiana serán negativos, con la regla de restar uno al número del año, y el resultado escribirlo sin el sufijo a.C., anteponiendo el signo menos.

Como ejemplos: el año 2 a.C. será -1 en la notación astronómica; el año 23 a.C. será el -22, el año 115 a.C. será el -114, etc. Para los años posteriores a la era cristiana, simplemente se quita el sufijo d.C. y se tendrá la notación astronómica. Con esta representación se pueden manejar numéricamente los años y se puede obtener fácilmente, de acuerdo con el procedimiento ya mencionado, la secuencia de años bisiestos en cualquier época.

En la región geográfica comprendida entre el occidente de la República Mexicana hasta las que se encuentran entre las Repúblicas de Nicaragua y Costa Rica en centro América, a la

que se da el nombre de Mesoamérica, florecieron las culturas americanas desarrolladas por los huicholes, mexicas, huastecos, zapotecos, mayas, olmecas, etc. En ésta región de América se desarrolló un sistema de dos calendarios con los que se contaban, independientemente, intervalos de 365 y 260 días. El primer intervalo se daba mediante la combinación de 18 meses de 20 días, más cinco días adicionales con los que se completaba la cuenta; evidentemente se reproduce el ciclo anual del Sol. El segundo se obtenía mediante la combinación de 13 meses de 20 días, del cual se desconoce una contraparte en ciclos astronómicos. Hasta el momento se conoce con certeza por la existencia de los códices, el calendario mexica, maya y zapoteca, aunque existen evidencias de la calendárica olmeca, teotihuacana y otras. Entre las épocas más antiguas de esta calendárica, se encuentra la referida por la Estela 12 de Monte alban, para el año -591. Como resultado del estudio del calendario maya, se ha inferido la existencia de una fecha Era que corresponde al 13 de de -3112. Finalmente en base a estudios etnográficos, se ha detectado el uso actual de esta calendárica en las regiones Mixe de Oaxaca y la Maya entre México y Guatemala.

Día Juliano

Sistema de numeración sucesiva de días, establecido arbitrariamente para que todas las fechas históricas tengan un número progresivo. Así el día juliano queda definido como el número de días solares medios, transcurridos desde el 1 de de -4712, a partir del medio día del meridiano de Greenwich.

En la tabla se dan para cada mes, grupos de tres columnas; el número del día en la primera; en la segunda, el nombre del día y en la tercera el día juliano correspondiente al mediodía del meridiano 90°W.G.

Eras, ciclos cronológicos, cómputo, fiestas y aniversarios

Las Eras son épocas definidas por algún suceso cultural de importancia, las cuales referimos aquí al calendario gregoriano. Los ciclos cronológicos y el cómputo son reglas eclesiásticas que ordenan las celebraciones religiosas. Se rigen por los ciclos “solar”, “número de oro” e “indicción romana”, equivalentes a 28,19 y 15 años respectivamente. La pascua corresponde al primer domingo, en el calendario gregoriano, después de la Luna Llena tabular que ocurre después del equinoccio vernal tabular (21 de). La Luna Llena tabular o eclesiástica, se basa en el ciclo Metónico de 235 meses sinódicos.

En la tabla de fiestas y aniversarios se dan las fechas de algunos acontecimientos históricos de importancia en la República Mexicana. También se dan algunas fechas de las celebraciones religiosas importantes de diferentes grupos sociales del País.

Estaciones del año

Se dan los instantes (mes, día, hora y minuto) en los que el Sol inicia su recorrido a través de cada una de las Constelaciones del Zodiaco. Señalamos los intervalos trimestrales de las estaciones del año y las longitudes eclípticas que delimitan cada constelación zodiacal. La primavera se inicia en , en el instante en que ocurre el equinoccio del Nodo Ascendente; el Verano en , en el instante en que ocurre el Solsticio; el Otoño en , en el instante en que ocurre el equinoccio del Nodo Descendente; y el Invierno que se inicia en , en el instante del Solsticio.

Nomenclatura de estrellas

Se dan los nombres propios de algunas estrellas, la extensión de la clasificación Bayer, y su correspondiente numero secuencial del Bright Star Catalog. Conviene señalar que dicha clasificación fue desarrollada por el bávaro John Bayer (1572-1631), cuando publicó su atlas Uranometría en el año de 1603. De acuerdo a los modos de clasificación que él conocía, dio un nombre a las estrellas de acuerdo a seis órdenes de magnitud entre el brillo relativo de las estrellas, para cada constelación. Así a las estrellas más brillantes les asignó una letra griega, además del nombre de la constelación, de acuerdo al mencionado brillo y dependiendo de su posición dentro del grupo de estrellas.

Clasificación espectral de las estrellas

Clase espectral	Color	Temperatura superficial °K	Carácter
O	Blanco-azul	35 000	Líneas de helio ionizado, nitrógeno, oxígeno e hidrógeno.
B	Blanco-azul	20 000	Líneas de helio neutro.
A	Blanca	10 000	Líneas intensas de hidrógeno, no tiene helio.
F	Blanco-amarillo	7 000	Líneas intensas de calcio y débiles de hidrógeno
G	Amarilla	6 000	Líneas débiles de hidrógeno y líneas intensas de metales. La clase espectral de nuestro Sol es G2V.
K	Naranja	4 000 a 4 700	Espectro muy complejo con líneas de metales.
M	Roja	2 500 a 3 000	Espectro muy complejo con líneas intensas de metales y anchas bandas moleculares, en especial de óxido de titanio.
N y R	Rojo intenso Roja	2 500	Con bandas espectrales de compuestos de carbón. Semejantes as las N, conbandas de óxido de zirconio, y líneas de emisión del hidrógeno.
W	Azul	50 000	Muestran emisión debido a la expansión de sus capas externas y atmósferas muy turbulentas.

