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2025

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UNIVERSIDAD NACIONAL AUTÓNOMA DE MÉXICO

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## Imagen de portada:

Visión completa de la Vía Láctea obtenida por la misión *Gaia* de la Agencia Espacial Europea (*ESA*). Esta imagen está basada en las mediciones precisas de posición, distancia y movimiento de casi 1,700 millones de estrellas, recopiladas desde órbita terrestre. Representa el mapa tridimensional más extenso y detallado jamás realizado de nuestra galaxia, fruto de una misión científica que, desde su lanzamiento en 2013, ha revolucionado nuestra comprensión del origen, estructura y evolución de la Vía Láctea.

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ANUARIO DEL  
OBSERVATORIO  
ASTRONÓMICO NACIONAL



Edición CXLIV

**2025**

INSTITUTO DE ASTRONOMÍA

UNIVERSIDAD NACIONAL AUTÓNOMA DE MÉXICO



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# Prefacio

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Desde 1881, el Anuario Astronómico del Observatorio Astronómico Nacional ha sido referencia en México para la localización de los astros en la bóveda celeste. Figuras históricas como Ángel Anguiano, ingeniero civil, arquitecto y primer director del observatorio, fueron clave en su creación, siendo él quien publicó la primera edición de este anuario.

Además de ser un registro de efemérides astronómicas, el Anuario Astronómico representa el esfuerzo de muchas generaciones por hacer de la ciencia de datos una herramienta accesible para todos. Durante 144 años, astrónomos, científicos, navegantes, cartógrafos, meteorólogos, geofísicos, ingenieros, arquitectos, arqueólogos, docentes y divulgadores mexicanos han recurrido al Anuario Astronómico como una fuente fundamental de información astronómica y geodésica. El uso intensivo de telescopios e instrumentos astronómicos en los observatorios mexicanos ha sido una constante de descubrimientos científicos.

Con pasión y rigor, Daniel Flores ha dedicado toda una vida académica a la edición de nuestro Anuario en el Instituto de Astronomía. En 1975, colaboraba en la Oficina de Efemérides con el ingeniero Augusto Falcon de Gyves y el astrónomo Mario Guerra Mendiola. Fue en el año de 1981 cuando la edición del Anuario pasó a ser su responsabilidad. Cuarenta y tres ediciones, cuarenta y tres años, de constante actualización de información astronómica en el anuario es mucho más que efemérides, es una vida de entrega a la astronomía.

Dr. Yair Emmanuel Krongold Herrera  
Director  
Instituto de Astronomía, UNAM

Dr. Alejandro Farah Simón  
Departamento de Instrumentación  
Instituto de Astronomía, UNAM

El Instituto de Astronomía de la Universidad Nacional Autónoma de México, publica en su Anuario del Observatorio Astronómico Nacional las 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, eclipses, pasos cenitales y otros datos astronómicos.

En esta redición 2025 se ha incluido el cálculo de las efemérides mediante la aplicación de programas en lenguaje Python (Utilerías Python) a cargo de los matemáticos Jacobo Eduardo Rosales Mejía y Fernando Said Chávez Escobedo, estudiantes tesistas asociados del Dr. Alejandro Farah Simon; además de efectuar la edición digital de este Anuario con editores L<sup>A</sup>T<sub>E</sub>X.

Todos los cálculos de las efemérides y los instantes en que ocurren los sucesos astronómicos, se toma el meridiano 90° al oeste del meridiano efemérico de Greenwich. Estos cálculos 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.

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).

Para los años 2025 y 2026 se han mantenido los cálculos de las efemérides, con la intención de solventar alguna urgencia que surgiere entre los usuarios del este Anuario Astronómico. Se han obtenido las efemérides 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

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Catalog, ESA Hipparcos Space Astrometry Mission, a partir del cual se determinaron las posiciones medias de estrellas y posiciones aparentes de estrellas brillantes.

Para el cálculo de las declinaciones magnéticas de algunas poblaciones de la República Mexicana, se utilizó la décima generación del modelo del campo magnético terrestre adoptado por la International Association of Geomagnetism and Aeronomy", de 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.

En el apartado de nomenclatura de estrellas se incluyen los nombres comunes de estrellas además de los números de los catálogos Hipparco (NH) y los números asignados 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 ( $^{\circ}$ ,  $'$ ,  $''$ ), y en decimales de grado ( $^{\circ}$ ). 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.

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

c. Dr. J. Daniel Flores Gutiérrez  
Departamento de Efemérides — Instituto de Astronomía  
Universidad Nacional Autónoma de México  
Ciudad Universitaria  
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Mis recuerdos más antiguos sobre Daniel Flores son entorno a su relación de trabajo con el Ing. Mario Guerra, quien lo introdujo en la elaboración del Anuario producido por el Departamento de Efemérides del IA. Recuerdo verlo cargando las cajas de tarjetas perforadas IBM para llevarlas al Centro de Cálculo de la UNAM, donde corría los programas que producían los datos sobre dichas efemérides.

Al pasarnos de la Torre de Ciencias a las instalaciones que actualmente ocupa el IA en la Ciudad de la Investigación, Daniel consiguió que se comprara una Wang 600 Electronic Calculator; calculadora programable con despliegue de tubos de descarga color naranja, que mientras iba haciendo sus operaciones cambiaban rápidamente. Se programaba mediante cinta magnética contenida en cassette. Daniel pasaba horas en la oficina del segundo piso donde se instaló esa máquina, junto con varias calculadoras Hewlett-Packard, que eran las que los estudiantes usábamos para hacer nuestras tareas y cálculos.

En esa oficina platicué muchas veces con Daniel, que por cierto siempre fue de los que llegaban más temprano, ya que decía que así podía hacer el trabajo del Anuario mejor. Siempre fue muy puntual, cortés y caballeroso. Al paso de los años nos hicimos buenos amigos, ya que de alguna forma los dos compartíamos el interés por la historia de la Astronomía, lo que me llevó a escribir algunos artículos sobre los primeros años del OAN, que amablemente incluyó en algunos números del Anuario. Ese interés lo llevó a la Arqueoastronomía, llegando incluso a organizar un congreso de esa disciplina en el IA, que si mal no me acuerdo fue en el año 2010. El resultado de aquella reunión fue la publicación por parte del IA del libro Legado Astronómico donde se presentaron los trabajos que fueron expuestos en aquella reunión. Daniel fue uno de los tres coordinadores de dicha publicación.

Sin duda la labor principal de Daniel durante su larga estancia en el IA fue la elaboración del Anuario, publicación que desde sus orígenes en 1881 fue la cara del OAN y después del IA entre muchos profesionistas y usuarios del país, que en él buscaban datos que les servía para sus labores geodésicas, cartográficas, de navegación e incluso agrícolas.

Recuerdo que en las épocas de crisis por las grandes devaluaciones del peso, alguien tomó la decisión de que para ahorrar, se sacaran del Anuario las páginas donde se reportaba las coordenadas geográficas de gran parte de las principales poblaciones de la República. ¡Craso error! Las protestas no se hicieron esperar. Yo atendí muchas llamadas del público

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que pedían esa información y ya radicado en Ensenada, llegaron a mi oficina varias personas en diferentes ocasiones a pedir esos datos. Lo comenté con Daniel y él me dijo que también le había sucedido lo mismo, así que a la primera oportunidad volvió a incluirse esa información, que debe recordarse era muy importante, pues en aquellas fechas no había GPS y la tecnología no tenía el desarrollo de ahora. Sin duda Daniel Flores realizó un trabajo valioso aunque muy poco reconocido, por lo que bien merece nuestro reconocimiento, agradecimiento y respeto.

Marco Arturo Moreno Corral Ensenada, Baja California, 4 de abril de 2025.

Se lo presenté a varias generaciones de estudiantes de Astrofísica General. El Anuario contiene información valiosa para los estudiantes de Astronomía. Muchos de ellos no tienen experiencia de observación, y el Anuario es un apoyo importante para iniciarte en las observaciones. Las partes más importantes para los estudiantes son las tablas de hora sideral, posición del Sol y la Luna y por supuesto las coordenadas de las estrellas brillantes (incluyendo los datos de magnitud, color, etc).

Silvia Torres

El anuario siempre ha sido referencia para eventos El uso que doy al anuario son la búsqueda de efemérides de algunos eventos del sistema solar como lo son eclipses solares y lunares, conjunciones planetarias y de algún planeta con la luna, así mismo para la ocultación de estrellas por la luna. Es una buena guía para la obtención de coordenadas geográficas de diversas ciudades del país que te ayudan en la planificación de viajes de observación de algún eclipse a otra ciudad del país.

Oscar Chapa

Utilicé el anuario para tener las coordenadas de estrellas brillantes en el telescopio y poner la hora. Daniel nos condujo varias veces a Teotihuacán para ver apuntamientos solares arqueoastronómicos, con sus colaboradores arqueólogos.

Margarita Rosado



# Día Juliano, 2025

A las 0h del meridiano 90° W.G.

d	ds	dj	d	ds	dj	d	ds	dj	d	ds	dj
<b>Ene</b>			16	Dom	2460722.75	03	Jue	2460768.75	20	Mar	2460815.75
01	Mié	2460676.75	17	Lun	2460723.75	04	Vie	2460769.75	21	Mié	2460816.75
02	Jue	2460677.75	18	Mar	2460724.75	05	Sáb	2460770.75	22	Jue	2460817.75
03	Vie	2460678.75	19	Mié	2460725.75	06	Dom	2460771.75	23	Vie	2460818.75
04	Sáb	2460679.75	20	Jue	2460726.75	07	Lun	2460772.75	24	Sáb	2460819.75
05	Dom	2460680.75	21	Vie	2460727.75	08	Mar	2460773.75	25	Dom	2460820.75
06	Lun	2460681.75	22	Sáb	2460728.75	09	Mié	2460774.75	26	Lun	2460821.75
07	Mar	2460682.75	23	Dom	2460729.75	10	Jue	2460775.75	27	Mar	2460822.75
08	Mié	2460683.75	24	Lun	2460730.75	11	Vie	2460776.75	28	Mié	2460823.75
09	Jue	2460684.75	25	Mar	2460731.75	12	Sáb	2460777.75	29	Jue	2460824.75
10	Vie	2460685.75	26	Mié	2460732.75	13	Dom	2460778.75	30	Vie	2460825.75
11	Sáb	2460686.75	27	Jue	2460733.75	14	Lun	2460779.75	31	Sáb	2460826.75
12	Dom	2460687.75	28	Vie	2460734.75	15	Mar	2460780.75	<b>Jun</b>		
13	Lun	2460688.75	<b>Mar</b>			16	Mié	2460781.75	01	Dom	2460827.75
14	Mar	2460689.75	01	Sáb	2460735.75	17	Jue	2460782.75	02	Lun	2460828.75
15	Mié	2460690.75	02	Dom	2460736.75	18	Vie	2460783.75	03	Mar	2460829.75
16	Jue	2460691.75	03	Lun	2460737.75	19	Sáb	2460784.75	04	Mié	2460830.75
17	Vie	2460692.75	04	Mar	2460738.75	20	Dom	2460785.75	05	Jue	2460831.75
18	Sáb	2460693.75	05	Mié	2460739.75	21	Lun	2460786.75	06	Vie	2460832.75
19	Dom	2460694.75	06	Jue	2460740.75	22	Mar	2460787.75	07	Sáb	2460833.75
20	Lun	2460695.75	07	Vie	2460741.75	23	Mié	2460788.75	08	Dom	2460834.75
21	Mar	2460696.75	08	Sáb	2460742.75	24	Jue	2460789.75	09	Lun	2460835.75
22	Mié	2460697.75	09	Dom	2460743.75	25	Vie	2460790.75	10	Mar	2460836.75
23	Jue	2460698.75	10	Lun	2460744.75	26	Sáb	2460791.75	11	Mié	2460837.75
24	Vie	2460699.75	11	Mar	2460745.75	27	Dom	2460792.75	12	Jue	2460838.75
25	Sáb	2460700.75	12	Mié	2460746.75	28	Lun	2460793.75	13	Vie	2460839.75
26	Dom	2460701.75	13	Jue	2460747.75	29	Mar	2460794.75	14	Sáb	2460840.75
27	Lun	2460702.75	14	Vie	2460748.75	30	Mié	2460795.75	15	Dom	2460841.75
28	Mar	2460703.75	15	Sáb	2460749.75	<b>May</b>			16	Lun	2460842.75
29	Mié	2460704.75	16	Dom	2460750.75	01	Jue	2460796.75	17	Mar	2460843.75
30	Jue	2460705.75	17	Lun	2460751.75	02	Vie	2460797.75	18	Mié	2460844.75
31	Vie	2460706.75	18	Mar	2460752.75	03	Sáb	2460798.75	19	Jue	2460845.75
<b>Feb</b>			19	Mié	2460753.75	04	Dom	2460799.75	20	Vie	2460846.75
01	Sáb	2460707.75	20	Jue	2460754.75	05	Lun	2460800.75	21	Sáb	2460847.75
02	Dom	2460708.75	21	Vie	2460755.75	06	Mar	2460801.75	22	Dom	2460848.75
03	Lun	2460709.75	22	Sáb	2460756.75	07	Mié	2460802.75	23	Lun	2460849.75
04	Mar	2460710.75	23	Dom	2460757.75	08	Jue	2460803.75	24	Mar	2460850.75
05	Mié	2460711.75	24	Lun	2460758.75	09	Vie	2460804.75	25	Mié	2460851.75
06	Jue	2460712.75	25	Mar	2460759.75	10	Sáb	2460805.75	26	Jue	2460852.75
07	Vie	2460713.75	26	Mié	2460760.75	11	Dom	2460806.75	27	Vie	2460853.75
08	Sáb	2460714.75	27	Jue	2460761.75	12	Lun	2460807.75	28	Sáb	2460854.75
09	Dom	2460715.75	28	Vie	2460762.75	13	Mar	2460808.75	29	Dom	2460855.75
10	Lun	2460716.75	29	Sáb	2460763.75	14	Mié	2460809.75	30	Lun	2460856.75
11	Mar	2460717.75	30	Dom	2460764.75	15	Jue	2460810.75	<b>Jul</b>		
12	Mié	2460718.75	31	Lun	2460765.75	16	Vie	2460811.75	01	Mar	2460857.75
13	Jue	2460719.75	<b>Abr</b>			17	Sáb	2460812.75	02	Mié	2460858.75
14	Vie	2460720.75	01	Mar	2460766.75	18	Dom	2460813.75	03	Jue	2460859.75
15	Sáb	2460721.75	02	Mié	2460767.75	19	Lun	2460814.75	04	Vie	2460860.75

# Día Juliano, 2025

A las 0h del meridiano 90° W.G.

d	ds	dj	d	ds	dj	d	ds	dj	d	ds	dj
05	Sáb	2460861.75	19	Mar	2460906.75	02	Jue	2460950.75	16	Dom	2460995.75
06	Dom	2460862.75	20	Mié	2460907.75	03	Vie	2460951.75	17	Lun	2460996.75
07	Lun	2460863.75	21	Jue	2460908.75	04	Sáb	2460952.75	18	Mar	2460997.75
08	Mar	2460864.75	22	Vie	2460909.75	05	Dom	2460953.75	19	Mié	2460998.75
09	Mié	2460865.75	23	Sáb	2460910.75	06	Lun	2460954.75	20	Jue	2460999.75
10	Jue	2460866.75	24	Dom	2460911.75	07	Mar	2460955.75	21	Vie	2461000.75
11	Vie	2460867.75	25	Lun	2460912.75	08	Mié	2460956.75	22	Sáb	2461001.75
12	Sáb	2460868.75	26	Mar	2460913.75	09	Jue	2460957.75	23	Dom	2461002.75
13	Dom	2460869.75	27	Mié	2460914.75	10	Vie	2460958.75	24	Lun	2461003.75
14	Lun	2460870.75	28	Jue	2460915.75	11	Sáb	2460959.75	25	Mar	2461004.75
15	Mar	2460871.75	29	Vie	2460916.75	12	Dom	2460960.75	26	Mié	2461005.75
16	Mié	2460872.75	30	Sáb	2460917.75	13	Lun	2460961.75	27	Jue	2461006.75
17	Jue	2460873.75	31	Dom	2460918.75	14	Mar	2460962.75	28	Vie	2461007.75
18	Vie	2460874.75	<b>Sep</b>			15	Mié	2460963.75	29	Sáb	2461008.75
19	Sáb	2460875.75	01	Lun	2460919.75	16	Jue	2460964.75	30	Dom	2461009.75
20	Dom	2460876.75	02	Mar	2460920.75	17	Vie	2460965.75	<b>Dic</b>		
21	Lun	2460877.75	03	Mié	2460921.75	18	Sáb	2460966.75	01	Lun	2461010.75
22	Mar	2460878.75	04	Jue	2460922.75	19	Dom	2460967.75	02	Mar	2461011.75
23	Mié	2460879.75	05	Vie	2460923.75	20	Lun	2460968.75	03	Mié	2461012.75
24	Jue	2460880.75	06	Sáb	2460924.75	21	Mar	2460969.75	04	Jue	2461013.75
25	Vie	2460881.75	07	Dom	2460925.75	22	Mié	2460970.75	05	Vie	2461014.75
26	Sáb	2460882.75	08	Lun	2460926.75	23	Jue	2460971.75	06	Sáb	2461015.75
27	Dom	2460883.75	09	Mar	2460927.75	24	Vie	2460972.75	07	Dom	2461016.75
28	Lun	2460884.75	10	Mié	2460928.75	25	Sáb	2460973.75	08	Lun	2461017.75
29	Mar	2460885.75	11	Jue	2460929.75	26	Dom	2460974.75	09	Mar	2461018.75
30	Mié	2460886.75	12	Vie	2460930.75	27	Lun	2460975.75	10	Mié	2461019.75
31	Jue	2460887.75	13	Sáb	2460931.75	28	Mar	2460976.75	11	Jue	2461020.75
<b>Ago</b>			14	Dom	2460932.75	29	Mié	2460977.75	12	Vie	2461021.75
01	Vie	2460888.75	15	Lun	2460933.75	30	Jue	2460978.75	13	Sáb	2461022.75
02	Sáb	2460889.75	16	Mar	2460934.75	31	Vie	2460979.75	14	Dom	2461023.75
03	Dom	2460890.75	17	Mié	2460935.75	<b>Nov</b>			15	Lun	2461024.75
04	Lun	2460891.75	18	Jue	2460936.75	01	Sáb	2460980.75	16	Mar	2461025.75
05	Mar	2460892.75	19	Vie	2460937.75	02	Dom	2460981.75	17	Mié	2461026.75
06	Mié	2460893.75	20	Sáb	2460938.75	03	Lun	2460982.75	18	Jue	2461027.75
07	Jue	2460894.75	21	Dom	2460939.75	04	Mar	2460983.75	19	Vie	2461028.75
08	Vie	2460895.75	22	Lun	2460940.75	05	Mié	2460984.75	20	Sáb	2461029.75
09	Sáb	2460896.75	23	Mar	2460941.75	06	Jue	2460985.75	21	Dom	2461030.75
10	Dom	2460897.75	24	Mié	2460942.75	07	Vie	2460986.75	22	Lun	2461031.75
11	Lun	2460898.75	25	Jue	2460943.75	08	Sáb	2460987.75	23	Mar	2461032.75
12	Mar	2460899.75	26	Vie	2460944.75	09	Dom	2460988.75	24	Mié	2461033.75
13	Mié	2460900.75	27	Sáb	2460945.75	10	Lun	2460989.75	25	Jue	2461034.75
14	Jue	2460901.75	28	Dom	2460946.75	11	Mar	2460990.75	26	Vie	2461035.75
15	Vie	2460902.75	29	Lun	2460947.75	12	Mié	2460991.75	27	Sáb	2461036.75
16	Sáb	2460903.75	30	Mar	2460948.75	13	Jue	2460992.75	28	Dom	2461037.75
17	Dom	2460904.75	<b>Oct</b>			14	Vie	2460993.75	29	Lun	2461038.75
18	Lun	2460905.75	01	Mié	2460949.75	15	Sáb	2460994.75	30	Mar	2461039.75
									31	Mié	2461040.75

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# Eras y ciclos cronológicos: 2025

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## Cómputo

Letra dominical	E
Epacta	30
Ciclo lunar (Número de Oro)	XII
Ciclo solar	18
Indicción romana	3

## Eras

El año 2025 es el vigésimo quinto del siglo XXI de la Era Cristiana.

El año 2025 corresponde al año 6738 del Período Juliano.

El 1 de enero del año 2025 del Calendario Juliano, corresponde al 14 de enero.

Era	Inicia (Fecha)	Año en la Era
Romana	14 de enero	2778
Japonesa	1 de enero	2685
Griega	14 de septiembre	2337
Hégira	16 de julio	1447
Bizantina	1 de septiembre	7534
China	29 de enero	Yi Si (Serpiente)
Judía	22 de septiembre	5786

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## Fiestas y aniversarios para el año 2025

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Fiesta/Aniversario	Día de la semana	Día	Mes
Año Nuevo	Miércoles	1	Enero
Epifanía	Lunes	6	Enero
Proclamación de la Constitución de 1917	Miércoles	5	Febrero
Septuagésima Dominica	Domingo	16	Febrero
Día de la Bandera	Lunes	24	Febrero
Primer día de Ramadán	Viernes	28	Febrero
Quincuagésima Dominica	Domingo	2	Marzo
Carnaval	Martes	4	Marzo
Miércoles de Ceniza	Miércoles	5	Marzo
Natalicio de Benito Juárez	Viernes	21	Marzo
Domingo de Ramos	Domingo	13	Abril
Viernes Santo	Viernes	18	Abril
Pascua	Domingo	20	Abril
Día del Trabajo	Jueves	1	Mayo
Batalla de Puebla	Lunes	5	Mayo
Ascensión	Jueves	29	Mayo
Pentecostés	Domingo	8	Junio
Santísima Trinidad	Domingo	15	Junio
Corpus Christi	Jueves	19	Junio
Domingo de Corpus	Domingo	22	Junio
Año nuevo Islámico	Jueves	26	Junio
San Pedro y San Pablo	Domingo	29	Junio
Muerte de Benito Juárez	Viernes	18	Julio
Muerte de Miguel Hidalgo	Miércoles	30	Julio
Independencia de México	Martes	16	Septiembre
Año Nuevo Judío	Lunes	22	Septiembre
Día de la Raza	Domingo	12	Octubre
Día de los Muertos	Domingo	2	Noviembre
Revolución Mexicana	Jueves	20	Noviembre
Adviento	Domingo	30	Noviembre
Navidad	Jueves	25	Diciembre

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## Estaciones del año, 2025

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Evento	H. Norte	H. Sur	mes	día	h	m	s	Duración (días)
Equinoccio	Primavera	Otoño	Marzo	20	03	01	28	92.74
Solsticio	Verano	Invierno	Junio	20	20	42	15	93.65
Equinoccio	Otoño	Primavera	Septiembre	22	12	19	20	89.86
Solsticio	Invierno	Verano	Diciembre	21	09	03	05	88.99

Constelación	mes	día	h	m	s
Aries	Marzo	23	1	9	35
Tauro	Abril	19	22	37	20
Géminis	Mayo	20	21	45	37
Cáncer	Junio	21	5	39	50
Leo	Julio	22	16	29	15
Virgo	Agosto	22	23	30	46
Libra	Septiembre	22	21	9	25
Escorpio	Octubre	23	6	33	17
Sagitario	Noviembre	22	4	12	17
Capricornio	Diciembre	21	17	37	58



## Hora sidereal, 2025

A las 0h del meridiano 90° W.G.

d	dj	h	m	s	d	dj	h	m	s	d	dj	h	m	s
<b>Ene</b>					14	2460720.75	9	38	3.5	31	2460765.75	12	35	28.5
1	2460676.75	6	44	35.1	15	2460721.75	9	42	0.1	<b>Abr</b>				
2	2460677.75	6	48	31.6	16	2460722.75	9	45	56.6	1	2460766.75	12	39	25.0
3	2460678.75	6	52	28.2	17	2460723.75	9	49	53.2	2	2460767.75	12	43	21.6
4	2460679.75	6	56	24.7	18	2460724.75	9	53	49.7	3	2460768.75	12	47	18.2
5	2460680.75	7	0	21.3	19	2460725.75	9	57	46.3	4	2460769.75	12	51	14.7
6	2460681.75	7	4	17.9	20	2460726.75	10	1	42.8	5	2460770.75	12	55	11.3
7	2460682.75	7	8	14.4	21	2460727.75	10	5	39.4	6	2460771.75	12	59	7.8
8	2460683.75	7	12	11.0	22	2460728.75	10	9	36.0	7	2460772.75	13	3	4.4
9	2460684.75	7	16	7.5	23	2460729.75	10	13	32.5	8	2460773.75	13	7	0.9
10	2460685.75	7	20	4.1	24	2460730.75	10	17	29.1	9	2460774.75	13	10	57.5
11	2460686.75	7	24	0.6	25	2460731.75	10	21	25.6	10	2460775.75	13	14	54.0
12	2460687.75	7	27	57.2	26	2460732.75	10	25	22.2	11	2460776.75	13	18	50.6
13	2460688.75	7	31	53.7	27	2460733.75	10	29	18.7	12	2460777.75	13	22	47.2
14	2460689.75	7	35	50.3	28	2460734.75	10	33	15.3	13	2460778.75	13	26	43.7
15	2460690.75	7	39	46.9	<b>Mar</b>					14	2460779.75	13	30	40.3
16	2460691.75	7	43	43.4	1	2460735.75	10	37	11.8	15	2460780.75	13	34	36.8
17	2460692.75	7	47	40.0	2	2460736.75	10	41	8.4	16	2460781.75	13	38	33.4
18	2460693.75	7	51	36.5	3	2460737.75	10	45	5.0	17	2460782.75	13	42	29.9
19	2460694.75	7	55	33.1	4	2460738.75	10	49	1.5	18	2460783.75	13	46	26.5
20	2460695.75	7	59	29.6	5	2460739.75	10	52	58.1	19	2460784.75	13	50	23.0
21	2460696.75	8	3	26.2	6	2460740.75	10	56	54.6	20	2460785.75	13	54	19.6
22	2460697.75	8	7	22.7	7	2460741.75	11	0	51.2	21	2460786.75	13	58	16.1
23	2460698.75	8	11	19.3	8	2460742.75	11	4	47.7	22	2460787.75	14	2	12.7
24	2460699.75	8	15	15.9	9	2460743.75	11	8	44.3	23	2460788.75	14	6	9.3
25	2460700.75	8	19	12.4	10	2460744.75	11	12	40.8	24	2460789.75	14	10	5.8
26	2460701.75	8	23	9.0	11	2460745.75	11	16	37.4	25	2460790.75	14	14	2.4
27	2460702.75	8	27	5.5	12	2460746.75	11	20	34.0	26	2460791.75	14	17	58.9
28	2460703.75	8	31	2.1	13	2460747.75	11	24	30.5	27	2460792.75	14	21	55.5
29	2460704.75	8	34	58.6	14	2460748.75	11	28	27.1	28	2460793.75	14	25	52.0
30	2460705.75	8	38	55.2	15	2460749.75	11	32	23.6	29	2460794.75	14	29	48.6
31	2460706.75	8	42	51.7	16	2460750.75	11	36	20.2	30	2460795.75	14	33	45.1
<b>Feb</b>					17	2460751.75	11	40	16.7	<b>May</b>				
1	2460707.75	8	46	48.3	18	2460752.75	11	44	13.3	1	2460796.75	14	37	41.7
2	2460708.75	8	50	44.9	19	2460753.75	11	48	9.8	2	2460797.75	14	41	38.3
3	2460709.75	8	54	41.4	20	2460754.75	11	52	6.4	3	2460798.75	14	45	34.8
4	2460710.75	8	58	38.0	21	2460755.75	11	56	2.9	4	2460799.75	14	49	31.4
5	2460711.75	9	2	34.5	22	2460756.75	11	59	59.5	5	2460800.75	14	53	27.9
6	2460712.75	9	6	31.1	23	2460757.75	12	3	56.1	6	2460801.75	14	57	24.5
7	2460713.75	9	10	27.6	24	2460758.75	12	7	52.6	7	2460802.75	15	1	21.0
8	2460714.75	9	14	24.2	25	2460759.75	12	11	49.2	8	2460803.75	15	5	17.6
9	2460715.75	9	18	20.7	26	2460760.75	12	15	45.7	9	2460804.75	15	9	14.1
10	2460716.75	9	22	17.3	27	2460761.75	12	19	42.3	10	2460805.75	15	13	10.7
11	2460717.75	9	26	13.8	28	2460762.75	12	23	38.8	11	2460806.75	15	17	7.2
12	2460718.75	9	30	10.4	29	2460763.75	12	27	35.4	12	2460807.75	15	21	3.8
13	2460719.75	9	34	7.0	30	2460764.75	12	31	31.9	13	2460808.75	15	25	0.4

# Hora sideral, 2025

A las 0h del meridiano 90° W.G.

d	dj	h	m	s	d	dj	h	m	s	d	dj	h	m	s
14	2460809.75	15	28	56.9	29	2460855.75	18	30	18.5	13	2460900.75	21	27	43.5
15	2460810.75	15	32	53.5	30	2460856.75	18	34	15.0	14	2460901.75	21	31	40.1
16	2460811.75	15	36	50.0	<b>Jul</b>					15	2460902.75	21	35	36.6
17	2460812.75	15	40	46.6	1	2460857.75	18	38	11.6	16	2460903.75	21	39	33.2
18	2460813.75	15	44	43.1	2	2460858.75	18	42	8.2	17	2460904.75	21	43	29.7
19	2460814.75	15	48	39.7	3	2460859.75	18	46	4.7	18	2460905.75	21	47	26.3
20	2460815.75	15	52	36.3	4	2460860.75	18	50	1.3	19	2460906.75	21	51	22.9
21	2460816.75	15	56	32.8	5	2460861.75	18	53	57.8	20	2460907.75	21	55	19.4
22	2460817.75	16	0	29.4	6	2460862.75	18	57	54.4	21	2460908.75	21	59	16.0
23	2460818.75	16	4	25.9	7	2460863.75	19	1	50.9	22	2460909.75	22	3	12.5
24	2460819.75	16	8	22.5	8	2460864.75	19	5	47.5	23	2460910.75	22	7	9.1
25	2460820.75	16	12	19.0	9	2460865.75	19	9	44.0	24	2460911.75	22	11	5.6
26	2460821.75	16	16	15.6	10	2460866.75	19	13	40.6	25	2460912.75	22	15	2.2
27	2460822.75	16	20	12.1	11	2460867.75	19	17	37.2	26	2460913.75	22	18	58.7
28	2460823.75	16	24	8.7	12	2460868.75	19	21	33.7	27	2460914.75	22	22	55.3
29	2460824.75	16	28	5.2	13	2460869.75	19	25	30.3	28	2460915.75	22	26	51.9
30	2460825.75	16	32	1.8	14	2460870.75	19	29	26.8	29	2460916.75	22	30	48.4
31	2460826.75	16	35	58.4	15	2460871.75	19	33	23.4	30	2460917.75	22	34	45.0
<b>Jun</b>					16	2460872.75	19	37	19.9	31	2460918.75	22	38	41.5
1	2460827.75	16	39	54.9	17	2460873.75	19	41	16.5	<b>Sep</b>				
2	2460828.75	16	43	51.5	18	2460874.75	19	45	13.1	1	2460919.75	22	42	38.1
3	2460829.75	16	47	48.0	19	2460875.75	19	49	9.6	2	2460920.75	22	46	34.6
4	2460830.75	16	51	44.6	20	2460876.75	19	53	6.2	3	2460921.75	22	50	31.2
5	2460831.75	16	55	41.1	21	2460877.75	19	57	2.7	4	2460922.75	22	54	27.8
6	2460832.75	16	59	37.7	22	2460878.75	20	0	59.3	5	2460923.75	22	58	24.3
7	2460833.75	17	3	34.3	23	2460879.75	20	4	55.8	6	2460924.75	23	2	20.9
8	2460834.75	17	7	30.8	24	2460880.75	20	8	52.4	7	2460925.75	23	6	17.4
9	2460835.75	17	11	27.4	25	2460881.75	20	12	49.0	8	2460926.75	23	10	14.0
10	2460836.75	17	15	23.9	26	2460882.75	20	16	45.5	9	2460927.75	23	14	10.5
11	2460837.75	17	19	20.5	27	2460883.75	20	20	42.1	10	2460928.75	23	18	7.1
12	2460838.75	17	23	17.0	28	2460884.75	20	24	38.6	11	2460929.75	23	22	3.6
13	2460839.75	17	27	13.6	29	2460885.75	20	28	35.2	12	2460930.75	23	26	0.2
14	2460840.75	17	31	10.1	30	2460886.75	20	32	31.7	13	2460931.75	23	29	56.8
15	2460841.75	17	35	6.7	31	2460887.75	20	36	28.3	14	2460932.75	23	33	53.3
16	2460842.75	17	39	3.3	<b>Ago</b>					15	2460933.75	23	37	49.9
17	2460843.75	17	42	59.8	1	2460888.75	20	40	24.8	16	2460934.75	23	41	46.4
18	2460844.75	17	46	56.4	2	2460889.75	20	44	21.4	17	2460935.75	23	45	43.0
19	2460845.75	17	50	52.9	3	2460890.75	20	48	18.0	18	2460936.75	23	49	39.5
20	2460846.75	17	54	49.5	4	2460891.75	20	52	14.5	19	2460937.75	23	53	36.1
21	2460847.75	17	58	46.0	5	2460892.75	20	56	11.1	20	2460938.75	23	57	32.6
22	2460848.75	18	2	42.6	6	2460893.75	21	0	7.6	21	2460939.75	0	1	29.2
23	2460849.75	18	6	39.1	7	2460894.75	21	4	4.2	22	2460940.75	0	5	25.8
24	2460850.75	18	10	35.7	8	2460895.75	21	8	0.7	23	2460941.75	0	9	22.3
25	2460851.75	18	14	32.3	9	2460896.75	21	11	57.3	24	2460942.75	0	13	18.9
26	2460852.75	18	18	28.8	10	2460897.75	21	15	53.9	25	2460943.75	0	17	15.4
27	2460853.75	18	22	25.4	11	2460898.75	21	19	50.4	26	2460944.75	0	21	12.0
28	2460854.75	18	26	21.9	12	2460899.75	21	23	47.0	27	2460945.75	0	25	8.5

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## Hora sideral, 2025

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A las 0h del meridiano 90° W.G.

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d	dj	h	m	s	d	dj	h	m	s	d	dj	h	m	s
28	2460946.75	0	29	5.1	30	2460978.75	2	35	14.9	<b>Dic</b>				
29	2460947.75	0	33	1.6	31	2460979.75	2	39	11.4	1	2461010.75	4	41	24.6
30	2460948.75	0	36	58.2	<b>Nov</b>					2	2461011.75	4	45	21.2
<b>Oct</b>					1	2460980.75	2	43	8.0	3	2461012.75	4	49	17.7
1	2460949.75	0	40	54.8	2	2460981.75	2	47	4.5	4	2461013.75	4	53	14.3
2	2460950.75	0	44	51.3	3	2460982.75	2	51	1.1	5	2461014.75	4	57	10.8
3	2460951.75	0	48	47.9	4	2460983.75	2	54	57.6	6	2461015.75	5	1	7.4
4	2460952.75	0	52	44.4	5	2460984.75	2	58	54.2	7	2461016.75	5	5	3.9
5	2460953.75	0	56	41.0	6	2460985.75	3	2	50.7	8	2461017.75	5	9	0.5
6	2460954.75	1	0	37.5	7	2460986.75	3	6	47.3	9	2461018.75	5	12	57.1
7	2460955.75	1	4	34.1	8	2460987.75	3	10	43.9	10	2461019.75	5	16	53.6
8	2460956.75	1	8	30.6	9	2460988.75	3	14	40.4	11	2461020.75	5	20	50.2
9	2460957.75	1	12	27.2	10	2460989.75	3	18	37.0	12	2461021.75	5	24	46.7
10	2460958.75	1	16	23.7	11	2460990.75	3	22	33.5	13	2461022.75	5	28	43.3
11	2460959.75	1	20	20.3	12	2460991.75	3	26	30.1	14	2461023.75	5	32	39.8
12	2460960.75	1	24	16.9	13	2460992.75	3	30	26.6	15	2461024.75	5	36	36.4
13	2460961.75	1	28	13.4	14	2460993.75	3	34	23.2	16	2461025.75	5	40	32.9
14	2460962.75	1	32	10.0	15	2460994.75	3	38	19.7	17	2461026.75	5	44	29.5
15	2460963.75	1	36	6.5	16	2460995.75	3	42	16.3	18	2461027.75	5	48	26.1
16	2460964.75	1	40	3.1	17	2460996.75	3	46	12.8	19	2461028.75	5	52	22.6
17	2460965.75	1	43	59.6	18	2460997.75	3	50	9.4	20	2461029.75	5	56	19.2
18	2460966.75	1	47	56.2	19	2460998.75	3	54	6.0	21	2461030.75	6	0	15.7
19	2460967.75	1	51	52.7	20	2460999.75	3	58	2.5	22	2461031.75	6	4	12.3
20	2460968.75	1	55	49.3	21	2461000.75	4	1	59.1	23	2461032.75	6	8	8.8
21	2460969.75	1	59	45.9	22	2461001.75	4	5	55.6	24	2461033.75	6	12	5.4
22	2460970.75	2	3	42.4	23	2461002.75	4	9	52.2	25	2461034.75	6	16	1.9
23	2460971.75	2	7	39.0	24	2461003.75	4	13	48.7	26	2461035.75	6	19	58.5
24	2460972.75	2	11	35.5	25	2461004.75	4	17	45.3	27	2461036.75	6	23	55.1
25	2460973.75	2	15	32.1	26	2461005.75	4	21	41.8	28	2461037.75	6	27	51.6
26	2460974.75	2	19	28.6	27	2461006.75	4	25	38.4	29	2461038.75	6	31	48.2
27	2460975.75	2	23	25.2	28	2461007.75	4	29	35.0	30	2461039.75	6	35	44.7
28	2460976.75	2	27	21.7	29	2461008.75	4	33	31.5	31	2461040.75	6	39	41.3
29	2460977.75	2	31	18.3	30	2461009.75	4	37	28.1					



# Sol, 2025

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

mes	día	dj	$\alpha$			vh			$\delta$			dis UA	hp		
			h	m	s	s	o	'	"	"	h		m	s	
ene	01	2460676.75	18	46	39.35	11.0	-23	59	48.82	12.3	0.98335	12	03	47	
ene	02	2460677.75	18	51	4.15	11.0	-22	4	57.77	13.5	0.98334	12	04	15	
ene	03	2460678.75	18	55	28.60	11.0	-22	10	34.12	14.6	0.98333	12	04	43	
ene	04	2460679.75	18	59	52.66	11.0	-22	16	37.71	15.7	0.98333	12	05	10	
ene	05	2460680.75	19	4	16.29	11.0	-22	23	8.33	16.9	0.98333	12	05	37	
ene	06	2460681.75	19	8	39.47	11.0	-22	30	5.79	18.0	0.98333	12	06	03	
ene	07	2460682.75	19	13	2.16	10.9	-22	37	29.85	19.1	0.98334	12	06	29	
ene	08	2460683.75	19	17	24.34	10.9	-22	45	20.29	20.2	0.98336	12	06	54	
ene	09	2460684.75	19	21	45.98	10.9	-22	53	36.86	21.3	0.98338	12	07	19	
ene	10	2460685.75	19	26	7.06	10.9	-21	2	19.32	22.3	0.98341	12	07	43	
ene	11	2460686.75	19	30	27.57	10.8	-21	11	27.42	23.4	0.98344	12	08	06	
ene	12	2460687.75	19	34	47.47	10.8	-21	21	0.88	24.4	0.98348	12	08	29	
ene	13	2460688.75	19	39	6.75	10.8	-21	30	59.44	25.5	0.98352	12	08	51	
ene	14	2460689.75	19	43	25.40	10.8	-21	41	22.84	26.5	0.98358	12	09	13	
ene	15	2460690.75	19	47	43.41	10.7	-21	52	10.79	27.5	0.98363	12	09	34	
ene	16	2460691.75	19	52	0.75	10.7	-20	3	23.00	28.5	0.98370	12	09	54	
ene	17	2460692.75	19	56	17.41	10.7	-20	14	59.19	29.5	0.98377	12	10	14	
ene	18	2460693.75	20	0	33.39	10.7	-20	26	59.04	30.5	0.98385	12	10	32	
ene	19	2460694.75	20	4	48.66	10.6	-20	39	22.25	31.5	0.98393	12	10	50	
ene	20	2460695.75	20	9	3.21	10.6	-20	52	8.49	32.4	0.98402	12	11	08	
ene	21	2460696.75	20	13	17.04	10.6	-19	5	17.43	33.4	0.98411	12	11	25	
ene	22	2460697.75	20	17	30.12	10.5	-19	18	48.73	34.3	0.98421	12	11	40	
ene	23	2460698.75	20	21	42.45	10.5	-19	32	42.05	35.2	0.98431	12	11	56	
ene	24	2460699.75	20	25	54.03	10.5	-19	46	57.02	36.1	0.98442	12	12	10	
ene	25	2460700.75	20	30	4.83	10.4	-18	1	33.29	37.0	0.98453	12	12	24	
ene	26	2460701.75	20	34	14.85	10.4	-18	16	30.47	37.8	0.98465	12	12	36	
ene	27	2460702.75	20	38	24.07	10.4	-18	31	48.18	38.7	0.98477	12	12	48	
ene	28	2460703.75	20	42	32.51	10.3	-18	47	26.04	39.5	0.98489	12	13	00	
ene	29	2460704.75	20	46	40.13	10.3	-17	3	23.62	40.3	0.98501	12	13	10	
ene	30	2460705.75	20	50	46.94	10.3	-17	19	40.52	41.1	0.98514	12	13	20	
ene	31	2460706.75	20	54	52.93	10.2	-17	36	16.33	41.9	0.98528	12	13	28	
feb	01	2460707.75	20	58	58.10	10.2	-17	53	10.60	42.7	0.98541	12	13	36	
feb	02	2460708.75	21	3	2.43	10.2	-16	10	22.90	43.4	0.98555	12	13	44	
feb	03	2460709.75	21	7	5.93	10.1	-16	27	52.81	44.1	0.98569	12	13	50	
feb	04	2460710.75	21	11	8.60	10.1	-16	45	39.89	44.8	0.98584	12	13	55	
feb	05	2460711.75	21	15	10.43	10.1	-15	3	43.71	45.5	0.98599	12	14	00	
feb	06	2460712.75	21	19	11.44	10.0	-15	22	3.85	46.2	0.98614	12	14	04	
feb	07	2460713.75	21	23	11.63	10.0	-15	40	39.89	46.8	0.98630	12	14	07	
feb	08	2460714.75	21	27	11.00	10.0	-15	59	31.41	47.5	0.98646	12	14	09	
feb	09	2460715.75	21	31	9.56	9.9	-14	18	38.02	48.1	0.98663	12	14	10	
feb	10	2460716.75	21	35	7.33	9.9	-14	37	59.30	48.7	0.98680	12	14	11	
feb	11	2460717.75	21	39	4.32	9.9	-14	57	34.87	49.3	0.98698	12	14	11	
feb	12	2460718.75	21	43	0.54	9.8	-13	17	24.32	49.9	0.98716	12	14	10	
feb	13	2460719.75	21	46	56.00	9.8	-13	37	27.26	50.4	0.98735	12	14	08	
feb	14	2460720.75	21	50	50.71	9.8	-13	57	43.31	50.9	0.98754	12	14	06	
feb	15	2460721.75	21	54	44.70	9.7	-12	18	12.07	51.5	0.98774	12	14	02	
feb	16	2460722.75	21	58	37.97	9.7	-12	38	53.15	52.0	0.98794	12	13	59	
feb	17	2460723.75	22	2	30.54	9.7	-12	59	46.15	52.5	0.98815	12	13	54	

# Sol, 2025

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

mes	día	dj	$\alpha$			vh s	o	$\delta$			vh "	dis UA	hp	
			h	m	s			'	"	h			m	s
feb	18	2460724.75	22	6	22.43	9.6	-11	20	50.67	52.9	0.98836	12	13	49
feb	19	2460725.75	22	10	13.64	9.6	-11	42	6.33	53.4	0.98858	12	13	43
feb	20	2460726.75	22	14	4.20	9.6	-10	3	32.72	53.8	0.98880	12	13	36
feb	21	2460727.75	22	17	54.12	9.6	-10	25	9.44	54.2	0.98902	12	13	29
feb	22	2460728.75	22	21	43.41	9.5	-10	46	56.09	54.7	0.98925	12	13	22
feb	23	2460729.75	22	25	32.09	9.5	-9	8	52.26	55.0	0.98948	12	13	13
feb	24	2460730.75	22	29	20.17	9.5	-9	30	57.54	55.4	0.98971	12	13	04
feb	25	2460731.75	22	33	7.67	9.5	-9	53	11.52	55.8	0.98994	12	12	55
feb	26	2460732.75	22	36	54.60	9.4	-8	15	33.77	56.1	0.99018	12	12	45
feb	27	2460733.75	22	40	40.98	9.4	-8	38	3.87	56.4	0.99042	12	12	34
feb	28	2460734.75	22	44	26.81	9.4	-7	0	41.39	56.7	0.99066	12	12	23
mar	01	2460735.75	22	48	12.12	9.4	-7	23	25.89	57.0	0.99090	12	12	11
mar	02	2460736.75	22	51	56.92	9.4	-7	46	16.94	57.3	0.99114	12	11	59
mar	03	2460737.75	22	55	41.21	9.3	-6	9	14.10	57.5	0.99138	12	11	47
mar	04	2460738.75	22	59	25.01	9.3	-6	32	16.94	57.7	0.99162	12	11	33
mar	05	2460739.75	23	3	8.35	9.3	-6	55	25.06	57.9	0.99187	12	11	20
mar	06	2460740.75	23	6	51.24	9.3	-5	18	38.03	58.1	0.99211	12	11	06
mar	07	2460741.75	23	10	33.69	9.3	-5	41	55.48	58.3	0.99236	12	10	52
mar	08	2460742.75	23	14	15.73	9.2	-4	5	17.01	58.5	0.99261	12	10	37
mar	09	2460743.75	23	17	57.38	9.2	-4	28	42.24	58.6	0.99287	12	10	22
mar	10	2460744.75	23	21	38.65	9.2	-4	52	10.82	58.8	0.99313	12	10	06
mar	11	2460745.75	23	25	19.58	9.2	-3	15	42.38	58.9	0.99339	12	09	50
mar	12	2460746.75	23	29	0.19	9.2	-3	39	16.56	59.0	0.99365	12	09	34
mar	13	2460747.75	23	32	40.49	9.2	-2	2	53.01	59.1	0.99392	12	09	18
mar	14	2460748.75	23	36	20.52	9.2	-2	26	31.39	59.1	0.99418	12	09	01
mar	15	2460749.75	23	40	0.29	9.2	-2	50	11.34	59.2	0.99446	12	08	44
mar	16	2460750.75	23	43	39.83	9.1	-1	13	52.52	59.2	0.99473	12	08	27
mar	17	2460751.75	23	47	19.16	9.1	-1	37	34.59	59.3	0.99501	12	08	09
mar	18	2460752.75	23	50	58.30	9.1	0	1	17.20	59.3	0.99529	12	07	52
mar	19	2460753.75	23	54	37.28	9.1	0	24	60.00	59.3	0.99557	12	07	34
mar	20	2460754.75	23	58	16.13	9.1	0	48	42.64	59.3	0.99585	12	07	17
mar	21	2460755.75	0	1	54.85	9.1	0	12	24.78	59.2	0.99614	12	06	59
mar	22	2460756.75	0	5	33.48	9.1	0	36	6.06	59.2	0.99643	12	06	41
mar	23	2460757.75	0	9	12.03	9.1	0	59	46.13	59.1	0.99671	12	06	23
mar	24	2460758.75	0	12	50.52	9.1	1	23	24.63	59.1	0.99700	12	06	05
mar	25	2460759.75	0	16	28.98	9.1	1	47	1.20	59.0	0.99729	12	05	47
mar	26	2460760.75	0	20	7.43	9.1	2	10	35.47	58.9	0.99758	12	05	29
mar	27	2460761.75	0	23	45.87	9.1	2	34	7.06	58.8	0.99787	12	05	11
mar	28	2460762.75	0	27	24.34	9.1	2	57	35.60	58.6	0.99816	12	04	52
mar	29	2460763.75	0	31	2.84	9.1	3	21	0.68	58.5	0.99844	12	04	35
mar	30	2460764.75	0	34	41.39	9.1	3	44	21.93	58.3	0.99873	12	04	17
mar	31	2460765.75	0	38	20.01	9.1	4	7	38.94	58.1	0.99901	12	03	59
abr	01	2460766.75	0	41	58.71	9.1	4	30	51.34	57.9	0.99929	12	03	41
abr	02	2460767.75	0	45	37.50	9.1	4	53	58.73	57.7	0.99958	12	03	23
abr	03	2460768.75	0	49	16.40	9.1	5	17	0.75	57.5	0.99986	12	03	06
abr	04	2460769.75	0	52	55.43	9.1	5	39	57.05	57.2	1.00014	12	02	49
abr	05	2460770.75	0	56	34.61	9.1	6	2	47.26	57.0	1.00042	12	02	31
abr	06	2460771.75	1	0	13.95	9.1	6	25	31.06	56.7	1.00070	12	02	14
abr	07	2460772.75	1	3	53.48	9.2	6	48	8.11	56.4	1.00098	12	01	58

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

mes	día	dj	$\alpha$			vh s	o	$\delta$			vh "	dis UA	hp	
			h	m	s			'	"	h			m	s
abr	08	2460773.75	1	7	33.21	9.2	7	10	38.08	56.1	1.00126	12	01	41
abr	09	2460774.75	1	11	13.16	9.2	7	33	0.65	55.8	1.00154	12	01	25
abr	10	2460775.75	1	14	53.35	9.2	7	55	15.51	55.4	1.00182	12	01	09
abr	11	2460776.75	1	18	33.81	9.2	8	17	22.33	55.1	1.00210	12	00	53
abr	12	2460777.75	1	22	14.55	9.2	8	39	20.79	54.8	1.00238	12	00	37
abr	13	2460778.75	1	25	55.59	9.2	9	1	10.60	54.4	1.00266	12	00	22
abr	14	2460779.75	1	29	36.95	9.2	9	22	51.42	54.0	1.00294	12	00	07
abr	15	2460780.75	1	33	18.65	9.2	9	44	22.94	53.6	1.00323	11	59	53
abr	16	2460781.75	1	37	0.71	9.3	10	5	44.85	53.2	1.00351	11	59	39
abr	17	2460782.75	1	40	43.14	9.3	10	26	56.83	52.8	1.00379	11	59	25
abr	18	2460783.75	1	44	25.97	9.3	10	47	58.57	52.3	1.00407	11	59	12
abr	19	2460784.75	1	48	9.21	9.3	11	8	49.73	51.9	1.00436	11	58	59
abr	20	2460785.75	1	51	52.87	9.3	11	29	29.99	51.4	1.00464	11	58	46
abr	21	2460786.75	1	55	36.96	9.3	11	49	59.04	51.0	1.00492	11	58	34
abr	22	2460787.75	1	59	21.52	9.4	12	10	16.52	50.5	1.00519	11	58	23
abr	23	2460788.75	2	3	6.54	9.4	12	30	22.12	50.0	1.00547	11	58	12
abr	24	2460789.75	2	6	52.04	9.4	12	50	15.48	49.5	1.00574	11	58	01
abr	25	2460790.75	2	10	38.02	9.4	13	9	56.25	48.9	1.00602	11	57	51
abr	26	2460791.75	2	14	24.51	9.4	13	29	24.09	48.4	1.00628	11	57	41
abr	27	2460792.75	2	18	11.49	9.5	13	48	38.64	47.8	1.00655	11	57	32
abr	28	2460793.75	2	21	58.98	9.5	14	7	39.52	47.2	1.00681	11	57	24
abr	29	2460794.75	2	25	46.98	9.5	14	26	26.40	46.6	1.00707	11	57	16
abr	30	2460795.75	2	29	35.50	9.5	14	44	58.91	46.0	1.00732	11	57	08
may	01	2460796.75	2	33	24.53	9.6	15	3	16.71	45.4	1.00757	11	57	01
may	02	2460797.75	2	37	14.09	9.6	15	21	19.47	44.8	1.00782	11	56	55
may	03	2460798.75	2	41	4.17	9.6	15	39	6.87	44.1	1.00806	11	56	49
may	04	2460799.75	2	44	54.79	9.6	15	56	38.61	43.5	1.00830	11	56	43
may	05	2460800.75	2	48	45.94	9.6	16	13	54.36	42.8	1.00854	11	56	38
may	06	2460801.75	2	52	37.63	9.7	16	30	53.85	42.1	1.00878	11	56	34
may	07	2460802.75	2	56	29.87	9.7	16	47	36.77	41.4	1.00901	11	56	30
may	08	2460803.75	3	0	22.66	9.7	17	4	2.84	40.7	1.00924	11	56	27
may	09	2460804.75	3	4	16.00	9.7	17	20	11.78	40.0	1.00947	11	56	24
may	10	2460805.75	3	8	9.91	9.8	17	36	3.30	39.3	1.00970	11	56	22
may	11	2460806.75	3	12	4.38	9.8	17	51	37.12	38.5	1.00993	11	56	21
may	12	2460807.75	3	15	59.41	9.8	18	6	52.98	37.8	1.01015	11	56	20
may	13	2460808.75	3	19	55.02	9.8	18	21	50.60	37.0	1.01037	11	56	19
may	14	2460809.75	3	23	51.20	9.9	18	36	29.72	36.2	1.01060	11	56	19
may	15	2460810.75	3	27	47.96	9.9	18	50	50.05	35.4	1.01081	11	56	20
may	16	2460811.75	3	31	45.29	9.9	19	4	51.34	34.6	1.01103	11	56	21
may	17	2460812.75	3	35	43.19	9.9	19	18	33.33	33.8	1.01125	11	56	23
may	18	2460813.75	3	39	41.67	9.9	19	31	55.74	33.0	1.01146	11	56	26
may	19	2460814.75	3	43	40.72	10.0	19	44	58.31	32.2	1.01167	11	56	29
may	20	2460815.75	3	47	40.33	10.0	19	57	40.79	31.3	1.01188	11	56	32
may	21	2460816.75	3	51	40.51	10.0	20	10	2.91	30.5	1.01208	11	56	36
may	22	2460817.75	3	55	41.24	10.0	20	22	4.41	29.6	1.01228	11	56	41
may	23	2460818.75	3	59	42.52	10.1	20	33	45.02	28.7	1.01247	11	56	46
may	24	2460819.75	4	3	44.33	10.1	20	45	4.50	27.8	1.01266	11	56	52
may	25	2460820.75	4	7	46.67	10.1	20	56	2.58	27.0	1.01285	11	56	58
may	26	2460821.75	4	11	49.51	10.1	21	6	39.01	26.0	1.01303	11	57	05

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

mes	día	dj	$\alpha$			vh			$\delta$		vh	dis UA	hp	
			h	m	s	s	o	'	"	h			m	s
may	27	2460822.75	4	15	52.84	10.1	21	16	53.56	25.1	1.01321	11	57	12
may	28	2460823.75	4	19	56.65	10.2	21	26	45.97	24.2	1.01338	11	57	20
may	29	2460824.75	4	24	0.90	10.2	21	36	16.04	23.3	1.01354	11	57	28
may	30	2460825.75	4	28	5.60	10.2	21	45	23.56	22.3	1.01370	11	57	37
may	31	2460826.75	4	32	10.70	10.2	21	54	8.32	21.4	1.01385	11	57	46
jun	01	2460827.75	4	36	16.21	10.2	22	2	30.14	20.4	1.01400	11	57	55
jun	02	2460828.75	4	40	22.09	10.3	22	10	28.85	19.4	1.01415	11	58	05
jun	03	2460829.75	4	44	28.34	10.3	22	18	4.30	18.5	1.01429	11	58	15
jun	04	2460830.75	4	48	34.93	10.3	22	25	16.32	17.5	1.01443	11	58	25
jun	05	2460831.75	4	52	41.85	10.3	22	32	4.78	16.5	1.01456	11	58	36
jun	06	2460832.75	4	56	49.08	10.3	22	38	29.54	15.5	1.01469	11	58	47
jun	07	2460833.75	5	0	56.60	10.3	22	44	30.47	14.5	1.01481	11	58	58
jun	08	2460834.75	5	5	4.39	10.3	22	50	7.46	13.5	1.01494	11	59	10
jun	09	2460835.75	5	9	12.45	10.3	22	55	20.39	12.5	1.01505	11	59	21
jun	10	2460836.75	5	13	20.75	10.4	23	0	9.17	11.5	1.01517	11	59	33
jun	11	2460837.75	5	17	29.26	10.4	23	4	33.69	10.5	1.01528	11	59	45
jun	12	2460838.75	5	21	37.99	10.4	23	8	33.87	9.5	1.01539	11	59	58
jun	13	2460839.75	5	25	46.89	10.4	23	12	9.63	8.5	1.01550	12	00	10
jun	14	2460840.75	5	29	55.97	10.4	23	15	20.88	7.4	1.01560	12	00	23
jun	15	2460841.75	5	34	5.20	10.4	23	18	7.58	6.4	1.01570	12	00	36
jun	16	2460842.75	5	38	14.55	10.4	23	20	29.64	5.4	1.01580	12	00	49
jun	17	2460843.75	5	42	24.02	10.4	23	22	27.02	4.4	1.01589	12	01	02
jun	18	2460844.75	5	46	33.57	10.4	23	23	59.66	3.3	1.01598	12	01	15
jun	19	2460845.75	5	50	43.19	10.4	23	25	7.54	2.3	1.01606	12	01	28
jun	20	2460846.75	5	54	52.86	10.4	23	25	50.61	1.3	1.01614	12	01	41
jun	21	2460847.75	5	59	2.54	10.4	23	26	8.86	0.2	1.01621	12	01	54
jun	22	2460848.75	6	3	12.22	10.4	23	26	2.27	-0.8	1.01628	12	02	07
jun	23	2460849.75	6	7	21.86	10.4	23	25	30.84	-1.8	1.01635	12	02	20
jun	24	2460850.75	6	11	31.45	10.4	23	24	34.60	-2.9	1.01640	12	02	33
jun	25	2460851.75	6	15	40.94	10.4	23	23	13.56	-3.9	1.01645	12	02	46
jun	26	2460852.75	6	19	50.31	10.4	23	21	27.77	-4.9	1.01650	12	02	59
jun	27	2460853.75	6	23	59.54	10.4	23	19	17.29	-6.0	1.01653	12	03	12
jun	28	2460854.75	6	28	8.59	10.4	23	16	42.18	-7.0	1.01657	12	03	24
jun	29	2460855.75	6	32	17.43	10.4	23	13	42.54	-8.0	1.01659	12	03	36
jun	30	2460856.75	6	36	26.05	10.4	23	10	18.45	-9.0	1.01661	12	03	48
jul	01	2460857.75	6	40	34.41	10.3	23	6	30.01	-10.0	1.01663	12	03	59
jul	02	2460858.75	6	44	42.50	10.3	23	2	17.33	-11.1	1.01664	12	04	11
jul	03	2460859.75	6	48	50.30	10.3	22	57	40.54	-12.1	1.01664	12	04	22
jul	04	2460860.75	6	52	57.77	10.3	22	52	39.76	-13.1	1.01664	12	04	32
jul	05	2460861.75	6	57	4.91	10.3	22	47	15.13	-14.0	1.01664	12	04	43
jul	06	2460862.75	7	1	11.70	10.3	22	41	26.78	-15.0	1.01663	12	04	53
jul	07	2460863.75	7	5	18.11	10.3	22	35	14.86	-16.0	1.01662	12	05	02
jul	08	2460864.75	7	9	24.13	10.2	22	28	39.53	-17.0	1.01660	12	05	11
jul	09	2460865.75	7	13	29.76	10.2	22	21	40.94	-17.9	1.01658	12	05	20
jul	10	2460866.75	7	17	34.96	10.2	22	14	19.26	-18.9	1.01656	12	05	28
jul	11	2460867.75	7	21	39.73	10.2	22	6	34.66	-19.9	1.01653	12	05	36
jul	12	2460868.75	7	25	44.06	10.2	21	58	27.30	-20.8	1.01650	12	05	43
jul	13	2460869.75	7	29	47.94	10.2	21	49	57.35	-21.7	1.01647	12	05	50
jul	14	2460870.75	7	33	51.35	10.1	21	41	5.01	-22.7	1.01643	12	05	57

# Sol, 2025

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

mes	día	dj	$\alpha$			vh s	o	$\delta$			vh "	dis UA	hp	
			h	m	s			'	"	h			m	s
jul	15	2460871.75	7	37	54.28	10.1	21	31	50.45	-23.6	1.01639	12	06	03
jul	16	2460872.75	7	41	56.74	10.1	21	22	13.87	-24.5	1.01635	12	06	08
jul	17	2460873.75	7	45	58.69	10.1	21	12	15.46	-25.4	1.01630	12	06	13
jul	18	2460874.75	7	50	0.14	10.0	21	1	55.41	-26.3	1.01625	12	06	18
jul	19	2460875.75	7	54	1.08	10.0	20	51	13.96	-27.2	1.01619	12	06	22
jul	20	2460876.75	7	58	1.49	10.0	20	40	11.32	-28.1	1.01613	12	06	25
jul	21	2460877.75	8	2	1.36	10.0	20	28	47.73	-28.9	1.01606	12	06	28
jul	22	2460878.75	8	6	0.68	10.0	20	17	3.43	-29.8	1.01598	12	06	30
jul	23	2460879.75	8	9	59.43	9.9	20	4	58.69	-30.6	1.01591	12	06	32
jul	24	2460880.75	8	13	57.62	9.9	19	52	33.76	-31.5	1.01582	12	06	33
jul	25	2460881.75	8	17	55.21	9.9	19	39	48.93	-32.3	1.01573	12	06	33
jul	26	2460882.75	8	21	52.21	9.9	19	26	44.48	-33.1	1.01563	12	06	33
jul	27	2460883.75	8	25	48.61	9.8	19	13	20.70	-33.9	1.01553	12	06	33
jul	28	2460884.75	8	29	44.40	9.8	18	59	37.87	-34.7	1.01542	12	06	31
jul	29	2460885.75	8	33	39.56	9.8	18	45	36.31	-35.5	1.01530	12	06	29
jul	30	2460886.75	8	37	34.11	9.8	18	31	16.29	-36.2	1.01518	12	06	27
jul	31	2460887.75	8	41	28.03	9.7	18	16	38.12	-37.0	1.01506	12	06	24
ago	01	2460888.75	8	45	21.33	9.7	18	1	42.09	-37.7	1.01493	12	06	20
ago	02	2460889.75	8	49	14.01	9.7	17	46	28.51	-38.4	1.01480	12	06	15
ago	03	2460890.75	8	53	6.05	9.7	17	30	57.65	-39.2	1.01466	12	06	10
ago	04	2460891.75	8	56	57.48	9.6	17	15	9.83	-39.9	1.01452	12	06	05
ago	05	2460892.75	9	0	48.29	9.6	16	59	5.34	-40.5	1.01437	12	05	58
ago	06	2460893.75	9	4	38.49	9.6	16	42	44.47	-41.2	1.01423	12	05	51
ago	07	2460894.75	9	8	28.08	9.6	16	26	7.51	-41.9	1.01408	12	05	44
ago	08	2460895.75	9	12	17.07	9.5	16	9	14.75	-42.5	1.01392	12	05	36
ago	09	2460896.75	9	16	5.47	9.5	15	52	6.48	-43.2	1.01376	12	05	27
ago	10	2460897.75	9	19	53.30	9.5	15	34	42.97	-43.8	1.01360	12	05	18
ago	11	2460898.75	9	23	40.55	9.5	15	17	4.50	-44.4	1.01344	12	05	08
ago	12	2460899.75	9	27	27.24	9.4	14	59	11.36	-45.0	1.01328	12	04	58
ago	13	2460900.75	9	31	13.39	9.4	14	41	3.83	-45.6	1.01311	12	04	47
ago	14	2460901.75	9	34	59.00	9.4	14	22	42.18	-46.2	1.01294	12	04	35
ago	15	2460902.75	9	38	44.09	9.4	14	4	6.71	-46.8	1.01277	12	04	23
ago	16	2460903.75	9	42	28.67	9.3	13	45	17.72	-47.3	1.01259	12	04	11
ago	17	2460904.75	9	46	12.74	9.3	13	26	15.50	-47.9	1.01241	12	03	58
ago	18	2460905.75	9	49	56.32	9.3	13	7	0.36	-48.4	1.01223	12	03	45
ago	19	2460906.75	9	53	39.41	9.3	12	47	32.64	-48.9	1.01204	12	03	31
ago	20	2460907.75	9	57	22.03	9.3	12	27	52.66	-49.4	1.01185	12	03	16
ago	21	2460908.75	10	1	4.19	9.2	12	8	0.76	-49.9	1.01165	12	03	02
ago	22	2460909.75	10	4	45.88	9.2	11	47	57.27	-50.4	1.01145	12	02	46
ago	23	2460910.75	10	8	27.13	9.2	11	27	42.54	-50.9	1.01124	12	02	31
ago	24	2460911.75	10	12	7.93	9.2	11	7	16.93	-51.3	1.01103	12	02	14
ago	25	2460912.75	10	15	48.31	9.2	10	46	40.76	-51.7	1.01081	12	01	58
ago	26	2460913.75	10	19	28.27	9.2	10	25	54.40	-52.1	1.01059	12	01	41
ago	27	2460914.75	10	23	7.83	9.1	10	4	58.18	-52.6	1.01037	12	01	23
ago	28	2460915.75	10	26	46.99	9.1	9	43	52.44	-52.9	1.01014	12	01	06
ago	29	2460916.75	10	30	25.78	9.1	9	22	37.52	-53.3	1.00991	12	00	48
ago	30	2460917.75	10	34	4.20	9.1	9	1	13.76	-53.7	1.00967	12	00	29
ago	31	2460918.75	10	37	42.27	9.1	8	39	41.48	-54.0	1.00943	12	00	10
sep	01	2460919.75	10	41	20.02	9.1	8	18	1.01	-54.4	1.00919	11	59	51

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

mes	día	dj	$\alpha$			vh s	o	$\delta$			vh "	dis UA	hp	
			h	m	s			'	"	h			m	s
sep	02	2460920.75	10	44	57.44	9.1	7	56	12.67	-54.7	1.00895	11	59	32
sep	03	2460921.75	10	48	34.57	9.0	7	34	16.80	-55.0	1.00870	11	59	12
sep	04	2460922.75	10	52	11.42	9.0	7	12	13.70	-55.3	1.00845	11	58	52
sep	05	2460923.75	10	55	48.01	9.0	6	50	3.67	-55.6	1.00821	11	58	32
sep	06	2460924.75	10	59	24.36	9.0	6	27	47.04	-55.8	1.00795	11	58	12
sep	07	2460925.75	11	3	0.50	9.0	6	5	24.09	-56.1	1.00770	11	57	51
sep	08	2460926.75	11	6	36.44	9.0	5	42	55.12	-56.3	1.00745	11	57	30
sep	09	2460927.75	11	10	12.20	9.0	5	20	20.41	-56.6	1.00720	11	57	09
sep	10	2460928.75	11	13	47.82	9.0	4	57	40.26	-56.8	1.00694	11	56	48
sep	11	2460929.75	11	17	23.31	9.0	4	34	54.96	-57.0	1.00669	11	56	27
sep	12	2460930.75	11	20	58.70	9.0	4	12	4.80	-57.2	1.00643	11	56	06
sep	13	2460931.75	11	24	34.01	9.0	3	49	10.09	-57.4	1.00618	11	55	44
sep	14	2460932.75	11	28	9.25	9.0	3	26	11.15	-57.5	1.00592	11	55	23
sep	15	2460933.75	11	31	44.46	9.0	3	3	8.30	-57.7	1.00566	11	55	02
sep	16	2460934.75	11	35	19.64	9.0	2	40	1.88	-57.8	1.00539	11	54	40
sep	17	2460935.75	11	38	54.82	9.0	2	16	52.23	-58.0	1.00513	11	54	19
sep	18	2460936.75	11	42	30.01	9.0	1	53	39.71	-58.1	1.00486	11	53	57
sep	19	2460937.75	11	46	5.24	9.0	1	30	24.67	-58.2	1.00459	11	53	36
sep	20	2460938.75	11	49	40.52	9.0	1	7	7.47	-58.3	1.00432	11	53	15
sep	21	2460939.75	11	53	15.86	9.0	0	43	48.48	-58.3	1.00405	11	52	54
sep	22	2460940.75	11	56	51.28	9.0	0	20	28.06	-58.4	1.00377	11	52	32
sep	23	2460941.75	12	0	26.81	9.0	0	57	6.58	-58.4	1.00349	11	52	12
sep	24	2460942.75	12	4	2.45	9.0	0	33	44.40	-58.4	1.00321	11	51	51
sep	25	2460943.75	12	7	38.23	9.0	0	10	21.90	-58.4	1.00292	11	51	30
sep	26	2460944.75	12	11	14.17	9.0	-1	46	59.42	-58.4	1.00264	11	51	10
sep	27	2460945.75	12	14	50.27	9.0	-1	23	37.34	-58.4	1.00235	11	50	49
sep	28	2460946.75	12	18	26.57	9.0	-1	0	16.01	-58.4	1.00206	11	50	29
sep	29	2460947.75	12	22	3.08	9.0	-2	36	55.79	-58.3	1.00177	11	50	09
sep	30	2460948.75	12	25	39.82	9.0	-2	13	37.03	-58.2	1.00148	11	49	50
oct	01	2460949.75	12	29	16.81	9.0	-3	50	20.09	-58.2	1.00119	11	49	30
oct	02	2460950.75	12	32	54.07	9.1	-3	27	5.32	-58.1	1.00090	11	49	11
oct	03	2460951.75	12	36	31.61	9.1	-3	3	53.06	-58.0	1.00061	11	48	52
oct	04	2460952.75	12	40	9.48	9.1	-4	40	43.64	-57.8	1.00031	11	48	34
oct	05	2460953.75	12	43	47.67	9.1	-4	17	37.42	-57.7	1.00002	11	48	16
oct	06	2460954.75	12	47	26.23	9.1	-5	54	34.71	-57.5	0.99974	11	47	58
oct	07	2460955.75	12	51	5.16	9.1	-5	31	35.85	-57.4	0.99945	11	47	41
oct	08	2460956.75	12	54	44.50	9.1	-5	8	41.15	-57.2	0.99916	11	47	24
oct	09	2460957.75	12	58	24.27	9.2	-6	45	50.95	-57.0	0.99888	11	47	07
oct	10	2460958.75	13	2	4.50	9.2	-6	23	5.57	-56.8	0.99860	11	46	51
oct	11	2460959.75	13	5	45.20	9.2	-6	0	25.36	-56.6	0.99832	11	46	36
oct	12	2460960.75	13	9	26.41	9.2	-7	37	50.67	-56.3	0.99804	11	46	21
oct	13	2460961.75	13	13	8.13	9.3	-7	15	21.88	-56.1	0.99776	11	46	07
oct	14	2460962.75	13	16	50.39	9.3	-8	52	59.34	-55.8	0.99748	11	45	53
oct	15	2460963.75	13	20	33.21	9.3	-8	30	43.47	-55.5	0.99721	11	45	39
oct	16	2460964.75	13	24	16.60	9.3	-8	8	34.64	-55.2	0.99693	11	45	27
oct	17	2460965.75	13	28	0.58	9.3	-9	46	33.25	-54.9	0.99665	11	45	15
oct	18	2460966.75	13	31	45.17	9.4	-9	24	39.73	-54.6	0.99638	11	45	03
oct	19	2460967.75	13	35	30.38	9.4	-9	2	54.47	-54.2	0.99610	11	44	52
oct	20	2460968.75	13	39	16.21	9.4	-10	41	17.88	-53.8	0.99582	11	44	42

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

mes	día	dj	$\alpha$			vh s	o	$\delta$			vh "	dis UA	hp	
			h	m	s			'	"	h			m	s
oct	21	2460969.75	13	43	2.70	9.5	-10	19	50.39	-53.4	0.99554	11	44	33
oct	22	2460970.75	13	46	49.84	9.5	-11	58	32.41	-53.0	0.99527	11	44	24
oct	23	2460971.75	13	50	37.66	9.5	-11	37	24.35	-52.6	0.99499	11	44	15
oct	24	2460972.75	13	54	26.16	9.5	-11	16	26.62	-52.2	0.99471	11	44	08
oct	25	2460973.75	13	58	15.35	9.6	-12	55	39.64	-51.7	0.99444	11	44	01
oct	26	2460974.75	14	2	5.25	9.6	-12	35	3.82	-51.2	0.99416	11	43	55
oct	27	2460975.75	14	5	55.87	9.6	-12	14	39.58	-50.8	0.99389	11	43	50
oct	28	2460976.75	14	9	47.22	9.7	-13	54	27.32	-50.2	0.99362	11	43	45
oct	29	2460977.75	14	13	39.30	9.7	-13	34	27.44	-49.7	0.99334	11	43	41
oct	30	2460978.75	14	17	32.13	9.7	-13	14	40.35	-49.2	0.99307	11	43	38
oct	31	2460979.75	14	21	25.72	9.7	-14	55	6.45	-48.6	0.99281	11	43	36
nov	01	2460980.75	14	25	20.08	9.8	-14	35	46.13	-48.0	0.99254	11	43	34
nov	02	2460981.75	14	29	15.22	9.8	-14	16	39.78	-47.5	0.99228	11	43	33
nov	03	2460982.75	14	33	11.14	9.8	-15	57	47.78	-46.8	0.99202	11	43	33
nov	04	2460983.75	14	37	7.87	9.9	-15	39	10.52	-46.2	0.99176	11	43	34
nov	05	2460984.75	14	41	5.41	9.9	-15	20	48.37	-45.6	0.99151	11	43	36
nov	06	2460985.75	14	45	3.78	10.0	-15	2	41.69	-44.9	0.99126	11	43	38
nov	07	2460986.75	14	49	2.98	10.0	-16	44	50.87	-44.3	0.99102	11	43	42
nov	08	2460987.75	14	53	3.03	10.0	-16	27	16.28	-43.6	0.99078	11	43	46
nov	09	2460988.75	14	57	3.94	10.1	-16	9	58.30	-42.9	0.99055	11	43	51
nov	10	2460989.75	15	1	5.70	10.1	-17	52	57.34	-42.2	0.99032	11	43	57
nov	11	2460990.75	15	5	8.34	10.1	-17	36	13.79	-41.4	0.99009	11	44	04
nov	12	2460991.75	15	9	11.84	10.2	-17	19	48.06	-40.7	0.98986	11	44	11
nov	13	2460992.75	15	13	16.21	10.2	-17	3	40.55	-39.9	0.98964	11	44	20
nov	14	2460993.75	15	17	21.44	10.2	-18	47	51.68	-39.1	0.98942	11	44	29
nov	15	2460994.75	15	21	27.55	10.3	-18	32	21.85	-38.3	0.98920	11	44	39
nov	16	2460995.75	15	25	34.51	10.3	-18	17	11.47	-37.5	0.98899	11	44	51
nov	17	2460996.75	15	29	42.32	10.3	-18	2	20.95	-36.7	0.98878	11	45	02
nov	18	2460997.75	15	33	50.98	10.4	-19	47	50.68	-35.8	0.98857	11	45	15
nov	19	2460998.75	15	38	0.48	10.4	-19	33	41.07	-34.9	0.98836	11	45	29
nov	20	2460999.75	15	42	10.80	10.4	-19	19	52.49	-34.1	0.98816	11	45	43
nov	21	2461000.75	15	46	21.94	10.5	-19	6	25.33	-33.2	0.98796	11	45	59
nov	22	2461001.75	15	50	33.88	10.5	-20	53	19.97	-32.2	0.98776	11	46	15
nov	23	2461002.75	15	54	46.60	10.5	-20	40	36.78	-31.3	0.98756	11	46	31
nov	24	2461003.75	15	59	0.10	10.6	-20	28	16.11	-30.4	0.98736	11	46	49
nov	25	2461004.75	16	3	14.36	10.6	-20	16	18.30	-29.4	0.98717	11	47	07
nov	26	2461005.75	16	7	29.36	10.6	-20	4	43.71	-28.4	0.98698	11	47	26
nov	27	2461006.75	16	11	45.08	10.7	-21	53	32.66	-27.4	0.98680	11	47	46
nov	28	2461007.75	16	16	1.50	10.7	-21	42	45.46	-26.4	0.98661	11	48	07
nov	29	2461008.75	16	20	18.61	10.7	-21	32	22.42	-25.4	0.98644	11	48	28
nov	30	2461009.75	16	24	36.38	10.8	-21	22	23.83	-24.4	0.98626	11	48	49
dic	01	2461010.75	16	28	54.80	10.8	-21	12	49.99	-23.4	0.98609	11	49	12
dic	02	2461011.75	16	33	13.85	10.8	-21	3	41.15	-22.3	0.98593	11	49	35
dic	03	2461012.75	16	37	33.51	10.8	-22	54	57.57	-21.3	0.98577	11	49	58
dic	04	2461013.75	16	41	53.77	10.9	-22	46	39.50	-20.2	0.98562	11	50	23
dic	05	2461014.75	16	46	14.59	10.9	-22	38	47.19	-19.1	0.98547	11	50	47
dic	06	2461015.75	16	50	35.98	10.9	-22	31	20.87	-18.0	0.98533	11	51	13
dic	07	2461016.75	16	54	57.90	10.9	-22	24	20.76	-16.9	0.98520	11	51	38
dic	08	2461017.75	16	59	20.33	10.9	-22	17	47.09	-15.8	0.98507	11	52	05

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# Sol, 2025

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

mes	día	dj	$\alpha$			vh s	o	$\delta$			vh "	dis UA	hp		
			h	m	s			'	"	h			m	s	
dic	09	2461018.75	17	3	43.26	11.0	-22	11	40.07	-14.7	0.98495	11	52	31	
dic	10	2461019.75	17	8	6.65	11.0	-22	5	59.91	-13.6	0.98483	11	52	59	
dic	11	2461020.75	17	12	30.48	11.0	-22	0	46.81	-12.5	0.98472	11	53	26	
dic	12	2461021.75	17	16	54.71	11.0	-23	56	0.96	-11.3	0.98461	11	53	54	
dic	13	2461022.75	17	21	19.33	11.0	-23	51	42.52	-10.2	0.98451	11	54	23	
dic	14	2461023.75	17	25	44.29	11.0	-23	47	51.66	-9.0	0.98441	11	54	51	
dic	15	2461024.75	17	30	9.56	11.1	-23	44	28.52	-7.9	0.98431	11	55	20	
dic	16	2461025.75	17	34	35.11	11.1	-23	41	33.23	-6.7	0.98422	11	55	49	
dic	17	2461026.75	17	39	0.90	11.1	-23	39	5.90	-5.5	0.98414	11	56	19	
dic	18	2461027.75	17	43	26.90	11.1	-23	37	6.63	-4.4	0.98405	11	56	48	
dic	19	2461028.75	17	47	53.07	11.1	-23	35	35.49	-3.2	0.98397	11	57	18	
dic	20	2461029.75	17	52	19.36	11.1	-23	34	32.56	-2.0	0.98390	11	57	48	
dic	21	2461030.75	17	56	45.76	11.1	-23	33	57.88	-0.8	0.98383	11	58	18	
dic	22	2461031.75	18	1	12.20	11.1	-23	33	51.47	0.3	0.98376	11	58	48	
dic	23	2461032.75	18	5	38.67	11.1	-23	34	13.34	1.5	0.98369	11	59	18	
dic	24	2461033.75	18	10	5.11	11.1	-23	35	3.48	2.7	0.98363	11	59	48	
dic	25	2461034.75	18	14	31.50	11.1	-23	36	21.88	3.9	0.98358	12	00	17	
dic	26	2461035.75	18	18	57.79	11.1	-23	38	8.48	5.1	0.98353	12	00	47	
dic	27	2461036.75	18	23	23.95	11.1	-23	40	23.22	6.2	0.98348	12	01	17	
dic	28	2461037.75	18	27	49.94	11.1	-23	43	6.04	7.4	0.98344	12	01	46	
dic	29	2461038.75	18	32	15.73	11.1	-23	46	16.83	8.6	0.98340	12	02	15	
dic	30	2461039.75	18	36	41.29	11.1	-23	49	55.50	9.7	0.98337	12	02	44	
dic	31	2461040.75	18	41	6.59	11.0	-23	54	1.93	10.9	0.98334	12	03	12	

# Luna, 2025

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

mes	día	dj	h	$\alpha$		$\delta$			dis km	sd '	pax '	fase	hp h
				m	s	°	'	"					
ene	01	2460676.75	19	58	26.66	-25	5	32.30	386953.01	15.44	56.60	2.10	19.2
ene	02	2460677.75	20	54	17.83	-21	18	16.07	383382.87	15.58	57.13	6.10	20.1
ene	03	2460678.75	21	47	42.23	-16	20	34.43	380072.64	15.71	57.63	12.20	20.9
ene	04	2460679.75	22	38	51.68	-10	30	11.99	377054.11	15.84	58.09	20.30	21.7
ene	05	2460680.75	23	28	31.81	-4	5	51.10	374338.34	15.96	58.51	29.90	22.5
ene	06	2460681.75	0	17	48.36	2	33	43.05	371943.94	16.06	58.88	40.70	0.8
ene	07	2460682.75	1	7	56.59	9	9	24.76	369921.84	16.15	59.21	52.00	0.0
ene	08	2460683.75	2	0	12.14	15	20	53.28	368369.24	16.21	59.46	63.30	0.8
ene	09	2460684.75	2	55	38.41	20	45	48.44	367427.00	16.26	59.61	73.90	1.7
ene	10	2460685.75	3	54	46.06	25	0	21.05	367259.01	16.26	59.64	83.30	2.6
ene	11	2460686.75	4	57	7.43	27	42	8.96	368017.06	16.23	59.51	90.90	3.6
ene	12	2460687.75	6	1	3.85	28	35	47.91	369799.34	16.15	59.23	96.30	4.6
ene	13	2460688.75	7	4	9.99	27	38	24.92	372613.77	16.03	58.78	99.20	5.5
ene	14	2460689.75	8	4	11.41	25	0	58.38	376356.94	15.87	58.19	99.70	6.5
ene	15	2460690.75	8	59	52.71	21	4	0.16	380814.34	15.68	57.51	97.90	7.3
ene	16	2460691.75	9	51	5.78	16	10	58.81	385681.32	15.49	56.79	93.90	8.1
ene	17	2460692.75	10	38	29.09	10	43	23.51	390598.37	15.29	56.07	88.20	8.8
ene	18	2460693.75	11	23	3.53	4	58	43.39	395191.95	15.11	55.42	81.10	9.5
ene	19	2460694.75	12	5	56.77	0	49	26.38	399113.35	14.97	54.88	73.00	10.2
ene	20	2460695.75	12	48	16.35	-6	30	18.50	402070.76	14.85	54.47	64.20	10.8
ene	21	2460696.75	13	31	7.30	-11	54	28.98	403852.64	14.79	54.23	54.90	11.5
ene	22	2460697.75	14	15	31.05	-16	52	33.38	404342.61	14.77	54.17	45.50	12.1
ene	23	2460698.75	15	2	22.38	-21	13	54.95	403526.56	14.80	54.28	36.20	12.9
ene	24	2460699.75	15	52	22.38	-24	45	59.60	401492.57	14.88	54.55	27.30	13.6
ene	25	2460700.75	16	45	46.49	-27	14	24.35	398423.56	14.99	54.97	19.10	14.4
ene	26	2460701.75	17	42	11.20	-28	24	32.16	394582.15	15.14	55.51	11.90	15.3
ene	27	2460702.75	18	40	29.41	-28	4	40.27	390287.00	15.30	56.12	6.10	16.2
ene	28	2460703.75	19	39	5.58	-26	9	41.37	385880.94	15.48	56.76	2.10	17.1
ene	29	2460704.75	20	36	28.33	-22	43	18.86	381693.28	15.65	57.38	0.20	18.0
ene	30	2460705.75	21	31	41.31	-17	57	38.59	378001.52	15.80	57.94	0.70	18.9
ene	31	2460706.75	22	24	34.78	-12	10	35.26	375000.14	15.93	58.41	3.70	19.7
feb	01	2460707.75	23	15	38.78	-5	42	56.82	372784.49	16.02	58.75	9.20	20.5
feb	02	2460708.75	0	5	48.98	1	3	39.56	371354.60	16.08	58.98	16.80	2.7
feb	03	2460709.75	0	56	13.90	7	47	42.91	370638.32	16.11	59.09	26.30	2.0
feb	04	2460710.75	1	48	4.36	14	7	51.86	370526.79	16.12	59.11	36.90	1.2
feb	05	2460711.75	2	42	22.08	19	42	38.87	370911.88	16.10	59.05	48.20	0.3
feb	06	2460712.75	3	39	43.63	24	10	41.94	371715.48	16.07	58.92	59.40	0.6
feb	07	2460713.75	4	40	0.20	27	12	20.19	372903.71	16.02	58.73	70.10	1.5
feb	08	2460714.75	5	42	4.08	28	33	0.73	374484.01	15.95	58.49	79.70	2.5
feb	09	2460715.75	6	44	0.17	28	7	27.46	376487.35	15.86	58.17	87.80	3.4
feb	10	2460716.75	7	43	46.62	26	1	44.89	378941.44	15.76	57.80	93.90	4.4
feb	11	2460717.75	8	39	59.40	22	31	23.82	381842.28	15.64	57.36	98.00	5.2
feb	12	2460718.75	9	32	11.06	17	56	44.50	385131.52	15.51	56.87	99.80	6.0
feb	13	2460719.75	10	20	41.43	12	38	30.23	388684.95	15.37	56.35	99.50	6.8
feb	14	2460720.75	11	6	17.93	6	55	11.73	392314.50	15.22	55.83	97.10	7.5
feb	15	2460721.75	11	49	59.69	1	2	19.65	395782.60	15.09	55.34	92.90	8.1
feb	16	2460722.75	12	32	48.59	-4	47	16.03	398825.34	14.98	54.92	87.20	8.8
feb	17	2460723.75	13	15	45.54	-10	22	35.23	401180.14	14.89	54.59	80.10	9.4
feb	18	2460724.75	13	59	48.73	-15	33	25.53	402613.68	14.83	54.40	72.00	10.1

# Luna, 2025

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

mes	día	dj	h	$\alpha$		$\delta$			dis km	sd '	pax '	fase	hp h
				m	s	°	'	"					
feb	19	2460725.75	14	45	51.32	-20	9	20.62	402947.50	14.82	54.35	63.20	10.8
feb	20	2460726.75	15	34	36.41	-23	58	51.58	402079.28	14.85	54.47	53.80	11.5
feb	21	2460727.75	16	26	28.08	-26	49	10.65	399998.86	14.93	54.75	44.20	12.3
feb	22	2460728.75	17	21	19.92	-28	26	53.70	396798.15	15.05	55.20	34.60	13.2
feb	23	2460729.75	18	18	27.58	-28	39	59.74	392673.24	15.21	55.78	25.40	14.1
feb	24	2460730.75	19	16	34.69	-27	20	46.03	387916.78	15.40	56.46	17.00	15.0
feb	25	2460731.75	20	14	16.03	-24	28	24.89	382897.97	15.60	57.20	9.80	15.9
feb	26	2460732.75	21	10	26.75	-20	10	1.88	378028.60	15.80	57.94	4.30	16.8
feb	27	2460733.75	22	4	40.91	-14	39	40.87	373715.96	15.98	58.61	0.90	17.6
feb	28	2460734.75	22	57	12.59	-8	16	30.48	370308.63	16.13	59.15	0.10	18.4
mar	01	2460735.75	23	48	45.68	-1	22	51.46	368046.13	16.23	59.51	2.00	19.2
mar	02	2460736.75	0	40	21.11	5	37	10.03	367026.37	16.27	59.67	6.70	4.0
mar	03	2460737.75	1	33	4.89	12	18	45.65	367201.39	16.27	59.65	13.80	3.2
mar	04	2460738.75	2	27	55.67	18	17	17.43	368403.28	16.21	59.45	22.80	2.4
mar	05	2460739.75	3	25	28.72	23	9	23.40	370391.47	16.13	59.13	33.20	1.5
mar	06	2460740.75	4	25	37.30	26	34	50.55	372906.62	16.02	58.73	44.30	0.5
mar	07	2460741.75	5	27	20.70	28	19	32.39	375716.56	15.90	58.29	55.40	0.4
mar	08	2460742.75	6	28	54.38	28	18	36.38	378645.07	15.77	57.84	66.10	1.4
mar	09	2460743.75	7	28	25.98	26	37	36.74	381581.15	15.65	57.40	75.80	2.3
mar	10	2460744.75	8	24	35.65	23	30	34.40	384471.18	15.53	56.97	84.20	3.2
mar	11	2460745.75	9	16	54.73	19	15	53.54	387299.36	15.42	56.55	91.00	4.0
mar	12	2460746.75	10	5	38.97	14	12	35.80	390062.69	15.31	56.15	95.90	4.8
mar	13	2460747.75	10	51	31.35	8	38	11.14	392746.49	15.21	55.77	99.00	5.5
mar	14	2460748.75	11	35	26.97	2	47	58.93	395305.39	15.11	55.41	100.00	6.1
mar	15	2460749.75	12	18	24.27	-3	4	39.03	397653.05	15.02	55.08	99.10	6.8
mar	16	2460750.75	13	1	20.82	-8	47	43.67	399662.01	14.94	54.80	96.30	7.4
mar	17	2460751.75	13	45	11.43	-14	9	57.67	401173.11	14.89	54.59	91.90	8.1
mar	18	2460752.75	14	30	45.89	-19	0	5.72	402012.60	14.86	54.48	86.00	8.8
mar	19	2460753.75	15	18	44.79	-23	6	23.74	402014.28	14.86	54.48	78.70	9.5
mar	20	2460754.75	16	9	32.23	-26	16	30.09	401043.94	14.89	54.61	70.40	10.3
mar	21	2460755.75	17	3	6.53	-28	17	57.01	399023.64	14.97	54.89	61.30	11.1
mar	22	2460756.75	17	58	53.61	-28	59	35.31	395953.63	15.08	55.31	51.50	12.0
mar	23	2460757.75	18	55	50.51	-28	13	39.29	391929.72	15.24	55.88	41.50	12.9
mar	24	2460758.75	19	52	42.81	-25	57	43.46	387153.27	15.43	56.57	31.60	13.7
mar	25	2460759.75	20	48	29.30	-22	15	36.07	381930.33	15.64	57.35	22.10	14.6
mar	26	2460760.75	21	42	40.48	-17	16	57.76	376655.44	15.86	58.15	13.70	15.4
mar	27	2460761.75	22	35	23.33	-11	16	24.41	371776.80	16.07	58.91	6.80	16.3
mar	28	2460762.75	23	27	15.10	-4	32	38.64	367742.31	16.24	59.56	2.10	17.1
mar	29	2460763.75	0	19	12.78	2	31	59.00	364933.04	16.37	60.02	0.10	6.1
mar	30	2460764.75	1	12	22.03	9	31	59.27	363598.45	16.43	60.24	0.90	5.3
mar	31	2460765.75	2	7	44.49	15	59	42.50	363812.49	16.42	60.20	4.70	4.5
abr	01	2460766.75	3	6	0.58	21	27	10.95	365466.14	16.34	59.93	11.00	3.6
abr	02	2460767.75	4	7	7.85	25	29	14.78	368299.25	16.22	59.47	19.50	2.6
abr	03	2460768.75	5	10	4.72	27	47	46.19	371960.07	16.06	58.88	29.40	1.6
abr	04	2460769.75	6	12	58.47	28	15	42.35	376072.84	15.88	58.24	40.10	0.6
abr	05	2460770.75	7	13	44.48	26	58	25.47	380295.36	15.71	57.59	50.90	0.3
abr	06	2460771.75	8	10	53.20	24	10	55.93	384356.27	15.54	56.98	61.50	1.2
abr	07	2460772.75	9	3	52.31	20	12	42.08	388070.45	15.39	56.44	71.20	2.0
abr	08	2460773.75	9	52	58.94	15	23	11.92	391335.77	15.26	55.97	79.90	2.8