Subclase	
Ia	supergigante brillante
Ib	supergigante poco luminosa
II	gigante brillante
III	gigante normal
IV	subgigante
V	secuencia principal
VI	subenana

Catálogo Messier

Es una selección de objetos astronómicos brillantes y difusos, creado por Charles Messier, quien pretendía identificarlos plenamente, para evitar confundirlos con los cometas. Messier era conocido por sus observaciones astronómicas en la búsqueda de este tipo de objetos, actividad que desarrolló desde fines del siglo XVIII, hasta su muerte en 1817, llegando a descubrir trece cometas. Los primeros ochenta objetos (del M1 al M80) fueron clasificados por el propio Messier.

Entre los elementos del catálogo se pueden distinguir objetos que pertenecen a nuestra Galaxia, y los que no, son llamados extragalácticos. Como parte de la Galaxia se encuentran los cúmulos abiertos (ca), que son grupos de unos cientos de estrellas ligados gravitatoriamente; cúmulos globulares o galácticos (cg), son conjuntos de cientos de miles de estrellas; remanentes de supernovas (rsn), so restos de estrellas cuyos procesos evolutivos terminan como supernovas; nebulosas planetarias (np), son estrellas cuyos procesos evolutivos terminan con la eyección de materia a velocidades moderadas; nebulosas de reflexión (nr), son aquellas nubes de material interestelar que reflejan la luz de las estrellas vecinas; y nebulosas de emisión (ne), son aquellas nubes que al estar sometidas a la radiación de estrellas muy caliente, ionizan el material interestelar del que estan formadas.

Los objetos extragalácticos del catálogo son galaxias del tipo elíptico (E), espirales (S), o espirales barradas (SB).

Eventos astronómicos

Lluvias de estrellas. Son restos de cometas que al penetrar la atmósfera terrestre, se disuelven en ella dejando una estela luminosa comunmente conocida como estrella fugaz. Como se trata de enjambres de materiales muy pequeños que inciden sobre la Tierra con trayectorias casi paralelas, las estrellas fugaces parecen surgir del mismo punto en la bóveda celeste, llamado radiante. En esta sección se dan las principales lluvias de estrellas, cuyos nombres se asocian a la constelación en la que se encuentra el radiante;

los días en que se pueden observar; y el número promedio de estrellas fugaces por hora.

Crepúsculos, salidas y puestas del sol y de la luna. Los crepúsculos, salidas y puestas del sol, son eventos astronómicos locales que dependen de la latidud del lugar de observación. La salida o puesta del sol está definida para el instante en el cual el centro del Sol se encuentra a 0.5° bajo el horizonte del observador, de tal manera que considerando la refracción y el semidiámetro solar, el limbo superior del Sol se encuentra a una altura de 0° sobre el horizonte. Los crepúsculos que se dan en estas tablas, son el astronómico y civil que corresponden a la posición del centro del disco solar, se encuentra bajo el horizonte a 18° y 6 ° respectivamente.

La hora en que ocurre cada evento está dada en *hora local; la hora legal* se obtiene al sumar a la hora local, la diferencia en horas entre la longitud del lugar de observación y el meridiano horario.

Por ejemplo, evaluemos para el meridiano 90° W. G. la salida del Sol el día 6 de , en un lugar cuya latitud es 30° y longitud 97°30'. En la tabla dada para latitud 30°, la salida del Sol (SS) indicada para el 6 de , es 4h 59m.

La diferencia en longitud (Dl) será:

$\Delta\lambda$ = (97.5° - 90°)/15

$\Delta\lambda$ = 7.5°/15 donde obtenemos Dl = 30 m; así, la hora de la salida del Sol será:

T = 4h 59m +30m es decir T= 5h 29m.

Hora en la República Mexicana (Hora Legal en México)

La hora legal se adoptó en la República Mexicana el 1 de de 1922, actualmente se tienen cuatro husos horarios de referencia, los meridianos 75°, 90°, 105° y 120° al W. G. El 13 de de 1998 se modificó en México el horario de Verano, decretándose los cuatro husos horarios para la República Mexicana.

Los husos horarios en el mundo (ver mapa de zonas horarias), son franjas de 15° centradas en el meridiano horario de referencia, el meridiano de la ciudad de Greenwich, Inglaterra se ha definido como el meridiano 0°. Los meridianos se miden a partir del meridiano de Greenwich al Este o al Oeste y se escriben las siglas E.G. y W. G. precediéndolas el valor numérico de la longitud geográfica. También con el propósito de manejar numéricamente, los valores de las longitudes geográficas serán positivos para las longitudes medidas al Este de Greenwich y negativos para los que se determinan al Oeste. Por ejemplo el meridiano 90° W.G. se escribe numéricamente como -90°. Los meridianos horarios hacia el Este o al Oeste son: 15°, 30°, 45°, 60°, 75°, 90°, 105°, 120°, 135°, 150°, 165°. Al meridiano 180° se le llama Línea Internacional del Tiempo.

El tiempo referido al meridiano de Greenwich o simplemente meridiano 0°, es llamado Tiempo Universal. Los husos horarios en que se divide la Tierra son adaptados por los países según sus propias necesidades, esto se puede observar en el mapa de zonas horarias, donde las franjas de los husos horarios son modificadas por accidentes orográficos o hidrográficos o bien por las fronteras entre países vecinos o por límites entre sus propias divisiones políticas. La hora así definida es llamada también hora legal o civil. En algunos países, según sea la época del año, se suele modificar los horarios legales que les corresponden, por horarios llamados de Verano o Invierno, con el propósito de aprovechar mejor la iluminación de la luz solar.

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