# Luna, 2025

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

mes	día	dj	h	$\alpha$		$\delta$			dis km	sd '	pax '	fase	hp h
				m	s	°	'	"					
abr	09	2460774.75	10	38	59.51	9	59	39.02	394117.03	15.15	55.57	87.30	3.5
abr	10	2460775.75	11	22	52.70	4	16	41.77	396422.88	15.07	55.25	93.10	4.1
abr	11	2460776.75	12	5	39.70	-1	32	59.99	398280.72	15.00	54.99	97.20	4.8
abr	12	2460777.75	12	48	19.96	-7	17	52.21	399713.82	14.94	54.79	99.50	5.4
abr	13	2460778.75	13	31	49.38	-12	46	37.32	400723.90	14.90	54.66	99.90	6.1
abr	14	2460779.75	14	16	58.29	-17	47	36.24	401281.45	14.88	54.58	98.50	6.8
abr	15	2460780.75	15	4	27.52	-22	8	27.18	401324.94	14.88	54.57	95.30	7.5
abr	16	2460781.75	15	54	41.36	-25	36	10.87	400768.71	14.90	54.65	90.40	8.3
abr	17	2460782.75	16	47	38.58	-27	57	55.40	399518.54	14.95	54.82	84.00	9.1
abr	18	2460783.75	17	42	45.96	-29	2	27.50	397492.84	15.03	55.10	76.30	9.9
abr	19	2460784.75	18	39	1.58	-28	42	12.00	394646.92	15.13	55.50	67.40	10.8
abr	20	2460785.75	19	35	11.65	-26	54	49.46	390997.68	15.28	56.02	57.70	11.7
abr	21	2460786.75	20	30	14.61	-23	43	41.62	386645.30	15.45	56.65	47.40	12.5
abr	22	2460787.75	21	23	39.61	-19	17	2.19	381788.12	15.64	57.37	36.90	13.4
abr	23	2460788.75	22	15	31.76	-13	46	43.12	376725.76	15.85	58.14	26.70	14.2
abr	24	2460789.75	23	6	26.79	-7	27	31.63	371845.06	16.06	58.90	17.30	14.9
abr	25	2460790.75	23	57	21.74	0	37	17.70	367584.54	16.25	59.58	9.40	15.7
abr	26	2460791.75	0	49	25.50	6	22	27.82	364376.99	16.39	60.11	3.70	7.5
abr	27	2460792.75	1	43	48.37	13	6	7.27	362577.98	16.47	60.41	0.50	6.6
abr	28	2460793.75	2	41	26.44	19	4	36.66	362397.11	16.48	60.44	0.40	5.7
abr	29	2460794.75	3	42	37.86	23	48	7.68	363853.66	16.42	60.19	3.10	4.8
abr	30	2460795.75	4	46	36.93	26	51	19.16	366772.82	16.28	59.72	8.60	3.8
may	01	2460796.75	5	51	28.41	27	59	46.76	370823.86	16.11	59.06	16.20	2.8
may	02	2460797.75	6	54	43.03	27	14	14.70	375585.98	15.90	58.31	25.40	1.8
may	03	2460798.75	7	54	18.24	24	49	2.34	380620.34	15.69	57.54	35.50	0.9
may	04	2460799.75	8	49	17.77	21	5	43.84	385530.11	15.49	56.81	45.90	0.0
may	05	2460800.75	9	39	49.42	16	26	33.48	389999.53	15.31	56.16	56.20	0.8
may	06	2460801.75	10	26	40.72	11	10	45.07	393811.20	15.17	55.62	66.00	1.5
may	07	2460802.75	11	10	55.85	5	33	45.89	396845.48	15.05	55.19	75.00	2.2
may	08	2460803.75	11	53	42.34	0	11	54.97	399067.68	14.97	54.88	82.90	2.8
may	09	2460804.75	12	36	5.47	-5	55	29.00	400507.67	14.91	54.69	89.40	3.4
may	10	2460805.75	13	19	6.41	-11	26	33.27	401236.17	14.89	54.59	94.50	4.1
may	11	2460806.75	14	3	40.69	-16	34	10.70	401340.84	14.88	54.57	98.00	4.8
may	12	2460807.75	14	50	34.75	-21	6	13.00	400905.03	14.90	54.63	99.70	5.5
may	13	2460808.75	15	40	18.96	-24	49	17.26	399991.66	14.93	54.76	99.50	6.3
may	14	2460809.75	16	32	57.63	-27	29	32.38	398634.19	14.98	54.94	97.50	7.1
may	15	2460810.75	17	28	0.26	-28	54	25.25	396836.15	15.05	55.19	93.70	7.9
may	16	2460811.75	18	24	22.49	-28	55	8.04	394579.30	15.14	55.51	88.10	8.8
may	17	2460812.75	19	20	42.62	-27	28	44.65	391839.80	15.24	55.90	80.90	9.7
may	18	2460813.75	20	15	48.56	-24	38	45.59	388610.08	15.37	56.36	72.30	10.5
may	19	2460814.75	21	9	0.15	-20	33	56.48	384923.44	15.52	56.90	62.60	11.3
may	20	2460815.75	22	0	16.38	-15	26	20.02	380877.13	15.68	57.50	52.10	12.1
may	21	2460816.75	22	50	9.90	-9	29	47.84	376649.07	15.86	58.15	41.20	12.9
may	22	2460817.75	23	39	36.89	-2	59	40.64	372502.28	16.03	58.80	30.40	13.7
may	23	2460818.75	0	29	47.72	3	46	29.96	368771.46	16.20	59.39	20.40	9.6
may	24	2460819.75	1	21	58.68	10	27	50.03	365828.10	16.33	59.87	11.80	8.8
may	25	2460820.75	2	17	20.58	16	39	11.67	364025.42	16.41	60.17	5.20	7.9
may	26	2460821.75	3	16	38.87	21	51	50.04	363632.37	16.43	60.23	1.30	7.0
may	27	2460822.75	4	19	44.42	25	36	49.59	364774.01	16.37	60.04	0.10	6.0

# Luna, 2025

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

mes	día	dj	h	$\alpha$		$\delta$			dis km	sd '	pax '	fase	hp h
				m	s	°	'	"					
may	28	2460823.75	5	25	10.01	27	31	45.17	367397.23	16.26	59.61	1.90	5.0
may	29	2460824.75	6	30	23.24	27	28	6.52	371274.29	16.09	58.99	6.40	4.0
may	30	2460825.75	7	32	45.94	25	34	8.64	376042.51	15.88	58.24	13.00	3.0
may	31	2460826.75	8	30	37.68	22	10	25.03	381265.99	15.67	57.45	21.20	2.1
jun	01	2460827.75	9	23	35.79	17	41	42.45	386500.78	15.45	56.67	30.50	1.3
jun	02	2460828.75	10	12	15.17	12	30	45.74	391348.91	15.26	55.97	40.40	0.5
jun	03	2460829.75	10	57	39.01	6	55	49.76	395494.50	15.10	55.38	50.30	0.2
jun	04	2460830.75	11	40	58.89	1	10	53.19	398721.41	14.98	54.93	60.10	0.8
jun	05	2460831.75	12	23	25.54	-4	32	59.47	400915.97	14.90	54.63	69.30	1.5
jun	06	2460832.75	13	6	5.85	-10	6	3.31	402058.77	14.86	54.47	77.70	2.1
jun	07	2460833.75	13	50	1.61	-15	18	28.66	402208.98	14.85	54.45	85.00	2.8
jun	08	2460834.75	14	36	7.15	-19	59	16.80	401484.26	14.88	54.55	91.10	3.5
jun	09	2460835.75	15	25	3.28	-23	55	47.10	400038.04	14.93	54.75	95.70	4.2
jun	10	2460836.75	16	17	7.09	-26	53	55.16	398036.56	15.01	55.02	98.70	5.0
jun	11	2460837.75	17	12	0.21	-28	39	43.76	395637.67	15.10	55.36	99.80	5.9
jun	12	2460838.75	18	8	44.08	-29	2	5.27	392974.11	15.20	55.73	98.90	6.8
jun	13	2460839.75	19	5	51.84	-27	55	40.03	390143.64	15.31	56.14	96.00	7.6
jun	14	2460840.75	20	1	56.45	-25	22	33.76	387208.09	15.43	56.56	91.20	8.5
jun	15	2460841.75	20	55	59.72	-21	31	35.54	384201.81	15.55	57.01	84.40	9.3
jun	16	2460842.75	21	47	45.93	-16	35	57.32	381148.56	15.67	57.46	76.10	10.1
jun	17	2460843.75	22	37	38.40	-10	50	51.10	378083.74	15.80	57.93	66.30	10.9
jun	18	2460844.75	23	26	28.18	-4	32	11.48	375077.22	15.92	58.39	55.60	11.7
jun	19	2460845.75	0	15	23.08	2	3	24.80	372250.91	16.04	58.84	44.40	11.6
jun	20	2460846.75	1	5	39.37	8	37	44.68	369784.80	16.15	59.23	33.20	10.8
jun	21	2460847.75	1	58	33.13	14	49	46.14	367906.65	16.23	59.53	22.80	10.0
jun	22	2460848.75	2	55	6.12	20	14	58.96	366863.05	16.28	59.70	13.80	9.1
jun	23	2460849.75	3	55	41.74	24	26	34.85	366875.02	16.28	59.70	6.70	8.2
jun	24	2460850.75	4	59	36.30	26	59	44.86	368087.57	16.23	59.50	2.10	7.2
jun	25	2460851.75	6	4	49.24	27	38	44.60	370526.90	16.12	59.11	0.20	6.2
jun	26	2460852.75	7	8	38.83	26	22	58.86	374079.00	15.97	58.55	1.00	5.2
jun	27	2460853.75	8	8	49.33	23	27	4.92	378496.54	15.78	57.87	4.30	4.2
jun	28	2460854.75	9	4	16.77	19	14	37.56	383431.66	15.58	57.12	9.80	3.4
jun	29	2460855.75	9	55	7.59	14	10	32.62	388484.10	15.37	56.38	17.00	2.6
jun	30	2460856.75	10	42	11.63	8	36	23.13	393252.12	15.19	55.69	25.30	1.9
jul	01	2460857.75	11	26	36.70	2	48	59.75	397376.27	15.03	55.12	34.50	1.2
jul	02	2460858.75	12	9	34.19	-2	58	46.54	400570.94	14.91	54.68	44.00	0.5
jul	03	2460859.75	12	52	13.29	-8	36	36.04	402642.91	14.83	54.40	53.60	0.1
jul	04	2460860.75	13	35	39.19	-13	55	6.32	403498.73	14.80	54.28	63.00	0.8
jul	05	2460861.75	14	20	51.41	-18	44	29.45	403142.90	14.82	54.33	71.80	1.4
jul	06	2460862.75	15	8	39.67	-22	53	31.47	401669.17	14.87	54.53	79.90	2.2
jul	07	2460863.75	15	59	35.27	-26	9	11.05	399245.96	14.96	54.86	87.00	3.0
jul	08	2460864.75	16	53	38.76	-28	17	23.69	396096.89	15.08	55.29	92.80	3.8
jul	09	2460865.75	17	50	9.89	-29	5	11.44	392477.40	15.22	55.80	97.00	4.7
jul	10	2460866.75	18	47	50.46	-28	23	56.15	388648.84	15.37	56.35	99.40	5.6
jul	11	2460867.75	19	45	6.66	-26	12	10.11	384852.65	15.52	56.91	99.70	6.5
jul	12	2460868.75	20	40	41.51	-22	36	23.38	381288.35	15.66	57.44	97.70	7.3
jul	13	2460869.75	21	33	57.90	-17	49	27.83	378099.22	15.80	57.93	93.60	8.1
jul	14	2460870.75	22	25	2.18	-12	7	55.67	375369.23	15.91	58.35	87.20	8.9
jul	15	2460871.75	23	14	34.41	-5	49	45.69	373132.10	16.01	58.70	79.00	9.7

# Luna, 2025

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

mes	día	dj	h	$\alpha$		$\delta$			dis km	sd '	pax '	fase	hp h
				m	s	°	'	"					
jul	16	2460872.75	0	3	35.76	0	46	39.68	371390.61	16.08	58.97	69.10	13.6
jul	17	2460873.75	0	53	18.26	7	22	31.20	370141.10	16.14	59.17	58.20	12.8
jul	18	2460874.75	1	44	56.26	13	37	50.29	369396.02	16.17	59.29	46.80	12.0
jul	19	2460875.75	2	39	35.17	19	10	45.46	369197.77	16.18	59.32	35.40	11.2
jul	20	2460876.75	3	37	53.19	23	37	44.18	369618.49	16.16	59.26	24.80	10.3
jul	21	2460877.75	4	39	36.45	26	35	51.16	370744.55	16.11	59.08	15.60	9.3
jul	22	2460878.75	5	43	21.89	27	47	45.83	372648.79	16.03	58.77	8.20	8.3
jul	23	2460879.75	6	46	52.41	27	7	31.43	375357.60	15.91	58.35	3.10	7.3
jul	24	2460880.75	7	47	48.55	24	43	11.36	378822.69	15.77	57.82	0.50	6.4
jul	25	2460881.75	8	44	41.23	20	53	47.85	382905.90	15.60	57.20	0.30	5.5
jul	26	2460882.75	9	37	8.76	16	3	1.97	387381.86	15.42	56.54	2.50	4.7
jul	27	2460883.75	10	25	40.81	10	33	43.42	391957.45	15.24	55.88	6.80	3.9
jul	28	2460884.75	11	11	13.91	4	45	5.78	396302.66	15.07	55.27	12.80	3.2
jul	29	2460885.75	11	54	53.91	-1	7	38.46	400085.93	14.93	54.74	20.10	2.6
jul	30	2460886.75	12	37	47.30	-6	52	28.28	403007.54	14.82	54.35	28.40	1.9
jul	31	2460887.75	13	20	57.93	-12	19	17.09	404827.23	14.75	54.10	37.40	1.3
ago	01	2460888.75	14	5	25.43	-17	18	32.73	405384.48	14.73	54.03	46.70	0.6
ago	02	2460889.75	14	52	2.44	-21	40	7.85	404611.41	14.76	54.13	56.20	0.1
ago	03	2460890.75	15	41	28.51	-25	12	34.40	402538.79	14.84	54.41	65.40	0.9
ago	04	2460891.75	16	34	0.05	-27	43	3.44	399295.63	14.96	54.85	74.30	1.7
ago	05	2460892.75	17	29	19.09	-28	58	35.50	395102.10	15.12	55.43	82.30	2.6
ago	06	2460893.75	18	26	29.06	-28	48	28.06	390255.01	15.30	56.12	89.30	3.4
ago	07	2460894.75	19	24	6.55	-27	7	16.80	385105.10	15.51	56.87	94.80	4.3
ago	08	2460895.75	20	20	48.42	-23	57	1.39	380026.01	15.72	57.63	98.40	5.2
ago	09	2460896.75	21	15	39.69	-19	27	8.92	375376.82	15.91	58.35	99.90	6.1
ago	10	2460897.75	22	8	26.52	-13	52	52.42	371462.89	16.08	58.96	98.90	6.9
ago	11	2460898.75	22	59	32.94	-7	32	58.26	368502.37	16.21	59.43	95.40	7.7
ago	12	2460899.75	23	49	49.36	0	48	2.94	366606.61	16.29	59.74	89.50	8.4
ago	13	2460900.75	0	40	20.97	6	0	22.35	365780.38	16.33	59.88	81.30	14.8
ago	14	2460901.75	1	32	17.56	12	30	8.38	365941.96	16.32	59.85	71.40	14.0
ago	15	2460902.75	2	26	42.28	18	18	29.12	366957.23	16.28	59.69	60.40	13.1
ago	16	2460903.75	3	24	15.50	23	2	26.76	368677.24	16.20	59.41	48.90	12.3
ago	17	2460904.75	4	24	53.67	26	20	34.49	370969.07	16.10	59.04	37.50	11.3
ago	18	2460905.75	5	27	33.14	27	56	30.86	373732.32	15.98	58.60	26.90	10.3
ago	19	2460906.75	6	30	18.38	27	43	26.43	376899.31	15.85	58.11	17.60	9.4
ago	20	2460907.75	7	31	1.96	25	46	32.26	380421.08	15.70	57.57	10.00	8.4
ago	21	2460908.75	8	28	12.37	22	21	17.57	384245.38	15.54	57.00	4.50	7.5
ago	22	2460909.75	9	21	16.39	17	48	42.16	388293.80	15.38	56.41	1.10	6.7
ago	23	2460910.75	10	10	31.01	12	30	28.56	392444.91	15.22	55.81	0.00	5.9
ago	24	2460911.75	10	56	42.82	6	46	8.76	396527.79	15.06	55.23	1.10	5.2
ago	25	2460912.75	11	40	50.74	0	52	7.14	400327.22	14.92	54.71	4.10	4.6
ago	26	2460913.75	12	23	56.24	-4	58	5.43	403598.98	14.80	54.27	8.80	3.9
ago	27	2460914.75	13	6	58.99	-10	33	4.74	406091.88	14.71	53.93	15.10	3.3
ago	28	2460915.75	13	50	54.96	-15	42	35.53	407572.60	14.65	53.74	22.50	2.6
ago	29	2460916.75	14	36	34.30	-20	16	35.01	407850.23	14.64	53.70	30.80	1.9
ago	30	2460917.75	15	24	37.04	-24	4	28.57	406798.42	14.68	53.84	39.70	1.2
ago	31	2460918.75	16	15	25.80	-26	54	52.71	404373.81	14.77	54.16	49.10	0.4
sep	01	2460919.75	17	8	56.70	-28	36	4.62	400630.02	14.91	54.67	58.70	0.4
sep	02	2460920.75	18	4	33.55	-28	57	30.57	395726.26	15.09	55.35	68.10	1.3

# Luna, 2025

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

mes	día	dj	h	$\alpha$		$\delta$			dis km	sd '	pax '	fase	hp h
				m	s	°	'	"					
sep	03	2460921.75	19	1	12.61	-27	51	58.10	389928.91	15.32	56.17	77.00	2.2
sep	04	2460922.75	19	57	40.76	-25	17	40.33	383603.41	15.57	57.10	85.10	3.1
sep	05	2460923.75	20	52	59.86	-21	19	15.37	377193.34	15.83	58.07	91.90	3.9
sep	06	2460924.75	21	46	43.96	-16	7	26.76	371183.95	16.09	59.01	96.90	4.7
sep	07	2460925.75	22	39	2.97	-9	58	0.46	366050.34	16.32	59.83	99.60	5.5
sep	08	2460926.75	23	30	35.97	-3	10	40.35	362196.17	16.49	60.47	99.70	6.3
sep	09	2460927.75	0	22	20.87	3	51	43.22	359895.28	16.60	60.86	96.90	16.9
sep	10	2460928.75	1	15	23.67	10	43	59.90	359252.94	16.63	60.97	91.40	16.0
sep	11	2460929.75	2	10	46.02	16	59	36.84	360199.92	16.58	60.80	83.50	15.2
sep	12	2460930.75	3	9	8.18	22	12	8.09	362522.24	16.48	60.42	73.70	14.3
sep	13	2460931.75	4	10	27.26	25	57	46.10	365916.20	16.32	59.85	62.80	13.3
sep	14	2460932.75	5	13	40.77	27	59	10.54	370050.61	16.14	59.19	51.40	12.3
sep	15	2460933.75	6	16	54.52	28	9	31.18	374619.22	15.94	58.46	40.10	11.3
sep	16	2460934.75	7	18	2.28	26	34	11.72	379372.79	15.74	57.73	29.60	10.4
sep	17	2460935.75	8	15	33.24	23	28	31.35	384129.14	15.55	57.02	20.30	9.5
sep	18	2460936.75	9	8	54.36	19	12	49.16	388764.78	15.36	56.34	12.50	8.7
sep	19	2460937.75	9	58	22.31	14	7	52.12	393195.01	15.19	55.70	6.50	7.9
sep	20	2460938.75	10	44	43.05	8	32	25.31	397349.73	15.03	55.12	2.40	7.2
sep	21	2460939.75	11	28	54.42	2	42	32.02	401151.34	14.89	54.60	0.30	6.5
sep	22	2460940.75	12	11	56.25	-3	8	7.23	404499.29	14.77	54.15	0.20	5.9
sep	23	2460941.75	12	54	45.95	-8	47	34.65	407263.68	14.67	53.78	2.00	5.2
sep	24	2460942.75	13	38	16.52	-14	4	52.57	409288.58	14.59	53.51	5.50	4.6
sep	25	2460943.75	14	23	14.71	-18	49	25.61	410403.58	14.55	53.37	10.50	3.9
sep	26	2460944.75	15	10	17.54	-22	50	33.43	410441.68	14.55	53.36	16.90	3.2
sep	27	2460945.75	15	59	46.65	-25	57	22.91	409260.87	14.59	53.52	24.40	2.4
sep	28	2460946.75	16	51	41.37	-27	59	11.60	406767.29	14.68	53.84	32.90	1.6
sep	29	2460947.75	17	45	34.22	-28	46	29.17	402938.13	14.82	54.36	42.10	0.8
sep	30	2460948.75	18	40	34.19	-28	12	26.20	397842.66	15.01	55.05	51.70	0.1
oct	01	2460949.75	19	35	40.31	-26	14	17.19	391659.25	15.25	55.92	61.60	0.9
oct	02	2460950.75	20	30	1.07	-22	54	2.05	384685.65	15.53	56.93	71.30	1.8
oct	03	2460951.75	21	23	10.24	-18	18	19.61	377337.94	15.83	58.04	80.40	2.6
oct	04	2460952.75	22	15	12.83	-12	38	2.14	370132.29	16.14	59.17	88.40	3.4
oct	05	2460953.75	23	6	42.20	-6	8	5.96	363643.65	16.42	60.23	94.70	4.2
oct	06	2460954.75	23	58	32.72	0	52	11.86	358439.40	16.66	61.10	98.70	5.0
oct	07	2460955.75	0	51	50.95	7	58	52.68	354994.86	16.82	61.70	100.00	18.2
oct	08	2460956.75	1	47	44.03	14	43	31.85	353609.60	16.89	61.94	98.10	17.3
oct	09	2460957.75	2	47	1.62	20	34	56.05	354351.90	16.86	61.81	93.30	16.4
oct	10	2460958.75	3	49	49.63	25	2	41.43	357052.97	16.73	61.34	85.90	15.4
oct	11	2460959.75	4	55	5.52	27	42	57.56	361354.05	16.53	60.61	76.50	14.4
oct	12	2460960.75	6	0	40.27	28	24	37.40	366787.90	16.28	59.71	65.90	13.4
oct	13	2460961.75	7	4	3.44	27	12	9.60	372865.93	16.02	58.74	54.80	12.4
oct	14	2460962.75	8	3	24.23	24	22	36.98	379147.50	15.75	57.77	43.80	11.5
oct	15	2460963.75	8	58	1.87	20	18	48.40	385280.56	15.50	56.85	33.40	10.6
oct	16	2460964.75	9	48	15.45	15	23	17.48	391014.27	15.28	56.01	24.00	9.9
oct	17	2460965.75	10	34	57.51	9	55	27.03	396190.52	15.08	55.28	16.00	9.2
oct	18	2460966.75	11	19	12.57	4	11	6.68	400722.55	14.90	54.66	9.40	8.5
oct	19	2460967.75	12	2	5.58	-1	36	37.89	404568.21	14.76	54.14	4.60	7.8
oct	20	2460968.75	12	44	37.23	-7	16	20.11	407703.51	14.65	53.72	1.50	7.2
oct	21	2460969.75	13	27	42.25	-12	37	16.45	410100.78	14.56	53.41	0.10	6.5

# Luna, 2025

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

mes	día	dj	h	$\alpha$		$\delta$			dis km	sd '	pax '	fase	hp h
				m	s	°	'	"					
oct	22	2460970.75	14	12	7.89	-17	28	46.64	411714.11	14.51	53.20	0.60	5.9
oct	23	2460971.75	14	58	30.73	-21	39	53.95	412473.49	14.48	53.10	2.80	5.2
oct	24	2460972.75	15	47	11.45	-24	59	30.37	412287.99	14.49	53.12	6.60	4.4
oct	25	2460973.75	16	38	8.57	-27	16	53.25	411056.96	14.53	53.28	11.90	3.6
oct	26	2460974.75	17	30	54.68	-28	22	53.68	408687.93	14.61	53.59	18.60	2.8
oct	27	2460975.75	18	24	40.10	-28	11	19.89	405119.22	14.74	54.06	26.40	2.0
oct	28	2460976.75	19	18	26.10	-26	40	0.99	400345.38	14.92	54.71	35.20	1.1
oct	29	2460977.75	20	11	23.20	-23	50	59.84	394443.00	15.14	55.53	44.90	0.3
oct	30	2460978.75	21	3	5.97	-19	49	55.97	387594.40	15.41	56.51	55.00	0.5
oct	31	2460979.75	21	53	38.74	-14	45	14.97	380104.94	15.71	57.62	65.30	1.2
nov	01	2460980.75	22	43	33.46	-8	47	47.61	372408.01	16.04	58.81	75.20	2.0
nov	02	2460981.75	23	33	43.94	-2	11	21.18	365049.70	16.36	60.00	84.30	2.8
nov	03	2460982.75	0	25	19.47	4	46	3.68	358644.90	16.65	61.07	91.90	20.4
nov	04	2460983.75	1	19	36.94	11	40	45.06	353800.91	16.88	61.90	97.20	19.6
nov	05	2460984.75	2	17	46.64	18	2	43.93	351017.10	17.02	62.40	99.70	18.7
nov	06	2460985.75	3	20	25.80	23	17	32.88	350585.03	17.04	62.47	99.10	17.7
nov	07	2460986.75	4	27	1.41	26	52	0.41	352524.26	16.94	62.13	95.30	16.7
nov	08	2460987.75	5	35	27.98	28	23	28.22	356580.88	16.75	61.42	88.80	15.6
nov	09	2460988.75	6	42	39.76	27	47	59.65	362289.79	16.49	60.45	80.20	14.5
nov	10	2460989.75	7	45	52.12	25	20	39.39	369074.28	16.18	59.34	70.20	13.5
nov	11	2460990.75	8	43	44.15	21	27	31.01	376347.46	15.87	58.20	59.60	12.6
nov	12	2460991.75	9	36	19.96	16	35	59.68	383589.20	15.57	57.10	48.90	11.8
nov	13	2460992.75	10	24	34.59	11	9	19.41	390389.54	15.30	56.10	38.70	11.1
nov	14	2460993.75	11	9	41.77	5	25	22.69	396461.67	15.07	55.24	29.20	10.4
nov	15	2460994.75	11	52	56.30	0	22	14.12	401633.59	14.87	54.53	20.80	9.8
nov	16	2460995.75	12	35	27.26	-6	2	30.72	405826.92	14.72	53.97	13.60	9.1
nov	17	2460996.75	13	18	16.15	-11	25	33.04	409029.93	14.60	53.55	7.80	8.5
nov	18	2460997.75	14	2	15.82	-16	21	27.75	411269.68	14.52	53.25	3.60	7.8
nov	19	2460998.75	14	48	7.82	-20	39	45.65	412586.72	14.48	53.08	1.10	7.1
nov	20	2460999.75	15	36	17.21	-24	9	19.48	413014.94	14.46	53.03	0.20	6.4
nov	21	2461000.75	16	26	45.72	-26	39	3.49	412568.53	14.48	53.09	1.00	5.6
nov	22	2461001.75	17	19	6.95	-27	59	15.16	411237.26	14.52	53.26	3.50	4.8
nov	23	2461002.75	18	12	28.95	-28	3	19.16	408990.65	14.60	53.55	7.70	4.0
nov	24	2461003.75	19	5	47.63	-26	49	9.40	405790.50	14.72	53.97	13.40	3.1
nov	25	2461004.75	19	58	6.62	-24	19	25.07	401610.83	14.87	54.54	20.60	2.3
nov	26	2461005.75	20	48	53.93	-20	40	35.23	396463.04	15.07	55.24	29.00	1.5
nov	27	2461006.75	21	38	8.66	-16	1	32.18	390424.01	15.30	56.10	38.50	0.8
nov	28	2461007.75	22	26	18.73	-10	32	27.12	383663.31	15.57	57.09	48.70	0.1
nov	29	2461008.75	23	14	14.77	-4	24	40.98	376464.65	15.87	58.18	59.40	0.7
nov	30	2461009.75	0	3	4.34	2	8	23.29	369234.63	16.18	59.32	70.00	22.6
dic	01	2461010.75	0	54	6.95	8	49	39.69	362489.87	16.48	60.42	80.00	21.8
dic	02	2461011.75	1	48	46.28	15	16	21.08	356813.78	16.74	61.38	88.60	20.9
dic	03	2461012.75	2	48	12.82	20	58	52.15	352779.72	16.93	62.08	95.20	20.0
dic	04	2461013.75	3	52	49.59	25	22	37.11	350849.88	17.02	62.43	99.00	19.0
dic	05	2461014.75	5	1	28.66	27	54	59.57	351276.05	17.00	62.35	99.70	17.9
dic	06	2461015.75	6	11	18.85	28	16	47.19	354037.79	16.87	61.86	97.20	16.8
dic	07	2461016.75	7	18	47.10	26	30	47.15	358844.02	16.64	61.03	92.00	15.8
dic	08	2461017.75	8	21	17.48	22	59	29.17	365196.87	16.35	59.97	84.60	14.8
dic	09	2461018.75	9	17	59.32	18	14	4.03	372490.96	16.03	58.80	75.60	13.9

# Luna, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis km	sd '	pax '	fase	hp h
				m	s	°	'	"						
dic	10	2461019.75	10	9	25.35	12	44	3.72	380113.34	15.71	57.62	65.70	13.1	
dic	11	2461020.75	10	56	48.24	6	52	44.85	387519.56	15.41	56.52	55.50	12.4	
dic	12	2461021.75	11	41	30.18	0	57	4.06	394277.85	15.15	55.55	45.40	11.7	
dic	13	2461022.75	12	24	49.34	-4	50	34.33	400084.88	14.93	54.74	35.80	11.1	
dic	14	2461023.75	13	7	55.74	-10	20	15.64	404761.29	14.76	54.11	27.00	10.4	
dic	15	2461024.75	13	51	50.12	-15	22	53.81	408234.80	14.63	53.65	19.10	9.7	
dic	16	2461025.75	14	37	22.06	-19	49	2.56	410516.84	14.55	53.35	12.40	9.1	
dic	17	2461026.75	15	25	5.49	-23	28	24.81	411676.50	14.51	53.20	7.00	8.3	
dic	18	2461027.75	16	15	11.70	-26	10	9.66	411814.71	14.50	53.18	3.10	7.6	
dic	19	2461028.75	17	7	22.55	-27	44	3.90	411040.63	14.53	53.28	0.80	6.8	
dic	20	2461029.75	18	0	50.01	-28	2	26.53	409452.69	14.59	53.49	0.20	5.9	
dic	21	2461030.75	18	54	27.00	-27	2	3.05	407126.02	14.67	53.80	1.40	18.9	
dic	22	2461031.75	19	47	7.83	-24	44	59.77	404108.16	14.78	54.20	4.40	19.7	
dic	23	2461032.75	20	38	8.38	-21	18	8.47	400424.09	14.92	54.70	9.20	20.5	
dic	24	2461033.75	21	27	16.34	-16	51	29.22	396090.35	15.08	55.30	15.60	21.3	
dic	25	2461034.75	22	14	50.34	-11	36	30.89	391137.17	15.27	56.00	23.60	22.0	
dic	26	2461035.75	23	1	33.49	-5	45	15.49	385635.46	15.49	56.79	32.90	22.7	
dic	27	2461036.75	23	48	26.50	0	29	38.39	379724.79	15.73	57.68	43.20	23.4	
dic	28	2461037.75	0	36	42.88	6	53	57.77	373636.15	15.99	58.62	54.10	0.1	
dic	29	2461038.75	1	27	44.14	13	10	18.40	367702.46	16.24	59.56	65.20	0.9	
dic	30	2461039.75	2	22	50.61	18	56	19.28	362348.29	16.48	60.44	75.80	1.8	
dic	31	2461040.75	3	23	0.18	23	43	57.83	358052.06	16.68	61.17	85.20	2.7	

# Mercurio, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
ene	1	2460677.00	17	17	33.95	-22	1	53.52	1.1564	10.5	
ene	2	2460678.00	17	23	10.28	-22	15	39.29	1.1729	10.5	
ene	3	2460679.00	17	28	53.45	-22	28	41.03	1.1887	10.5	
ene	4	2460680.00	17	34	42.87	-22	40	54.56	1.2040	10.6	
ene	5	2460681.00	17	40	38.01	-22	52	16.16	1.2187	10.6	
ene	6	2460682.00	17	46	38.40	-23	2	42.50	1.2327	10.6	
ene	7	2460683.00	17	52	43.62	-23	12	10.60	1.2462	10.6	
ene	8	2460684.00	17	58	53.30	-23	20	37.77	1.2591	10.7	
ene	9	2460685.00	18	5	7.09	-23	28	1.59	1.2715	10.7	
ene	10	2460686.00	18	11	24.68	-23	34	19.85	1.2833	10.7	
ene	11	2460687.00	18	17	45.79	-23	39	30.54	1.2945	10.8	
ene	12	2460688.00	18	24	10.17	-23	43	31.83	1.3052	10.8	
ene	13	2460689.00	18	30	37.58	-23	46	22.04	1.3154	10.8	
ene	14	2460690.00	18	37	7.80	-23	47	59.62	1.3250	10.9	
ene	15	2460691.00	18	43	40.62	-23	48	23.13	1.3341	10.9	
ene	16	2460692.00	18	50	15.87	-23	47	31.26	1.3427	11.0	
ene	17	2460693.00	18	56	53.35	-23	45	22.77	1.3508	11.0	
ene	18	2460694.00	19	3	32.92	-23	41	56.54	1.3584	11.0	
ene	19	2460695.00	19	10	14.40	-23	37	11.50	1.3655	11.1	
ene	20	2460696.00	19	16	57.67	-23	31	6.66	1.3721	11.1	
ene	21	2460697.00	19	23	42.57	-23	23	41.10	1.3782	11.2	
ene	22	2460698.00	19	30	28.97	-23	14	53.97	1.3837	11.2	
ene	23	2460699.00	19	37	16.77	-23	4	44.46	1.3888	11.2	
ene	24	2460700.00	19	44	5.83	-22	53	11.82	1.3934	11.3	
ene	25	2460701.00	19	50	56.06	-22	40	15.35	1.3975	11.3	
ene	26	2460702.00	19	57	47.35	-22	25	54.41	1.4011	11.4	
ene	27	2460703.00	20	4	39.60	-22	10	8.39	1.4042	11.4	
ene	28	2460704.00	20	11	32.72	-21	52	56.75	1.4068	11.5	
ene	29	2460705.00	20	18	26.63	-21	34	18.97	1.4088	11.5	
ene	30	2460706.00	20	25	21.25	-21	14	14.59	1.4103	11.6	
ene	31	2460707.00	20	32	16.49	-20	52	43.22	1.4113	11.6	
feb	1	2460708.00	20	39	12.29	-20	29	44.49	1.4117	11.7	
feb	2	2460709.00	20	46	8.59	-20	5	18.10	1.4115	11.7	
feb	3	2460710.00	20	53	5.31	-19	39	23.79	1.4108	11.8	
feb	4	2460711.00	21	0	2.39	-19	12	1.41	1.4095	11.8	
feb	5	2460712.00	21	6	59.77	-18	43	10.83	1.4076	11.8	
feb	6	2460713.00	21	13	57.40	-18	12	52.03	1.4050	11.9	
feb	7	2460714.00	21	20	55.20	-17	41	5.11	1.4018	11.9	
feb	8	2460715.00	21	27	53.11	-17	7	50.25	1.3979	12.0	
feb	9	2460716.00	21	34	51.06	-16	33	7.80	1.3933	12.0	
feb	10	2460717.00	21	41	48.95	-15	56	58.28	1.3879	12.1	
feb	11	2460718.00	21	48	46.70	-15	19	22.41	1.3818	12.1	
feb	12	2460719.00	21	55	44.18	-14	40	21.16	1.3749	12.2	
feb	13	2460720.00	22	2	41.25	-13	59	55.79	1.3671	12.2	
feb	14	2460721.00	22	9	37.75	-13	18	7.94	1.3585	12.3	
feb	15	2460722.00	22	16	33.46	-12	34	59.62	1.3489	12.3	
feb	16	2460723.00	22	23	28.15	-11	50	33.39	1.3384	12.4	
feb	17	2460724.00	22	30	21.52	-11	4	52.33	1.3270	12.4	
feb	18	2460725.00	22	37	13.19	-10	18	0.25	1.3144	12.5	

# Mercurio, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
feb	19	2460726.00	22	44	2.74	-9	30	1.70	1.3008	12.5	
feb	20	2460727.00	22	50	49.65	-8	41	2.13	1.2861	12.6	
feb	21	2460728.00	22	57	33.32	-7	51	8.01	1.2703	12.6	
feb	22	2460729.00	23	4	13.01	-7	0	26.92	1.2533	12.7	
feb	23	2460730.00	23	10	47.90	-6	9	7.69	1.2351	12.7	
feb	24	2460731.00	23	17	17.01	-5	17	20.49	1.2158	12.8	
feb	25	2460732.00	23	23	39.25	-4	25	16.90	1.1952	12.8	
feb	26	2460733.00	23	29	53.36	-3	33	9.95	1.1735	12.9	
feb	27	2460734.00	23	35	57.95	-2	41	14.15	1.1507	12.9	
feb	28	2460735.00	23	41	51.50	-1	49	45.41	1.1268	12.9	
mar	1	2460736.00	23	47	32.36	0	59	0.91	1.1020	13.0	
mar	2	2460737.00	23	52	58.76	0	9	18.98	1.0763	13.0	
mar	3	2460738.00	23	58	8.87	0	39	1.19	1.0498	13.0	
mar	4	2460739.00	0	3	0.80	1	25	39.81	1.0227	13.1	
mar	5	2460740.00	0	7	32.65	2	10	16.77	0.9951	13.1	
mar	6	2460741.00	0	11	42.56	2	52	32.05	0.9672	13.1	
mar	7	2460742.00	0	15	28.73	3	32	5.93	0.9393	13.1	
mar	8	2460743.00	0	18	49.50	4	8	39.38	0.9114	13.1	
mar	9	2460744.00	0	21	43.36	4	41	54.32	0.8838	13.1	
mar	10	2460745.00	0	24	9.03	5	11	33.83	0.8567	13.1	
mar	11	2460746.00	0	26	5.47	5	37	22.45	0.8303	13.1	
mar	12	2460747.00	0	27	31.95	5	59	6.42	0.8047	13.0	
mar	13	2460748.00	0	28	28.09	6	16	33.93	0.7801	13.0	
mar	14	2460749.00	0	28	53.89	6	29	35.44	0.7566	12.9	
mar	15	2460750.00	0	28	49.79	6	38	4.08	0.7344	12.9	
mar	16	2460751.00	0	28	16.68	6	41	56.01	0.7137	12.8	
mar	17	2460752.00	0	27	15.94	6	41	10.91	0.6944	12.7	
mar	18	2460753.00	0	25	49.44	6	35	52.44	0.6768	12.6	
mar	19	2460754.00	0	23	59.55	6	26	8.61	0.6609	12.5	
mar	20	2460755.00	0	21	49.10	6	12	12.09	0.6467	12.4	
mar	21	2460756.00	0	19	21.33	5	54	20.33	0.6343	12.3	
mar	22	2460757.00	0	16	39.83	5	32	55.46	0.6237	12.2	
mar	23	2460758.00	0	13	48.40	5	8	23.89	0.6149	12.1	
mar	24	2460759.00	0	10	51.01	4	41	15.65	0.6079	12.0	
mar	25	2460760.00	0	7	51.60	4	12	3.50	0.6027	11.8	
mar	26	2460761.00	0	4	54.02	3	41	21.83	0.5991	11.7	
mar	27	2460762.00	0	2	1.87	3	9	45.49	0.5972	11.6	
mar	28	2460763.00	23	59	18.46	2	37	48.59	0.5969	11.5	
mar	29	2460764.00	23	56	46.70	2	6	3.50	0.5980	11.3	
mar	30	2460765.00	23	54	29.05	1	34	59.94	0.6005	11.3	
mar	31	2460766.00	23	52	27.55	1	5	4.39	0.6044	11.2	
abr	1	2460767.00	23	50	43.75	0	36	39.69	0.6094	11.1	
abr	2	2460768.00	23	49	18.80	0	10	4.90	0.6156	11.0	
abr	3	2460769.00	23	48	13.45	0	14	24.62	0.6227	10.9	
abr	4	2460770.00	23	47	28.10	0	36	37.06	0.6308	10.8	
abr	5	2460771.00	23	47	2.86	0	56	23.79	0.6398	10.8	
abr	6	2460772.00	23	46	57.59	-1	13	39.02	0.6494	10.7	
abr	7	2460773.00	23	47	11.93	-1	28	19.37	0.6598	10.6	
abr	8	2460774.00	23	47	45.39	-1	40	23.50	0.6708	10.6	

# Mercurio, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
abr	9	2460775.00	23	48	37.35	-1	49	51.71	0.6823	10.5	
abr	10	2460776.00	23	49	47.11	-1	56	45.60	0.6944	10.5	
abr	11	2460777.00	23	51	13.93	-2	1	7.81	0.7068	10.5	
abr	12	2460778.00	23	52	57.02	-2	3	1.68	0.7197	10.4	
abr	13	2460779.00	23	54	55.62	-2	2	31.14	0.7329	10.4	
abr	14	2460780.00	23	57	8.94	-1	59	40.45	0.7464	10.4	
abr	15	2460781.00	23	59	36.22	-1	54	34.13	0.7601	10.4	
abr	16	2460782.00	0	2	16.75	-1	47	16.80	0.7742	10.4	
abr	17	2460783.00	0	5	9.84	-1	37	53.11	0.7884	10.4	
abr	18	2460784.00	0	8	14.83	-1	26	27.71	0.8028	10.4	
abr	19	2460785.00	0	11	31.13	-1	13	5.17	0.8174	10.4	
abr	20	2460786.00	0	14	58.17	0	57	49.93	0.8321	10.4	
abr	21	2460787.00	0	18	35.44	0	40	46.35	0.8470	10.4	
abr	22	2460788.00	0	22	22.47	0	21	58.62	0.8620	10.4	
abr	23	2460789.00	0	26	18.85	0	1	30.80	0.8771	10.4	
abr	24	2460790.00	0	30	24.20	0	20	33.18	0.8923	10.4	
abr	25	2460791.00	0	34	38.18	0	44	9.52	0.9075	10.4	
abr	26	2460792.00	0	39	0.50	1	9	14.59	0.9229	10.4	
abr	27	2460793.00	0	43	30.93	1	35	44.85	0.9383	10.4	
abr	28	2460794.00	0	48	9.24	2	3	36.88	0.9537	10.4	
abr	29	2460795.00	0	52	55.28	2	32	47.39	0.9692	10.4	
abr	30	2460796.00	0	57	48.93	3	3	13.16	0.9846	10.5	
may	1	2460797.00	1	2	50.08	3	34	51.07	1.0002	10.5	
may	2	2460798.00	1	7	58.69	4	7	38.03	1.0157	10.5	
may	3	2460799.00	1	13	14.74	4	41	31.01	1.0312	10.5	
may	4	2460800.00	1	18	38.25	5	16	26.99	1.0467	10.6	
may	5	2460801.00	1	24	9.28	5	52	22.91	1.0621	10.6	
may	6	2460802.00	1	29	47.90	6	29	15.71	1.0775	10.6	
may	7	2460803.00	1	35	34.23	7	7	2.22	1.0928	10.6	
may	8	2460804.00	1	41	28.41	7	45	39.18	1.1080	10.7	
may	9	2460805.00	1	47	30.60	8	25	3.20	1.1231	10.7	
may	10	2460806.00	1	53	41.00	9	5	10.70	1.1380	10.7	
may	11	2460807.00	1	59	59.82	9	45	57.88	1.1528	10.8	
may	12	2460808.00	2	6	27.30	10	27	20.70	1.1673	10.8	
may	13	2460809.00	2	13	3.68	11	9	14.77	1.1816	10.9	
may	14	2460810.00	2	19	49.21	11	51	35.36	1.1955	10.9	
may	15	2460811.00	2	26	44.17	12	34	17.30	1.2091	11.0	
may	16	2460812.00	2	33	48.82	13	17	14.94	1.2223	11.0	
may	17	2460813.00	2	41	3.39	14	0	22.09	1.2350	11.1	
may	18	2460814.00	2	48	28.12	14	43	31.94	1.2471	11.1	
may	19	2460815.00	2	56	3.20	15	26	37.02	1.2587	11.2	
may	20	2460816.00	3	3	48.77	16	9	29.18	1.2695	11.3	
may	21	2460817.00	3	11	44.91	16	51	59.49	1.2796	11.3	
may	22	2460818.00	3	19	51.62	17	33	58.32	1.2888	11.4	
may	23	2460819.00	3	28	8.80	18	15	15.28	1.2970	11.5	
may	24	2460820.00	3	36	36.22	18	55	39.31	1.3042	11.5	
may	25	2460821.00	3	45	13.54	19	34	58.79	1.3103	11.6	
may	26	2460822.00	3	54	0.24	20	13	1.66	1.3152	11.7	
may	27	2460823.00	4	2	55.66	20	49	35.63	1.3187	11.8	

# Mercurio, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
may	28	2460824.00	4	11	58.99	21	24	28.44	1.3210	11.9	
may	29	2460825.00	4	21	9.23	21	57	28.08	1.3218	11.9	
may	30	2460826.00	4	30	25.24	22	28	23.18	1.3212	12.0	
may	31	2460827.00	4	39	45.76	22	57	3.23	1.3192	12.1	
jun	1	2460828.00	4	49	9.41	23	23	18.93	1.3157	12.2	
jun	2	2460829.00	4	58	34.74	23	47	2.40	1.3108	12.3	
jun	3	2460830.00	5	8	0.27	24	8	7.39	1.3045	12.4	
jun	4	2460831.00	5	17	24.50	24	26	29.40	1.2969	12.5	
jun	5	2460832.00	5	26	45.98	24	42	5.69	1.2880	12.5	
jun	6	2460833.00	5	36	3.32	24	54	55.30	1.2779	12.6	
jun	7	2460834.00	5	45	15.20	25	4	58.89	1.2668	12.7	
jun	8	2460835.00	5	54	20.42	25	12	18.64	1.2547	12.8	
jun	9	2460836.00	6	3	17.90	25	16	58.03	1.2416	12.9	
jun	10	2460837.00	6	12	6.68	25	19	1.68	1.2278	13.0	
jun	11	2460838.00	6	20	45.93	25	18	35.11	1.2133	13.0	
jun	12	2460839.00	6	29	14.92	25	15	44.55	1.1981	13.1	
jun	13	2460840.00	6	37	33.05	25	10	36.76	1.1825	13.2	
jun	14	2460841.00	6	45	39.83	25	3	18.89	1.1664	13.2	
jun	15	2460842.00	6	53	34.84	24	53	58.32	1.1500	13.3	
jun	16	2460843.00	7	1	17.76	24	42	42.56	1.1332	13.4	
jun	17	2460844.00	7	8	48.31	24	29	39.14	1.1162	13.4	
jun	18	2460845.00	7	16	6.29	24	14	55.58	1.0990	13.5	
jun	19	2460846.00	7	23	11.55	23	58	39.31	1.0817	13.5	
jun	20	2460847.00	7	30	3.96	23	40	57.62	1.0644	13.6	
jun	21	2460848.00	7	36	43.42	23	21	57.68	1.0469	13.6	
jun	22	2460849.00	7	43	9.84	23	1	46.52	1.0295	13.6	
jun	23	2460850.00	7	49	23.17	22	40	30.97	1.0121	13.7	
jun	24	2460851.00	7	55	23.34	22	18	17.76	0.9947	13.7	
jun	25	2460852.00	8	1	10.27	21	55	13.45	0.9774	13.7	
jun	26	2460853.00	8	6	43.91	21	31	24.48	0.9602	13.8	
jun	27	2460854.00	8	12	4.17	21	6	57.17	0.9431	13.8	
jun	28	2460855.00	8	17	10.95	20	41	57.74	0.9262	13.8	
jun	29	2460856.00	8	22	4.14	20	16	32.36	0.9094	13.8	
jun	30	2460857.00	8	26	43.61	19	50	47.09	0.8928	13.8	
jul	1	2460858.00	8	31	9.22	19	24	48.00	0.8764	13.8	
jul	2	2460859.00	8	35	20.78	18	58	41.12	0.8601	13.8	
jul	3	2460860.00	8	39	18.11	18	32	32.50	0.8441	13.8	
jul	4	2460861.00	8	43	0.96	18	6	28.19	0.8283	13.8	
jul	5	2460862.00	8	46	29.09	17	40	34.32	0.8128	13.8	
jul	6	2460863.00	8	49	42.23	17	14	57.10	0.7975	13.8	
jul	7	2460864.00	8	52	40.07	16	49	42.80	0.7825	13.8	
jul	8	2460865.00	8	55	22.27	16	24	57.80	0.7678	13.7	
jul	9	2460866.00	8	57	48.51	16	0	48.64	0.7535	13.7	
jul	10	2460867.00	8	59	58.41	15	37	21.92	0.7394	13.7	
jul	11	2460868.00	9	1	51.61	15	14	44.44	0.7258	13.6	
jul	12	2460869.00	9	3	27.72	14	53	3.06	0.7125	13.6	
jul	13	2460870.00	9	4	46.40	14	32	24.79	0.6997	13.6	
jul	14	2460871.00	9	5	47.28	14	12	56.71	0.6873	13.5	
jul	15	2460872.00	9	6	30.06	13	54	45.95	0.6754	13.5	

# Mercurio, 2025

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

mes	día	dj	h	$\alpha$			$\delta$		dis UA	hp h
				m	s	o	'	"		
jul	16	2460873.00	9	6	54.46	13	37	59.65	0.6641	13.4
jul	17	2460874.00	9	7	0.30	13	22	44.84	0.6533	13.3
jul	18	2460875.00	9	6	47.47	13	9	8.40	0.6432	13.3
jul	19	2460876.00	9	6	15.99	12	57	16.94	0.6337	13.2
jul	20	2460877.00	9	5	26.01	12	47	16.63	0.6249	13.1
jul	21	2460878.00	9	4	17.87	12	39	13.07	0.6169	13.0
jul	22	2460879.00	9	2	52.10	12	33	11.10	0.6098	12.9
jul	23	2460880.00	9	1	9.47	12	29	14.61	0.6035	12.8
jul	24	2460881.00	8	59	11.02	12	27	26.31	0.5982	12.7
jul	25	2460882.00	8	56	58.07	12	27	47.56	0.5939	12.6
jul	26	2460883.00	8	54	32.23	12	30	18.16	0.5907	12.5
jul	27	2460884.00	8	51	55.43	12	34	56.19	0.5886	12.4
jul	28	2460885.00	8	49	9.88	12	41	37.91	0.5877	12.3
jul	29	2460886.00	8	46	18.10	12	50	17.70	0.5880	12.2
jul	30	2460887.00	8	43	22.84	13	0	48.08	0.5897	12.1
jul	31	2460888.00	8	40	27.05	13	12	59.81	0.5928	12.0
ago	1	2460889.00	8	37	33.82	13	26	42.02	0.5972	11.9
ago	2	2460890.00	8	34	46.32	13	41	42.49	0.6030	11.7
ago	3	2460891.00	8	32	7.73	13	57	47.89	0.6103	11.6
ago	4	2460892.00	8	29	41.15	14	14	44.03	0.6191	11.5
ago	5	2460893.00	8	27	29.53	14	32	16.26	0.6294	11.4
ago	6	2460894.00	8	25	35.66	14	50	9.62	0.6411	11.3
ago	7	2460895.00	8	24	2.07	15	8	9.17	0.6542	11.2
ago	8	2460896.00	8	22	50.98	15	26	0.15	0.6688	11.2
ago	9	2460897.00	8	22	4.34	15	43	28.13	0.6848	11.1
ago	10	2460898.00	8	21	43.77	16	0	19.06	0.7022	11.0
ago	11	2460899.00	8	21	50.57	16	16	19.39	0.7208	11.0
ago	12	2460900.00	8	22	25.71	16	31	16.02	0.7407	10.9
ago	13	2460901.00	8	23	29.89	16	44	56.32	0.7618	10.9
ago	14	2460902.00	8	25	3.48	16	57	8.12	0.7841	10.8
ago	15	2460903.00	8	27	6.62	17	7	39.71	0.8073	10.8
ago	16	2460904.00	8	29	39.15	17	16	19.80	0.8314	10.8
ago	17	2460905.00	8	32	40.69	17	22	57.61	0.8564	10.8
ago	18	2460906.00	8	36	10.62	17	27	22.90	0.8821	10.8
ago	19	2460907.00	8	40	8.10	17	29	26.09	0.9083	10.8
ago	20	2460908.00	8	44	32.06	17	28	58.37	0.9350	10.8
ago	21	2460909.00	8	49	21.24	17	25	51.93	0.9619	10.8
ago	22	2460910.00	8	54	34.16	17	20	0.11	0.9890	10.8
ago	23	2460911.00	9	0	9.18	17	11	17.65	1.0160	10.8
ago	24	2460912.00	9	6	4.47	16	59	40.85	1.0429	10.9
ago	25	2460913.00	9	12	18.08	16	45	7.81	1.0694	10.9
ago	26	2460914.00	9	18	47.95	16	27	38.50	1.0954	11.0
ago	27	2460915.00	9	25	31.95	16	7	14.88	1.1207	11.0
ago	28	2460916.00	9	32	27.91	15	44	0.86	1.1452	11.1
ago	29	2460917.00	9	39	33.69	15	18	2.19	1.1687	11.1
ago	30	2460918.00	9	46	47.22	14	49	26.31	1.1912	11.2
ago	31	2460919.00	9	54	6.52	14	18	22.09	1.2126	11.3
sep	1	2460920.00	10	1	29.76	13	44	59.54	1.2328	11.3
sep	2	2460921.00	10	8	55.27	13	9	29.51	1.2518	11.4

# Mercurio, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
sep	3	2460922.00	10	16	21.56	12	32	3.34	1.2695	11.4	
sep	4	2460923.00	10	23	47.34	11	52	52.57	1.2859	11.5	
sep	5	2460924.00	10	31	11.51	11	12	8.73	1.3010	11.6	
sep	6	2460925.00	10	38	33.14	10	30	3.03	1.3148	11.6	
sep	7	2460926.00	10	45	51.51	9	46	46.28	1.3274	11.7	
sep	8	2460927.00	10	53	6.01	9	2	28.68	1.3389	11.8	
sep	9	2460928.00	11	0	16.22	8	17	19.80	1.3491	11.8	
sep	10	2460929.00	11	7	21.83	7	31	28.52	1.3583	11.9	
sep	11	2460930.00	11	14	22.61	6	45	3.01	1.3664	11.9	
sep	12	2460931.00	11	21	18.46	5	58	10.73	1.3734	12.0	
sep	13	2460932.00	11	28	9.34	5	10	58.49	1.3795	12.0	
sep	14	2460933.00	11	34	55.25	4	23	32.44	1.3847	12.1	
sep	15	2460934.00	11	41	36.29	3	35	58.15	1.3890	12.1	
sep	16	2460935.00	11	48	12.54	2	48	20.66	1.3924	12.2	
sep	17	2460936.00	11	54	44.14	2	0	44.48	1.3951	12.2	
sep	18	2460937.00	12	1	11.27	1	13	13.70	1.3970	12.3	
sep	19	2460938.00	12	7	34.09	0	25	52.00	1.3982	12.3	
sep	20	2460939.00	12	13	52.79	0	21	17.30	1.3987	12.4	
sep	21	2460940.00	12	20	7.57	-1	8	11.21	1.3985	12.4	
sep	22	2460941.00	12	26	18.62	-1	54	46.99	1.3977	12.5	
sep	23	2460942.00	12	32	26.15	-2	41	2.18	1.3963	12.5	
sep	24	2460943.00	12	38	30.34	-3	26	54.52	1.3943	12.6	
sep	25	2460944.00	12	44	31.40	-4	12	21.93	1.3918	12.6	
sep	26	2460945.00	12	50	29.52	-4	57	22.51	1.3887	12.6	
sep	27	2460946.00	12	56	24.86	-5	41	54.49	1.3851	12.7	
sep	28	2460947.00	13	2	17.62	-6	25	56.22	1.3810	12.7	
sep	29	2460948.00	13	8	7.94	-7	9	26.14	1.3764	12.8	
sep	30	2460949.00	13	13	55.99	-7	52	22.79	1.3713	12.8	
oct	1	2460950.00	13	19	41.92	-8	34	44.75	1.3657	12.8	
oct	2	2460951.00	13	25	25.86	-9	16	30.69	1.3596	12.9	
oct	3	2460952.00	13	31	7.92	-9	57	39.30	1.3531	12.9	
oct	4	2460953.00	13	36	48.23	-10	38	9.30	1.3462	12.9	
oct	5	2460954.00	13	42	26.87	-11	17	59.44	1.3387	13.0	
oct	6	2460955.00	13	48	3.94	-11	57	8.48	1.3309	13.0	
oct	7	2460956.00	13	53	39.51	-12	35	35.18	1.3225	13.0	
oct	8	2460957.00	13	59	13.62	-13	13	18.29	1.3138	13.1	
oct	9	2460958.00	14	4	46.31	-13	50	16.56	1.3046	13.1	
oct	10	2460959.00	14	10	17.61	-14	26	28.70	1.2949	13.1	
oct	11	2460960.00	14	15	47.50	-15	1	53.37	1.2848	13.1	
oct	12	2460961.00	14	21	15.97	-15	36	29.20	1.2742	13.2	
oct	13	2460962.00	14	26	42.95	-16	10	14.78	1.2632	13.2	
oct	14	2460963.00	14	32	8.38	-16	43	8.61	1.2518	13.2	
oct	15	2460964.00	14	37	32.14	-17	15	9.14	1.2399	13.3	
oct	16	2460965.00	14	42	54.08	-17	46	14.76	1.2275	13.3	
oct	17	2460966.00	14	48	14.04	-18	16	23.74	1.2146	13.3	
oct	18	2460967.00	14	53	31.78	-18	45	34.31	1.2013	13.3	
oct	19	2460968.00	14	58	47.04	-19	13	44.57	1.1876	13.4	
oct	20	2460969.00	15	3	59.50	-19	40	52.52	1.1733	13.4	
oct	21	2460970.00	15	9	8.79	-20	6	56.06	1.1586	13.4	

# Mercurio, 2025

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

mes	día	dj	h	$\alpha$		o	$\delta$		dis UA	hp h
				m	s		'	"		
oct	22	2460971.00	15	14	14.47	-20	31	52.94	1.1434	13.4
oct	23	2460972.00	15	19	16.03	-20	55	40.79	1.1277	13.5
oct	24	2460973.00	15	24	12.89	-21	18	17.05	1.1115	13.5
oct	25	2460974.00	15	29	4.37	-21	39	39.03	1.0949	13.5
oct	26	2460975.00	15	33	49.71	-21	59	43.80	1.0777	13.5
oct	27	2460976.00	15	38	28.01	-22	18	28.23	1.0602	13.5
oct	28	2460977.00	15	42	58.28	-22	35	48.92	1.0421	13.5
oct	29	2460978.00	15	47	19.37	-22	51	42.18	1.0236	13.5
oct	30	2460979.00	15	51	29.99	-23	6	4.01	1.0048	13.5
oct	31	2460980.00	15	55	28.70	-23	18	49.99	0.9855	13.5
nov	1	2460981.00	15	59	13.85	-23	29	55.28	0.9658	13.5
nov	2	2460982.00	16	2	43.62	-23	39	14.52	0.9458	13.5
nov	3	2460983.00	16	5	56.00	-23	46	41.75	0.9256	13.5
nov	4	2460984.00	16	8	48.75	-23	52	10.36	0.9052	13.5
nov	5	2460985.00	16	11	19.43	-23	55	32.96	0.8846	13.5
nov	6	2460986.00	16	13	25.43	-23	56	41.35	0.8640	13.5
nov	7	2460987.00	16	15	3.98	-23	55	26.44	0.8435	13.4
nov	8	2460988.00	16	16	12.18	-23	51	38.24	0.8232	13.4
nov	9	2460989.00	16	16	47.17	-23	45	6.00	0.8033	13.3
nov	10	2460990.00	16	16	46.16	-23	35	38.42	0.7839	13.2
nov	11	2460991.00	16	16	6.69	-23	23	4.14	0.7653	13.2
nov	12	2460992.00	16	14	46.80	-23	7	12.52	0.7478	13.1
nov	13	2460993.00	16	12	45.37	-22	47	54.87	0.7315	13.0
nov	14	2460994.00	16	10	2.40	-22	25	6.10	0.7168	12.9
nov	15	2460995.00	16	6	39.37	-21	58	46.84	0.7040	12.7
nov	16	2460996.00	16	2	39.51	-21	29	5.84	0.6934	12.6
nov	17	2460997.00	15	58	7.99	-20	56	22.31	0.6852	12.5
nov	18	2460998.00	15	53	11.91	-20	21	7.67	0.6798	12.3
nov	19	2460999.00	15	48	0.08	-19	44	6.08	0.6773	12.1
nov	20	2461000.00	15	42	42.54	-19	6	13.15	0.6779	12.0
nov	21	2461001.00	15	37	29.92	-18	28	32.75	0.6817	11.8
nov	22	2461002.00	15	32	32.58	-17	52	12.12	0.6886	11.7
nov	23	2461003.00	15	27	59.96	-17	18	16.19	0.6986	11.5
nov	24	2461004.00	15	23	59.91	-16	47	42.19	0.7114	11.4
nov	25	2461005.00	15	20	38.35	-16	21	15.52	0.7267	11.3
nov	26	2461006.00	15	17	59.16	-15	59	27.47	0.7444	11.2
nov	27	2461007.00	15	16	4.29	-15	42	34.85	0.7640	11.1
nov	28	2461008.00	15	14	54.00	-15	30	41.21	0.7852	11.0
nov	29	2461009.00	15	14	27.23	-15	23	39.10	0.8077	10.9
nov	30	2461010.00	15	14	41.95	-15	21	12.65	0.8311	10.8
dic	1	2461011.00	15	15	35.50	-15	23	0.28	0.8552	10.8
dic	2	2461012.00	15	17	4.84	-15	28	36.97	0.8797	10.7
dic	3	2461013.00	15	19	6.80	-15	37	36.16	0.9043	10.7
dic	4	2461014.00	15	21	38.26	-15	49	31.19	0.9290	10.6
dic	5	2461015.00	15	24	36.20	-16	3	56.26	0.9535	10.6
dic	6	2461016.00	15	27	57.80	-16	20	27.04	0.9776	10.6
dic	7	2461017.00	15	31	40.50	-16	38	41.09	1.0014	10.6
dic	8	2461018.00	15	35	41.96	-16	58	17.97	1.0247	10.6
dic	9	2461019.00	15	40	0.11	-17	18	59.27	1.0473	10.6

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# Mercurio, 2025

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

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mes	día	dj	$\alpha$			$\delta$			dis UA	hp h
			h	m	s	o	'	"		
dic	10	2461020.00	15	44	33.10	-17	40	28.55	1.0694	10.6
dic	11	2461021.00	15	49	19.31	-18	2	31.23	1.0908	10.6
dic	12	2461022.00	15	54	17.31	-18	24	54.38	1.1115	10.6
dic	13	2461023.00	15	59	25.86	-18	47	26.63	1.1314	10.6
dic	14	2461024.00	16	4	43.87	-19	9	57.94	1.1507	10.6
dic	15	2461025.00	16	10	10.40	-19	32	19.50	1.1693	10.7
dic	16	2461026.00	16	15	44.62	-19	54	23.53	1.1871	10.7
dic	17	2461027.00	16	21	25.83	-20	16	3.15	1.2042	10.7
dic	18	2461028.00	16	27	13.39	-20	37	12.33	1.2206	10.7
dic	19	2461029.00	16	33	6.77	-20	57	45.68	1.2362	10.7
dic	20	2461030.00	16	39	5.48	-21	17	38.44	1.2512	10.8
dic	21	2461031.00	16	45	9.10	-21	36	46.35	1.2655	10.8
dic	22	2461032.00	16	51	17.28	-21	55	5.62	1.2792	10.8
dic	23	2461033.00	16	57	29.67	-22	12	32.83	1.2922	10.8
dic	24	2461034.00	17	3	46.01	-22	29	4.91	1.3045	10.9
dic	25	2461035.00	17	10	6.01	-22	44	39.05	1.3162	10.9
dic	26	2461036.00	17	16	29.46	-22	59	12.71	1.3273	10.9
dic	27	2461037.00	17	22	56.14	-23	12	43.58	1.3377	11.0
dic	28	2461038.00	17	29	25.87	-23	25	9.51	1.3476	11.0
dic	29	2461039.00	17	35	58.46	-23	36	28.53	1.3569	11.0
dic	30	2461040.00	17	42	33.76	-23	46	38.81	1.3656	11.1
dic	31	2461041.00	17	49	11.62	-23	55	38.63	1.3737	11.1

# Venus, 2025

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

mes	día	dj	h	$\alpha$		$\delta$			dis UA	hp h
				m	s	o	'	"		
ene	1	2460677.00	22	2	15.85	-13	29	11.83	0.7472	15.2
ene	2	2460678.00	22	6	16.65	-13	2	51.31	0.7398	15.2
ene	3	2460679.00	22	10	15.23	-12	36	16.63	0.7325	15.2
ene	4	2460680.00	22	14	11.60	-12	9	28.66	0.7251	15.2
ene	5	2460681.00	22	18	5.72	-11	42	28.31	0.7177	15.2
ene	6	2460682.00	22	21	57.58	-11	15	16.47	0.7103	15.2
ene	7	2460683.00	22	25	47.16	-10	47	54.04	0.7028	15.2
ene	8	2460684.00	22	29	34.43	-10	20	21.92	0.6954	15.2
ene	9	2460685.00	22	33	19.38	-9	52	40.99	0.6880	15.2
ene	10	2460686.00	22	37	1.97	-9	24	52.16	0.6806	15.2
ene	11	2460687.00	22	40	42.18	-8	56	56.29	0.6732	15.1
ene	12	2460688.00	22	44	20.00	-8	28	54.26	0.6658	15.1
ene	13	2460689.00	22	47	55.40	-8	0	46.94	0.6583	15.1
ene	14	2460690.00	22	51	28.35	-7	32	35.16	0.6509	15.1
ene	15	2460691.00	22	54	58.82	-7	4	19.79	0.6435	15.1
ene	16	2460692.00	22	58	26.79	-6	36	1.68	0.6361	15.1
ene	17	2460693.00	23	1	52.22	-6	7	41.66	0.6287	15.1
ene	18	2460694.00	23	5	15.07	-5	39	20.60	0.6213	15.1
ene	19	2460695.00	23	8	35.32	-5	10	59.36	0.6139	15.0
ene	20	2460696.00	23	11	52.92	-4	42	38.79	0.6065	15.0
ene	21	2460697.00	23	15	7.82	-4	14	19.77	0.5992	15.0
ene	22	2460698.00	23	18	19.96	-3	46	3.20	0.5918	15.0
ene	23	2460699.00	23	21	29.31	-3	17	49.96	0.5845	15.0
ene	24	2460700.00	23	24	35.80	-2	49	40.97	0.5771	15.0
ene	25	2460701.00	23	27	39.36	-2	21	37.15	0.5698	14.9
ene	26	2460702.00	23	30	39.92	-1	53	39.45	0.5625	14.9
ene	27	2460703.00	23	33	37.41	-1	25	48.84	0.5552	14.9
ene	28	2460704.00	23	36	31.75	0	58	6.32	0.5479	14.9
ene	29	2460705.00	23	39	22.85	0	30	32.90	0.5407	14.9
ene	30	2460706.00	23	42	10.60	0	3	9.66	0.5334	14.8
ene	31	2460707.00	23	44	54.92	0	24	2.31	0.5262	14.8
feb	1	2460708.00	23	47	35.67	0	51	1.85	0.5190	14.8
feb	2	2460709.00	23	50	12.75	1	17	47.80	0.5118	14.8
feb	3	2460710.00	23	52	46.02	1	44	18.92	0.5047	14.7
feb	4	2460711.00	23	55	15.35	2	10	33.96	0.4976	14.7
feb	5	2460712.00	23	57	40.60	2	36	31.63	0.4905	14.7
feb	6	2460713.00	0	0	1.62	3	2	10.61	0.4835	14.7
feb	7	2460714.00	0	2	18.26	3	27	29.54	0.4765	14.7
feb	8	2460715.00	0	4	30.36	3	52	27.04	0.4695	14.7
feb	9	2460716.00	0	6	37.75	4	17	1.67	0.4626	14.6
feb	10	2460717.00	0	8	40.26	4	41	11.99	0.4557	14.6
feb	11	2460718.00	0	10	37.73	5	4	56.49	0.4489	14.6
feb	12	2460719.00	0	12	29.96	5	28	13.61	0.4421	14.5
feb	13	2460720.00	0	14	16.77	5	51	1.75	0.4354	14.5
feb	14	2460721.00	0	15	57.98	6	13	19.24	0.4288	14.5
feb	15	2460722.00	0	17	33.39	6	35	4.35	0.4222	14.4
feb	16	2460723.00	0	19	2.78	6	56	15.27	0.4157	14.4
feb	17	2460724.00	0	20	25.97	7	16	50.12	0.4093	14.3
feb	18	2460725.00	0	21	42.74	7	36	46.94	0.4029	14.3

# Venus, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
feb	19	2460726.00	0	22	52.87	7	56	3.67	0.3967	14.3	
feb	20	2460727.00	0	23	56.16	8	14	38.16	0.3905	14.2	
feb	21	2460728.00	0	24	52.40	8	32	28.18	0.3844	14.2	
feb	22	2460729.00	0	25	41.36	8	49	31.40	0.3784	14.1	
feb	23	2460730.00	0	26	22.84	9	5	45.39	0.3725	14.1	
feb	24	2460731.00	0	26	56.64	9	21	7.63	0.3668	14.0	
feb	25	2460732.00	0	27	22.57	9	35	35.51	0.3611	13.9	
feb	26	2460733.00	0	27	40.43	9	49	6.29	0.3556	13.9	
feb	27	2460734.00	0	27	50.04	10	1	37.18	0.3502	13.8	
feb	28	2460735.00	0	27	51.26	10	13	5.28	0.3449	13.8	
mar	1	2460736.00	0	27	43.93	10	23	27.62	0.3398	13.7	
mar	2	2460737.00	0	27	27.93	10	32	41.19	0.3349	13.6	
mar	3	2460738.00	0	27	3.19	10	40	42.97	0.3301	13.6	
mar	4	2460739.00	0	26	29.66	10	47	29.98	0.3254	13.5	
mar	5	2460740.00	0	25	47.32	10	52	59.32	0.3210	13.4	
mar	6	2460741.00	0	24	56.21	10	57	8.21	0.3167	13.3	
mar	7	2460742.00	0	23	56.45	10	59	54.10	0.3126	13.3	
mar	8	2460743.00	0	22	48.18	11	1	14.67	0.3087	13.2	
mar	9	2460744.00	0	21	31.64	11	1	7.92	0.3051	13.1	
mar	10	2460745.00	0	20	7.12	10	59	32.24	0.3016	13.0	
mar	11	2460746.00	0	18	34.97	10	56	26.47	0.2984	12.9	
mar	12	2460747.00	0	16	55.65	10	51	49.95	0.2955	12.8	
mar	13	2460748.00	0	15	9.65	10	45	42.60	0.2928	12.8	
mar	14	2460749.00	0	13	17.56	10	38	4.96	0.2903	12.7	
mar	15	2460750.00	0	11	20.03	10	28	58.27	0.2881	12.6	
mar	16	2460751.00	0	9	17.77	10	18	24.46	0.2862	12.5	
mar	17	2460752.00	0	7	11.54	10	6	26.21	0.2845	12.4	
mar	18	2460753.00	0	5	2.17	9	53	6.96	0.2832	12.3	
mar	19	2460754.00	0	2	50.52	9	38	30.87	0.2821	12.2	
mar	20	2460755.00	0	0	37.48	9	22	42.84	0.2813	12.1	
mar	21	2460756.00	23	58	23.94	9	5	48.44	0.2808	11.9	
mar	22	2460757.00	23	56	10.84	8	47	53.83	0.2806	11.8	
mar	23	2460758.00	23	53	59.07	8	29	5.73	0.2807	11.7	
mar	24	2460759.00	23	51	49.53	8	9	31.26	0.2811	11.6	
mar	25	2460760.00	23	49	43.08	7	49	17.89	0.2818	11.5	
mar	26	2460761.00	23	47	40.55	7	28	33.30	0.2828	11.4	
mar	27	2460762.00	23	45	42.70	7	7	25.25	0.2841	11.3	
mar	28	2460763.00	23	43	50.27	6	46	1.49	0.2856	11.2	
mar	29	2460764.00	23	42	3.89	6	24	29.66	0.2875	11.1	
mar	30	2460765.00	23	40	24.17	6	2	57.18	0.2896	11.0	
mar	31	2460766.00	23	38	51.62	5	41	31.20	0.2920	10.9	
abr	1	2460767.00	23	37	26.71	5	20	18.55	0.2947	10.8	
abr	2	2460768.00	23	36	9.83	4	59	25.68	0.2976	10.8	
abr	3	2460769.00	23	35	1.30	4	38	58.62	0.3008	10.7	
abr	4	2460770.00	23	34	1.41	4	19	2.96	0.3042	10.6	
abr	5	2460771.00	23	33	10.35	3	59	43.79	0.3079	10.5	
abr	6	2460772.00	23	32	28.28	3	41	5.71	0.3118	10.5	
abr	7	2460773.00	23	31	55.29	3	23	12.80	0.3159	10.4	
abr	8	2460774.00	23	31	31.43	3	6	8.62	0.3202	10.3	

# Venus, 2025

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

mes	día	dj	h	$\alpha$			$\delta$		dis UA	hp h
				m	s	o	'	"		
abr	9	2460775.00	23	31	16.69	2	49	56.23	0.3247	10.3
abr	10	2460776.00	23	31	11.03	2	34	38.22	0.3295	10.2
abr	11	2460777.00	23	31	14.36	2	20	16.69	0.3344	10.1
abr	12	2460778.00	23	31	26.56	2	6	53.32	0.3395	10.1
abr	13	2460779.00	23	31	47.49	1	54	29.39	0.3448	10.0
abr	14	2460780.00	23	32	16.98	1	43	5.79	0.3502	10.0
abr	15	2460781.00	23	32	54.82	1	32	43.08	0.3558	9.9
abr	16	2460782.00	23	33	40.81	1	23	21.52	0.3615	9.9
abr	17	2460783.00	23	34	34.71	1	15	1.10	0.3674	9.8
abr	18	2460784.00	23	35	36.31	1	7	41.54	0.3734	9.8
abr	19	2460785.00	23	36	45.34	1	1	22.39	0.3795	9.7
abr	20	2460786.00	23	38	1.56	0	56	2.96	0.3858	9.7
abr	21	2460787.00	23	39	24.72	0	51	42.44	0.3922	9.7
abr	22	2460788.00	23	40	54.56	0	48	19.86	0.3987	9.6
abr	23	2460789.00	23	42	30.82	0	45	54.14	0.4052	9.6
abr	24	2460790.00	23	44	13.26	0	44	24.07	0.4119	9.5
abr	25	2460791.00	23	46	1.62	0	43	48.39	0.4187	9.5
abr	26	2460792.00	23	47	55.66	0	44	5.75	0.4255	9.5
abr	27	2460793.00	23	49	55.13	0	45	14.78	0.4325	9.5
abr	28	2460794.00	23	51	59.81	0	47	14.07	0.4395	9.4
abr	29	2460795.00	23	54	9.47	0	50	2.21	0.4466	9.4
abr	30	2460796.00	23	56	23.90	0	53	37.83	0.4537	9.4
may	1	2460797.00	23	58	42.91	0	57	59.54	0.4609	9.3
may	2	2460798.00	0	1	6.30	1	3	6.01	0.4682	9.4
may	3	2460799.00	0	3	33.89	1	8	55.89	0.4755	9.4
may	4	2460800.00	0	6	5.52	1	15	27.90	0.4829	9.3
may	5	2460801.00	0	8	41.01	1	22	40.72	0.4904	9.3
may	6	2460802.00	0	11	20.22	1	30	33.08	0.4979	9.3
may	7	2460803.00	0	14	3.01	1	39	3.70	0.5054	9.3
may	8	2460804.00	0	16	49.22	1	48	11.32	0.5130	9.3
may	9	2460805.00	0	19	38.73	1	57	54.69	0.5207	9.2
may	10	2460806.00	0	22	31.42	2	8	12.55	0.5283	9.2
may	11	2460807.00	0	25	27.16	2	19	3.68	0.5360	9.2
may	12	2460808.00	0	28	25.83	2	30	26.86	0.5438	9.2
may	13	2460809.00	0	31	27.34	2	42	20.87	0.5515	9.2
may	14	2460810.00	0	34	31.58	2	54	44.51	0.5594	9.2
may	15	2460811.00	0	37	38.44	3	7	36.58	0.5672	9.2
may	16	2460812.00	0	40	47.85	3	20	55.89	0.5750	9.1
may	17	2460813.00	0	43	59.71	3	34	41.27	0.5829	9.1
may	18	2460814.00	0	47	13.94	3	48	51.55	0.5908	9.1
may	19	2460815.00	0	50	30.47	4	3	25.57	0.5987	9.1
may	20	2460816.00	0	53	49.20	4	18	22.16	0.6067	9.1
may	21	2460817.00	0	57	10.09	4	33	40.18	0.6146	9.1
may	22	2460818.00	1	0	33.05	4	49	18.48	0.6226	9.1
may	23	2460819.00	1	3	58.02	5	5	15.94	0.6306	9.1
may	24	2460820.00	1	7	24.94	5	21	31.42	0.6386	9.1
may	25	2460821.00	1	10	53.76	5	38	3.82	0.6466	9.0
may	26	2460822.00	1	14	24.42	5	54	52.05	0.6546	9.0
may	27	2460823.00	1	17	56.86	6	11	55.04	0.6626	9.0

# Venus, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
may	28	2460824.00	1	21	31.05	6	29	11.76	0.6706	9.0	
may	29	2460825.00	1	25	6.95	6	46	41.21	0.6786	9.0	
may	30	2460826.00	1	28	44.51	7	4	22.41	0.6866	9.0	
may	31	2460827.00	1	32	23.72	7	22	14.40	0.6947	9.0	
jun	1	2460828.00	1	36	4.54	7	40	16.25	0.7027	9.0	
jun	2	2460829.00	1	39	46.96	7	58	27.06	0.7107	9.0	
jun	3	2460830.00	1	43	30.95	8	16	45.90	0.7188	9.0	
jun	4	2460831.00	1	47	16.49	8	35	11.89	0.7268	9.0	
jun	5	2460832.00	1	51	3.58	8	53	44.13	0.7348	9.0	
jun	6	2460833.00	1	54	52.19	9	12	21.75	0.7429	9.0	
jun	7	2460834.00	1	58	42.32	9	31	3.86	0.7509	9.0	
jun	8	2460835.00	2	2	33.95	9	49	49.59	0.7589	8.9	
jun	9	2460836.00	2	6	27.08	10	8	38.08	0.7669	8.9	
jun	10	2460837.00	2	10	21.71	10	27	28.45	0.7750	8.9	
jun	11	2460838.00	2	14	17.82	10	46	19.85	0.7830	8.9	
jun	12	2460839.00	2	18	15.42	11	5	11.41	0.7910	8.9	
jun	13	2460840.00	2	22	14.48	11	24	2.27	0.7990	8.9	
jun	14	2460841.00	2	26	15.03	11	42	51.58	0.8069	8.9	
jun	15	2460842.00	2	30	17.04	12	1	38.46	0.8149	8.9	
jun	16	2460843.00	2	34	20.51	12	20	22.06	0.8229	8.9	
jun	17	2460844.00	2	38	25.45	12	39	1.52	0.8308	8.9	
jun	18	2460845.00	2	42	31.84	12	57	35.97	0.8388	8.9	
jun	19	2460846.00	2	46	39.68	13	16	4.54	0.8467	8.9	
jun	20	2460847.00	2	50	48.97	13	34	26.39	0.8546	8.9	
jun	21	2460848.00	2	54	59.69	13	52	40.64	0.8625	8.9	
jun	22	2460849.00	2	59	11.85	14	10	46.45	0.8704	8.9	
jun	23	2460850.00	3	3	25.42	14	28	42.98	0.8782	8.9	
jun	24	2460851.00	3	7	40.41	14	46	29.38	0.8861	8.9	
jun	25	2460852.00	3	11	56.81	15	4	4.84	0.8939	8.9	
jun	26	2460853.00	3	16	14.61	15	21	28.56	0.9017	8.9	
jun	27	2460854.00	3	20	33.80	15	38	39.74	0.9095	8.9	
jun	28	2460855.00	3	24	54.39	15	55	37.61	0.9172	8.9	
jun	29	2460856.00	3	29	16.36	16	12	21.40	0.9250	8.9	
jun	30	2460857.00	3	33	39.71	16	28	50.35	0.9327	8.9	
jul	1	2460858.00	3	38	4.44	16	45	3.72	0.9404	8.9	
jul	2	2460859.00	3	42	30.55	17	1	0.76	0.9481	9.0	
jul	3	2460860.00	3	46	58.03	17	16	40.73	0.9557	9.0	
jul	4	2460861.00	3	51	26.87	17	32	2.90	0.9634	9.0	
jul	5	2460862.00	3	55	57.08	17	47	6.55	0.9710	9.0	
jul	6	2460863.00	4	0	28.64	18	1	50.95	0.9786	9.0	
jul	7	2460864.00	4	5	1.55	18	16	15.39	0.9862	9.0	
jul	8	2460865.00	4	9	35.80	18	30	19.16	0.9937	9.0	
jul	9	2460866.00	4	14	11.38	18	44	1.55	1.0012	9.0	
jul	10	2460867.00	4	18	48.28	18	57	21.87	1.0087	9.0	
jul	11	2460868.00	4	23	26.49	19	10	19.43	1.0162	9.0	
jul	12	2460869.00	4	28	6.00	19	22	53.54	1.0237	9.0	
jul	13	2460870.00	4	32	46.78	19	35	3.53	1.0311	9.0	
jul	14	2460871.00	4	37	28.82	19	46	48.72	1.0385	9.1	
jul	15	2460872.00	4	42	12.11	19	58	8.45	1.0459	9.1	

# Venus, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
jul	16	2460873.00	4	46	56.61	20	9	2.07	1.0532	9.1	
jul	17	2460874.00	4	51	42.31	20	19	28.95	1.0605	9.1	
jul	18	2460875.00	4	56	29.18	20	29	28.45	1.0678	9.1	
jul	19	2460876.00	5	1	17.18	20	38	59.97	1.0751	9.1	
jul	20	2460877.00	5	6	6.29	20	48	2.92	1.0823	9.1	
jul	21	2460878.00	5	10	56.47	20	56	36.71	1.0895	9.1	
jul	22	2460879.00	5	15	47.68	21	4	40.81	1.0966	9.2	
jul	23	2460880.00	5	20	39.89	21	12	14.68	1.1038	9.2	
jul	24	2460881.00	5	25	33.06	21	19	17.81	1.1108	9.2	
jul	25	2460882.00	5	30	27.14	21	25	49.73	1.1179	9.2	
jul	26	2460883.00	5	35	22.11	21	31	49.97	1.1249	9.2	
jul	27	2460884.00	5	40	17.92	21	37	18.10	1.1319	9.2	
jul	28	2460885.00	5	45	14.52	21	42	13.70	1.1389	9.2	
jul	29	2460886.00	5	50	11.89	21	46	36.38	1.1458	9.3	
jul	30	2460887.00	5	55	9.97	21	50	25.77	1.1527	9.3	
jul	31	2460888.00	6	0	8.73	21	53	41.51	1.1596	9.3	
ago	1	2460889.00	6	5	8.12	21	56	23.28	1.1664	9.3	
ago	2	2460890.00	6	10	8.10	21	58	30.77	1.1732	9.3	
ago	3	2460891.00	6	15	8.64	22	0	3.69	1.1800	9.4	
ago	4	2460892.00	6	20	9.67	22	1	1.78	1.1867	9.4	
ago	5	2460893.00	6	25	11.17	22	1	24.81	1.1934	9.4	
ago	6	2460894.00	6	30	13.08	22	1	12.55	1.2000	9.4	
ago	7	2460895.00	6	35	15.36	22	0	24.81	1.2067	9.4	
ago	8	2460896.00	6	40	17.97	21	59	1.42	1.2133	9.5	
ago	9	2460897.00	6	45	20.87	21	57	2.23	1.2198	9.5	
ago	10	2460898.00	6	50	24.00	21	54	27.11	1.2263	9.5	
ago	11	2460899.00	6	55	27.33	21	51	15.98	1.2328	9.5	
ago	12	2460900.00	7	0	30.80	21	47	28.74	1.2392	9.5	
ago	13	2460901.00	7	5	34.37	21	43	5.35	1.2456	9.6	
ago	14	2460902.00	7	10	38.00	21	38	5.80	1.2520	9.6	
ago	15	2460903.00	7	15	41.63	21	32	30.09	1.2583	9.6	
ago	16	2460904.00	7	20	45.22	21	26	18.26	1.2646	9.6	
ago	17	2460905.00	7	25	48.73	21	19	30.39	1.2709	9.7	
ago	18	2460906.00	7	30	52.10	21	12	6.56	1.2771	9.7	
ago	19	2460907.00	7	35	55.28	21	4	6.91	1.2833	9.7	
ago	20	2460908.00	7	40	58.24	20	55	31.60	1.2894	9.7	
ago	21	2460909.00	7	46	0.93	20	46	20.82	1.2955	9.7	
ago	22	2460910.00	7	51	3.30	20	36	34.77	1.3015	9.8	
ago	23	2460911.00	7	56	5.32	20	26	13.70	1.3075	9.8	
ago	24	2460912.00	8	1	6.94	20	15	17.86	1.3135	9.8	
ago	25	2460913.00	8	6	8.12	20	3	47.55	1.3194	9.8	
ago	26	2460914.00	8	11	8.84	19	51	43.05	1.3253	9.9	
ago	27	2460915.00	8	16	9.06	19	39	4.71	1.3311	9.9	
ago	28	2460916.00	8	21	8.75	19	25	52.85	1.3369	9.9	
ago	29	2460917.00	8	26	7.88	19	12	7.84	1.3426	9.9	
ago	30	2460918.00	8	31	6.43	18	57	50.06	1.3483	9.9	
ago	31	2460919.00	8	36	4.37	18	42	59.91	1.3540	10.0	
sep	1	2460920.00	8	41	1.67	18	27	37.80	1.3596	10.0	
sep	2	2460921.00	8	45	58.33	18	11	44.15	1.3652	10.0	

# Venus, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
sep	3	2460922.00	8	50	54.32	17	55	19.40	1.3707	10.0	
sep	4	2460923.00	8	55	49.62	17	38	24.01	1.3762	10.1	
sep	5	2460924.00	9	0	44.23	17	20	58.45	1.3817	10.1	
sep	6	2460925.00	9	5	38.14	17	3	3.19	1.3871	10.1	
sep	7	2460926.00	9	10	31.33	16	44	38.73	1.3925	10.1	
sep	8	2460927.00	9	15	23.80	16	25	45.56	1.3978	10.1	
sep	9	2460928.00	9	20	15.54	16	6	24.20	1.4031	10.2	
sep	10	2460929.00	9	25	6.56	15	46	35.18	1.4083	10.2	
sep	11	2460930.00	9	29	56.84	15	26	19.05	1.4135	10.2	
sep	12	2460931.00	9	34	46.39	15	5	36.36	1.4187	10.2	
sep	13	2460932.00	9	39	35.21	14	44	27.68	1.4238	10.2	
sep	14	2460933.00	9	44	23.30	14	22	53.62	1.4289	10.3	
sep	15	2460934.00	9	49	10.66	14	0	54.78	1.4339	10.3	
sep	16	2460935.00	9	53	57.29	13	38	31.78	1.4389	10.3	
sep	17	2460936.00	9	58	43.21	13	15	45.25	1.4438	10.3	
sep	18	2460937.00	10	3	28.40	12	52	35.84	1.4487	10.3	
sep	19	2460938.00	10	8	12.90	12	29	4.19	1.4535	10.4	
sep	20	2460939.00	10	12	56.69	12	5	10.96	1.4583	10.4	
sep	21	2460940.00	10	17	39.80	11	40	56.83	1.4630	10.4	
sep	22	2460941.00	10	22	22.24	11	16	22.44	1.4677	10.4	
sep	23	2460942.00	10	27	4.03	10	51	28.49	1.4724	10.4	
sep	24	2460943.00	10	31	45.17	10	26	15.63	1.4770	10.5	
sep	25	2460944.00	10	36	25.69	10	0	44.56	1.4816	10.5	
sep	26	2460945.00	10	41	5.62	9	34	55.95	1.4861	10.5	
sep	27	2460946.00	10	45	44.96	9	8	50.48	1.4905	10.5	
sep	28	2460947.00	10	50	23.75	8	42	28.84	1.4949	10.5	
sep	29	2460948.00	10	55	2.01	8	15	51.71	1.4993	10.5	
sep	30	2460949.00	10	59	39.76	7	48	59.77	1.5036	10.6	
oct	1	2460950.00	11	4	17.04	7	21	53.70	1.5079	10.6	
oct	2	2460951.00	11	8	53.86	6	54	34.21	1.5122	10.6	
oct	3	2460952.00	11	13	30.27	6	27	1.96	1.5163	10.6	
oct	4	2460953.00	11	18	6.29	5	59	17.64	1.5205	10.6	
oct	5	2460954.00	11	22	41.96	5	31	21.94	1.5246	10.6	
oct	6	2460955.00	11	27	17.31	5	3	15.54	1.5286	10.7	
oct	7	2460956.00	11	31	52.37	4	34	59.11	1.5327	10.7	
oct	8	2460957.00	11	36	27.18	4	6	33.34	1.5366	10.7	
oct	9	2460958.00	11	41	1.78	3	37	58.93	1.5405	10.7	
oct	10	2460959.00	11	45	36.20	3	9	16.57	1.5444	10.7	
oct	11	2460960.00	11	50	10.48	2	40	26.98	1.5482	10.7	
oct	12	2460961.00	11	54	44.65	2	11	30.86	1.5520	10.7	
oct	13	2460962.00	11	59	18.75	1	42	28.94	1.5558	10.8	
oct	14	2460963.00	12	3	52.81	1	13	21.96	1.5594	10.8	
oct	15	2460964.00	12	8	26.87	0	44	10.65	1.5631	10.8	
oct	16	2460965.00	12	13	0.97	0	14	55.76	1.5667	10.8	
oct	17	2460966.00	12	17	35.15	0	14	21.97	1.5702	10.8	
oct	18	2460967.00	12	22	9.42	0	43	41.77	1.5737	10.8	
oct	19	2460968.00	12	26	43.85	-1	13	2.91	1.5772	10.8	
oct	20	2460969.00	12	31	18.45	-1	42	24.63	1.5806	10.9	
oct	21	2460970.00	12	35	53.26	-2	11	46.16	1.5839	10.9	

# Venus, 2025

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

mes	día	dj	h	$\alpha$		o	$\delta$		dis UA	hp h
				m	s		'	"		
oct	22	2460971.00	12	40	28.33	-2	41	6.76	1.5873	10.9
oct	23	2460972.00	12	45	3.69	-3	10	25.66	1.5905	10.9
oct	24	2460973.00	12	49	39.38	-3	39	42.11	1.5937	10.9
oct	25	2460974.00	12	54	15.42	-4	8	55.34	1.5969	10.9
oct	26	2460975.00	12	58	51.87	-4	38	4.60	1.6000	10.9
oct	27	2460976.00	13	3	28.76	-5	7	9.11	1.6031	10.9
oct	28	2460977.00	13	8	6.12	-5	36	8.13	1.6061	11.0
oct	29	2460978.00	13	12	43.99	-6	5	0.88	1.6091	11.0
oct	30	2460979.00	13	17	22.42	-6	33	46.61	1.6121	11.0
oct	31	2460980.00	13	22	1.43	-7	2	24.56	1.6150	11.0
nov	1	2460981.00	13	26	41.06	-7	30	53.95	1.6178	11.0
nov	2	2460982.00	13	31	21.35	-7	59	14.03	1.6206	11.0
nov	3	2460983.00	13	36	2.34	-8	27	24.04	1.6234	11.0
nov	4	2460984.00	13	40	44.07	-8	55	23.21	1.6261	11.0
nov	5	2460985.00	13	45	26.57	-9	23	10.79	1.6288	11.1
nov	6	2460986.00	13	50	9.88	-9	50	46.00	1.6314	11.1
nov	7	2460987.00	13	54	54.03	-10	18	8.08	1.6340	11.1
nov	8	2460988.00	13	59	39.06	-10	45	16.24	1.6365	11.1
nov	9	2460989.00	14	4	25.01	-11	12	9.70	1.6390	11.1
nov	10	2460990.00	14	9	11.89	-11	38	47.65	1.6415	11.1
nov	11	2460991.00	14	13	59.75	-12	5	9.29	1.6439	11.1
nov	12	2460992.00	14	18	48.60	-12	31	13.81	1.6463	11.1
nov	13	2460993.00	14	23	38.48	-12	57	0.40	1.6486	11.2
nov	14	2460994.00	14	28	29.41	-13	22	28.25	1.6509	11.2
nov	15	2460995.00	14	33	21.41	-13	47	36.53	1.6531	11.2
nov	16	2460996.00	14	38	14.50	-14	12	24.42	1.6553	11.2
nov	17	2460997.00	14	43	8.70	-14	36	51.12	1.6574	11.2
nov	18	2460998.00	14	48	4.03	-15	0	55.80	1.6595	11.2
nov	19	2460999.00	14	53	0.51	-15	24	37.65	1.6616	11.2
nov	20	2461000.00	14	57	58.14	-15	47	55.86	1.6636	11.2
nov	21	2461001.00	15	2	56.94	-16	10	49.62	1.6656	11.3
nov	22	2461002.00	15	7	56.92	-16	33	18.12	1.6675	11.3
nov	23	2461003.00	15	12	58.09	-16	55	20.58	1.6693	11.3
nov	24	2461004.00	15	18	0.45	-17	16	56.20	1.6712	11.3
nov	25	2461005.00	15	23	4.01	-17	38	4.19	1.6730	11.3
nov	26	2461006.00	15	28	8.76	-17	58	43.78	1.6747	11.3
nov	27	2461007.00	15	33	14.72	-18	18	54.20	1.6764	11.3
nov	28	2461008.00	15	38	21.87	-18	38	34.69	1.6781	11.4
nov	29	2461009.00	15	43	30.21	-18	57	44.50	1.6797	11.4
nov	30	2461010.00	15	48	39.73	-19	16	22.90	1.6813	11.4
dic	1	2461011.00	15	53	50.44	-19	34	29.16	1.6828	11.4
dic	2	2461012.00	15	59	2.31	-19	52	2.57	1.6843	11.4
dic	3	2461013.00	16	4	15.33	-20	9	2.44	1.6857	11.4
dic	4	2461014.00	16	9	29.49	-20	25	28.07	1.6871	11.4
dic	5	2461015.00	16	14	44.78	-20	41	18.80	1.6885	11.5
dic	6	2461016.00	16	20	1.17	-20	56	33.97	1.6898	11.5
dic	7	2461017.00	16	25	18.65	-21	11	12.92	1.6911	11.5
dic	8	2461018.00	16	30	37.18	-21	25	15.02	1.6924	11.5
dic	9	2461019.00	16	35	56.75	-21	38	39.66	1.6936	11.5

# Venus, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
dic	10	2461020.00	16	41	17.31	-21	51	26.23	1.6948	11.5	
dic	11	2461021.00	16	46	38.83	-22	3	34.15	1.6959	11.6	
dic	12	2461022.00	16	52	1.27	-22	15	2.86	1.6970	11.6	
dic	13	2461023.00	16	57	24.60	-22	25	51.83	1.6980	11.6	
dic	14	2461024.00	17	2	48.76	-22	36	0.54	1.6990	11.6	
dic	15	2461025.00	17	8	13.72	-22	45	28.52	1.7000	11.6	
dic	16	2461026.00	17	13	39.42	-22	54	15.30	1.7009	11.6	
dic	17	2461027.00	17	19	5.81	-23	2	20.46	1.7018	11.7	
dic	18	2461028.00	17	24	32.83	-23	9	43.60	1.7026	11.7	
dic	19	2461029.00	17	30	0.44	-23	16	24.34	1.7034	11.7	
dic	20	2461030.00	17	35	28.57	-23	22	22.37	1.7042	11.7	
dic	21	2461031.00	17	40	57.17	-23	27	37.38	1.7049	11.7	
dic	22	2461032.00	17	46	26.17	-23	32	9.09	1.7056	11.7	
dic	23	2461033.00	17	51	55.51	-23	35	57.28	1.7062	11.8	
dic	24	2461034.00	17	57	25.13	-23	39	1.74	1.7068	11.8	
dic	25	2461035.00	18	2	54.97	-23	41	22.32	1.7073	11.8	
dic	26	2461036.00	18	8	24.95	-23	42	58.89	1.7078	11.8	
dic	27	2461037.00	18	13	55.03	-23	43	51.35	1.7083	11.8	
dic	28	2461038.00	18	19	25.12	-23	43	59.64	1.7088	11.8	
dic	29	2461039.00	18	24	55.18	-23	43	23.75	1.7091	11.9	
dic	30	2461040.00	18	30	25.12	-23	42	3.69	1.7095	11.9	
dic	31	2461041.00	18	35	54.90	-23	39	59.49	1.7098	11.9	

# Marte, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
ene	1	2460677.00	8	18	18.80	23	40	44.60	0.6555	1.5	
ene	2	2460678.00	8	16	54.77	23	47	19.12	0.6533	1.4	
ene	3	2460679.00	8	15	28.23	23	53	53.99	0.6512	1.3	
ene	4	2460680.00	8	13	59.33	24	0	28.26	0.6494	1.2	
ene	5	2460681.00	8	12	28.24	24	7	0.96	0.6477	1.1	
ene	6	2460682.00	8	10	55.11	24	13	31.13	0.6463	1.0	
ene	7	2460683.00	8	9	20.13	24	19	57.84	0.6451	1.0	
ene	8	2460684.00	8	7	43.48	24	26	20.17	0.6441	0.9	
ene	9	2460685.00	8	6	5.33	24	32	37.21	0.6433	0.8	
ene	10	2460686.00	8	4	25.88	24	38	48.13	0.6427	0.7	
ene	11	2460687.00	8	2	45.31	24	44	52.08	0.6424	0.6	
ene	12	2460688.00	8	1	3.83	24	50	48.29	0.6423	0.5	
ene	13	2460689.00	7	59	21.62	24	56	36.01	0.6424	0.4	
ene	14	2460690.00	7	57	38.89	25	2	14.54	0.6427	0.3	
ene	15	2460691.00	7	55	55.84	25	7	43.24	0.6432	0.2	
ene	16	2460692.00	7	54	12.67	25	13	1.49	0.6440	0.1	
ene	17	2460693.00	7	52	29.58	25	18	8.74	0.6450	24.0	
ene	18	2460694.00	7	50	46.80	25	23	4.46	0.6462	23.9	
ene	19	2460695.00	7	49	4.51	25	27	48.21	0.6476	23.8	
ene	20	2460696.00	7	47	22.93	25	32	19.58	0.6493	23.7	
ene	21	2460697.00	7	45	42.26	25	36	38.21	0.6512	23.6	
ene	22	2460698.00	7	44	2.70	25	40	43.82	0.6533	23.5	
ene	23	2460699.00	7	42	24.46	25	44	36.16	0.6556	23.4	
ene	24	2460700.00	7	40	47.72	25	48	15.05	0.6581	23.3	
ene	25	2460701.00	7	39	12.67	25	51	40.36	0.6608	23.2	
ene	26	2460702.00	7	37	39.50	25	54	52.00	0.6638	23.1	
ene	27	2460703.00	7	36	8.38	25	57	49.94	0.6670	23.0	
ene	28	2460704.00	7	34	39.48	26	0	34.21	0.6704	22.9	
ene	29	2460705.00	7	33	12.95	26	3	4.86	0.6740	22.8	
ene	30	2460706.00	7	31	48.97	26	5	22.00	0.6777	22.7	
ene	31	2460707.00	7	30	27.65	26	7	25.77	0.6817	22.6	
feb	1	2460708.00	7	29	9.14	26	9	16.36	0.6859	22.5	
feb	2	2460709.00	7	27	53.56	26	10	53.99	0.6903	22.4	
feb	3	2460710.00	7	26	41.01	26	12	18.92	0.6949	22.3	
feb	4	2460711.00	7	25	31.57	26	13	31.42	0.6996	22.3	
feb	5	2460712.00	7	24	25.35	26	14	31.81	0.7045	22.2	
feb	6	2460713.00	7	23	22.39	26	15	20.43	0.7096	22.1	
feb	7	2460714.00	7	22	22.77	26	15	57.62	0.7149	22.0	
feb	8	2460715.00	7	21	26.53	26	16	23.73	0.7204	21.9	
feb	9	2460716.00	7	20	33.70	26	16	39.13	0.7260	21.8	
feb	10	2460717.00	7	19	44.31	26	16	44.18	0.7317	21.8	
feb	11	2460718.00	7	18	58.40	26	16	39.26	0.7376	21.7	
feb	12	2460719.00	7	18	15.96	26	16	24.71	0.7437	21.6	
feb	13	2460720.00	7	17	37.02	26	16	0.89	0.7499	21.5	
feb	14	2460721.00	7	17	1.57	26	15	28.13	0.7563	21.5	
feb	15	2460722.00	7	16	29.61	26	14	46.78	0.7628	21.4	
feb	16	2460723.00	7	16	1.14	26	13	57.14	0.7694	21.3	
feb	17	2460724.00	7	15	36.14	26	12	59.52	0.7762	21.2	
feb	18	2460725.00	7	15	14.61	26	11	54.21	0.7830	21.2	

# Marte, 2025

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

mes	día	dj	h	$\alpha$			$\delta$		dis UA	hp h
				m	s	o	'	"		
feb	19	2460726.00	7	14	56.51	26	10	41.47	0.7901	21.1
feb	20	2460727.00	7	14	41.83	26	9	21.57	0.7972	21.0
feb	21	2460728.00	7	14	30.55	26	7	54.75	0.8044	21.0
feb	22	2460729.00	7	14	22.63	26	6	21.23	0.8118	20.9
feb	23	2460730.00	7	14	18.04	26	4	41.22	0.8193	20.8
feb	24	2460731.00	7	14	16.76	26	2	54.91	0.8269	20.8
feb	25	2460732.00	7	14	18.74	26	1	2.49	0.8345	20.7
feb	26	2460733.00	7	14	23.94	25	59	4.10	0.8423	20.7
feb	27	2460734.00	7	14	32.33	25	56	59.90	0.8502	20.6
feb	28	2460735.00	7	14	43.87	25	54	50.02	0.8582	20.5
mar	1	2460736.00	7	14	58.50	25	52	34.57	0.8662	20.5
mar	2	2460737.00	7	15	16.18	25	50	13.67	0.8744	20.4
mar	3	2460738.00	7	15	36.86	25	47	47.42	0.8826	20.4
mar	4	2460739.00	7	16	0.47	25	45	15.91	0.8909	20.3
mar	5	2460740.00	7	16	26.97	25	42	39.22	0.8993	20.2
mar	6	2460741.00	7	16	56.28	25	39	57.45	0.9077	20.2
mar	7	2460742.00	7	17	28.36	25	37	10.65	0.9162	20.1
mar	8	2460743.00	7	18	3.13	25	34	18.90	0.9248	20.1
mar	9	2460744.00	7	18	40.53	25	31	22.24	0.9334	20.0
mar	10	2460745.00	7	19	20.51	25	28	20.71	0.9421	20.0
mar	11	2460746.00	7	20	2.99	25	25	14.36	0.9509	19.9
mar	12	2460747.00	7	20	47.93	25	22	3.21	0.9597	19.9
mar	13	2460748.00	7	21	35.26	25	18	47.27	0.9685	19.8
mar	14	2460749.00	7	22	24.92	25	15	26.56	0.9774	19.8
mar	15	2460750.00	7	23	16.86	25	12	1.08	0.9864	19.8
mar	16	2460751.00	7	24	11.03	25	8	30.82	0.9954	19.7
mar	17	2460752.00	7	25	7.37	25	4	55.77	1.0044	19.7
mar	18	2460753.00	7	26	5.83	25	1	15.90	1.0135	19.6
mar	19	2460754.00	7	27	6.36	24	57	31.20	1.0226	19.6
mar	20	2460755.00	7	28	8.91	24	53	41.62	1.0317	19.5
mar	21	2460756.00	7	29	13.44	24	49	47.13	1.0409	19.4
mar	22	2460757.00	7	30	19.90	24	45	47.70	1.0501	19.4
mar	23	2460758.00	7	31	28.24	24	41	43.27	1.0594	19.3
mar	24	2460759.00	7	32	38.42	24	37	33.79	1.0687	19.3
mar	25	2460760.00	7	33	50.40	24	33	19.20	1.0780	19.3
mar	26	2460761.00	7	35	4.14	24	28	59.46	1.0873	19.2
mar	27	2460762.00	7	36	19.59	24	24	34.49	1.0967	19.2
mar	28	2460763.00	7	37	36.71	24	20	4.23	1.1060	19.1
mar	29	2460764.00	7	38	55.48	24	15	28.63	1.1154	19.1
mar	30	2460765.00	7	40	15.83	24	10	47.63	1.1248	19.1
mar	31	2460766.00	7	41	37.74	24	6	1.16	1.1343	19.0
abr	1	2460767.00	7	43	1.16	24	1	9.19	1.1437	19.0
abr	2	2460768.00	7	44	26.04	23	56	11.66	1.1532	18.9
abr	3	2460769.00	7	45	52.35	23	51	8.54	1.1626	18.9
abr	4	2460770.00	7	47	20.03	23	45	59.79	1.1721	18.9
abr	5	2460771.00	7	48	49.05	23	40	45.38	1.1816	18.8
abr	6	2460772.00	7	50	19.37	23	35	25.27	1.1910	18.8
abr	7	2460773.00	7	51	50.93	23	29	59.43	1.2005	18.8
abr	8	2460774.00	7	53	23.72	23	24	27.82	1.2100	18.7

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
abr	9	2460775.00	7	54	57.68	23	18	50.42	1.2195	18.7	
abr	10	2460776.00	7	56	32.79	23	13	7.19	1.2290	18.7	
abr	11	2460777.00	7	58	9.00	23	7	18.10	1.2385	18.6	
abr	12	2460778.00	7	59	46.29	23	1	23.11	1.2479	18.6	
abr	13	2460779.00	8	1	24.62	22	55	22.19	1.2574	18.6	
abr	14	2460780.00	8	3	3.97	22	49	15.30	1.2669	18.5	
abr	15	2460781.00	8	4	44.30	22	43	2.41	1.2764	18.5	
abr	16	2460782.00	8	6	25.59	22	36	43.49	1.2858	18.5	
abr	17	2460783.00	8	8	7.81	22	30	18.49	1.2953	18.4	
abr	18	2460784.00	8	9	50.93	22	23	47.37	1.3047	18.4	
abr	19	2460785.00	8	11	34.94	22	17	10.11	1.3142	18.4	
abr	20	2460786.00	8	13	19.80	22	10	26.66	1.3236	18.3	
abr	21	2460787.00	8	15	5.49	22	3	36.99	1.3330	18.3	
abr	22	2460788.00	8	16	52.00	21	56	41.05	1.3424	18.3	
abr	23	2460789.00	8	18	39.30	21	49	38.80	1.3518	18.2	
abr	24	2460790.00	8	20	27.38	21	42	30.22	1.3612	18.2	
abr	25	2460791.00	8	22	16.20	21	35	15.26	1.3706	18.2	
abr	26	2460792.00	8	24	5.76	21	27	53.88	1.3799	18.1	
abr	27	2460793.00	8	25	56.04	21	20	26.07	1.3892	18.1	
abr	28	2460794.00	8	27	47.00	21	12	51.80	1.3986	18.1	
abr	29	2460795.00	8	29	38.63	21	5	11.06	1.4079	18.0	
abr	30	2460796.00	8	31	30.92	20	57	23.84	1.4171	18.0	
may	1	2460797.00	8	33	23.82	20	49	30.15	1.4264	18.0	
may	2	2460798.00	8	35	17.33	20	41	29.99	1.4356	17.9	
may	3	2460799.00	8	37	11.41	20	33	23.37	1.4448	17.9	
may	4	2460800.00	8	39	6.06	20	25	10.31	1.4540	17.9	
may	5	2460801.00	8	41	1.24	20	16	50.81	1.4632	17.8	
may	6	2460802.00	8	42	56.93	20	8	24.90	1.4723	17.8	
may	7	2460803.00	8	44	53.13	19	59	52.58	1.4814	17.8	
may	8	2460804.00	8	46	49.81	19	51	13.88	1.4905	17.7	
may	9	2460805.00	8	48	46.94	19	42	28.80	1.4996	17.7	
may	10	2460806.00	8	50	44.53	19	33	37.37	1.5086	17.7	
may	11	2460807.00	8	52	42.55	19	24	39.58	1.5176	17.6	
may	12	2460808.00	8	54	40.99	19	15	35.47	1.5266	17.6	
may	13	2460809.00	8	56	39.83	19	6	25.04	1.5355	17.6	
may	14	2460810.00	8	58	39.06	18	57	8.30	1.5444	17.5	
may	15	2460811.00	9	0	38.67	18	47	45.27	1.5533	17.5	
may	16	2460812.00	9	2	38.65	18	38	15.95	1.5622	17.5	
may	17	2460813.00	9	4	38.99	18	28	40.36	1.5710	17.5	
may	18	2460814.00	9	6	39.68	18	18	58.50	1.5798	17.4	
may	19	2460815.00	9	8	40.72	18	9	10.38	1.5885	17.4	
may	20	2460816.00	9	10	42.08	17	59	16.02	1.5973	17.4	
may	21	2460817.00	9	12	43.77	17	49	15.41	1.6060	17.3	
may	22	2460818.00	9	14	45.77	17	39	8.57	1.6146	17.3	
may	23	2460819.00	9	16	48.09	17	28	55.50	1.6233	17.3	
may	24	2460820.00	9	18	50.70	17	18	36.22	1.6319	17.2	
may	25	2460821.00	9	20	53.61	17	8	10.74	1.6404	17.2	
may	26	2460822.00	9	22	56.81	16	57	39.10	1.6490	17.2	
may	27	2460823.00	9	25	0.29	16	47	1.31	1.6575	17.1	

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
may	28	2460824.00	9	27	4.03	16	36	17.41	1.6659	17.1	
may	29	2460825.00	9	29	8.03	16	25	27.46	1.6743	17.1	
may	30	2460826.00	9	31	12.28	16	14	31.50	1.6827	17.0	
may	31	2460827.00	9	33	16.77	16	3	29.59	1.6910	17.0	
jun	1	2460828.00	9	35	21.49	15	52	21.77	1.6993	17.0	
jun	2	2460829.00	9	37	26.42	15	41	8.10	1.7076	16.9	
jun	3	2460830.00	9	39	31.56	15	29	48.65	1.7158	16.9	
jun	4	2460831.00	9	41	36.91	15	18	23.45	1.7240	16.9	
jun	5	2460832.00	9	43	42.44	15	6	52.58	1.7321	16.8	
jun	6	2460833.00	9	45	48.17	14	55	16.07	1.7402	16.8	
jun	7	2460834.00	9	47	54.08	14	43	33.98	1.7483	16.8	
jun	8	2460835.00	9	50	0.16	14	31	46.37	1.7563	16.7	
jun	9	2460836.00	9	52	6.42	14	19	53.28	1.7642	16.7	
jun	10	2460837.00	9	54	12.84	14	7	54.77	1.7722	16.7	
jun	11	2460838.00	9	56	19.42	13	55	50.87	1.7801	16.6	
jun	12	2460839.00	9	58	26.17	13	43	41.63	1.7879	16.6	
jun	13	2460840.00	10	0	33.07	13	31	27.10	1.7957	16.5	
jun	14	2460841.00	10	2	40.13	13	19	7.33	1.8035	16.5	
jun	15	2460842.00	10	4	47.34	13	6	42.34	1.8112	16.5	
jun	16	2460843.00	10	6	54.70	12	54	12.18	1.8189	16.4	
jun	17	2460844.00	10	9	2.21	12	41	36.89	1.8265	16.4	
jun	18	2460845.00	10	11	9.88	12	28	56.49	1.8341	16.4	
jun	19	2460846.00	10	13	17.70	12	16	11.04	1.8416	16.3	
jun	20	2460847.00	10	15	25.68	12	3	20.57	1.8491	16.3	
jun	21	2460848.00	10	17	33.80	11	50	25.12	1.8566	16.3	
jun	22	2460849.00	10	19	42.08	11	37	24.73	1.8640	16.2	
jun	23	2460850.00	10	21	50.51	11	24	19.45	1.8714	16.2	
jun	24	2460851.00	10	23	59.09	11	11	9.35	1.8787	16.2	
jun	25	2460852.00	10	26	7.82	10	57	54.48	1.8860	16.1	
jun	26	2460853.00	10	28	16.69	10	44	34.91	1.8932	16.1	
jun	27	2460854.00	10	30	25.71	10	31	10.72	1.9004	16.1	
jun	28	2460855.00	10	32	34.87	10	17	41.98	1.9075	16.0	
jun	29	2460856.00	10	34	44.17	10	4	8.77	1.9146	16.0	
jun	30	2460857.00	10	36	53.60	9	50	31.18	1.9216	16.0	
jul	1	2460858.00	10	39	3.17	9	36	49.27	1.9286	15.9	
jul	2	2460859.00	10	41	12.87	9	23	3.14	1.9356	15.9	
jul	3	2460860.00	10	43	22.70	9	9	12.84	1.9425	15.9	
jul	4	2460861.00	10	45	32.66	8	55	18.47	1.9493	15.8	
jul	5	2460862.00	10	47	42.75	8	41	20.09	1.9561	15.8	
jul	6	2460863.00	10	49	52.98	8	27	17.79	1.9628	15.8	
jul	7	2460864.00	10	52	3.33	8	13	11.62	1.9695	15.8	
jul	8	2460865.00	10	54	13.82	7	59	1.66	1.9762	15.7	
jul	9	2460866.00	10	56	24.44	7	44	47.98	1.9828	15.7	
jul	10	2460867.00	10	58	35.19	7	30	30.65	1.9893	15.7	
jul	11	2460868.00	11	0	46.08	7	16	9.73	1.9958	15.6	
jul	12	2460869.00	11	2	57.11	7	1	45.28	2.0023	15.6	
jul	13	2460870.00	11	5	8.29	6	47	17.36	2.0087	15.6	
jul	14	2460871.00	11	7	19.61	6	32	46.03	2.0150	15.5	
jul	15	2460872.00	11	9	31.09	6	18	11.35	2.0214	15.5	

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
jul	16	2460873.00	11	11	42.72	6	3	33.37	2.0276	15.5	
jul	17	2460874.00	11	13	54.51	5	48	52.15	2.0338	15.4	
jul	18	2460875.00	11	16	6.47	5	34	7.74	2.0400	15.4	
jul	19	2460876.00	11	18	18.59	5	19	20.21	2.0461	15.4	
jul	20	2460877.00	11	20	30.89	5	4	29.62	2.0522	15.3	
jul	21	2460878.00	11	22	43.37	4	49	36.03	2.0582	15.3	
jul	22	2460879.00	11	24	56.03	4	34	39.53	2.0642	15.3	
jul	23	2460880.00	11	27	8.87	4	19	40.18	2.0701	15.3	
jul	24	2460881.00	11	29	21.90	4	4	38.09	2.0759	15.2	
jul	25	2460882.00	11	31	35.12	3	49	33.33	2.0817	15.2	
jul	26	2460883.00	11	33	48.53	3	34	25.99	2.0875	15.2	
jul	27	2460884.00	11	36	2.13	3	19	16.19	2.0932	15.1	
jul	28	2460885.00	11	38	15.92	3	4	4.00	2.0989	15.1	
jul	29	2460886.00	11	40	29.92	2	48	49.52	2.1045	15.1	
jul	30	2460887.00	11	42	44.11	2	33	32.86	2.1100	15.1	
jul	31	2460888.00	11	44	58.50	2	18	14.11	2.1155	15.0	
ago	1	2460889.00	11	47	13.09	2	2	53.35	2.1210	15.0	
ago	2	2460890.00	11	49	27.89	1	47	30.69	2.1264	15.0	
ago	3	2460891.00	11	51	42.91	1	32	6.22	2.1317	15.0	
ago	4	2460892.00	11	53	58.13	1	16	40.03	2.1370	14.9	
ago	5	2460893.00	11	56	13.58	1	1	12.20	2.1423	14.9	
ago	6	2460894.00	11	58	29.24	0	45	42.83	2.1474	14.9	
ago	7	2460895.00	12	0	45.14	0	30	12.00	2.1526	14.8	
ago	8	2460896.00	12	3	1.26	0	14	39.81	2.1577	14.8	
ago	9	2460897.00	12	5	17.63	0	0	53.68	2.1627	14.8	
ago	10	2460898.00	12	7	34.23	0	16	28.37	2.1677	14.8	
ago	11	2460899.00	12	9	51.09	0	32	4.20	2.1726	14.7	
ago	12	2460900.00	12	12	8.20	0	47	41.08	2.1775	14.7	
ago	13	2460901.00	12	14	25.58	-1	3	18.95	2.1824	14.7	
ago	14	2460902.00	12	16	43.23	-1	18	57.71	2.1871	14.7	
ago	15	2460903.00	12	19	1.16	-1	34	37.30	2.1919	14.6	
ago	16	2460904.00	12	21	19.37	-1	50	17.64	2.1966	14.6	
ago	17	2460905.00	12	23	37.88	-2	5	58.64	2.2012	14.6	
ago	18	2460906.00	12	25	56.69	-2	21	40.20	2.2058	14.6	
ago	19	2460907.00	12	28	15.80	-2	37	22.24	2.2103	14.6	
ago	20	2460908.00	12	30	35.22	-2	53	4.65	2.2148	14.5	
ago	21	2460909.00	12	32	54.96	-3	8	47.33	2.2193	14.5	
ago	22	2460910.00	12	35	15.01	-3	24	30.17	2.2236	14.5	
ago	23	2460911.00	12	37	35.40	-3	40	13.05	2.2280	14.5	
ago	24	2460912.00	12	39	56.11	-3	55	55.87	2.2322	14.4	
ago	25	2460913.00	12	42	17.16	-4	11	38.49	2.2365	14.4	
ago	26	2460914.00	12	44	38.55	-4	27	20.82	2.2406	14.4	
ago	27	2460915.00	12	47	0.27	-4	43	2.72	2.2448	14.4	
ago	28	2460916.00	12	49	22.35	-4	58	44.08	2.2488	14.4	
ago	29	2460917.00	12	51	44.78	-5	14	24.78	2.2528	14.3	
ago	30	2460918.00	12	54	7.57	-5	30	4.70	2.2568	14.3	
ago	31	2460919.00	12	56	30.71	-5	45	43.73	2.2607	14.3	
sep	1	2460920.00	12	58	54.23	-6	1	21.74	2.2646	14.3	
sep	2	2460921.00	13	1	18.11	-6	16	58.63	2.2684	14.3	

# Marte, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
sep	3	2460922.00	13	3	42.38	-6	32	34.27	2.2722	14.2	
sep	4	2460923.00	13	6	7.03	-6	48	8.55	2.2759	14.2	
sep	5	2460924.00	13	8	32.06	-7	3	41.36	2.2795	14.2	
sep	6	2460925.00	13	10	57.50	-7	19	12.58	2.2831	14.2	
sep	7	2460926.00	13	13	23.33	-7	34	42.11	2.2867	14.2	
sep	8	2460927.00	13	15	49.58	-7	50	9.84	2.2902	14.1	
sep	9	2460928.00	13	18	16.25	-8	5	35.66	2.2937	14.1	
sep	10	2460929.00	13	20	43.34	-8	20	59.47	2.2971	14.1	
sep	11	2460930.00	13	23	10.87	-8	36	21.16	2.3004	14.1	
sep	12	2460931.00	13	25	38.84	-8	51	40.63	2.3038	14.1	
sep	13	2460932.00	13	28	7.27	-9	6	57.76	2.3070	14.0	
sep	14	2460933.00	13	30	36.15	-9	22	12.44	2.3103	14.0	
sep	15	2460934.00	13	33	5.50	-9	37	24.54	2.3134	14.0	
sep	16	2460935.00	13	35	35.32	-9	52	33.94	2.3165	14.0	
sep	17	2460936.00	13	38	5.63	-10	7	40.51	2.3196	14.0	
sep	18	2460937.00	13	40	36.42	-10	22	44.11	2.3226	13.9	
sep	19	2460938.00	13	43	7.70	-10	37	44.61	2.3256	13.9	
sep	20	2460939.00	13	45	39.48	-10	52	41.86	2.3286	13.9	
sep	21	2460940.00	13	48	11.76	-11	7	35.72	2.3314	13.9	
sep	22	2460941.00	13	50	44.55	-11	22	26.04	2.3343	13.9	
sep	23	2460942.00	13	53	17.85	-11	37	12.67	2.3370	13.9	
sep	24	2460943.00	13	55	51.67	-11	51	55.47	2.3398	13.8	
sep	25	2460944.00	13	58	26.00	-12	6	34.28	2.3424	13.8	
sep	26	2460945.00	14	1	0.86	-12	21	8.96	2.3451	13.8	
sep	27	2460946.00	14	3	36.25	-12	35	39.34	2.3477	13.8	
sep	28	2460947.00	14	6	12.17	-12	50	5.30	2.3502	13.8	
sep	29	2460948.00	14	8	48.62	-13	4	26.66	2.3527	13.8	
sep	30	2460949.00	14	11	25.62	-13	18	43.28	2.3551	13.7	
oct	1	2460950.00	14	14	3.17	-13	32	55.02	2.3575	13.7	
oct	2	2460951.00	14	16	41.26	-13	47	1.72	2.3598	13.7	
oct	3	2460952.00	14	19	19.91	-14	1	3.23	2.3621	13.7	
oct	4	2460953.00	14	21	59.12	-14	14	59.41	2.3644	13.7	
oct	5	2460954.00	14	24	38.90	-14	28	50.10	2.3666	13.7	
oct	6	2460955.00	14	27	19.24	-14	42	35.18	2.3688	13.6	
oct	7	2460956.00	14	30	0.16	-14	56	14.48	2.3709	13.6	
oct	8	2460957.00	14	32	41.67	-15	9	47.88	2.3729	13.6	
oct	9	2460958.00	14	35	23.76	-15	23	15.23	2.3750	13.6	
oct	10	2460959.00	14	38	6.46	-15	36	36.38	2.3770	13.6	
oct	11	2460960.00	14	40	49.75	-15	49	51.20	2.3789	13.6	
oct	12	2460961.00	14	43	33.65	-16	2	59.52	2.3808	13.5	
oct	13	2460962.00	14	46	18.17	-16	16	1.20	2.3826	13.5	
oct	14	2460963.00	14	49	3.30	-16	28	56.07	2.3845	13.5	
oct	15	2460964.00	14	51	49.06	-16	41	43.97	2.3862	13.5	
oct	16	2460965.00	14	54	35.44	-16	54	24.74	2.3879	13.5	
oct	17	2460966.00	14	57	22.45	-17	6	58.20	2.3896	13.5	
oct	18	2460967.00	15	0	10.09	-17	19	24.18	2.3913	13.5	
oct	19	2460968.00	15	2	58.36	-17	31	42.52	2.3928	13.4	
oct	20	2460969.00	15	5	47.26	-17	43	53.03	2.3944	13.4	
oct	21	2460970.00	15	8	36.80	-17	55	55.54	2.3959	13.4	

# Marte, 2025

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

mes	día	dj	h	$\alpha$			$\delta$		dis UA	hp h
				m	s	o	'	"		
oct	22	2460971.00	15	11	26.97	-18	7	49.88	2.3974	13.4
oct	23	2460972.00	15	14	17.78	-18	19	35.87	2.3988	13.4
oct	24	2460973.00	15	17	9.22	-18	31	13.33	2.4001	13.4
oct	25	2460974.00	15	20	1.30	-18	42	42.10	2.4015	13.3
oct	26	2460975.00	15	22	54.00	-18	54	1.98	2.4028	13.3
oct	27	2460976.00	15	25	47.35	-19	5	12.82	2.4040	13.3
oct	28	2460977.00	15	28	41.32	-19	16	14.44	2.4052	13.3
oct	29	2460978.00	15	31	35.92	-19	27	6.66	2.4064	13.3
oct	30	2460979.00	15	34	31.15	-19	37	49.32	2.4075	13.3
oct	31	2460980.00	15	37	27.01	-19	48	22.25	2.4086	13.2
nov	1	2460981.00	15	40	23.50	-19	58	45.27	2.4096	13.2
nov	2	2460982.00	15	43	20.61	-20	8	58.23	2.4106	13.2
nov	3	2460983.00	15	46	18.35	-20	19	0.95	2.4116	13.2
nov	4	2460984.00	15	49	16.70	-20	28	53.29	2.4125	13.2
nov	5	2460985.00	15	52	15.68	-20	38	35.08	2.4134	13.2
nov	6	2460986.00	15	55	15.29	-20	48	6.15	2.4142	13.2
nov	7	2460987.00	15	58	15.51	-20	57	26.37	2.4150	13.1
nov	8	2460988.00	16	1	16.36	-21	6	35.56	2.4158	13.1
nov	9	2460989.00	16	4	17.82	-21	15	33.56	2.4165	13.1
nov	10	2460990.00	16	7	19.91	-21	24	20.22	2.4172	13.1
nov	11	2460991.00	16	10	22.61	-21	32	55.36	2.4179	13.1
nov	12	2460992.00	16	13	25.92	-21	41	18.83	2.4185	13.1
nov	13	2460993.00	16	16	29.84	-21	49	30.46	2.4191	13.0
nov	14	2460994.00	16	19	34.36	-21	57	30.08	2.4197	13.0
nov	15	2460995.00	16	22	39.47	-22	5	17.52	2.4202	13.0
nov	16	2460996.00	16	25	45.18	-22	12	52.63	2.4207	13.0
nov	17	2460997.00	16	28	51.46	-22	20	15.25	2.4212	13.0
nov	18	2460998.00	16	31	58.32	-22	27	25.20	2.4216	12.9
nov	19	2460999.00	16	35	5.75	-22	34	22.34	2.4220	12.9
nov	20	2461000.00	16	38	13.73	-22	41	6.51	2.4223	12.9
nov	21	2461001.00	16	41	22.25	-22	47	37.56	2.4226	12.9
nov	22	2461002.00	16	44	31.32	-22	53	55.33	2.4229	12.9
nov	23	2461003.00	16	47	40.91	-22	59	59.68	2.4231	12.9
nov	24	2461004.00	16	50	51.01	-23	5	50.47	2.4233	12.8
nov	25	2461005.00	16	54	1.63	-23	11	27.55	2.4235	12.8
nov	26	2461006.00	16	57	12.73	-23	16	50.80	2.4236	12.8
nov	27	2461007.00	17	0	24.32	-23	22	0.07	2.4238	12.8
nov	28	2461008.00	17	3	36.38	-23	26	55.25	2.4238	12.8
nov	29	2461009.00	17	6	48.90	-23	31	36.20	2.4239	12.8
nov	30	2461010.00	17	10	1.86	-23	36	2.80	2.4239	12.7
dic	1	2461011.00	17	13	15.26	-23	40	14.95	2.4239	12.7
dic	2	2461012.00	17	16	29.09	-23	44	12.52	2.4238	12.7
dic	3	2461013.00	17	19	43.33	-23	47	55.41	2.4237	12.7
dic	4	2461014.00	17	22	57.97	-23	51	23.51	2.4236	12.7
dic	5	2461015.00	17	26	13.01	-23	54	36.72	2.4235	12.6
dic	6	2461016.00	17	29	28.43	-23	57	34.95	2.4234	12.6
dic	7	2461017.00	17	32	44.22	-24	0	18.08	2.4232	12.6
dic	8	2461018.00	17	36	0.38	-24	2	46.03	2.4230	12.6
dic	9	2461019.00	17	39	16.88	-24	4	58.70	2.4227	12.6

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## Marte, 2025

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

mes	día	dj	$\alpha$			$\delta$			dis UA	hp h
			h	m	s	o	'	"		
dic	10	2461020.00	17	42	33.72	-24	6	56.00	2.4225	12.6
dic	11	2461021.00	17	45	50.88	-24	8	37.85	2.4222	12.5
dic	12	2461022.00	17	49	8.35	-24	10	4.16	2.4218	12.5
dic	13	2461023.00	17	52	26.11	-24	11	14.85	2.4215	12.5
dic	14	2461024.00	17	55	44.16	-24	12	9.86	2.4211	12.5
dic	15	2461025.00	17	59	2.46	-24	12	49.10	2.4207	12.5
dic	16	2461026.00	18	2	21.01	-24	13	12.53	2.4203	12.4
dic	17	2461027.00	18	5	39.79	-24	13	20.09	2.4199	12.4
dic	18	2461028.00	18	8	58.79	-24	13	11.71	2.4194	12.4
dic	19	2461029.00	18	12	17.98	-24	12	47.37	2.4189	12.4
dic	20	2461030.00	18	15	37.35	-24	12	7.01	2.4184	12.4
dic	21	2461031.00	18	18	56.88	-24	11	10.60	2.4178	12.4
dic	22	2461032.00	18	22	16.56	-24	9	58.12	2.4173	12.3
dic	23	2461033.00	18	25	36.36	-24	8	29.54	2.4167	12.3
dic	24	2461034.00	18	28	56.27	-24	6	44.85	2.4160	12.3
dic	25	2461035.00	18	32	16.28	-24	4	44.03	2.4154	12.3
dic	26	2461036.00	18	35	36.35	-24	2	27.09	2.4147	12.3
dic	27	2461037.00	18	38	56.49	-23	59	54.03	2.4140	12.2
dic	28	2461038.00	18	42	16.66	-23	57	4.84	2.4133	12.2
dic	29	2461039.00	18	45	36.86	-23	53	59.55	2.4126	12.2
dic	30	2461040.00	18	48	57.07	-23	50	38.17	2.4119	12.2
dic	31	2461041.00	18	52	17.27	-23	47	0.72	2.4111	12.2

# Júpiter, 2025

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

mes	día	dj	$\alpha$				$\delta$			dis UA	hp h
			h	m	s	o	'	"			
ene	1	2460677.00	4	45	47.32	21	44	8.68	4.1947	22.0	
ene	2	2460678.00	4	45	20.53	21	43	32.98	4.2027	21.9	
ene	3	2460679.00	4	44	54.37	21	42	58.24	4.2110	21.8	
ene	4	2460680.00	4	44	28.85	21	42	24.49	4.2196	21.8	
ene	5	2460681.00	4	44	4.01	21	41	51.78	4.2284	21.7	
ene	6	2460682.00	4	43	39.84	21	41	20.15	4.2375	21.6	
ene	7	2460683.00	4	43	16.37	21	40	49.65	4.2468	21.5	
ene	8	2460684.00	4	42	53.60	21	40	20.32	4.2564	21.4	
ene	9	2460685.00	4	42	31.56	21	39	52.18	4.2662	21.4	
ene	10	2460686.00	4	42	10.26	21	39	25.27	4.2763	21.3	
ene	11	2460687.00	4	41	49.69	21	38	59.63	4.2866	21.2	
ene	12	2460688.00	4	41	29.89	21	38	35.29	4.2971	21.1	
ene	13	2460689.00	4	41	10.85	21	38	12.29	4.3079	21.1	
ene	14	2460690.00	4	40	52.59	21	37	50.66	4.3189	21.0	
ene	15	2460691.00	4	40	35.11	21	37	30.41	4.3301	20.9	
ene	16	2460692.00	4	40	18.43	21	37	11.60	4.3415	20.8	
ene	17	2460693.00	4	40	2.54	21	36	54.24	4.3532	20.8	
ene	18	2460694.00	4	39	47.47	21	36	38.37	4.3650	20.7	
ene	19	2460695.00	4	39	33.22	21	36	24.01	4.3771	20.6	
ene	20	2460696.00	4	39	19.80	21	36	11.18	4.3893	20.5	
ene	21	2460697.00	4	39	7.20	21	35	59.92	4.4017	20.5	
ene	22	2460698.00	4	38	55.45	21	35	50.24	4.4144	20.4	
ene	23	2460699.00	4	38	44.55	21	35	42.17	4.4272	20.3	
ene	24	2460700.00	4	38	34.49	21	35	35.71	4.4402	20.2	
ene	25	2460701.00	4	38	25.29	21	35	30.90	4.4533	20.2	
ene	26	2460702.00	4	38	16.96	21	35	27.74	4.4666	20.1	
ene	27	2460703.00	4	38	9.49	21	35	26.26	4.4801	20.0	
ene	28	2460704.00	4	38	2.89	21	35	26.45	4.4938	20.0	
ene	29	2460705.00	4	37	57.16	21	35	28.34	4.5076	19.9	
ene	30	2460706.00	4	37	52.30	21	35	31.92	4.5216	19.8	
ene	31	2460707.00	4	37	48.33	21	35	37.20	4.5357	19.7	
feb	1	2460708.00	4	37	45.23	21	35	44.19	4.5499	19.7	
feb	2	2460709.00	4	37	43.01	21	35	52.87	4.5643	19.6	
feb	3	2460710.00	4	37	41.67	21	36	3.25	4.5788	19.5	
feb	4	2460711.00	4	37	41.20	21	36	15.32	4.5934	19.5	
feb	5	2460712.00	4	37	41.61	21	36	29.08	4.6082	19.4	
feb	6	2460713.00	4	37	42.89	21	36	44.50	4.6230	19.3	
feb	7	2460714.00	4	37	45.04	21	37	1.59	4.6380	19.3	
feb	8	2460715.00	4	37	48.05	21	37	20.32	4.6531	19.2	
feb	9	2460716.00	4	37	51.92	21	37	40.70	4.6682	19.1	
feb	10	2460717.00	4	37	56.65	21	38	2.69	4.6835	19.1	
feb	11	2460718.00	4	38	2.23	21	38	26.30	4.6989	19.0	
feb	12	2460719.00	4	38	8.66	21	38	51.50	4.7143	18.9	
feb	13	2460720.00	4	38	15.94	21	39	18.28	4.7298	18.9	
feb	14	2460721.00	4	38	24.06	21	39	46.63	4.7454	18.8	
feb	15	2460722.00	4	38	33.01	21	40	16.52	4.7611	18.8	
feb	16	2460723.00	4	38	42.80	21	40	47.95	4.7768	18.7	
feb	17	2460724.00	4	38	53.41	21	41	20.88	4.7926	18.6	
feb	18	2460725.00	4	39	4.85	21	41	55.31	4.8084	18.6	

# Júpiter, 2025

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

mes	día	dj	$\alpha$				$\delta$			dis UA	hp h
			h	m	s	o	'	"			
feb	19	2460726.00	4	39	17.10	21	42	31.20	4.8243	18.5	
feb	20	2460727.00	4	39	30.17	21	43	8.55	4.8403	18.5	
feb	21	2460728.00	4	39	44.05	21	43	47.32	4.8563	18.4	
feb	22	2460729.00	4	39	58.73	21	44	27.50	4.8723	18.3	
feb	23	2460730.00	4	40	14.21	21	45	9.06	4.8884	18.3	
feb	24	2460731.00	4	40	30.49	21	45	51.97	4.9045	18.2	
feb	25	2460732.00	4	40	47.55	21	46	36.21	4.9206	18.2	
feb	26	2460733.00	4	41	5.40	21	47	21.75	4.9368	18.1	
feb	27	2460734.00	4	41	24.02	21	48	8.55	4.9529	18.0	
feb	28	2460735.00	4	41	43.42	21	48	56.59	4.9691	18.0	
mar	1	2460736.00	4	42	3.58	21	49	45.84	4.9853	17.9	
mar	2	2460737.00	4	42	24.49	21	50	36.26	5.0015	17.9	
mar	3	2460738.00	4	42	46.15	21	51	27.81	5.0177	17.8	
mar	4	2460739.00	4	43	8.56	21	52	20.45	5.0339	17.8	
mar	5	2460740.00	4	43	31.69	21	53	14.16	5.0501	17.7	
mar	6	2460741.00	4	43	55.55	21	54	8.89	5.0663	17.7	
mar	7	2460742.00	4	44	20.13	21	55	4.61	5.0824	17.6	
mar	8	2460743.00	4	44	45.41	21	56	1.28	5.0986	17.5	
mar	9	2460744.00	4	45	11.38	21	56	58.86	5.1147	17.5	
mar	10	2460745.00	4	45	38.05	21	57	57.31	5.1308	17.4	
mar	11	2460746.00	4	46	5.40	21	58	56.61	5.1468	17.4	
mar	12	2460747.00	4	46	33.42	21	59	56.71	5.1628	17.3	
mar	13	2460748.00	4	47	2.10	22	0	57.59	5.1788	17.3	
mar	14	2460749.00	4	47	31.44	22	1	59.20	5.1947	17.2	
mar	15	2460750.00	4	48	1.43	22	3	1.51	5.2106	17.2	
mar	16	2460751.00	4	48	32.06	22	4	4.48	5.2265	17.1	
mar	17	2460752.00	4	49	3.33	22	5	8.09	5.2423	17.1	
mar	18	2460753.00	4	49	35.22	22	6	12.29	5.2580	17.0	
mar	19	2460754.00	4	50	7.73	22	7	17.06	5.2737	17.0	
mar	20	2460755.00	4	50	40.86	22	8	22.35	5.2893	16.9	
mar	21	2460756.00	4	51	14.59	22	9	28.13	5.3049	16.8	
mar	22	2460757.00	4	51	48.92	22	10	34.36	5.3204	16.7	
mar	23	2460758.00	4	52	23.84	22	11	41.02	5.3358	16.7	
mar	24	2460759.00	4	52	59.34	22	12	48.06	5.3512	16.6	
mar	25	2460760.00	4	53	35.42	22	13	55.45	5.3664	16.6	
mar	26	2460761.00	4	54	12.08	22	15	3.15	5.3816	16.5	
mar	27	2460762.00	4	54	49.29	22	16	11.13	5.3967	16.5	
mar	28	2460763.00	4	55	27.06	22	17	19.34	5.4118	16.4	
mar	29	2460764.00	4	56	5.38	22	18	27.75	5.4267	16.4	
mar	30	2460765.00	4	56	44.23	22	19	36.32	5.4415	16.3	
mar	31	2460766.00	4	57	23.62	22	20	45.01	5.4563	16.3	
abr	1	2460767.00	4	58	3.53	22	21	53.78	5.4709	16.2	
abr	2	2460768.00	4	58	43.96	22	23	2.60	5.4855	16.2	
abr	3	2460769.00	4	59	24.88	22	24	11.42	5.4999	16.1	
abr	4	2460770.00	5	0	6.31	22	25	20.21	5.5143	16.1	
abr	5	2460771.00	5	0	48.22	22	26	28.93	5.5285	16.0	
abr	6	2460772.00	5	1	30.61	22	27	37.55	5.5426	16.0	
abr	7	2460773.00	5	2	13.47	22	28	46.04	5.5566	15.9	
abr	8	2460774.00	5	2	56.79	22	29	54.35	5.5705	15.9	

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

mes	día	dj	$\alpha$				$\delta$			dis UA	hp h
			h	m	s	o	'	"			
abr	9	2460775.00	5	3	40.56	22	31	2.47	5.5842	15.8	
abr	10	2460776.00	5	4	24.79	22	32	10.35	5.5979	15.8	
abr	11	2460777.00	5	5	9.45	22	33	17.96	5.6114	15.8	
abr	12	2460778.00	5	5	54.55	22	34	25.28	5.6248	15.7	
abr	13	2460779.00	5	6	40.07	22	35	32.26	5.6381	15.7	
abr	14	2460780.00	5	7	26.01	22	36	38.90	5.6512	15.6	
abr	15	2460781.00	5	8	12.37	22	37	45.14	5.6642	15.6	
abr	16	2460782.00	5	8	59.13	22	38	50.97	5.6771	15.5	
abr	17	2460783.00	5	9	46.28	22	39	56.35	5.6898	15.5	
abr	18	2460784.00	5	10	33.84	22	41	1.25	5.7024	15.4	
abr	19	2460785.00	5	11	21.77	22	42	5.65	5.7149	15.4	
abr	20	2460786.00	5	12	10.09	22	43	9.52	5.7272	15.3	
abr	21	2460787.00	5	12	58.78	22	44	12.83	5.7394	15.3	
abr	22	2460788.00	5	13	47.85	22	45	15.54	5.7515	15.2	
abr	23	2460789.00	5	14	37.27	22	46	17.64	5.7634	15.2	
abr	24	2460790.00	5	15	27.05	22	47	19.09	5.7751	15.1	
abr	25	2460791.00	5	16	17.17	22	48	19.86	5.7867	15.1	
abr	26	2460792.00	5	17	7.64	22	49	19.93	5.7981	15.0	
abr	27	2460793.00	5	17	58.45	22	50	19.26	5.8094	15.0	
abr	28	2460794.00	5	18	49.58	22	51	17.83	5.8206	14.9	
abr	29	2460795.00	5	19	41.03	22	52	15.61	5.8315	14.9	
abr	30	2460796.00	5	20	32.79	22	53	12.57	5.8423	14.8	
may	1	2460797.00	5	21	24.86	22	54	8.69	5.8530	14.8	
may	2	2460798.00	5	22	17.22	22	55	3.95	5.8635	14.7	
may	3	2460799.00	5	23	9.88	22	55	58.30	5.8738	14.7	
may	4	2460800.00	5	24	2.81	22	56	51.75	5.8840	14.6	
may	5	2460801.00	5	24	56.03	22	57	44.25	5.8939	14.6	
may	6	2460802.00	5	25	49.51	22	58	35.80	5.9038	14.5	
may	7	2460803.00	5	26	43.25	22	59	26.37	5.9134	14.5	
may	8	2460804.00	5	27	37.25	23	0	15.94	5.9229	14.4	
may	9	2460805.00	5	28	31.49	23	1	4.49	5.9322	14.4	
may	10	2460806.00	5	29	25.98	23	1	52.00	5.9413	14.3	
may	11	2460807.00	5	30	20.71	23	2	38.45	5.9503	14.3	
may	12	2460808.00	5	31	15.67	23	3	23.84	5.9591	14.2	
may	13	2460809.00	5	32	10.86	23	4	8.13	5.9677	14.2	
may	14	2460810.00	5	33	6.27	23	4	51.31	5.9761	14.1	
may	15	2460811.00	5	34	1.89	23	5	33.36	5.9844	14.1	
may	16	2460812.00	5	34	57.73	23	6	14.27	5.9925	14.0	
may	17	2460813.00	5	35	53.77	23	6	54.03	6.0004	14.0	
may	18	2460814.00	5	36	50.01	23	7	32.60	6.0081	13.9	
may	19	2460815.00	5	37	46.44	23	8	9.99	6.0156	13.9	
may	20	2460816.00	5	38	43.06	23	8	46.16	6.0230	13.8	
may	21	2460817.00	5	39	39.87	23	9	21.12	6.0301	13.8	
may	22	2460818.00	5	40	36.86	23	9	54.83	6.0371	13.7	
may	23	2460819.00	5	41	34.02	23	10	27.30	6.0439	13.7	
may	24	2460820.00	5	42	31.35	23	10	58.49	6.0505	13.6	
may	25	2460821.00	5	43	28.84	23	11	28.40	6.0570	13.6	
may	26	2460822.00	5	44	26.49	23	11	57.01	6.0632	13.5	
may	27	2460823.00	5	45	24.28	23	12	24.31	6.0692	13.5	

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

mes	día	dj	$\alpha$				$\delta$		dis UA	hp h
			h	m	s	o	'	"		
may	28	2460824.00	5	46	22.22	23	12	50.28	6.0751	13.4
may	29	2460825.00	5	47	20.29	23	13	14.92	6.0807	13.4
may	30	2460826.00	5	48	18.48	23	13	38.22	6.0862	13.3
may	31	2460827.00	5	49	16.81	23	14	0.16	6.0915	13.3
jun	1	2460828.00	5	50	15.24	23	14	20.74	6.0965	13.2
jun	2	2460829.00	5	51	13.79	23	14	39.95	6.1014	13.2
jun	3	2460830.00	5	52	12.44	23	14	57.78	6.1061	13.1
jun	4	2460831.00	5	53	11.18	23	15	14.23	6.1106	13.1
jun	5	2460832.00	5	54	10.02	23	15	29.28	6.1149	13.0
jun	6	2460833.00	5	55	8.95	23	15	42.95	6.1190	13.0
jun	7	2460834.00	5	56	7.96	23	15	55.21	6.1229	12.9
jun	8	2460835.00	5	57	7.04	23	16	6.07	6.1266	12.8
jun	9	2460836.00	5	58	6.20	23	16	15.51	6.1301	12.8
jun	10	2460837.00	5	59	5.42	23	16	23.55	6.1334	12.7
jun	11	2460838.00	6	0	4.71	23	16	30.16	6.1366	12.7
jun	12	2460839.00	6	1	4.06	23	16	35.36	6.1395	12.6
jun	13	2460840.00	6	2	3.45	23	16	39.13	6.1422	12.6
jun	14	2460841.00	6	3	2.90	23	16	41.47	6.1448	12.5
jun	15	2460842.00	6	4	2.39	23	16	42.38	6.1471	12.5
jun	16	2460843.00	6	5	1.92	23	16	41.86	6.1492	12.4
jun	17	2460844.00	6	6	1.49	23	16	39.91	6.1512	12.4
jun	18	2460845.00	6	7	1.08	23	16	36.52	6.1529	12.3
jun	19	2460846.00	6	8	0.70	23	16	31.68	6.1544	12.3
jun	20	2460847.00	6	9	0.34	23	16	25.41	6.1558	12.2
jun	21	2460848.00	6	9	60.00	23	16	17.70	6.1569	12.2
jun	22	2460849.00	6	10	59.66	23	16	8.54	6.1579	12.1
jun	23	2460850.00	6	11	59.33	23	15	57.94	6.1586	12.1
jun	24	2460851.00	6	12	58.99	23	15	45.91	6.1591	12.0
jun	25	2460852.00	6	13	58.65	23	15	32.43	6.1595	12.0
jun	26	2460853.00	6	14	58.29	23	15	17.53	6.1596	11.9
jun	27	2460854.00	6	15	57.90	23	15	1.20	6.1595	11.8
jun	28	2460855.00	6	16	57.49	23	14	43.44	6.1593	11.8
jun	29	2460856.00	6	17	57.05	23	14	24.27	6.1588	11.7
jun	30	2460857.00	6	18	56.56	23	14	3.69	6.1581	11.7
jul	1	2460858.00	6	19	56.03	23	13	41.71	6.1573	11.6
jul	2	2460859.00	6	20	55.45	23	13	18.33	6.1562	11.6
jul	3	2460860.00	6	21	54.81	23	12	53.56	6.1549	11.5
jul	4	2460861.00	6	22	54.12	23	12	27.42	6.1535	11.5
jul	5	2460862.00	6	23	53.35	23	11	59.91	6.1518	11.4
jul	6	2460863.00	6	24	52.52	23	11	31.03	6.1499	11.4
jul	7	2460864.00	6	25	51.61	23	11	0.81	6.1479	11.3
jul	8	2460865.00	6	26	50.62	23	10	29.24	6.1456	11.3
jul	9	2460866.00	6	27	49.54	23	9	56.33	6.1432	11.2
jul	10	2460867.00	6	28	48.38	23	9	22.11	6.1405	11.2
jul	11	2460868.00	6	29	47.12	23	8	46.57	6.1377	11.1
jul	12	2460869.00	6	30	45.77	23	8	9.72	6.1347	11.1
jul	13	2460870.00	6	31	44.31	23	7	31.58	6.1314	11.0
jul	14	2460871.00	6	32	42.75	23	6	52.16	6.1280	11.0
jul	15	2460872.00	6	33	41.07	23	6	11.47	6.1244	10.9

# Júpiter, 2025

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

mes	día	dj	$\alpha$				$\delta$			dis UA	hp h
			h	m	s	o	'	"			
jul	16	2460873.00	6	34	39.28	23	5	29.51	6.1206	10.9	
jul	17	2460874.00	6	35	37.37	23	4	46.31	6.1166	10.8	
jul	18	2460875.00	6	36	35.33	23	4	1.87	6.1124	10.8	
jul	19	2460876.00	6	37	33.15	23	3	16.20	6.1080	10.7	
jul	20	2460877.00	6	38	30.84	23	2	29.33	6.1034	10.7	
jul	21	2460878.00	6	39	28.38	23	1	41.26	6.0986	10.6	
jul	22	2460879.00	6	40	25.78	23	0	52.01	6.0936	10.6	
jul	23	2460880.00	6	41	23.01	23	0	1.60	6.0885	10.5	
jul	24	2460881.00	6	42	20.09	22	59	10.05	6.0831	10.5	
jul	25	2460882.00	6	43	16.99	22	58	17.38	6.0776	10.4	
jul	26	2460883.00	6	44	13.71	22	57	23.60	6.0718	10.4	
jul	27	2460884.00	6	45	10.26	22	56	28.74	6.0659	10.3	
jul	28	2460885.00	6	46	6.61	22	55	32.82	6.0598	10.3	
jul	29	2460886.00	6	47	2.78	22	54	35.86	6.0535	10.2	
jul	30	2460887.00	6	47	58.74	22	53	37.88	6.0470	10.2	
jul	31	2460888.00	6	48	54.49	22	52	38.90	6.0404	10.1	
ago	1	2460889.00	6	49	50.04	22	51	38.94	6.0335	10.1	
ago	2	2460890.00	6	50	45.37	22	50	38.03	6.0265	10.0	
ago	3	2460891.00	6	51	40.48	22	49	36.18	6.0193	10.0	
ago	4	2460892.00	6	52	35.36	22	48	33.42	6.0119	9.9	
ago	5	2460893.00	6	53	30.01	22	47	29.78	6.0044	9.9	
ago	6	2460894.00	6	54	24.43	22	46	25.26	5.9966	9.8	
ago	7	2460895.00	6	55	18.60	22	45	19.91	5.9887	9.8	
ago	8	2460896.00	6	56	12.53	22	44	13.73	5.9806	9.7	
ago	9	2460897.00	6	57	6.21	22	43	6.75	5.9724	9.7	
ago	10	2460898.00	6	57	59.63	22	41	58.99	5.9639	9.6	
ago	11	2460899.00	6	58	52.79	22	40	50.48	5.9553	9.6	
ago	12	2460900.00	6	59	45.68	22	39	41.25	5.9466	9.5	
ago	13	2460901.00	7	0	38.30	22	38	31.30	5.9376	9.5	
ago	14	2460902.00	7	1	30.65	22	37	20.67	5.9285	9.4	
ago	15	2460903.00	7	2	22.71	22	36	9.39	5.9192	9.4	
ago	16	2460904.00	7	3	14.48	22	34	57.48	5.9098	9.3	
ago	17	2460905.00	7	4	5.95	22	33	44.97	5.9002	9.3	
ago	18	2460906.00	7	4	57.12	22	32	31.89	5.8904	9.2	
ago	19	2460907.00	7	5	47.98	22	31	18.27	5.8805	9.2	
ago	20	2460908.00	7	6	38.52	22	30	4.14	5.8704	9.1	
ago	21	2460909.00	7	7	28.74	22	28	49.53	5.8601	9.1	
ago	22	2460910.00	7	8	18.62	22	27	34.47	5.8497	9.1	
ago	23	2460911.00	7	9	8.17	22	26	19.01	5.8392	9.0	
ago	24	2460912.00	7	9	57.37	22	25	3.16	5.8284	9.0	
ago	25	2460913.00	7	10	46.21	22	23	46.97	5.8176	8.9	
ago	26	2460914.00	7	11	34.70	22	22	30.47	5.8066	8.9	
ago	27	2460915.00	7	12	22.83	22	21	13.69	5.7954	8.8	
ago	28	2460916.00	7	13	10.58	22	19	56.67	5.7841	8.8	
ago	29	2460917.00	7	13	57.95	22	18	39.44	5.7726	8.7	
ago	30	2460918.00	7	14	44.94	22	17	22.03	5.7610	8.7	
ago	31	2460919.00	7	15	31.54	22	16	4.48	5.7493	8.6	
sep	1	2460920.00	7	16	17.74	22	14	46.82	5.7374	8.6	
sep	2	2460921.00	7	17	3.53	22	13	29.08	5.7254	8.5	

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

mes	día	dj	$\alpha$				$\delta$		dis UA	hp h
			h	m	s	o	'	"		
sep	3	2460922.00	7	17	48.92	22	12	11.31	5.7132	8.5
sep	4	2460923.00	7	18	33.90	22	10	53.52	5.7010	8.4
sep	5	2460924.00	7	19	18.46	22	9	35.76	5.6885	8.4
sep	6	2460925.00	7	20	2.58	22	8	18.05	5.6760	8.3
sep	7	2460926.00	7	20	46.28	22	7	0.44	5.6634	8.3
sep	8	2460927.00	7	21	29.54	22	5	42.95	5.6506	8.2
sep	9	2460928.00	7	22	12.36	22	4	25.63	5.6377	8.2
sep	10	2460929.00	7	22	54.72	22	3	8.49	5.6246	8.1
sep	11	2460930.00	7	23	36.63	22	1	51.58	5.6115	8.1
sep	12	2460931.00	7	24	18.07	22	0	34.94	5.5983	8.1
sep	13	2460932.00	7	24	59.04	21	59	18.60	5.5849	8.0
sep	14	2460933.00	7	25	39.53	21	58	2.61	5.5714	8.0
sep	15	2460934.00	7	26	19.54	21	56	47.00	5.5578	7.9
sep	16	2460935.00	7	26	59.04	21	55	31.81	5.5441	7.9
sep	17	2460936.00	7	27	38.05	21	54	17.08	5.5303	7.8
sep	18	2460937.00	7	28	16.54	21	53	2.87	5.5164	7.8
sep	19	2460938.00	7	28	54.51	21	51	49.20	5.5024	7.7
sep	20	2460939.00	7	29	31.95	21	50	36.13	5.4883	7.7
sep	21	2460940.00	7	30	8.85	21	49	23.69	5.4742	7.6
sep	22	2460941.00	7	30	45.21	21	48	11.92	5.4599	7.6
sep	23	2460942.00	7	31	21.02	21	47	0.88	5.4455	7.5
sep	24	2460943.00	7	31	56.28	21	45	50.59	5.4311	7.5
sep	25	2460944.00	7	32	30.96	21	44	41.10	5.4166	7.4
sep	26	2460945.00	7	33	5.07	21	43	32.45	5.4020	7.4
sep	27	2460946.00	7	33	38.60	21	42	24.68	5.3873	7.3
sep	28	2460947.00	7	34	11.55	21	41	17.83	5.3725	7.3
sep	29	2460948.00	7	34	43.90	21	40	11.94	5.3577	7.2
sep	30	2460949.00	7	35	15.65	21	39	7.04	5.3428	7.2
oct	1	2460950.00	7	35	46.80	21	38	3.18	5.3279	7.1
oct	2	2460951.00	7	36	17.33	21	37	0.39	5.3129	7.1
oct	3	2460952.00	7	36	47.24	21	35	58.70	5.2979	7.0
oct	4	2460953.00	7	37	16.52	21	34	58.16	5.2828	7.0
oct	5	2460954.00	7	37	45.17	21	33	58.80	5.2676	6.9
oct	6	2460955.00	7	38	13.19	21	33	0.66	5.2525	6.8
oct	7	2460956.00	7	38	40.55	21	32	3.76	5.2372	6.8
oct	8	2460957.00	7	39	7.27	21	31	8.15	5.2220	6.7
oct	9	2460958.00	7	39	33.32	21	30	13.87	5.2067	6.7
oct	10	2460959.00	7	39	58.71	21	29	20.94	5.1913	6.6
oct	11	2460960.00	7	40	23.42	21	28	29.42	5.1760	6.6
oct	12	2460961.00	7	40	47.45	21	27	39.33	5.1606	6.5
oct	13	2460962.00	7	41	10.79	21	26	50.72	5.1452	6.5
oct	14	2460963.00	7	41	33.43	21	26	3.63	5.1298	6.4
oct	15	2460964.00	7	41	55.36	21	25	18.10	5.1143	6.4
oct	16	2460965.00	7	42	16.57	21	24	34.16	5.0989	6.3
oct	17	2460966.00	7	42	37.06	21	23	51.86	5.0834	6.2
oct	18	2460967.00	7	42	56.82	21	23	11.23	5.0680	6.2
oct	19	2460968.00	7	43	15.84	21	22	32.31	5.0525	6.1
oct	20	2460969.00	7	43	34.12	21	21	55.13	5.0371	6.1
oct	21	2460970.00	7	43	51.65	21	21	19.72	5.0217	6.0

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

mes	día	dj	$\alpha$				$\delta$			dis UA	hp h
			h	m	s	o	'	"			
oct	22	2460971.00	7	44	8.42	21	20	46.13	5.0063	6.0	
oct	23	2460972.00	7	44	24.42	21	20	14.37	4.9909	5.9	
oct	24	2460973.00	7	44	39.66	21	19	44.48	4.9755	5.8	
oct	25	2460974.00	7	44	54.12	21	19	16.48	4.9602	5.8	
oct	26	2460975.00	7	45	7.80	21	18	50.41	4.9449	5.7	
oct	27	2460976.00	7	45	20.70	21	18	26.29	4.9296	5.7	
oct	28	2460977.00	7	45	32.80	21	18	4.14	4.9144	5.6	
oct	29	2460978.00	7	45	44.12	21	17	43.97	4.8992	5.5	
oct	30	2460979.00	7	45	54.63	21	17	25.82	4.8841	5.5	
oct	31	2460980.00	7	46	4.34	21	17	9.70	4.8691	5.4	
nov	1	2460981.00	7	46	13.25	21	16	55.63	4.8541	5.3	
nov	2	2460982.00	7	46	21.35	21	16	43.62	4.8391	5.3	
nov	3	2460983.00	7	46	28.64	21	16	33.69	4.8243	5.2	
nov	4	2460984.00	7	46	35.11	21	16	25.84	4.8095	5.2	
nov	5	2460985.00	7	46	40.76	21	16	20.10	4.7948	5.1	
nov	6	2460986.00	7	46	45.59	21	16	16.47	4.7802	5.0	
nov	7	2460987.00	7	46	49.60	21	16	14.97	4.7656	5.0	
nov	8	2460988.00	7	46	52.77	21	16	15.61	4.7512	4.9	
nov	9	2460989.00	7	46	55.11	21	16	18.40	4.7369	4.8	
nov	10	2460990.00	7	46	56.61	21	16	23.36	4.7226	4.8	
nov	11	2460991.00	7	46	57.28	21	16	30.49	4.7085	4.7	
nov	12	2460992.00	7	46	57.10	21	16	39.80	4.6945	4.6	
nov	13	2460993.00	7	46	56.07	21	16	51.30	4.6806	4.6	
nov	14	2460994.00	7	46	54.20	21	17	4.99	4.6668	4.5	
nov	15	2460995.00	7	46	51.47	21	17	20.88	4.6531	4.4	
nov	16	2460996.00	7	46	47.90	21	17	38.96	4.6396	4.4	
nov	17	2460997.00	7	46	43.48	21	17	59.22	4.6262	4.3	
nov	18	2460998.00	7	46	38.22	21	18	21.67	4.6130	4.2	
nov	19	2460999.00	7	46	32.11	21	18	46.29	4.5999	4.1	
nov	20	2461000.00	7	46	25.15	21	19	13.07	4.5869	4.1	
nov	21	2461001.00	7	46	17.35	21	19	42.00	4.5741	4.0	
nov	22	2461002.00	7	46	8.71	21	20	13.06	4.5615	3.9	
nov	23	2461003.00	7	45	59.24	21	20	46.22	4.5490	3.9	
nov	24	2461004.00	7	45	48.94	21	21	21.48	4.5368	3.8	
nov	25	2461005.00	7	45	37.81	21	21	58.79	4.5246	3.7	
nov	26	2461006.00	7	45	25.86	21	22	38.15	4.5127	3.6	
nov	27	2461007.00	7	45	13.10	21	23	19.50	4.5010	3.6	
nov	28	2461008.00	7	44	59.54	21	24	2.83	4.4895	3.5	
nov	29	2461009.00	7	44	45.17	21	24	48.10	4.4781	3.4	
nov	30	2461010.00	7	44	30.02	21	25	35.27	4.4670	3.3	
dic	1	2461011.00	7	44	14.08	21	26	24.31	4.4560	3.3	
dic	2	2461012.00	7	43	57.37	21	27	15.16	4.4453	3.2	
dic	3	2461013.00	7	43	39.89	21	28	7.80	4.4348	3.1	
dic	4	2461014.00	7	43	21.66	21	29	2.19	4.4245	3.0	
dic	5	2461015.00	7	43	2.68	21	29	58.28	4.4144	3.0	
dic	6	2461016.00	7	42	42.96	21	30	56.03	4.4046	2.9	
dic	7	2461017.00	7	42	22.51	21	31	55.39	4.3950	2.8	
dic	8	2461018.00	7	42	1.35	21	32	56.34	4.3856	2.7	
dic	9	2461019.00	7	41	39.48	21	33	58.81	4.3765	2.6	

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

mes	día	dj	$\alpha$				$\delta$			dis UA	hp h
			h	m	s	o	'	"			
dic	10	2461020.00	7	41	16.91	21	35	2.77	4.3676	2.6	
dic	11	2461021.00	7	40	53.65	21	36	8.16	4.3589	2.5	
dic	12	2461022.00	7	40	29.73	21	37	14.94	4.3505	2.4	
dic	13	2461023.00	7	40	5.16	21	38	23.04	4.3424	2.3	
dic	14	2461024.00	7	39	39.94	21	39	32.42	4.3345	2.2	
dic	15	2461025.00	7	39	14.10	21	40	43.00	4.3269	2.2	
dic	16	2461026.00	7	38	47.65	21	41	54.75	4.3196	2.1	
dic	17	2461027.00	7	38	20.61	21	43	7.58	4.3125	2.0	
dic	18	2461028.00	7	37	53.00	21	44	21.44	4.3057	1.9	
dic	19	2461029.00	7	37	24.84	21	45	36.27	4.2992	1.8	
dic	20	2461030.00	7	36	56.15	21	46	51.99	4.2930	1.8	
dic	21	2461031.00	7	36	26.94	21	48	8.54	4.2870	1.7	
dic	22	2461032.00	7	35	57.24	21	49	25.84	4.2814	1.6	
dic	23	2461033.00	7	35	27.08	21	50	43.83	4.2760	1.5	
dic	24	2461034.00	7	34	56.47	21	52	2.44	4.2710	1.4	
dic	25	2461035.00	7	34	25.44	21	53	21.60	4.2662	1.3	
dic	26	2461036.00	7	33	54.00	21	54	41.22	4.2618	1.3	
dic	27	2461037.00	7	33	22.19	21	56	1.25	4.2576	1.2	
dic	28	2461038.00	7	32	50.03	21	57	21.61	4.2537	1.1	
dic	29	2461039.00	7	32	17.54	21	58	42.23	4.2502	1.0	
dic	30	2461040.00	7	31	44.75	22	0	3.04	4.2469	0.9	
dic	31	2461041.00	7	31	11.67	22	1	23.98	4.2440	0.8	

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
ene	1	2460677.00	23	4	54.80	-8	2	4.61	10.0327	16.3	
ene	2	2460678.00	23	5	11.79	-8	0	10.25	10.0475	16.2	
ene	3	2460679.00	23	5	29.08	-7	58	14.12	10.0621	16.1	
ene	4	2460680.00	23	5	46.65	-7	56	16.25	10.0766	16.1	
ene	5	2460681.00	23	6	4.51	-7	54	16.67	10.0909	16.0	
ene	6	2460682.00	23	6	22.66	-7	52	15.39	10.1051	15.9	
ene	7	2460683.00	23	6	41.08	-7	50	12.46	10.1192	15.9	
ene	8	2460684.00	23	6	59.78	-7	48	7.91	10.1331	15.8	
ene	9	2460685.00	23	7	18.74	-7	46	1.74	10.1469	15.7	
ene	10	2460686.00	23	7	37.97	-7	43	54.01	10.1605	15.7	
ene	11	2460687.00	23	7	57.47	-7	41	44.73	10.1739	15.6	
ene	12	2460688.00	23	8	17.21	-7	39	33.92	10.1872	15.5	
ene	13	2460689.00	23	8	37.21	-7	37	21.62	10.2004	15.5	
ene	14	2460690.00	23	8	57.46	-7	35	7.84	10.2134	15.4	
ene	15	2460691.00	23	9	17.96	-7	32	52.61	10.2262	15.3	
ene	16	2460692.00	23	9	38.69	-7	30	35.95	10.2388	15.3	
ene	17	2460693.00	23	9	59.66	-7	28	17.88	10.2512	15.2	
ene	18	2460694.00	23	10	20.87	-7	25	58.44	10.2635	15.1	
ene	19	2460695.00	23	10	42.30	-7	23	37.64	10.2756	15.1	
ene	20	2460696.00	23	11	3.96	-7	21	15.50	10.2876	15.0	
ene	21	2460697.00	23	11	25.84	-7	18	52.05	10.2993	14.9	
ene	22	2460698.00	23	11	47.94	-7	16	27.32	10.3108	14.9	
ene	23	2460699.00	23	12	10.25	-7	14	1.33	10.3222	14.8	
ene	24	2460700.00	23	12	32.77	-7	11	34.10	10.3334	14.8	
ene	25	2460701.00	23	12	55.50	-7	9	5.66	10.3443	14.7	
ene	26	2460702.00	23	13	18.42	-7	6	36.04	10.3551	14.6	
ene	27	2460703.00	23	13	41.54	-7	4	5.27	10.3656	14.6	
ene	28	2460704.00	23	14	4.86	-7	1	33.37	10.3760	14.5	
ene	29	2460705.00	23	14	28.36	-6	59	0.37	10.3861	14.4	
ene	30	2460706.00	23	14	52.04	-6	56	26.30	10.3961	14.4	
ene	31	2460707.00	23	15	15.90	-6	53	51.20	10.4058	14.3	
feb	1	2460708.00	23	15	39.93	-6	51	15.09	10.4153	14.3	
feb	2	2460709.00	23	16	4.13	-6	48	38.00	10.4246	14.2	
feb	3	2460710.00	23	16	28.50	-6	45	59.98	10.4337	14.1	
feb	4	2460711.00	23	16	53.02	-6	43	21.04	10.4425	14.1	
feb	5	2460712.00	23	17	17.70	-6	40	41.22	10.4511	14.0	
feb	6	2460713.00	23	17	42.52	-6	38	0.55	10.4595	14.0	
feb	7	2460714.00	23	18	7.49	-6	35	19.06	10.4677	13.9	
feb	8	2460715.00	23	18	32.60	-6	32	36.78	10.4756	13.8	
feb	9	2460716.00	23	18	57.84	-6	29	53.73	10.4834	13.8	
feb	10	2460717.00	23	19	23.22	-6	27	9.94	10.4908	13.7	
feb	11	2460718.00	23	19	48.72	-6	24	25.43	10.4981	13.7	
feb	12	2460719.00	23	20	14.34	-6	21	40.24	10.5051	13.6	
feb	13	2460720.00	23	20	40.09	-6	18	54.38	10.5119	13.5	
feb	14	2460721.00	23	21	5.95	-6	16	7.87	10.5184	13.5	
feb	15	2460722.00	23	21	31.92	-6	13	20.76	10.5248	13.4	
feb	16	2460723.00	23	21	57.99	-6	10	33.05	10.5308	13.4	
feb	17	2460724.00	23	22	24.18	-6	7	44.78	10.5367	13.3	
feb	18	2460725.00	23	22	50.46	-6	4	55.97	10.5422	13.3	

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
feb	19	2460726.00	23	23	16.83	-6	2	6.65	10.5476	13.2	
feb	20	2460727.00	23	23	43.30	-5	59	16.84	10.5527	13.1	
feb	21	2460728.00	23	24	9.85	-5	56	26.57	10.5576	13.1	
feb	22	2460729.00	23	24	36.49	-5	53	35.87	10.5622	13.0	
feb	23	2460730.00	23	25	3.20	-5	50	44.76	10.5665	13.0	
feb	24	2460731.00	23	25	29.99	-5	47	53.28	10.5707	12.9	
feb	25	2460732.00	23	25	56.85	-5	45	1.44	10.5745	12.9	
feb	26	2460733.00	23	26	23.77	-5	42	9.29	10.5781	12.8	
feb	27	2460734.00	23	26	50.76	-5	39	16.85	10.5815	12.8	
feb	28	2460735.00	23	27	17.80	-5	36	24.16	10.5846	12.7	
mar	1	2460736.00	23	27	44.89	-5	33	31.24	10.5875	12.6	
mar	2	2460737.00	23	28	12.03	-5	30	38.12	10.5901	12.6	
mar	3	2460738.00	23	28	39.21	-5	27	44.85	10.5924	12.5	
mar	4	2460739.00	23	29	6.42	-5	24	51.45	10.5945	12.5	
mar	5	2460740.00	23	29	33.67	-5	21	57.95	10.5964	12.4	
mar	6	2460741.00	23	30	0.95	-5	19	4.38	10.5980	12.4	
mar	7	2460742.00	23	30	28.25	-5	16	10.76	10.5993	12.3	
mar	8	2460743.00	23	30	55.57	-5	13	17.14	10.6004	12.3	
mar	9	2460744.00	23	31	22.91	-5	10	23.52	10.6012	12.2	
mar	10	2460745.00	23	31	50.26	-5	7	29.95	10.6018	12.2	
mar	11	2460746.00	23	32	17.62	-5	4	36.43	10.6021	12.1	
mar	12	2460747.00	23	32	44.98	-5	1	43.01	10.6022	12.0	
mar	13	2460748.00	23	33	12.34	-4	58	49.69	10.6020	12.0	
mar	14	2460749.00	23	33	39.70	-4	55	56.52	10.6015	11.9	
mar	15	2460750.00	23	34	7.05	-4	53	3.50	10.6009	11.9	
mar	16	2460751.00	23	34	34.39	-4	50	10.67	10.5999	11.8	
mar	17	2460752.00	23	35	1.71	-4	47	18.05	10.5987	11.8	
mar	18	2460753.00	23	35	29.02	-4	44	25.67	10.5973	11.7	
mar	19	2460754.00	23	35	56.31	-4	41	33.54	10.5956	11.7	
mar	20	2460755.00	23	36	23.57	-4	38	41.71	10.5937	11.6	
mar	21	2460756.00	23	36	50.79	-4	35	50.18	10.5915	11.5	
mar	22	2460757.00	23	37	17.99	-4	32	59.00	10.5890	11.4	
mar	23	2460758.00	23	37	45.15	-4	30	8.18	10.5864	11.4	
mar	24	2460759.00	23	38	12.26	-4	27	17.75	10.5834	11.3	
mar	25	2460760.00	23	38	39.33	-4	24	27.75	10.5802	11.3	
mar	26	2460761.00	23	39	6.35	-4	21	38.19	10.5768	11.2	
mar	27	2460762.00	23	39	33.32	-4	18	49.12	10.5731	11.2	
mar	28	2460763.00	23	40	0.22	-4	16	0.56	10.5692	11.1	
mar	29	2460764.00	23	40	27.06	-4	13	12.54	10.5650	11.1	
mar	30	2460765.00	23	40	53.84	-4	10	25.09	10.5606	11.0	
mar	31	2460766.00	23	41	20.54	-4	7	38.25	10.5559	11.0	
abr	1	2460767.00	23	41	47.17	-4	4	52.04	10.5510	10.9	
abr	2	2460768.00	23	42	13.71	-4	2	6.50	10.5459	10.9	
abr	3	2460769.00	23	42	40.17	-3	59	21.64	10.5405	10.8	
abr	4	2460770.00	23	43	6.54	-3	56	37.50	10.5349	10.8	
abr	5	2460771.00	23	43	32.81	-3	53	54.10	10.5290	10.7	
abr	6	2460772.00	23	43	58.99	-3	51	11.47	10.5229	10.7	
abr	7	2460773.00	23	44	25.07	-3	48	29.63	10.5166	10.6	
abr	8	2460774.00	23	44	51.05	-3	45	48.60	10.5100	10.5	

# Saturno, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
abr	9	2460775.00	23	45	16.92	-3	43	8.41	10.5033	10.5	
abr	10	2460776.00	23	45	42.67	-3	40	29.08	10.4962	10.4	
abr	11	2460777.00	23	46	8.32	-3	37	50.63	10.4890	10.4	
abr	12	2460778.00	23	46	33.84	-3	35	13.08	10.4815	10.3	
abr	13	2460779.00	23	46	59.25	-3	32	36.47	10.4739	10.3	
abr	14	2460780.00	23	47	24.52	-3	30	0.80	10.4660	10.2	
abr	15	2460781.00	23	47	49.67	-3	27	26.11	10.4578	10.2	
abr	16	2460782.00	23	48	14.69	-3	24	52.41	10.4495	10.1	
abr	17	2460783.00	23	48	39.58	-3	22	19.74	10.4410	10.1	
abr	18	2460784.00	23	49	4.32	-3	19	48.12	10.4322	10.0	
abr	19	2460785.00	23	49	28.92	-3	17	17.57	10.4232	9.9	
abr	20	2460786.00	23	49	53.37	-3	14	48.11	10.4140	9.9	
abr	21	2460787.00	23	50	17.68	-3	12	19.78	10.4046	9.8	
abr	22	2460788.00	23	50	41.82	-3	9	52.60	10.3950	9.8	
abr	23	2460789.00	23	51	5.81	-3	7	26.59	10.3852	9.7	
abr	24	2460790.00	23	51	29.64	-3	5	1.79	10.3752	9.7	
abr	25	2460791.00	23	51	53.30	-3	2	38.23	10.3650	9.6	
abr	26	2460792.00	23	52	16.79	-3	0	15.92	10.3545	9.6	
abr	27	2460793.00	23	52	40.10	-2	57	54.91	10.3439	9.5	
abr	28	2460794.00	23	53	3.24	-2	55	35.21	10.3331	9.4	
abr	29	2460795.00	23	53	26.19	-2	53	16.86	10.3221	9.4	
abr	30	2460796.00	23	53	48.95	-2	50	59.89	10.3109	9.3	
may	1	2460797.00	23	54	11.52	-2	48	44.31	10.2996	9.3	
may	2	2460798.00	23	54	33.89	-2	46	30.16	10.2880	9.2	
may	3	2460799.00	23	54	56.07	-2	44	17.44	10.2763	9.2	
may	4	2460800.00	23	55	18.05	-2	42	6.19	10.2644	9.1	
may	5	2460801.00	23	55	39.82	-2	39	56.43	10.2523	9.0	
may	6	2460802.00	23	56	1.38	-2	37	48.17	10.2400	9.0	
may	7	2460803.00	23	56	22.73	-2	35	41.44	10.2276	8.9	
may	8	2460804.00	23	56	43.86	-2	33	36.25	10.2150	8.9	
may	9	2460805.00	23	57	4.77	-2	31	32.63	10.2022	8.8	
may	10	2460806.00	23	57	25.47	-2	29	30.59	10.1893	8.7	
may	11	2460807.00	23	57	45.94	-2	27	30.16	10.1763	8.7	
may	12	2460808.00	23	58	6.18	-2	25	31.36	10.1630	8.6	
may	13	2460809.00	23	58	26.19	-2	23	34.20	10.1497	8.6	
may	14	2460810.00	23	58	45.96	-2	21	38.70	10.1361	8.5	
may	15	2460811.00	23	59	5.50	-2	19	44.90	10.1225	8.4	
may	16	2460812.00	23	59	24.80	-2	17	52.80	10.1087	8.4	
may	17	2460813.00	23	59	43.85	-2	16	2.43	10.0947	8.3	
may	18	2460814.00	0	0	2.65	-2	14	13.81	10.0806	8.3	
may	19	2460815.00	0	0	21.20	-2	12	26.97	10.0664	8.3	
may	20	2460816.00	0	0	39.50	-2	10	41.92	10.0520	8.2	
may	21	2460817.00	0	0	57.54	-2	8	58.70	10.0376	8.1	
may	22	2460818.00	0	1	15.31	-2	7	17.32	10.0229	8.1	
may	23	2460819.00	0	1	32.82	-2	5	37.81	10.0082	8.0	
may	24	2460820.00	0	1	50.06	-2	4	0.20	9.9934	8.0	
may	25	2460821.00	0	2	7.03	-2	2	24.50	9.9784	7.9	
may	26	2460822.00	0	2	23.71	-2	0	50.74	9.9633	7.8	
may	27	2460823.00	0	2	40.12	-1	59	18.95	9.9481	7.8	

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

mes	día	dj	h	$\alpha$			$\delta$		dis UA	hp h
				m	s	o	'	"		
may	28	2460824.00	0	2	56.24	-1	57	49.15	9.9328	7.7
may	29	2460825.00	0	3	12.07	-1	56	21.35	9.9174	7.6
may	30	2460826.00	0	3	27.61	-1	54	55.57	9.9020	7.6
may	31	2460827.00	0	3	42.86	-1	53	31.82	9.8864	7.5
jun	1	2460828.00	0	3	57.81	-1	52	10.13	9.8707	7.5
jun	2	2460829.00	0	4	12.46	-1	50	50.51	9.8550	7.4
jun	3	2460830.00	0	4	26.80	-1	49	32.97	9.8391	7.3
jun	4	2460831.00	0	4	40.85	-1	48	17.53	9.8232	7.3
jun	5	2460832.00	0	4	54.58	-1	47	4.20	9.8073	7.2
jun	6	2460833.00	0	5	8.01	-1	45	52.98	9.7912	7.1
jun	7	2460834.00	0	5	21.12	-1	44	43.91	9.7751	7.1
jun	8	2460835.00	0	5	33.92	-1	43	36.98	9.7589	7.0
jun	9	2460836.00	0	5	46.40	-1	42	32.22	9.7427	6.9
jun	10	2460837.00	0	5	58.57	-1	41	29.63	9.7264	6.9
jun	11	2460838.00	0	6	10.41	-1	40	29.23	9.7101	6.8
jun	12	2460839.00	0	6	21.92	-1	39	31.03	9.6937	6.7
jun	13	2460840.00	0	6	33.11	-1	38	35.04	9.6773	6.7
jun	14	2460841.00	0	6	43.97	-1	37	41.29	9.6608	6.6
jun	15	2460842.00	0	6	54.49	-1	36	49.78	9.6443	6.5
jun	16	2460843.00	0	7	4.69	-1	36	0.53	9.6278	6.5
jun	17	2460844.00	0	7	14.54	-1	35	13.55	9.6112	6.4
jun	18	2460845.00	0	7	24.05	-1	34	28.86	9.5947	6.3
jun	19	2460846.00	0	7	33.23	-1	33	46.48	9.5781	6.3
jun	20	2460847.00	0	7	42.05	-1	33	6.41	9.5614	6.2
jun	21	2460848.00	0	7	50.53	-1	32	28.68	9.5448	6.1
jun	22	2460849.00	0	7	58.66	-1	31	53.29	9.5282	6.1
jun	23	2460850.00	0	8	6.43	-1	31	20.26	9.5116	6.0
jun	24	2460851.00	0	8	13.85	-1	30	49.61	9.4949	5.9
jun	25	2460852.00	0	8	20.91	-1	30	21.33	9.4783	5.9
jun	26	2460853.00	0	8	27.61	-1	29	55.44	9.4617	5.8
jun	27	2460854.00	0	8	33.96	-1	29	31.94	9.4451	5.7
jun	28	2460855.00	0	8	39.94	-1	29	10.83	9.4285	5.7
jun	29	2460856.00	0	8	45.55	-1	28	52.13	9.4120	5.6
jun	30	2460857.00	0	8	50.81	-1	28	35.82	9.3954	5.5
jul	1	2460858.00	0	8	55.70	-1	28	21.91	9.3790	5.5
jul	2	2460859.00	0	9	0.22	-1	28	10.40	9.3625	5.4
jul	3	2460860.00	0	9	4.37	-1	28	1.29	9.3461	5.3
jul	4	2460861.00	0	9	8.16	-1	27	54.58	9.3298	5.3
jul	5	2460862.00	0	9	11.59	-1	27	50.26	9.3135	5.2
jul	6	2460863.00	0	9	14.64	-1	27	48.34	9.2972	5.1
jul	7	2460864.00	0	9	17.32	-1	27	48.82	9.2811	5.1
jul	8	2460865.00	0	9	19.64	-1	27	51.68	9.2649	5.0
jul	9	2460866.00	0	9	21.59	-1	27	56.94	9.2489	4.9
jul	10	2460867.00	0	9	23.16	-1	28	4.57	9.2329	4.9
jul	11	2460868.00	0	9	24.37	-1	28	14.60	9.2170	4.8
jul	12	2460869.00	0	9	25.21	-1	28	27.00	9.2012	4.7
jul	13	2460870.00	0	9	25.68	-1	28	41.78	9.1855	4.7
jul	14	2460871.00	0	9	25.77	-1	28	58.94	9.1699	4.6
jul	15	2460872.00	0	9	25.50	-1	29	18.47	9.1543	4.5

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
jul	16	2460873.00	0	9	24.85	-1	29	40.37	9.1389	4.5	
jul	17	2460874.00	0	9	23.84	-1	30	4.64	9.1236	4.4	
jul	18	2460875.00	0	9	22.45	-1	30	31.27	9.1084	4.3	
jul	19	2460876.00	0	9	20.69	-1	31	0.26	9.0932	4.3	
jul	20	2460877.00	0	9	18.56	-1	31	31.59	9.0782	4.2	
jul	21	2460878.00	0	9	16.07	-1	32	5.27	9.0634	4.1	
jul	22	2460879.00	0	9	13.20	-1	32	41.27	9.0486	4.1	
jul	23	2460880.00	0	9	9.96	-1	33	19.59	9.0340	4.0	
jul	24	2460881.00	0	9	6.36	-1	34	0.21	9.0195	3.9	
jul	25	2460882.00	0	9	2.39	-1	34	43.11	9.0052	3.9	
jul	26	2460883.00	0	8	58.06	-1	35	28.27	8.9910	3.8	
jul	27	2460884.00	0	8	53.37	-1	36	15.68	8.9770	3.7	
jul	28	2460885.00	0	8	48.32	-1	37	5.30	8.9631	3.7	
jul	29	2460886.00	0	8	42.92	-1	37	57.11	8.9494	3.6	
jul	30	2460887.00	0	8	37.16	-1	38	51.10	8.9358	3.5	
jul	31	2460888.00	0	8	31.06	-1	39	47.23	8.9225	3.5	
ago	1	2460889.00	0	8	24.60	-1	40	45.48	8.9092	3.4	
ago	2	2460890.00	0	8	17.81	-1	41	45.82	8.8962	3.3	
ago	3	2460891.00	0	8	10.67	-1	42	48.22	8.8834	3.3	
ago	4	2460892.00	0	8	3.19	-1	43	52.66	8.8707	3.2	
ago	5	2460893.00	0	7	55.38	-1	44	59.12	8.8582	3.1	
ago	6	2460894.00	0	7	47.24	-1	46	7.55	8.8459	3.1	
ago	7	2460895.00	0	7	38.78	-1	47	17.93	8.8338	3.0	
ago	8	2460896.00	0	7	29.99	-1	48	30.24	8.8219	2.9	
ago	9	2460897.00	0	7	20.88	-1	49	44.43	8.8102	2.9	
ago	10	2460898.00	0	7	11.46	-1	51	0.50	8.7988	2.8	
ago	11	2460899.00	0	7	1.72	-1	52	18.39	8.7875	2.7	
ago	12	2460900.00	0	6	51.68	-1	53	38.09	8.7764	2.7	
ago	13	2460901.00	0	6	41.34	-1	54	59.56	8.7656	2.6	
ago	14	2460902.00	0	6	30.69	-1	56	22.78	8.7550	2.5	
ago	15	2460903.00	0	6	19.75	-1	57	47.70	8.7446	2.5	
ago	16	2460904.00	0	6	8.52	-1	59	14.30	8.7344	2.4	
ago	17	2460905.00	0	5	57.00	-2	0	42.53	8.7245	2.3	
ago	18	2460906.00	0	5	45.20	-2	2	12.36	8.7148	2.3	
ago	19	2460907.00	0	5	33.13	-2	3	43.75	8.7054	2.2	
ago	20	2460908.00	0	5	20.79	-2	5	16.64	8.6962	2.1	
ago	21	2460909.00	0	5	8.18	-2	6	51.01	8.6872	2.1	
ago	22	2460910.00	0	4	55.32	-2	8	26.79	8.6785	2.0	
ago	23	2460911.00	0	4	42.20	-2	10	3.95	8.6700	1.9	
ago	24	2460912.00	0	4	28.84	-2	11	42.42	8.6619	1.9	
ago	25	2460913.00	0	4	15.25	-2	13	22.16	8.6539	1.8	
ago	26	2460914.00	0	4	1.42	-2	15	3.12	8.6463	1.8	
ago	27	2460915.00	0	3	47.37	-2	16	45.24	8.6389	1.7	
ago	28	2460916.00	0	3	33.11	-2	18	28.46	8.6317	1.6	
ago	29	2460917.00	0	3	18.64	-2	20	12.75	8.6249	1.6	
ago	30	2460918.00	0	3	3.97	-2	21	58.03	8.6183	1.5	
ago	31	2460919.00	0	2	49.11	-2	23	44.26	8.6120	1.4	
sep	1	2460920.00	0	2	34.06	-2	25	31.38	8.6060	1.4	
sep	2	2460921.00	0	2	18.83	-2	27	19.34	8.6003	1.3	

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

mes	día	dj	h	$\alpha$			$\delta$		dis UA	hp h
				m	s	o	'	"		
sep	3	2460922.00	0	2	3.44	-2	29	8.08	8.5948	1.2
sep	4	2460923.00	0	1	47.89	-2	30	57.56	8.5896	1.2
sep	5	2460924.00	0	1	32.18	-2	32	47.70	8.5847	1.1
sep	6	2460925.00	0	1	16.32	-2	34	38.47	8.5801	1.0
sep	7	2460926.00	0	1	0.33	-2	36	29.81	8.5758	1.0
sep	8	2460927.00	0	0	44.21	-2	38	21.66	8.5718	0.9
sep	9	2460928.00	0	0	27.96	-2	40	13.97	8.5681	0.9
sep	10	2460929.00	0	0	11.60	-2	42	6.69	8.5647	0.8
sep	11	2460930.00	23	59	55.14	-2	43	59.77	8.5615	0.7
sep	12	2460931.00	23	59	38.57	-2	45	53.15	8.5587	0.6
sep	13	2460932.00	23	59	21.92	-2	47	46.78	8.5562	0.5
sep	14	2460933.00	23	59	5.18	-2	49	40.59	8.5539	0.5
sep	15	2460934.00	23	58	48.37	-2	51	34.53	8.5520	0.4
sep	16	2460935.00	23	58	31.50	-2	53	28.53	8.5504	0.3
sep	17	2460936.00	23	58	14.57	-2	55	22.54	8.5490	0.3
sep	18	2460937.00	23	57	57.59	-2	57	16.49	8.5480	0.2
sep	19	2460938.00	23	57	40.59	-2	59	10.31	8.5473	0.1
sep	20	2460939.00	23	57	23.55	-3	1	3.95	8.5469	0.1
sep	21	2460940.00	23	57	6.50	-3	2	57.33	8.5468	0.0
sep	22	2460941.00	23	56	49.44	-3	4	50.40	8.5470	24.0
sep	23	2460942.00	23	56	32.38	-3	6	43.08	8.5475	23.9
sep	24	2460943.00	23	56	15.33	-3	8	35.32	8.5483	23.8
sep	25	2460944.00	23	55	58.31	-3	10	27.05	8.5494	23.8
sep	26	2460945.00	23	55	41.32	-3	12	18.21	8.5509	23.7
sep	27	2460946.00	23	55	24.37	-3	14	8.74	8.5526	23.6
sep	28	2460947.00	23	55	7.47	-3	15	58.58	8.5546	23.6
sep	29	2460948.00	23	54	50.63	-3	17	47.66	8.5570	23.5
sep	30	2460949.00	23	54	33.86	-3	19	35.94	8.5596	23.4
oct	1	2460950.00	23	54	17.16	-3	21	23.35	8.5626	23.4
oct	2	2460951.00	23	54	0.55	-3	23	9.83	8.5659	23.3
oct	3	2460952.00	23	53	44.04	-3	24	55.34	8.5694	23.2
oct	4	2460953.00	23	53	27.64	-3	26	39.81	8.5733	23.2
oct	5	2460954.00	23	53	11.34	-3	28	23.20	8.5774	23.1
oct	6	2460955.00	23	52	55.17	-3	30	5.46	8.5818	23.0
oct	7	2460956.00	23	52	39.13	-3	31	46.54	8.5866	23.0
oct	8	2460957.00	23	52	23.22	-3	33	26.39	8.5916	22.9
oct	9	2460958.00	23	52	7.46	-3	35	4.95	8.5969	22.9
oct	10	2460959.00	23	51	51.85	-3	36	42.19	8.6025	22.8
oct	11	2460960.00	23	51	36.40	-3	38	18.06	8.6084	22.7
oct	12	2460961.00	23	51	21.13	-3	39	52.49	8.6146	22.7
oct	13	2460962.00	23	51	6.03	-3	41	25.45	8.6210	22.6
oct	14	2460963.00	23	50	51.12	-3	42	56.88	8.6278	22.5
oct	15	2460964.00	23	50	36.40	-3	44	26.73	8.6348	22.5
oct	16	2460965.00	23	50	21.88	-3	45	54.94	8.6421	22.4
oct	17	2460966.00	23	50	7.58	-3	47	21.48	8.6496	22.3
oct	18	2460967.00	23	49	53.49	-3	48	46.28	8.6575	22.3
oct	19	2460968.00	23	49	39.64	-3	50	9.31	8.6656	22.2
oct	20	2460969.00	23	49	26.01	-3	51	30.51	8.6740	22.1
oct	21	2460970.00	23	49	12.64	-3	52	49.84	8.6826	22.1

# Saturno, 2025

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

mes	día	dj	h	$\alpha$			$\delta$		dis UA	hp h
				m	s	o	'	"		
oct	22	2460971.00	23	48	59.51	-3	54	7.26	8.6915	22.0
oct	23	2460972.00	23	48	46.64	-3	55	22.72	8.7007	21.9
oct	24	2460973.00	23	48	34.03	-3	56	36.18	8.7101	21.9
oct	25	2460974.00	23	48	21.70	-3	57	47.61	8.7198	21.8
oct	26	2460975.00	23	48	9.64	-3	58	56.96	8.7297	21.7
oct	27	2460976.00	23	47	57.87	-4	0	4.21	8.7398	21.7
oct	28	2460977.00	23	47	46.39	-4	1	9.31	8.7502	21.6
oct	29	2460978.00	23	47	35.21	-4	2	12.24	8.7608	21.5
oct	30	2460979.00	23	47	24.33	-4	3	12.96	8.7717	21.5
oct	31	2460980.00	23	47	13.75	-4	4	11.45	8.7828	21.4
nov	1	2460981.00	23	47	3.49	-4	5	7.69	8.7941	21.3
nov	2	2460982.00	23	46	53.55	-4	6	1.64	8.8056	21.3
nov	3	2460983.00	23	46	43.94	-4	6	53.29	8.8173	21.2
nov	4	2460984.00	23	46	34.64	-4	7	42.62	8.8293	21.1
nov	5	2460985.00	23	46	25.68	-4	8	29.60	8.8414	21.0
nov	6	2460986.00	23	46	17.06	-4	9	14.21	8.8538	21.0
nov	7	2460987.00	23	46	8.77	-4	9	56.45	8.8663	20.9
nov	8	2460988.00	23	46	0.83	-4	10	36.28	8.8791	20.8
nov	9	2460989.00	23	45	53.23	-4	11	13.68	8.8920	20.8
nov	10	2460990.00	23	45	45.99	-4	11	48.65	8.9051	20.7
nov	11	2460991.00	23	45	39.10	-4	12	21.14	8.9184	20.6
nov	12	2460992.00	23	45	32.57	-4	12	51.15	8.9319	20.6
nov	13	2460993.00	23	45	26.41	-4	13	18.65	8.9455	20.5
nov	14	2460994.00	23	45	20.61	-4	13	43.64	8.9594	20.4
nov	15	2460995.00	23	45	15.18	-4	14	6.08	8.9733	20.4
nov	16	2460996.00	23	45	10.13	-4	14	25.96	8.9875	20.3
nov	17	2460997.00	23	45	5.45	-4	14	43.28	9.0018	20.2
nov	18	2460998.00	23	45	1.16	-4	14	58.01	9.0162	20.1
nov	19	2460999.00	23	44	57.24	-4	15	10.15	9.0308	20.1
nov	20	2461000.00	23	44	53.72	-4	15	19.68	9.0456	20.0
nov	21	2461001.00	23	44	50.57	-4	15	26.61	9.0604	19.9
nov	22	2461002.00	23	44	47.82	-4	15	30.92	9.0754	19.9
nov	23	2461003.00	23	44	45.46	-4	15	32.61	9.0906	19.8
nov	24	2461004.00	23	44	43.49	-4	15	31.67	9.1058	19.7
nov	25	2461005.00	23	44	41.92	-4	15	28.11	9.1211	19.7
nov	26	2461006.00	23	44	40.74	-4	15	21.93	9.1366	19.6
nov	27	2461007.00	23	44	39.95	-4	15	13.12	9.1522	19.5
nov	28	2461008.00	23	44	39.56	-4	15	1.69	9.1678	19.4
nov	29	2461009.00	23	44	39.57	-4	14	47.65	9.1836	19.4
nov	30	2461010.00	23	44	39.97	-4	14	31.00	9.1994	19.3
dic	1	2461011.00	23	44	40.77	-4	14	11.76	9.2153	19.2
dic	2	2461012.00	23	44	41.96	-4	13	49.92	9.2313	19.2
dic	3	2461013.00	23	44	43.55	-4	13	25.50	9.2474	19.1
dic	4	2461014.00	23	44	45.54	-4	12	58.51	9.2636	19.0
dic	5	2461015.00	23	44	47.92	-4	12	28.96	9.2798	18.9
dic	6	2461016.00	23	44	50.69	-4	11	56.85	9.2960	18.9
dic	7	2461017.00	23	44	53.85	-4	11	22.19	9.3123	18.8
dic	8	2461018.00	23	44	57.41	-4	10	44.98	9.3287	18.7
dic	9	2461019.00	23	45	1.36	-4	10	5.25	9.3451	18.7

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# Saturno, 2025

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

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mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
dic	10	2461020.00	23	45	5.70	-4	9	22.98	9.3616	18.6	
dic	11	2461021.00	23	45	10.43	-4	8	38.19	9.3780	18.5	
dic	12	2461022.00	23	45	15.56	-4	7	50.89	9.3946	18.4	
dic	13	2461023.00	23	45	21.07	-4	7	1.08	9.4111	18.4	
dic	14	2461024.00	23	45	26.97	-4	6	8.78	9.4276	18.3	
dic	15	2461025.00	23	45	33.26	-4	5	13.99	9.4442	18.2	
dic	16	2461026.00	23	45	39.94	-4	4	16.74	9.4608	18.1	
dic	17	2461027.00	23	45	47.00	-4	3	17.03	9.4774	18.1	
dic	18	2461028.00	23	45	54.45	-4	2	14.87	9.4940	18.0	
dic	19	2461029.00	23	46	2.27	-4	1	10.29	9.5105	17.9	
dic	20	2461030.00	23	46	10.48	-4	0	3.30	9.5271	17.9	
dic	21	2461031.00	23	46	19.06	-3	58	53.92	9.5437	17.8	
dic	22	2461032.00	23	46	28.02	-3	57	42.16	9.5602	17.7	
dic	23	2461033.00	23	46	37.35	-3	56	28.05	9.5767	17.6	
dic	24	2461034.00	23	46	47.05	-3	55	11.62	9.5932	17.6	
dic	25	2461035.00	23	46	57.12	-3	53	52.87	9.6096	17.5	
dic	26	2461036.00	23	47	7.56	-3	52	31.84	9.6260	17.4	
dic	27	2461037.00	23	47	18.35	-3	51	8.55	9.6424	17.4	
dic	28	2461038.00	23	47	29.50	-3	49	43.02	9.6587	17.3	
dic	29	2461039.00	23	47	41.01	-3	48	15.28	9.6749	17.2	
dic	30	2461040.00	23	47	52.87	-3	46	45.36	9.6911	17.2	
dic	31	2461041.00	23	48	5.07	-3	45	13.28	9.7072	17.1	

# Urano, 2025

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

mes	día	dj	h	$\alpha$			$\delta$		dis UA	hp h
				m	s	o	'	"		
ene	1	2460677.00	3	23	47.14	18	20	36.69	18.8780	20.6
ene	2	2460678.00	3	23	41.33	18	20	16.47	18.8907	20.6
ene	3	2460679.00	3	23	35.70	18	19	56.91	18.9037	20.5
ene	4	2460680.00	3	23	30.25	18	19	38.02	18.9168	20.4
ene	5	2460681.00	3	23	24.99	18	19	19.82	18.9302	20.3
ene	6	2460682.00	3	23	19.91	18	19	2.30	18.9437	20.3
ene	7	2460683.00	3	23	15.03	18	18	45.48	18.9574	20.2
ene	8	2460684.00	3	23	10.33	18	18	29.36	18.9713	20.1
ene	9	2460685.00	3	23	5.82	18	18	13.95	18.9854	20.0
ene	10	2460686.00	3	23	1.51	18	17	59.26	18.9996	20.0
ene	11	2460687.00	3	22	57.40	18	17	45.29	19.0140	19.9
ene	12	2460688.00	3	22	53.48	18	17	32.04	19.0286	19.8
ene	13	2460689.00	3	22	49.76	18	17	19.53	19.0433	19.8
ene	14	2460690.00	3	22	46.24	18	17	7.76	19.0582	19.7
ene	15	2460691.00	3	22	42.92	18	16	56.74	19.0732	19.6
ene	16	2460692.00	3	22	39.81	18	16	46.47	19.0884	19.5
ene	17	2460693.00	3	22	36.90	18	16	36.96	19.1037	19.5
ene	18	2460694.00	3	22	34.19	18	16	28.21	19.1191	19.4
ene	19	2460695.00	3	22	31.69	18	16	20.23	19.1347	19.3
ene	20	2460696.00	3	22	29.40	18	16	13.02	19.1504	19.3
ene	21	2460697.00	3	22	27.32	18	16	6.60	19.1662	19.2
ene	22	2460698.00	3	22	25.45	18	16	0.95	19.1821	19.1
ene	23	2460699.00	3	22	23.79	18	15	56.10	19.1981	19.0
ene	24	2460700.00	3	22	22.34	18	15	52.04	19.2143	19.0
ene	25	2460701.00	3	22	21.10	18	15	48.78	19.2305	18.9
ene	26	2460702.00	3	22	20.09	18	15	46.31	19.2468	18.8
ene	27	2460703.00	3	22	19.28	18	15	44.65	19.2632	18.8
ene	28	2460704.00	3	22	18.69	18	15	43.79	19.2797	18.7
ene	29	2460705.00	3	22	18.32	18	15	43.75	19.2963	18.6
ene	30	2460706.00	3	22	18.16	18	15	44.51	19.3129	18.6
ene	31	2460707.00	3	22	18.23	18	15	46.08	19.3296	18.5
feb	1	2460708.00	3	22	18.51	18	15	48.46	19.3464	18.4
feb	2	2460709.00	3	22	19.00	18	15	51.65	19.3632	18.4
feb	3	2460710.00	3	22	19.72	18	15	55.65	19.3801	18.3
feb	4	2460711.00	3	22	20.65	18	16	0.45	19.3970	18.2
feb	5	2460712.00	3	22	21.80	18	16	6.05	19.4139	18.2
feb	6	2460713.00	3	22	23.16	18	16	12.46	19.4309	18.1
feb	7	2460714.00	3	22	24.74	18	16	19.67	19.4479	18.0
feb	8	2460715.00	3	22	26.53	18	16	27.67	19.4649	18.0
feb	9	2460716.00	3	22	28.54	18	16	36.46	19.4819	17.9
feb	10	2460717.00	3	22	30.77	18	16	46.04	19.4990	17.8
feb	11	2460718.00	3	22	33.20	18	16	56.41	19.5160	17.8
feb	12	2460719.00	3	22	35.85	18	17	7.56	19.5331	17.7
feb	13	2460720.00	3	22	38.71	18	17	19.49	19.5501	17.6
feb	14	2460721.00	3	22	41.79	18	17	32.20	19.5672	17.6
feb	15	2460722.00	3	22	45.07	18	17	45.69	19.5842	17.5
feb	16	2460723.00	3	22	48.56	18	17	59.94	19.6012	17.4
feb	17	2460724.00	3	22	52.27	18	18	14.97	19.6182	17.4
feb	18	2460725.00	3	22	56.18	18	18	30.76	19.6351	17.3

# Urano, 2025

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

mes	día	dj	h	$\alpha$			$\delta$		dis UA	hp h
				m	s	o	'	"		
feb	19	2460726.00	3	23	0.29	18	18	47.30	19.6521	17.2
feb	20	2460727.00	3	23	4.62	18	19	4.61	19.6690	17.2
feb	21	2460728.00	3	23	9.15	18	19	22.67	19.6858	17.1
feb	22	2460729.00	3	23	13.89	18	19	41.47	19.7026	17.1
feb	23	2460730.00	3	23	18.83	18	20	1.02	19.7193	17.0
feb	24	2460731.00	3	23	23.97	18	20	21.31	19.7360	16.9
feb	25	2460732.00	3	23	29.32	18	20	42.32	19.7526	16.9
feb	26	2460733.00	3	23	34.86	18	21	4.07	19.7692	16.8
feb	27	2460734.00	3	23	40.61	18	21	26.53	19.7857	16.8
feb	28	2460735.00	3	23	46.55	18	21	49.71	19.8021	16.7
mar	1	2460736.00	3	23	52.69	18	22	13.59	19.8184	16.6
mar	2	2460737.00	3	23	59.03	18	22	38.16	19.8346	16.6
mar	3	2460738.00	3	24	5.56	18	23	3.43	19.8508	16.5
mar	4	2460739.00	3	24	12.27	18	23	29.37	19.8668	16.5
mar	5	2460740.00	3	24	19.18	18	23	55.99	19.8827	16.4
mar	6	2460741.00	3	24	26.28	18	24	23.26	19.8986	16.3
mar	7	2460742.00	3	24	33.56	18	24	51.18	19.9143	16.3
mar	8	2460743.00	3	24	41.02	18	25	19.75	19.9299	16.2
mar	9	2460744.00	3	24	48.66	18	25	48.95	19.9454	16.2
mar	10	2460745.00	3	24	56.48	18	26	18.77	19.9607	16.1
mar	11	2460746.00	3	25	4.48	18	26	49.21	19.9760	16.0
mar	12	2460747.00	3	25	12.66	18	27	20.25	19.9910	16.0
mar	13	2460748.00	3	25	21.00	18	27	51.90	20.0060	15.9
mar	14	2460749.00	3	25	29.52	18	28	24.13	20.0208	15.9
mar	15	2460750.00	3	25	38.21	18	28	56.94	20.0355	15.8
mar	16	2460751.00	3	25	47.06	18	29	30.33	20.0501	15.7
mar	17	2460752.00	3	25	56.08	18	30	4.27	20.0644	15.7
mar	18	2460753.00	3	26	5.27	18	30	38.78	20.0787	15.6
mar	19	2460754.00	3	26	14.61	18	31	13.83	20.0927	15.6
mar	20	2460755.00	3	26	24.11	18	31	49.42	20.1067	15.5
mar	21	2460756.00	3	26	33.77	18	32	25.53	20.1204	15.4
mar	22	2460757.00	3	26	43.59	18	33	2.17	20.1340	15.3
mar	23	2460758.00	3	26	53.56	18	33	39.32	20.1474	15.3
mar	24	2460759.00	3	27	3.68	18	34	16.96	20.1606	15.2
mar	25	2460760.00	3	27	13.95	18	34	55.10	20.1737	15.2
mar	26	2460761.00	3	27	24.36	18	35	33.72	20.1865	15.1
mar	27	2460762.00	3	27	34.92	18	36	12.81	20.1992	15.0
mar	28	2460763.00	3	27	45.62	18	36	52.36	20.2117	15.0
mar	29	2460764.00	3	27	56.46	18	37	32.36	20.2240	14.9
mar	30	2460765.00	3	28	7.44	18	38	12.79	20.2361	14.9
mar	31	2460766.00	3	28	18.56	18	38	53.65	20.2480	14.8
abr	1	2460767.00	3	28	29.80	18	39	34.92	20.2597	14.8
abr	2	2460768.00	3	28	41.17	18	40	16.60	20.2712	14.7
abr	3	2460769.00	3	28	52.67	18	40	58.66	20.2825	14.6
abr	4	2460770.00	3	29	4.29	18	41	41.10	20.2936	14.6
abr	5	2460771.00	3	29	16.03	18	42	23.90	20.3044	14.5
abr	6	2460772.00	3	29	27.89	18	43	7.06	20.3150	14.5
abr	7	2460773.00	3	29	39.86	18	43	50.56	20.3255	14.4
abr	8	2460774.00	3	29	51.95	18	44	34.39	20.3357	14.3

# Urano, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
abr	9	2460775.00	3	30	4.14	18	45	18.55	20.3456	14.3	
abr	10	2460776.00	3	30	16.44	18	46	3.02	20.3554	14.2	
abr	11	2460777.00	3	30	28.85	18	46	47.79	20.3649	14.2	
abr	12	2460778.00	3	30	41.36	18	47	32.85	20.3742	14.1	
abr	13	2460779.00	3	30	53.97	18	48	18.20	20.3832	14.1	
abr	14	2460780.00	3	31	6.67	18	49	3.82	20.3920	14.0	
abr	15	2460781.00	3	31	19.47	18	49	49.70	20.4006	13.9	
abr	16	2460782.00	3	31	32.36	18	50	35.83	20.4090	13.9	
abr	17	2460783.00	3	31	45.34	18	51	22.20	20.4171	13.8	
abr	18	2460784.00	3	31	58.41	18	52	8.80	20.4250	13.8	
abr	19	2460785.00	3	32	11.56	18	52	55.63	20.4326	13.7	
abr	20	2460786.00	3	32	24.80	18	53	42.67	20.4400	13.7	
abr	21	2460787.00	3	32	38.11	18	54	29.91	20.4471	13.6	
abr	22	2460788.00	3	32	51.51	18	55	17.35	20.4540	13.5	
abr	23	2460789.00	3	33	4.97	18	56	4.96	20.4606	13.5	
abr	24	2460790.00	3	33	18.51	18	56	52.74	20.4670	13.4	
abr	25	2460791.00	3	33	32.12	18	57	40.68	20.4731	13.4	
abr	26	2460792.00	3	33	45.79	18	58	28.77	20.4790	13.3	
abr	27	2460793.00	3	33	59.52	18	59	17.00	20.4846	13.2	
abr	28	2460794.00	3	34	13.32	19	0	5.35	20.4899	13.2	
abr	29	2460795.00	3	34	27.17	19	0	53.80	20.4950	13.1	
abr	30	2460796.00	3	34	41.08	19	1	42.36	20.4998	13.1	
may	1	2460797.00	3	34	55.03	19	2	31.01	20.5044	13.0	
may	2	2460798.00	3	35	9.04	19	3	19.74	20.5087	12.9	
may	3	2460799.00	3	35	23.09	19	4	8.53	20.5127	12.9	
may	4	2460800.00	3	35	37.18	19	4	57.37	20.5165	12.8	
may	5	2460801.00	3	35	51.31	19	5	46.27	20.5200	12.8	
may	6	2460802.00	3	36	5.47	19	6	35.19	20.5232	12.7	
may	7	2460803.00	3	36	19.67	19	7	24.15	20.5262	12.6	
may	8	2460804.00	3	36	33.90	19	8	13.12	20.5289	12.6	
may	9	2460805.00	3	36	48.16	19	9	2.10	20.5314	12.5	
may	10	2460806.00	3	37	2.44	19	9	51.08	20.5335	12.5	
may	11	2460807.00	3	37	16.75	19	10	40.05	20.5354	12.4	
may	12	2460808.00	3	37	31.08	19	11	28.99	20.5371	12.3	
may	13	2460809.00	3	37	45.42	19	12	17.91	20.5384	12.3	
may	14	2460810.00	3	37	59.78	19	13	6.80	20.5396	12.2	
may	15	2460811.00	3	38	14.15	19	13	55.63	20.5404	12.2	
may	16	2460812.00	3	38	28.53	19	14	44.42	20.5410	12.1	
may	17	2460813.00	3	38	42.92	19	15	33.14	20.5413	12.0	
may	18	2460814.00	3	38	57.31	19	16	21.78	20.5413	12.0	
may	19	2460815.00	3	39	11.71	19	17	10.35	20.5411	11.9	
may	20	2460816.00	3	39	26.10	19	17	58.82	20.5406	11.8	
may	21	2460817.00	3	39	40.50	19	18	47.20	20.5398	11.8	
may	22	2460818.00	3	39	54.88	19	19	35.46	20.5388	11.7	
may	23	2460819.00	3	40	9.26	19	20	23.61	20.5374	11.7	
may	24	2460820.00	3	40	23.62	19	21	11.63	20.5359	11.6	
may	25	2460821.00	3	40	37.97	19	21	59.50	20.5340	11.5	
may	26	2460822.00	3	40	52.30	19	22	47.23	20.5319	11.5	
may	27	2460823.00	3	41	6.61	19	23	34.80	20.5295	11.4	

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
may	28	2460824.00	3	41	20.90	19	24	22.20	20.5269	11.3	
may	29	2460825.00	3	41	35.16	19	25	9.43	20.5240	11.3	
may	30	2460826.00	3	41	49.39	19	25	56.46	20.5208	11.2	
may	31	2460827.00	3	42	3.58	19	26	43.30	20.5174	11.1	
jun	1	2460828.00	3	42	17.75	19	27	29.93	20.5137	11.1	
jun	2	2460829.00	3	42	31.87	19	28	16.35	20.5097	11.0	
jun	3	2460830.00	3	42	45.95	19	29	2.54	20.5055	11.0	
jun	4	2460831.00	3	42	59.98	19	29	48.51	20.5010	10.9	
jun	5	2460832.00	3	43	13.97	19	30	34.24	20.4962	10.8	
jun	6	2460833.00	3	43	27.91	19	31	19.73	20.4913	10.8	
jun	7	2460834.00	3	43	41.80	19	32	4.97	20.4860	10.7	
jun	8	2460835.00	3	43	55.64	19	32	49.95	20.4805	10.6	
jun	9	2460836.00	3	44	9.42	19	33	34.67	20.4748	10.6	
jun	10	2460837.00	3	44	23.14	19	34	19.12	20.4688	10.5	
jun	11	2460838.00	3	44	36.79	19	35	3.29	20.4625	10.4	
jun	12	2460839.00	3	44	50.39	19	35	47.17	20.4560	10.4	
jun	13	2460840.00	3	45	3.91	19	36	30.76	20.4493	10.3	
jun	14	2460841.00	3	45	17.37	19	37	14.06	20.4423	10.2	
jun	15	2460842.00	3	45	30.76	19	37	57.05	20.4351	10.2	
jun	16	2460843.00	3	45	44.07	19	38	39.72	20.4276	10.1	
jun	17	2460844.00	3	45	57.31	19	39	22.08	20.4199	10.0	
jun	18	2460845.00	3	46	10.46	19	40	4.11	20.4120	10.0	
jun	19	2460846.00	3	46	23.54	19	40	45.80	20.4038	9.9	
jun	20	2460847.00	3	46	36.53	19	41	27.16	20.3954	9.9	
jun	21	2460848.00	3	46	49.43	19	42	8.16	20.3867	9.8	
jun	22	2460849.00	3	47	2.25	19	42	48.81	20.3778	9.7	
jun	23	2460850.00	3	47	14.97	19	43	29.09	20.3687	9.7	
jun	24	2460851.00	3	47	27.59	19	44	8.99	20.3594	9.6	
jun	25	2460852.00	3	47	40.12	19	44	48.52	20.3498	9.5	
jun	26	2460853.00	3	47	52.54	19	45	27.65	20.3401	9.5	
jun	27	2460854.00	3	48	4.86	19	46	6.40	20.3301	9.4	
jun	28	2460855.00	3	48	17.08	19	46	44.74	20.3198	9.3	
jun	29	2460856.00	3	48	29.18	19	47	22.67	20.3094	9.3	
jun	30	2460857.00	3	48	41.18	19	48	0.19	20.2988	9.2	
jul	1	2460858.00	3	48	53.05	19	48	37.29	20.2879	9.1	
jul	2	2460859.00	3	49	4.82	19	49	13.97	20.2769	9.1	
jul	3	2460860.00	3	49	16.46	19	49	50.22	20.2656	9.0	
jul	4	2460861.00	3	49	27.98	19	50	26.03	20.2542	8.9	
jul	5	2460862.00	3	49	39.38	19	51	1.41	20.2425	8.9	
jul	6	2460863.00	3	49	50.66	19	51	36.34	20.2307	8.8	
jul	7	2460864.00	3	50	1.80	19	52	10.82	20.2186	8.7	
jul	8	2460865.00	3	50	12.82	19	52	44.85	20.2064	8.7	
jul	9	2460866.00	3	50	23.70	19	53	18.42	20.1940	8.6	
jul	10	2460867.00	3	50	34.45	19	53	51.53	20.1814	8.5	
jul	11	2460868.00	3	50	45.07	19	54	24.17	20.1686	8.5	
jul	12	2460869.00	3	50	55.54	19	54	56.34	20.1557	8.4	
jul	13	2460870.00	3	51	5.88	19	55	28.04	20.1426	8.3	
jul	14	2460871.00	3	51	16.07	19	55	59.25	20.1293	8.3	
jul	15	2460872.00	3	51	26.12	19	56	29.97	20.1158	8.2	

# Urano, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
jul	16	2460873.00	3	51	36.03	19	57	0.20	20.1022	8.2	
jul	17	2460874.00	3	51	45.78	19	57	29.94	20.0885	8.1	
jul	18	2460875.00	3	51	55.38	19	57	59.17	20.0745	8.0	
jul	19	2460876.00	3	52	4.83	19	58	27.89	20.0604	8.0	
jul	20	2460877.00	3	52	14.13	19	58	56.10	20.0462	7.9	
jul	21	2460878.00	3	52	23.26	19	59	23.78	20.0318	7.8	
jul	22	2460879.00	3	52	32.24	19	59	50.94	20.0173	7.8	
jul	23	2460880.00	3	52	41.05	20	0	17.57	20.0026	7.7	
jul	24	2460881.00	3	52	49.70	20	0	43.67	19.9878	7.6	
jul	25	2460882.00	3	52	58.18	20	1	9.22	19.9728	7.6	
jul	26	2460883.00	3	53	6.49	20	1	34.23	19.9577	7.5	
jul	27	2460884.00	3	53	14.62	20	1	58.70	19.9425	7.5	
jul	28	2460885.00	3	53	22.59	20	2	22.61	19.9272	7.4	
jul	29	2460886.00	3	53	30.38	20	2	45.96	19.9118	7.3	
jul	30	2460887.00	3	53	38.00	20	3	8.76	19.8962	7.3	
jul	31	2460888.00	3	53	45.43	20	3	31.00	19.8806	7.2	
ago	1	2460889.00	3	53	52.69	20	3	52.68	19.8648	7.1	
ago	2	2460890.00	3	53	59.77	20	4	13.79	19.8490	7.1	
ago	3	2460891.00	3	54	6.66	20	4	34.34	19.8330	7.0	
ago	4	2460892.00	3	54	13.37	20	4	54.31	19.8170	7.0	
ago	5	2460893.00	3	54	19.89	20	5	13.71	19.8008	6.9	
ago	6	2460894.00	3	54	26.23	20	5	32.54	19.7846	6.8	
ago	7	2460895.00	3	54	32.38	20	5	50.78	19.7683	6.8	
ago	8	2460896.00	3	54	38.34	20	6	8.45	19.7520	6.7	
ago	9	2460897.00	3	54	44.11	20	6	25.54	19.7355	6.6	
ago	10	2460898.00	3	54	49.68	20	6	42.04	19.7190	6.6	
ago	11	2460899.00	3	54	55.07	20	6	57.95	19.7024	6.5	
ago	12	2460900.00	3	55	0.26	20	7	13.27	19.6858	6.5	
ago	13	2460901.00	3	55	5.25	20	7	27.99	19.6691	6.4	
ago	14	2460902.00	3	55	10.05	20	7	42.12	19.6524	6.3	
ago	15	2460903.00	3	55	14.65	20	7	55.65	19.6356	6.3	
ago	16	2460904.00	3	55	19.05	20	8	8.58	19.6188	6.2	
ago	17	2460905.00	3	55	23.24	20	8	20.90	19.6019	6.2	
ago	18	2460906.00	3	55	27.24	20	8	32.60	19.5850	6.1	
ago	19	2460907.00	3	55	31.03	20	8	43.70	19.5681	6.0	
ago	20	2460908.00	3	55	34.61	20	8	54.18	19.5512	6.0	
ago	21	2460909.00	3	55	37.99	20	9	4.04	19.5342	5.9	
ago	22	2460910.00	3	55	41.17	20	9	13.29	19.5172	5.8	
ago	23	2460911.00	3	55	44.13	20	9	21.91	19.5002	5.8	
ago	24	2460912.00	3	55	46.88	20	9	29.92	19.4832	5.7	
ago	25	2460913.00	3	55	49.43	20	9	37.30	19.4662	5.7	
ago	26	2460914.00	3	55	51.76	20	9	44.06	19.4493	5.6	
ago	27	2460915.00	3	55	53.89	20	9	50.20	19.4323	5.5	
ago	28	2460916.00	3	55	55.80	20	9	55.72	19.4153	5.5	
ago	29	2460917.00	3	55	57.51	20	10	0.62	19.3984	5.4	
ago	30	2460918.00	3	55	59.00	20	10	4.90	19.3815	5.4	
ago	31	2460919.00	3	56	0.28	20	10	8.55	19.3646	5.3	
sep	1	2460920.00	3	56	1.35	20	10	11.59	19.3478	5.2	
sep	2	2460921.00	3	56	2.21	20	10	14.00	19.3309	5.2	

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
sep	3	2460922.00	3	56	2.86	20	10	15.80	19.3142	5.1	
sep	4	2460923.00	3	56	3.29	20	10	16.97	19.2975	5.1	
sep	5	2460924.00	3	56	3.52	20	10	17.53	19.2808	5.0	
sep	6	2460925.00	3	56	3.53	20	10	17.48	19.2642	4.9	
sep	7	2460926.00	3	56	3.34	20	10	16.80	19.2477	4.9	
sep	8	2460927.00	3	56	2.93	20	10	15.51	19.2312	4.8	
sep	9	2460928.00	3	56	2.32	20	10	13.61	19.2148	4.8	
sep	10	2460929.00	3	56	1.49	20	10	11.08	19.1985	4.7	
sep	11	2460930.00	3	56	0.46	20	10	7.94	19.1823	4.6	
sep	12	2460931.00	3	55	59.21	20	10	4.19	19.1662	4.6	
sep	13	2460932.00	3	55	57.76	20	9	59.82	19.1501	4.5	
sep	14	2460933.00	3	55	56.10	20	9	54.83	19.1341	4.5	
sep	15	2460934.00	3	55	54.22	20	9	49.23	19.1183	4.4	
sep	16	2460935.00	3	55	52.14	20	9	43.02	19.1025	4.3	
sep	17	2460936.00	3	55	49.86	20	9	36.19	19.0869	4.3	
sep	18	2460937.00	3	55	47.36	20	9	28.76	19.0713	4.2	
sep	19	2460938.00	3	55	44.66	20	9	20.72	19.0559	4.2	
sep	20	2460939.00	3	55	41.76	20	9	12.08	19.0406	4.1	
sep	21	2460940.00	3	55	38.65	20	9	2.83	19.0255	4.0	
sep	22	2460941.00	3	55	35.34	20	8	52.99	19.0105	4.0	
sep	23	2460942.00	3	55	31.82	20	8	42.56	18.9956	3.9	
sep	24	2460943.00	3	55	28.11	20	8	31.54	18.9809	3.9	
sep	25	2460944.00	3	55	24.20	20	8	19.93	18.9663	3.8	
sep	26	2460945.00	3	55	20.10	20	8	7.74	18.9519	3.7	
sep	27	2460946.00	3	55	15.79	20	7	54.98	18.9376	3.7	
sep	28	2460947.00	3	55	11.30	20	7	41.65	18.9235	3.6	
sep	29	2460948.00	3	55	6.62	20	7	27.76	18.9096	3.6	
sep	30	2460949.00	3	55	1.75	20	7	13.30	18.8958	3.5	
oct	1	2460950.00	3	54	56.69	20	6	58.29	18.8822	3.4	
oct	2	2460951.00	3	54	51.44	20	6	42.73	18.8688	3.4	
oct	3	2460952.00	3	54	46.02	20	6	26.63	18.8556	3.3	
oct	4	2460953.00	3	54	40.41	20	6	9.99	18.8426	3.3	
oct	5	2460954.00	3	54	34.63	20	5	52.82	18.8298	3.2	
oct	6	2460955.00	3	54	28.68	20	5	35.12	18.8171	3.1	
oct	7	2460956.00	3	54	22.54	20	5	16.90	18.8047	3.1	
oct	8	2460957.00	3	54	16.24	20	4	58.16	18.7925	3.0	
oct	9	2460958.00	3	54	9.77	20	4	38.91	18.7805	2.9	
oct	10	2460959.00	3	54	3.14	20	4	19.15	18.7687	2.9	
oct	11	2460960.00	3	53	56.34	20	3	58.89	18.7571	2.8	
oct	12	2460961.00	3	53	49.38	20	3	38.14	18.7457	2.7	
oct	13	2460962.00	3	53	42.25	20	3	16.90	18.7346	2.7	
oct	14	2460963.00	3	53	34.98	20	2	55.17	18.7237	2.6	
oct	15	2460964.00	3	53	27.55	20	2	32.97	18.7130	2.6	
oct	16	2460965.00	3	53	19.96	20	2	10.31	18.7025	2.5	
oct	17	2460966.00	3	53	12.24	20	1	47.19	18.6923	2.4	
oct	18	2460967.00	3	53	4.36	20	1	23.62	18.6824	2.4	
oct	19	2460968.00	3	52	56.35	20	0	59.61	18.6727	2.3	
oct	20	2460969.00	3	52	48.19	20	0	35.17	18.6632	2.2	
oct	21	2460970.00	3	52	39.91	20	0	10.31	18.6540	2.2	

# Urano, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
oct	22	2460971.00	3	52	31.49	19	59	45.05	18.6451	2.1	
oct	23	2460972.00	3	52	22.94	19	59	19.38	18.6364	2.0	
oct	24	2460973.00	3	52	14.28	19	58	53.32	18.6280	2.0	
oct	25	2460974.00	3	52	5.49	19	58	26.89	18.6198	1.9	
oct	26	2460975.00	3	51	56.59	19	58	0.09	18.6120	1.8	
oct	27	2460976.00	3	51	47.58	19	57	32.93	18.6044	1.8	
oct	28	2460977.00	3	51	38.46	19	57	5.42	18.5970	1.7	
oct	29	2460978.00	3	51	29.23	19	56	37.59	18.5900	1.6	
oct	30	2460979.00	3	51	19.91	19	56	9.43	18.5832	1.6	
oct	31	2460980.00	3	51	10.49	19	55	40.96	18.5768	1.5	
nov	1	2460981.00	3	51	0.99	19	55	12.19	18.5706	1.4	
nov	2	2460982.00	3	50	51.39	19	54	43.13	18.5647	1.4	
nov	3	2460983.00	3	50	41.71	19	54	13.80	18.5591	1.3	
nov	4	2460984.00	3	50	31.96	19	53	44.20	18.5537	1.2	
nov	5	2460985.00	3	50	22.13	19	53	14.34	18.5487	1.2	
nov	6	2460986.00	3	50	12.23	19	52	44.24	18.5440	1.1	
nov	7	2460987.00	3	50	2.26	19	52	13.91	18.5395	1.0	
nov	8	2460988.00	3	49	52.23	19	51	43.35	18.5354	1.0	
nov	9	2460989.00	3	49	42.14	19	51	12.58	18.5316	0.9	
nov	10	2460990.00	3	49	31.99	19	50	41.62	18.5280	0.8	
nov	11	2460991.00	3	49	21.80	19	50	10.47	18.5248	0.8	
nov	12	2460992.00	3	49	11.56	19	49	39.15	18.5218	0.7	
nov	13	2460993.00	3	49	1.27	19	49	7.67	18.5192	0.6	
nov	14	2460994.00	3	48	50.95	19	48	36.05	18.5169	0.5	
nov	15	2460995.00	3	48	40.60	19	48	4.30	18.5149	0.5	
nov	16	2460996.00	3	48	30.22	19	47	32.44	18.5132	0.4	
nov	17	2460997.00	3	48	19.82	19	47	0.47	18.5118	0.3	
nov	18	2460998.00	3	48	9.40	19	46	28.42	18.5107	0.3	
nov	19	2460999.00	3	47	58.96	19	45	56.31	18.5100	0.2	
nov	20	2461000.00	3	47	48.52	19	45	24.13	18.5095	0.1	
nov	21	2461001.00	3	47	38.07	19	44	51.92	18.5094	0.0	
nov	22	2461002.00	3	47	27.63	19	44	19.69	18.5096	24.0	
nov	23	2461003.00	3	47	17.19	19	43	47.44	18.5101	23.9	
nov	24	2461004.00	3	47	6.76	19	43	15.21	18.5109	23.8	
nov	25	2461005.00	3	46	56.35	19	42	42.99	18.5120	23.7	
nov	26	2461006.00	3	46	45.95	19	42	10.81	18.5134	23.7	
nov	27	2461007.00	3	46	35.59	19	41	38.69	18.5152	23.6	
nov	28	2461008.00	3	46	25.25	19	41	6.63	18.5172	23.5	
nov	29	2461009.00	3	46	14.95	19	40	34.65	18.5196	23.4	
nov	30	2461010.00	3	46	4.68	19	40	2.77	18.5223	23.4	
dic	1	2461011.00	3	45	54.46	19	39	31.00	18.5252	23.3	
dic	2	2461012.00	3	45	44.29	19	38	59.35	18.5285	23.2	
dic	3	2461013.00	3	45	34.17	19	38	27.84	18.5321	23.2	
dic	4	2461014.00	3	45	24.11	19	37	56.49	18.5360	23.1	
dic	5	2461015.00	3	45	14.11	19	37	25.29	18.5402	23.0	
dic	6	2461016.00	3	45	4.17	19	36	54.28	18.5447	22.9	
dic	7	2461017.00	3	44	54.30	19	36	23.46	18.5495	22.9	
dic	8	2461018.00	3	44	44.51	19	35	52.84	18.5546	22.8	
dic	9	2461019.00	3	44	34.79	19	35	22.45	18.5600	22.7	

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
dic	10	2461020.00	3	44	25.15	19	34	52.29	18.5657	22.6	
dic	11	2461021.00	3	44	15.60	19	34	22.38	18.5717	22.5	
dic	12	2461022.00	3	44	6.14	19	33	52.74	18.5780	22.5	
dic	13	2461023.00	3	43	56.77	19	33	23.38	18.5846	22.4	
dic	14	2461024.00	3	43	47.50	19	32	54.32	18.5914	22.3	
dic	15	2461025.00	3	43	38.33	19	32	25.56	18.5986	22.2	
dic	16	2461026.00	3	43	29.27	19	31	57.14	18.6060	22.2	
dic	17	2461027.00	3	43	20.32	19	31	29.05	18.6137	22.1	
dic	18	2461028.00	3	43	11.49	19	31	1.33	18.6217	22.0	
dic	19	2461029.00	3	43	2.78	19	30	33.97	18.6300	21.9	
dic	20	2461030.00	3	42	54.19	19	30	7.00	18.6385	21.9	
dic	21	2461031.00	3	42	45.73	19	29	40.42	18.6473	21.8	
dic	22	2461032.00	3	42	37.40	19	29	14.26	18.6564	21.7	
dic	23	2461033.00	3	42	29.21	19	28	48.52	18.6658	21.6	
dic	24	2461034.00	3	42	21.15	19	28	23.22	18.6754	21.6	
dic	25	2461035.00	3	42	13.24	19	27	58.38	18.6852	21.5	
dic	26	2461036.00	3	42	5.47	19	27	33.99	18.6953	21.4	
dic	27	2461037.00	3	41	57.85	19	27	10.08	18.7057	21.3	
dic	28	2461038.00	3	41	50.39	19	26	46.66	18.7163	21.3	
dic	29	2461039.00	3	41	43.08	19	26	23.73	18.7271	21.2	
dic	30	2461040.00	3	41	35.93	19	26	1.31	18.7382	21.1	
dic	31	2461041.00	3	41	28.95	19	25	39.41	18.7495	21.0	

# Neptuno, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
ene	1	2460677.00	23	50	52.43	-2	23	21.60	30.1173	17.0	
ene	2	2460678.00	23	50	55.54	-2	22	59.07	30.1341	17.0	
ene	3	2460679.00	23	50	58.78	-2	22	35.78	30.1508	16.9	
ene	4	2460680.00	23	51	2.13	-2	22	11.72	30.1674	16.8	
ene	5	2460681.00	23	51	5.60	-2	21	46.90	30.1840	16.7	
ene	6	2460682.00	23	51	9.19	-2	21	21.33	30.2005	16.7	
ene	7	2460683.00	23	51	12.90	-2	20	55.02	30.2168	16.6	
ene	8	2460684.00	23	51	16.72	-2	20	27.98	30.2331	16.5	
ene	9	2460685.00	23	51	20.66	-2	20	0.21	30.2492	16.5	
ene	10	2460686.00	23	51	24.71	-2	19	31.72	30.2653	16.4	
ene	11	2460687.00	23	51	28.88	-2	19	2.51	30.2812	16.3	
ene	12	2460688.00	23	51	33.16	-2	18	32.61	30.2970	16.2	
ene	13	2460689.00	23	51	37.54	-2	18	2.01	30.3126	16.2	
ene	14	2460690.00	23	51	42.04	-2	17	30.72	30.3282	16.1	
ene	15	2460691.00	23	51	46.65	-2	16	58.75	30.3436	16.0	
ene	16	2460692.00	23	51	51.36	-2	16	26.11	30.3588	16.0	
ene	17	2460693.00	23	51	56.18	-2	15	52.80	30.3740	15.9	
ene	18	2460694.00	23	52	1.11	-2	15	18.82	30.3889	15.8	
ene	19	2460695.00	23	52	6.14	-2	14	44.20	30.4038	15.8	
ene	20	2460696.00	23	52	11.27	-2	14	8.93	30.4184	15.7	
ene	21	2460697.00	23	52	16.51	-2	13	33.03	30.4329	15.6	
ene	22	2460698.00	23	52	21.85	-2	12	56.50	30.4473	15.6	
ene	23	2460699.00	23	52	27.28	-2	12	19.34	30.4614	15.5	
ene	24	2460700.00	23	52	32.82	-2	11	41.58	30.4754	15.4	
ene	25	2460701.00	23	52	38.45	-2	11	3.22	30.4893	15.3	
ene	26	2460702.00	23	52	44.18	-2	10	24.26	30.5029	15.3	
ene	27	2460703.00	23	52	50.00	-2	9	44.72	30.5164	15.2	
ene	28	2460704.00	23	52	55.92	-2	9	4.60	30.5296	15.1	
ene	29	2460705.00	23	53	1.93	-2	8	23.92	30.5427	15.1	
ene	30	2460706.00	23	53	8.02	-2	7	42.69	30.5556	15.0	
ene	31	2460707.00	23	53	14.21	-2	7	0.92	30.5683	14.9	
feb	1	2460708.00	23	53	20.48	-2	6	18.62	30.5807	14.9	
feb	2	2460709.00	23	53	26.84	-2	5	35.81	30.5930	14.8	
feb	3	2460710.00	23	53	33.28	-2	4	52.49	30.6050	14.7	
feb	4	2460711.00	23	53	39.80	-2	4	8.67	30.6168	14.7	
feb	5	2460712.00	23	53	46.40	-2	3	24.38	30.6285	14.6	
feb	6	2460713.00	23	53	53.08	-2	2	39.62	30.6398	14.6	
feb	7	2460714.00	23	53	59.83	-2	1	54.39	30.6510	14.5	
feb	8	2460715.00	23	54	6.66	-2	1	8.73	30.6619	14.4	
feb	9	2460716.00	23	54	13.56	-2	0	22.63	30.6726	14.4	
feb	10	2460717.00	23	54	20.54	-1	59	36.10	30.6831	14.3	
feb	11	2460718.00	23	54	27.58	-1	58	49.17	30.6934	14.2	
feb	12	2460719.00	23	54	34.69	-1	58	1.83	30.7034	14.2	
feb	13	2460720.00	23	54	41.87	-1	57	14.10	30.7131	14.1	
feb	14	2460721.00	23	54	49.11	-1	56	25.98	30.7226	14.0	
feb	15	2460722.00	23	54	56.41	-1	55	37.50	30.7319	14.0	
feb	16	2460723.00	23	55	3.78	-1	54	48.66	30.7409	13.9	
feb	17	2460724.00	23	55	11.20	-1	53	59.47	30.7497	13.9	
feb	18	2460725.00	23	55	18.69	-1	53	9.94	30.7582	13.8	

# Neptuno, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
feb	19	2460726.00	23	55	26.23	-1	52	20.09	30.7665	13.7	
feb	20	2460727.00	23	55	33.82	-1	51	29.92	30.7745	13.7	
feb	21	2460728.00	23	55	41.47	-1	50	39.45	30.7823	13.6	
feb	22	2460729.00	23	55	49.17	-1	49	48.68	30.7898	13.5	
feb	23	2460730.00	23	55	56.92	-1	48	57.64	30.7970	13.5	
feb	24	2460731.00	23	56	4.71	-1	48	6.32	30.8039	13.4	
feb	25	2460732.00	23	56	12.55	-1	47	14.75	30.8106	13.4	
feb	26	2460733.00	23	56	20.44	-1	46	22.94	30.8171	13.3	
feb	27	2460734.00	23	56	28.36	-1	45	30.90	30.8232	13.2	
feb	28	2460735.00	23	56	36.33	-1	44	38.64	30.8291	13.2	
mar	1	2460736.00	23	56	44.34	-1	43	46.18	30.8347	13.1	
mar	2	2460737.00	23	56	52.38	-1	42	53.53	30.8400	13.1	
mar	3	2460738.00	23	57	0.45	-1	42	0.71	30.8451	13.0	
mar	4	2460739.00	23	57	8.55	-1	41	7.72	30.8498	12.9	
mar	5	2460740.00	23	57	16.69	-1	40	14.59	30.8543	12.9	
mar	6	2460741.00	23	57	24.85	-1	39	21.32	30.8586	12.8	
mar	7	2460742.00	23	57	33.04	-1	38	27.93	30.8625	12.8	
mar	8	2460743.00	23	57	41.25	-1	37	34.43	30.8661	12.7	
mar	9	2460744.00	23	57	49.49	-1	36	40.83	30.8695	12.6	
mar	10	2460745.00	23	57	57.74	-1	35	47.15	30.8726	12.6	
mar	11	2460746.00	23	58	6.02	-1	34	53.40	30.8754	12.5	
mar	12	2460747.00	23	58	14.30	-1	33	59.58	30.8779	12.5	
mar	13	2460748.00	23	58	22.61	-1	33	5.71	30.8801	12.4	
mar	14	2460749.00	23	58	30.93	-1	32	11.80	30.8821	12.4	
mar	15	2460750.00	23	58	39.25	-1	31	17.87	30.8838	12.3	
mar	16	2460751.00	23	58	47.59	-1	30	23.91	30.8852	12.2	
mar	17	2460752.00	23	58	55.94	-1	29	29.96	30.8863	12.2	
mar	18	2460753.00	23	59	4.29	-1	28	36.00	30.8871	12.1	
mar	19	2460754.00	23	59	12.64	-1	27	42.07	30.8876	12.1	
mar	20	2460755.00	23	59	21.00	-1	26	48.17	30.8879	12.0	
mar	21	2460756.00	23	59	29.36	-1	25	54.30	30.8878	11.9	
mar	22	2460757.00	23	59	37.72	-1	25	0.49	30.8875	11.8	
mar	23	2460758.00	23	59	46.07	-1	24	6.75	30.8869	11.8	
mar	24	2460759.00	23	59	54.42	-1	23	13.08	30.8860	11.7	
mar	25	2460760.00	0	0	2.76	-1	22	19.50	30.8849	11.7	
mar	26	2460761.00	0	0	11.09	-1	21	26.02	30.8834	11.7	
mar	27	2460762.00	0	0	19.41	-1	20	32.66	30.8817	11.6	
mar	28	2460763.00	0	0	27.72	-1	19	39.43	30.8796	11.5	
mar	29	2460764.00	0	0	36.02	-1	18	46.34	30.8773	11.5	
mar	30	2460765.00	0	0	44.29	-1	17	53.40	30.8747	11.4	
mar	31	2460766.00	0	0	52.55	-1	17	0.63	30.8719	11.4	
abr	1	2460767.00	0	1	0.79	-1	16	8.05	30.8687	11.3	
abr	2	2460768.00	0	1	9.00	-1	15	15.66	30.8653	11.2	
abr	3	2460769.00	0	1	17.19	-1	14	23.47	30.8616	11.2	
abr	4	2460770.00	0	1	25.36	-1	13	31.51	30.8576	11.1	
abr	5	2460771.00	0	1	33.49	-1	12	39.77	30.8534	11.1	
abr	6	2460772.00	0	1	41.60	-1	11	48.27	30.8488	11.0	
abr	7	2460773.00	0	1	49.67	-1	10	57.03	30.8441	11.0	
abr	8	2460774.00	0	1	57.71	-1	10	6.04	30.8390	10.9	

# Neptuno, 2025

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

mes	día	dj	h	$\alpha$			$\delta$		dis UA	hp h
				m	s	o	'	"		
abr	9	2460775.00	0	2	5.71	-1	9	15.33	30.8337	10.8
abr	10	2460776.00	0	2	13.68	-1	8	24.90	30.8281	10.8
abr	11	2460777.00	0	2	21.61	-1	7	34.76	30.8222	10.7
abr	12	2460778.00	0	2	29.50	-1	6	44.93	30.8161	10.7
abr	13	2460779.00	0	2	37.35	-1	5	55.40	30.8097	10.6
abr	14	2460780.00	0	2	45.15	-1	5	6.20	30.8031	10.5
abr	15	2460781.00	0	2	52.91	-1	4	17.33	30.7962	10.5
abr	16	2460782.00	0	3	0.63	-1	3	28.80	30.7891	10.4
abr	17	2460783.00	0	3	8.29	-1	2	40.63	30.7817	10.4
abr	18	2460784.00	0	3	15.91	-1	1	52.82	30.7740	10.3
abr	19	2460785.00	0	3	23.48	-1	1	5.38	30.7661	10.2
abr	20	2460786.00	0	3	30.99	-1	0	18.32	30.7580	10.2
abr	21	2460787.00	0	3	38.45	0	59	31.66	30.7496	10.1
abr	22	2460788.00	0	3	45.85	0	58	45.40	30.7410	10.1
abr	23	2460789.00	0	3	53.19	0	57	59.55	30.7321	10.0
abr	24	2460790.00	0	4	0.48	0	57	14.13	30.7230	9.9
abr	25	2460791.00	0	4	7.70	0	56	29.15	30.7137	9.9
abr	26	2460792.00	0	4	14.86	0	55	44.62	30.7041	9.8
abr	27	2460793.00	0	4	21.96	0	55	0.55	30.6943	9.8
abr	28	2460794.00	0	4	28.99	0	54	16.95	30.6843	9.7
abr	29	2460795.00	0	4	35.95	0	53	33.83	30.6740	9.6
abr	30	2460796.00	0	4	42.85	0	52	51.20	30.6635	9.6
may	1	2460797.00	0	4	49.67	0	52	9.07	30.6529	9.5
may	2	2460798.00	0	4	56.42	0	51	27.45	30.6420	9.5
may	3	2460799.00	0	5	3.09	0	50	46.35	30.6308	9.4
may	4	2460800.00	0	5	9.69	0	50	5.78	30.6195	9.3
may	5	2460801.00	0	5	16.21	0	49	25.74	30.6080	9.3
may	6	2460802.00	0	5	22.66	0	48	46.25	30.5963	9.2
may	7	2460803.00	0	5	29.02	0	48	7.30	30.5843	9.1
may	8	2460804.00	0	5	35.31	0	47	28.91	30.5722	9.1
may	9	2460805.00	0	5	41.51	0	46	51.09	30.5599	9.0
may	10	2460806.00	0	5	47.63	0	46	13.84	30.5474	9.0
may	11	2460807.00	0	5	53.67	0	45	37.17	30.5347	8.9
may	12	2460808.00	0	5	59.62	0	45	1.08	30.5219	8.8
may	13	2460809.00	0	6	5.48	0	44	25.59	30.5088	8.8
may	14	2460810.00	0	6	11.26	0	43	50.69	30.4956	8.7
may	15	2460811.00	0	6	16.95	0	43	16.41	30.4823	8.6
may	16	2460812.00	0	6	22.55	0	42	42.73	30.4687	8.6
may	17	2460813.00	0	6	28.05	0	42	9.68	30.4550	8.5
may	18	2460814.00	0	6	33.47	0	41	37.26	30.4411	8.4
may	19	2460815.00	0	6	38.79	0	41	5.48	30.4271	8.4
may	20	2460816.00	0	6	44.02	0	40	34.33	30.4129	8.3
may	21	2460817.00	0	6	49.15	0	40	3.84	30.3986	8.2
may	22	2460818.00	0	6	54.18	0	39	34.01	30.3841	8.2
may	23	2460819.00	0	6	59.12	0	39	4.84	30.3695	8.1
may	24	2460820.00	0	7	3.95	0	38	36.35	30.3548	8.0
may	25	2460821.00	0	7	8.69	0	38	8.54	30.3399	8.0
may	26	2460822.00	0	7	13.32	0	37	41.42	30.3249	7.9
may	27	2460823.00	0	7	17.85	0	37	14.99	30.3097	7.9

# Neptuno, 2025

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

mes	día	dj	h	$\alpha$			$\delta$		dis UA	hp h
				m	s	o	'	"		
may	28	2460824.00	0	7	22.27	0	36	49.27	30.2944	7.8
may	29	2460825.00	0	7	26.59	0	36	24.25	30.2791	7.7
may	30	2460826.00	0	7	30.81	0	35	59.95	30.2636	7.7
may	31	2460827.00	0	7	34.91	0	35	36.36	30.2480	7.6
jun	1	2460828.00	0	7	38.91	0	35	13.50	30.2323	7.5
jun	2	2460829.00	0	7	42.81	0	34	51.35	30.2165	7.5
jun	3	2460830.00	0	7	46.59	0	34	29.94	30.2006	7.4
jun	4	2460831.00	0	7	50.26	0	34	9.26	30.1846	7.3
jun	5	2460832.00	0	7	53.82	0	33	49.31	30.1686	7.2
jun	6	2460833.00	0	7	57.27	0	33	30.10	30.1524	7.2
jun	7	2460834.00	0	8	0.61	0	33	11.63	30.1362	7.1
jun	8	2460835.00	0	8	3.84	0	32	53.90	30.1199	7.0
jun	9	2460836.00	0	8	6.96	0	32	36.92	30.1036	7.0
jun	10	2460837.00	0	8	9.96	0	32	20.69	30.0871	6.9
jun	11	2460838.00	0	8	12.85	0	32	5.21	30.0707	6.8
jun	12	2460839.00	0	8	15.62	0	31	50.48	30.0541	6.8
jun	13	2460840.00	0	8	18.28	0	31	36.51	30.0375	6.7
jun	14	2460841.00	0	8	20.83	0	31	23.30	30.0209	6.6
jun	15	2460842.00	0	8	23.25	0	31	10.86	30.0042	6.6
jun	16	2460843.00	0	8	25.57	0	30	59.17	29.9875	6.5
jun	17	2460844.00	0	8	27.76	0	30	48.26	29.9708	6.4
jun	18	2460845.00	0	8	29.84	0	30	38.12	29.9540	6.4
jun	19	2460846.00	0	8	31.80	0	30	28.75	29.9372	6.3
jun	20	2460847.00	0	8	33.64	0	30	20.16	29.9204	6.2
jun	21	2460848.00	0	8	35.36	0	30	12.35	29.9036	6.2
jun	22	2460849.00	0	8	36.97	0	30	5.32	29.8868	6.1
jun	23	2460850.00	0	8	38.45	0	29	59.07	29.8699	6.0
jun	24	2460851.00	0	8	39.81	0	29	53.61	29.8531	6.0
jun	25	2460852.00	0	8	41.06	0	29	48.94	29.8362	5.9
jun	26	2460853.00	0	8	42.18	0	29	45.05	29.8194	5.8
jun	27	2460854.00	0	8	43.18	0	29	41.95	29.8026	5.7
jun	28	2460855.00	0	8	44.06	0	29	39.63	29.7858	5.7
jun	29	2460856.00	0	8	44.83	0	29	38.10	29.7690	5.6
jun	30	2460857.00	0	8	45.47	0	29	37.34	29.7523	5.5
jul	1	2460858.00	0	8	45.99	0	29	37.37	29.7356	5.5
jul	2	2460859.00	0	8	46.39	0	29	38.18	29.7189	5.4
jul	3	2460860.00	0	8	46.67	0	29	39.75	29.7023	5.3
jul	4	2460861.00	0	8	46.83	0	29	42.11	29.6857	5.3
jul	5	2460862.00	0	8	46.87	0	29	45.23	29.6692	5.2
jul	6	2460863.00	0	8	46.79	0	29	49.12	29.6528	5.1
jul	7	2460864.00	0	8	46.59	0	29	53.77	29.6364	5.1
jul	8	2460865.00	0	8	46.28	0	29	59.18	29.6200	5.0
jul	9	2460866.00	0	8	45.84	0	30	5.35	29.6038	4.9
jul	10	2460867.00	0	8	45.29	0	30	12.28	29.5876	4.9
jul	11	2460868.00	0	8	44.62	0	30	19.96	29.5715	4.8
jul	12	2460869.00	0	8	43.84	0	30	28.39	29.5555	4.7
jul	13	2460870.00	0	8	42.93	0	30	37.57	29.5396	4.7
jul	14	2460871.00	0	8	41.91	0	30	47.49	29.5237	4.6
jul	15	2460872.00	0	8	40.78	0	30	58.15	29.5080	4.5

# Neptuno, 2025

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

mes	día	dj	h	$\alpha$			$\delta$		dis UA	hp h
				m	s	o	'	"		
jul	16	2460873.00	0	8	39.53	0	31	9.55	29.4924	4.4
jul	17	2460874.00	0	8	38.16	0	31	21.69	29.4768	4.4
jul	18	2460875.00	0	8	36.68	0	31	34.55	29.4614	4.3
jul	19	2460876.00	0	8	35.08	0	31	48.15	29.4461	4.2
jul	20	2460877.00	0	8	33.37	0	32	2.47	29.4309	4.2
jul	21	2460878.00	0	8	31.55	0	32	17.50	29.4159	4.1
jul	22	2460879.00	0	8	29.61	0	32	33.26	29.4009	4.0
jul	23	2460880.00	0	8	27.56	0	32	49.72	29.3861	4.0
jul	24	2460881.00	0	8	25.40	0	33	6.88	29.3715	3.9
jul	25	2460882.00	0	8	23.13	0	33	24.74	29.3570	3.8
jul	26	2460883.00	0	8	20.75	0	33	43.29	29.3426	3.8
jul	27	2460884.00	0	8	18.26	0	34	2.52	29.3284	3.7
jul	28	2460885.00	0	8	15.66	0	34	22.42	29.3143	3.6
jul	29	2460886.00	0	8	12.96	0	34	42.99	29.3004	3.6
jul	30	2460887.00	0	8	10.15	0	35	4.21	29.2867	3.5
jul	31	2460888.00	0	8	7.24	0	35	26.08	29.2732	3.5
ago	1	2460889.00	0	8	4.23	0	35	48.59	29.2598	3.4
ago	2	2460890.00	0	8	1.11	0	36	11.72	29.2466	3.3
ago	3	2460891.00	0	7	57.90	0	36	35.48	29.2335	3.3
ago	4	2460892.00	0	7	54.58	0	36	59.84	29.2207	3.2
ago	5	2460893.00	0	7	51.17	0	37	24.81	29.2080	3.1
ago	6	2460894.00	0	7	47.66	0	37	50.37	29.1956	3.1
ago	7	2460895.00	0	7	44.06	0	38	16.51	29.1833	3.0
ago	8	2460896.00	0	7	40.36	0	38	43.23	29.1713	2.9
ago	9	2460897.00	0	7	36.57	0	39	10.52	29.1594	2.9
ago	10	2460898.00	0	7	32.69	0	39	38.36	29.1477	2.8
ago	11	2460899.00	0	7	28.72	0	40	6.75	29.1363	2.7
ago	12	2460900.00	0	7	24.66	0	40	35.68	29.1251	2.7
ago	13	2460901.00	0	7	20.51	0	41	5.13	29.1140	2.6
ago	14	2460902.00	0	7	16.28	0	41	35.11	29.1033	2.5
ago	15	2460903.00	0	7	11.96	0	42	5.60	29.0927	2.5
ago	16	2460904.00	0	7	7.56	0	42	36.59	29.0823	2.4
ago	17	2460905.00	0	7	3.08	0	43	8.07	29.0722	2.4
ago	18	2460906.00	0	6	58.52	0	43	40.03	29.0623	2.3
ago	19	2460907.00	0	6	53.88	0	44	12.46	29.0527	2.2
ago	20	2460908.00	0	6	49.17	0	44	45.35	29.0433	2.2
ago	21	2460909.00	0	6	44.37	0	45	18.68	29.0341	2.1
ago	22	2460910.00	0	6	39.51	0	45	52.44	29.0252	2.0
ago	23	2460911.00	0	6	34.57	0	46	26.62	29.0165	2.0
ago	24	2460912.00	0	6	29.57	0	47	1.21	29.0081	1.9
ago	25	2460913.00	0	6	24.50	0	47	36.18	29.0000	1.9
ago	26	2460914.00	0	6	19.36	0	48	11.53	28.9921	1.8
ago	27	2460915.00	0	6	14.16	0	48	47.24	28.9845	1.7
ago	28	2460916.00	0	6	8.90	0	49	23.30	28.9771	1.7
ago	29	2460917.00	0	6	3.58	0	49	59.70	28.9700	1.6
ago	30	2460918.00	0	5	58.21	0	50	36.41	28.9632	1.5
ago	31	2460919.00	0	5	52.78	0	51	13.43	28.9566	1.5
sep	1	2460920.00	0	5	47.29	0	51	50.74	28.9503	1.4
sep	2	2460921.00	0	5	41.76	0	52	28.32	28.9443	1.4

# Neptuno, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
sep	3	2460922.00	0	5	36.18	0	53	6.17	28.9386	1.3	
sep	4	2460923.00	0	5	30.55	0	53	44.27	28.9331	1.2	
sep	5	2460924.00	0	5	24.88	0	54	22.60	28.9279	1.2	
sep	6	2460925.00	0	5	19.16	0	55	1.16	28.9230	1.1	
sep	7	2460926.00	0	5	13.41	0	55	39.92	28.9184	1.1	
sep	8	2460927.00	0	5	7.62	0	56	18.88	28.9141	1.0	
sep	9	2460928.00	0	5	1.79	0	56	58.02	28.9101	0.9	
sep	10	2460929.00	0	4	55.92	0	57	37.33	28.9063	0.9	
sep	11	2460930.00	0	4	50.03	0	58	16.79	28.9028	0.8	
sep	12	2460931.00	0	4	44.11	0	58	56.39	28.8996	0.7	
sep	13	2460932.00	0	4	38.15	0	59	36.12	28.8968	0.7	
sep	14	2460933.00	0	4	32.18	-1	0	15.97	28.8942	0.6	
sep	15	2460934.00	0	4	26.18	-1	0	55.91	28.8919	0.6	
sep	16	2460935.00	0	4	20.15	-1	1	35.93	28.8899	0.5	
sep	17	2460936.00	0	4	14.11	-1	2	16.02	28.8882	0.4	
sep	18	2460937.00	0	4	8.06	-1	2	56.16	28.8868	0.4	
sep	19	2460938.00	0	4	1.99	-1	3	36.33	28.8857	0.3	
sep	20	2460939.00	0	3	55.91	-1	4	16.53	28.8848	0.3	
sep	21	2460940.00	0	3	49.82	-1	4	56.72	28.8843	0.2	
sep	22	2460941.00	0	3	43.72	-1	5	36.89	28.8841	0.1	
sep	23	2460942.00	0	3	37.62	-1	6	17.04	28.8842	0.1	
sep	24	2460943.00	0	3	31.52	-1	6	57.13	28.8846	0.0	
sep	25	2460944.00	0	3	25.42	-1	7	37.16	28.8853	23.9	
sep	26	2460945.00	0	3	19.33	-1	8	17.11	28.8863	23.9	
sep	27	2460946.00	0	3	13.24	-1	8	56.95	28.8876	23.8	
sep	28	2460947.00	0	3	7.16	-1	9	36.69	28.8892	23.8	
sep	29	2460948.00	0	3	1.09	-1	10	16.29	28.8911	23.7	
sep	30	2460949.00	0	2	55.03	-1	10	55.75	28.8933	23.6	
oct	1	2460950.00	0	2	48.99	-1	11	35.05	28.8958	23.6	
oct	2	2460951.00	0	2	42.97	-1	12	14.17	28.8986	23.5	
oct	3	2460952.00	0	2	36.97	-1	12	53.10	28.9017	23.5	
oct	4	2460953.00	0	2	31.00	-1	13	31.82	28.9051	23.4	
oct	5	2460954.00	0	2	25.04	-1	14	10.33	28.9088	23.3	
oct	6	2460955.00	0	2	19.12	-1	14	48.60	28.9128	23.3	
oct	7	2460956.00	0	2	13.22	-1	15	26.63	28.9171	23.2	
oct	8	2460957.00	0	2	7.36	-1	16	4.40	28.9216	23.1	
oct	9	2460958.00	0	2	1.53	-1	16	41.89	28.9265	23.1	
oct	10	2460959.00	0	1	55.74	-1	17	19.09	28.9316	23.0	
oct	11	2460960.00	0	1	49.98	-1	17	56.00	28.9371	23.0	
oct	12	2460961.00	0	1	44.27	-1	18	32.59	28.9428	22.9	
oct	13	2460962.00	0	1	38.59	-1	19	8.85	28.9488	22.8	
oct	14	2460963.00	0	1	32.97	-1	19	44.76	28.9551	22.8	
oct	15	2460964.00	0	1	27.39	-1	20	20.32	28.9617	22.7	
oct	16	2460965.00	0	1	21.86	-1	20	55.49	28.9685	22.6	
oct	17	2460966.00	0	1	16.38	-1	21	30.28	28.9757	22.6	
oct	18	2460967.00	0	1	10.96	-1	22	4.66	28.9831	22.5	
oct	19	2460968.00	0	1	5.59	-1	22	38.62	28.9908	22.4	
oct	20	2460969.00	0	1	0.29	-1	23	12.15	28.9987	22.4	
oct	21	2460970.00	0	0	55.04	-1	23	45.22	29.0070	22.3	

# Neptuno, 2025

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

mes	día	dj	h	$\alpha$		o	$\delta$		dis UA	hp h
				m	s		'	"		
oct	22	2460971.00	0	0	49.86	-1	24	17.83	29.0155	22.3
oct	23	2460972.00	0	0	44.74	-1	24	49.97	29.0242	22.2
oct	24	2460973.00	0	0	39.70	-1	25	21.61	29.0333	22.1
oct	25	2460974.00	0	0	34.72	-1	25	52.74	29.0426	22.1
oct	26	2460975.00	0	0	29.81	-1	26	23.36	29.0521	22.0
oct	27	2460976.00	0	0	24.98	-1	26	53.44	29.0619	21.9
oct	28	2460977.00	0	0	20.23	-1	27	22.99	29.0720	21.9
oct	29	2460978.00	0	0	15.55	-1	27	51.98	29.0823	21.8
oct	30	2460979.00	0	0	10.96	-1	28	20.40	29.0928	21.7
oct	31	2460980.00	0	0	6.44	-1	28	48.24	29.1036	21.7
nov	1	2460981.00	0	0	2.01	-1	29	15.50	29.1146	21.6
nov	2	2460982.00	23	59	57.67	-1	29	42.16	29.1259	21.5
nov	3	2460983.00	23	59	53.41	-1	30	8.22	29.1374	21.4
nov	4	2460984.00	23	59	49.24	-1	30	33.65	29.1491	21.3
nov	5	2460985.00	23	59	45.16	-1	30	58.47	29.1610	21.3
nov	6	2460986.00	23	59	41.18	-1	31	22.65	29.1732	21.2
nov	7	2460987.00	23	59	37.28	-1	31	46.18	29.1855	21.1
nov	8	2460988.00	23	59	33.48	-1	32	9.06	29.1981	21.1
nov	9	2460989.00	23	59	29.78	-1	32	31.28	29.2109	21.0
nov	10	2460990.00	23	59	26.17	-1	32	52.83	29.2239	20.9
nov	11	2460991.00	23	59	22.67	-1	33	13.70	29.2371	20.9
nov	12	2460992.00	23	59	19.26	-1	33	33.87	29.2505	20.8
nov	13	2460993.00	23	59	15.96	-1	33	53.35	29.2641	20.7
nov	14	2460994.00	23	59	12.77	-1	34	12.11	29.2778	20.7
nov	15	2460995.00	23	59	9.68	-1	34	30.15	29.2918	20.6
nov	16	2460996.00	23	59	6.69	-1	34	47.47	29.3060	20.5
nov	17	2460997.00	23	59	3.82	-1	35	4.04	29.3203	20.4
nov	18	2460998.00	23	59	1.05	-1	35	19.87	29.3348	20.4
nov	19	2460999.00	23	58	58.40	-1	35	34.95	29.3494	20.3
nov	20	2461000.00	23	58	55.86	-1	35	49.26	29.3643	20.2
nov	21	2461001.00	23	58	53.43	-1	36	2.81	29.3792	20.2
nov	22	2461002.00	23	58	51.12	-1	36	15.58	29.3944	20.1
nov	23	2461003.00	23	58	48.92	-1	36	27.57	29.4096	20.0
nov	24	2461004.00	23	58	46.84	-1	36	38.77	29.4251	20.0
nov	25	2461005.00	23	58	44.88	-1	36	49.19	29.4406	19.9
nov	26	2461006.00	23	58	43.04	-1	36	58.80	29.4563	19.8
nov	27	2461007.00	23	58	41.32	-1	37	7.62	29.4722	19.7
nov	28	2461008.00	23	58	39.72	-1	37	15.63	29.4881	19.7
nov	29	2461009.00	23	58	38.24	-1	37	22.84	29.5042	19.6
nov	30	2461010.00	23	58	36.88	-1	37	29.24	29.5203	19.5
dic	1	2461011.00	23	58	35.64	-1	37	34.82	29.5366	19.5
dic	2	2461012.00	23	58	34.53	-1	37	39.59	29.5530	19.4
dic	3	2461013.00	23	58	33.54	-1	37	43.55	29.5695	19.3
dic	4	2461014.00	23	58	32.68	-1	37	46.68	29.5860	19.2
dic	5	2461015.00	23	58	31.94	-1	37	49.00	29.6027	19.2
dic	6	2461016.00	23	58	31.32	-1	37	50.50	29.6194	19.1
dic	7	2461017.00	23	58	30.83	-1	37	51.17	29.6362	19.0
dic	8	2461018.00	23	58	30.46	-1	37	51.02	29.6531	18.9
dic	9	2461019.00	23	58	30.22	-1	37	50.04	29.6701	18.9

# Neptuno, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
dic	10	2461020.00	23	58	30.11	-1	37	48.23	29.6871	18.8	
dic	11	2461021.00	23	58	30.12	-1	37	45.59	29.7042	18.7	
dic	12	2461022.00	23	58	30.26	-1	37	42.11	29.7213	18.7	
dic	13	2461023.00	23	58	30.53	-1	37	37.80	29.7385	18.6	
dic	14	2461024.00	23	58	30.93	-1	37	32.65	29.7557	18.5	
dic	15	2461025.00	23	58	31.45	-1	37	26.66	29.7730	18.4	
dic	16	2461026.00	23	58	32.11	-1	37	19.83	29.7902	18.4	
dic	17	2461027.00	23	58	32.89	-1	37	12.17	29.8075	18.3	
dic	18	2461028.00	23	58	33.80	-1	37	3.67	29.8249	18.2	
dic	19	2461029.00	23	58	34.84	-1	36	54.33	29.8422	18.1	
dic	20	2461030.00	23	58	36.00	-1	36	44.16	29.8596	18.1	
dic	21	2461031.00	23	58	37.30	-1	36	33.16	29.8769	18.0	
dic	22	2461032.00	23	58	38.72	-1	36	21.32	29.8943	17.9	
dic	23	2461033.00	23	58	40.27	-1	36	8.66	29.9116	17.8	
dic	24	2461034.00	23	58	41.95	-1	35	55.17	29.9290	17.8	
dic	25	2461035.00	23	58	43.76	-1	35	40.86	29.9463	17.7	
dic	26	2461036.00	23	58	45.69	-1	35	25.74	29.9635	17.6	
dic	27	2461037.00	23	58	47.75	-1	35	9.80	29.9808	17.6	
dic	28	2461038.00	23	58	49.94	-1	34	53.06	29.9980	17.5	
dic	29	2461039.00	23	58	52.25	-1	34	35.51	30.0152	17.4	
dic	30	2461040.00	23	58	54.68	-1	34	17.17	30.0323	17.3	
dic	31	2461041.00	23	58	57.24	-1	33	58.03	30.0494	17.3	

# Plutón, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
ene	1	2460677.00	20	14	51.95	-23	11	7.76	36.0938	13.4	
ene	2	2460678.00	20	14	59.83	-23	10	46.25	36.1002	13.4	
ene	3	2460679.00	20	15	7.75	-23	10	24.69	36.1063	13.3	
ene	4	2460680.00	20	15	15.70	-23	10	3.09	36.1121	13.2	
ene	5	2460681.00	20	15	23.69	-23	9	41.45	36.1177	13.2	
ene	6	2460682.00	20	15	31.71	-23	9	19.79	36.1230	13.1	
ene	7	2460683.00	20	15	39.75	-23	8	58.10	36.1280	13.0	
ene	8	2460684.00	20	15	47.83	-23	8	36.39	36.1327	13.0	
ene	9	2460685.00	20	15	55.93	-23	8	14.68	36.1371	12.9	
ene	10	2460686.00	20	16	4.05	-23	7	52.97	36.1412	12.8	
ene	11	2460687.00	20	16	12.19	-23	7	31.26	36.1451	12.7	
ene	12	2460688.00	20	16	20.36	-23	7	9.56	36.1486	12.7	
ene	13	2460689.00	20	16	28.54	-23	6	47.87	36.1519	12.6	
ene	14	2460690.00	20	16	36.74	-23	6	26.20	36.1548	12.5	
ene	15	2460691.00	20	16	44.96	-23	6	4.57	36.1575	12.5	
ene	16	2460692.00	20	16	53.18	-23	5	42.96	36.1599	12.4	
ene	17	2460693.00	20	17	1.42	-23	5	21.39	36.1620	12.3	
ene	18	2460694.00	20	17	9.67	-23	4	59.87	36.1638	12.3	
ene	19	2460695.00	20	17	17.92	-23	4	38.40	36.1654	12.2	
ene	20	2460696.00	20	17	26.18	-23	4	16.98	36.1666	12.1	
ene	21	2460697.00	20	17	34.44	-23	3	55.63	36.1675	12.1	
ene	22	2460698.00	20	17	42.70	-23	3	34.35	36.1681	12.0	
ene	23	2460699.00	20	17	50.96	-23	3	13.14	36.1685	11.9	
ene	24	2460700.00	20	17	59.22	-23	2	52.02	36.1685	11.9	
ene	25	2460701.00	20	18	7.48	-23	2	30.98	36.1683	11.8	
ene	26	2460702.00	20	18	15.72	-23	2	10.04	36.1678	11.7	
ene	27	2460703.00	20	18	23.96	-23	1	49.20	36.1669	11.7	
ene	28	2460704.00	20	18	32.19	-23	1	28.47	36.1658	11.6	
ene	29	2460705.00	20	18	40.40	-23	1	7.86	36.1644	11.5	
ene	30	2460706.00	20	18	48.60	-23	0	47.36	36.1627	11.5	
ene	31	2460707.00	20	18	56.78	-23	0	27.00	36.1607	11.4	
feb	1	2460708.00	20	19	4.95	-23	0	6.78	36.1584	11.3	
feb	2	2460709.00	20	19	13.09	-22	59	46.69	36.1558	11.3	
feb	3	2460710.00	20	19	21.20	-22	59	26.76	36.1529	11.2	
feb	4	2460711.00	20	19	29.29	-22	59	6.99	36.1498	11.1	
feb	5	2460712.00	20	19	37.36	-22	58	47.37	36.1463	11.1	
feb	6	2460713.00	20	19	45.39	-22	58	27.93	36.1426	11.0	
feb	7	2460714.00	20	19	53.40	-22	58	8.66	36.1386	10.9	
feb	8	2460715.00	20	20	1.37	-22	57	49.57	36.1343	10.9	
feb	9	2460716.00	20	20	9.31	-22	57	30.67	36.1297	10.8	
feb	10	2460717.00	20	20	17.21	-22	57	11.96	36.1249	10.7	
feb	11	2460718.00	20	20	25.07	-22	56	53.44	36.1198	10.7	
feb	12	2460719.00	20	20	32.89	-22	56	35.13	36.1144	10.6	
feb	13	2460720.00	20	20	40.67	-22	56	17.03	36.1088	10.6	
feb	14	2460721.00	20	20	48.41	-22	55	59.14	36.1028	10.5	
feb	15	2460722.00	20	20	56.10	-22	55	41.46	36.0967	10.4	
feb	16	2460723.00	20	21	3.75	-22	55	24.01	36.0902	10.4	
feb	17	2460724.00	20	21	11.35	-22	55	6.79	36.0835	10.3	
feb	18	2460725.00	20	21	18.89	-22	54	49.81	36.0765	10.2	

# Plutón, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
feb	19	2460726.00	20	21	26.39	-22	54	33.06	36.0693	10.2	
feb	20	2460727.00	20	21	33.83	-22	54	16.56	36.0618	10.1	
feb	21	2460728.00	20	21	41.22	-22	54	0.31	36.0540	10.1	
feb	22	2460729.00	20	21	48.55	-22	53	44.32	36.0460	10.0	
feb	23	2460730.00	20	21	55.82	-22	53	28.59	36.0378	9.9	
feb	24	2460731.00	20	22	3.03	-22	53	13.13	36.0293	9.9	
feb	25	2460732.00	20	22	10.18	-22	52	57.95	36.0205	9.8	
feb	26	2460733.00	20	22	17.27	-22	52	43.04	36.0115	9.7	
feb	27	2460734.00	20	22	24.28	-22	52	28.42	36.0023	9.7	
feb	28	2460735.00	20	22	31.24	-22	52	14.09	35.9928	9.6	
mar	1	2460736.00	20	22	38.12	-22	52	0.06	35.9832	9.6	
mar	2	2460737.00	20	22	44.93	-22	51	46.33	35.9732	9.5	
mar	3	2460738.00	20	22	51.66	-22	51	32.91	35.9631	9.4	
mar	4	2460739.00	20	22	58.33	-22	51	19.80	35.9527	9.4	
mar	5	2460740.00	20	23	4.91	-22	51	7.01	35.9421	9.3	
mar	6	2460741.00	20	23	11.42	-22	50	54.54	35.9313	9.3	
mar	7	2460742.00	20	23	17.85	-22	50	42.39	35.9203	9.2	
mar	8	2460743.00	20	23	24.20	-22	50	30.58	35.9091	9.1	
mar	9	2460744.00	20	23	30.47	-22	50	19.10	35.8976	9.1	
mar	10	2460745.00	20	23	36.66	-22	50	7.95	35.8860	9.0	
mar	11	2460746.00	20	23	42.76	-22	49	57.15	35.8742	9.0	
mar	12	2460747.00	20	23	48.78	-22	49	46.69	35.8621	8.9	
mar	13	2460748.00	20	23	54.71	-22	49	36.57	35.8499	8.8	
mar	14	2460749.00	20	24	0.56	-22	49	26.81	35.8375	8.8	
mar	15	2460750.00	20	24	6.31	-22	49	17.40	35.8250	8.7	
mar	16	2460751.00	20	24	11.98	-22	49	8.35	35.8122	8.7	
mar	17	2460752.00	20	24	17.56	-22	48	59.66	35.7993	8.6	
mar	18	2460753.00	20	24	23.04	-22	48	51.34	35.7862	8.6	
mar	19	2460754.00	20	24	28.43	-22	48	43.38	35.7729	8.5	
mar	20	2460755.00	20	24	33.72	-22	48	35.79	35.7595	8.4	
mar	21	2460756.00	20	24	38.92	-22	48	28.58	35.7459	8.3	
mar	22	2460757.00	20	24	44.02	-22	48	21.75	35.7321	8.2	
mar	23	2460758.00	20	24	49.02	-22	48	15.29	35.7182	8.2	
mar	24	2460759.00	20	24	53.93	-22	48	9.23	35.7042	8.1	
mar	25	2460760.00	20	24	58.73	-22	48	3.54	35.6900	8.1	
mar	26	2460761.00	20	25	3.43	-22	47	58.26	35.6757	8.0	
mar	27	2460762.00	20	25	8.03	-22	47	53.36	35.6612	8.0	
mar	28	2460763.00	20	25	12.52	-22	47	48.86	35.6466	7.9	
mar	29	2460764.00	20	25	16.91	-22	47	44.76	35.6319	7.8	
mar	30	2460765.00	20	25	21.19	-22	47	41.07	35.6170	7.8	
mar	31	2460766.00	20	25	25.37	-22	47	37.78	35.6021	7.7	
abr	1	2460767.00	20	25	29.43	-22	47	34.90	35.5870	7.7	
abr	2	2460768.00	20	25	33.39	-22	47	32.42	35.5718	7.6	
abr	3	2460769.00	20	25	37.24	-22	47	30.36	35.5566	7.5	
abr	4	2460770.00	20	25	40.97	-22	47	28.70	35.5412	7.5	
abr	5	2460771.00	20	25	44.60	-22	47	27.46	35.5257	7.4	
abr	6	2460772.00	20	25	48.12	-22	47	26.63	35.5102	7.4	
abr	7	2460773.00	20	25	51.52	-22	47	26.22	35.4945	7.3	
abr	8	2460774.00	20	25	54.81	-22	47	26.22	35.4788	7.2	

# Plutón, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
abr	9	2460775.00	20	25	57.99	-22	47	26.63	35.4631	7.2	
abr	10	2460776.00	20	26	1.05	-22	47	27.45	35.4472	7.1	
abr	11	2460777.00	20	26	4.00	-22	47	28.69	35.4313	7.1	
abr	12	2460778.00	20	26	6.84	-22	47	30.35	35.4153	7.0	
abr	13	2460779.00	20	26	9.56	-22	47	32.42	35.3993	6.9	
abr	14	2460780.00	20	26	12.17	-22	47	34.90	35.3832	6.9	
abr	15	2460781.00	20	26	14.66	-22	47	37.80	35.3671	6.8	
abr	16	2460782.00	20	26	17.03	-22	47	41.12	35.3510	6.8	
abr	17	2460783.00	20	26	19.29	-22	47	44.85	35.3348	6.7	
abr	18	2460784.00	20	26	21.43	-22	47	48.99	35.3186	6.6	
abr	19	2460785.00	20	26	23.45	-22	47	53.55	35.3023	6.6	
abr	20	2460786.00	20	26	25.36	-22	47	58.53	35.2860	6.5	
abr	21	2460787.00	20	26	27.14	-22	48	3.92	35.2697	6.4	
abr	22	2460788.00	20	26	28.81	-22	48	9.72	35.2534	6.4	
abr	23	2460789.00	20	26	30.36	-22	48	15.94	35.2371	6.3	
abr	24	2460790.00	20	26	31.79	-22	48	22.58	35.2208	6.3	
abr	25	2460791.00	20	26	33.10	-22	48	29.63	35.2045	6.2	
abr	26	2460792.00	20	26	34.29	-22	48	37.09	35.1882	6.1	
abr	27	2460793.00	20	26	35.36	-22	48	44.96	35.1719	6.1	
abr	28	2460794.00	20	26	36.31	-22	48	53.24	35.1557	6.0	
abr	29	2460795.00	20	26	37.14	-22	49	1.93	35.1394	5.9	
abr	30	2460796.00	20	26	37.85	-22	49	11.03	35.1232	5.9	
may	1	2460797.00	20	26	38.44	-22	49	20.53	35.1070	5.8	
may	2	2460798.00	20	26	38.92	-22	49	30.43	35.0909	5.8	
may	3	2460799.00	20	26	39.27	-22	49	40.73	35.0748	5.7	
may	4	2460800.00	20	26	39.50	-22	49	51.42	35.0587	5.6	
may	5	2460801.00	20	26	39.62	-22	50	2.51	35.0427	5.6	
may	6	2460802.00	20	26	39.62	-22	50	13.98	35.0268	5.5	
may	7	2460803.00	20	26	39.50	-22	50	25.84	35.0109	5.4	
may	8	2460804.00	20	26	39.26	-22	50	38.08	34.9951	5.4	
may	9	2460805.00	20	26	38.90	-22	50	50.70	34.9794	5.3	
may	10	2460806.00	20	26	38.43	-22	51	3.69	34.9637	5.2	
may	11	2460807.00	20	26	37.85	-22	51	17.05	34.9482	5.2	
may	12	2460808.00	20	26	37.15	-22	51	30.79	34.9327	5.1	
may	13	2460809.00	20	26	36.33	-22	51	44.88	34.9173	5.0	
may	14	2460810.00	20	26	35.40	-22	51	59.34	34.9020	5.0	
may	15	2460811.00	20	26	34.35	-22	52	14.15	34.8868	4.9	
may	16	2460812.00	20	26	33.20	-22	52	29.32	34.8717	4.9	
may	17	2460813.00	20	26	31.92	-22	52	44.83	34.8567	4.8	
may	18	2460814.00	20	26	30.54	-22	53	0.69	34.8418	4.7	
may	19	2460815.00	20	26	29.04	-22	53	16.90	34.8270	4.7	
may	20	2460816.00	20	26	27.44	-22	53	33.44	34.8124	4.6	
may	21	2460817.00	20	26	25.72	-22	53	50.31	34.7979	4.5	
may	22	2460818.00	20	26	23.89	-22	54	7.52	34.7835	4.5	
may	23	2460819.00	20	26	21.95	-22	54	25.05	34.7692	4.4	
may	24	2460820.00	20	26	19.90	-22	54	42.91	34.7551	4.3	
may	25	2460821.00	20	26	17.75	-22	55	1.08	34.7412	4.2	
may	26	2460822.00	20	26	15.49	-22	55	19.56	34.7273	4.2	
may	27	2460823.00	20	26	13.12	-22	55	38.34	34.7137	4.1	

# Plutón, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
may	28	2460824.00	20	26	10.65	-22	55	57.43	34.7002	4.0	
may	29	2460825.00	20	26	8.07	-22	56	16.81	34.6868	4.0	
may	30	2460826.00	20	26	5.39	-22	56	36.48	34.6736	3.9	
may	31	2460827.00	20	26	2.61	-22	56	56.43	34.6606	3.8	
jun	1	2460828.00	20	25	59.73	-22	57	16.66	34.6478	3.8	
jun	2	2460829.00	20	25	56.75	-22	57	37.15	34.6351	3.7	
jun	3	2460830.00	20	25	53.67	-22	57	57.90	34.6226	3.6	
jun	4	2460831.00	20	25	50.50	-22	58	18.91	34.6103	3.6	
jun	5	2460832.00	20	25	47.23	-22	58	40.17	34.5982	3.5	
jun	6	2460833.00	20	25	43.87	-22	59	1.67	34.5863	3.4	
jun	7	2460834.00	20	25	40.42	-22	59	23.40	34.5746	3.4	
jun	8	2460835.00	20	25	36.87	-22	59	45.37	34.5631	3.3	
jun	9	2460836.00	20	25	33.24	-23	0	7.55	34.5518	3.2	
jun	10	2460837.00	20	25	29.52	-23	0	29.95	34.5407	3.1	
jun	11	2460838.00	20	25	25.71	-23	0	52.56	34.5298	3.1	
jun	12	2460839.00	20	25	21.81	-23	1	15.38	34.5191	3.0	
jun	13	2460840.00	20	25	17.83	-23	1	38.39	34.5086	2.9	
jun	14	2460841.00	20	25	13.77	-23	2	1.59	34.4984	2.9	
jun	15	2460842.00	20	25	9.63	-23	2	24.97	34.4883	2.8	
jun	16	2460843.00	20	25	5.40	-23	2	48.53	34.4785	2.7	
jun	17	2460844.00	20	25	1.10	-23	3	12.26	34.4689	2.7	
jun	18	2460845.00	20	24	56.72	-23	3	36.16	34.4596	2.6	
jun	19	2460846.00	20	24	52.27	-23	4	0.21	34.4505	2.5	
jun	20	2460847.00	20	24	47.74	-23	4	24.42	34.4416	2.4	
jun	21	2460848.00	20	24	43.14	-23	4	48.77	34.4330	2.4	
jun	22	2460849.00	20	24	38.46	-23	5	13.25	34.4246	2.3	
jun	23	2460850.00	20	24	33.72	-23	5	37.87	34.4164	2.2	
jun	24	2460851.00	20	24	28.91	-23	6	2.60	34.4085	2.2	
jun	25	2460852.00	20	24	24.04	-23	6	27.45	34.4009	2.1	
jun	26	2460853.00	20	24	19.10	-23	6	52.40	34.3935	2.0	
jun	27	2460854.00	20	24	14.10	-23	7	17.45	34.3863	1.9	
jun	28	2460855.00	20	24	9.04	-23	7	42.58	34.3795	1.9	
jun	29	2460856.00	20	24	3.93	-23	8	7.80	34.3729	1.8	
jun	30	2460857.00	20	23	58.76	-23	8	33.09	34.3665	1.7	
jul	1	2460858.00	20	23	53.53	-23	8	58.44	34.3604	1.7	
jul	2	2460859.00	20	23	48.26	-23	9	23.84	34.3546	1.6	
jul	3	2460860.00	20	23	42.93	-23	9	49.29	34.3491	1.5	
jul	4	2460861.00	20	23	37.56	-23	10	14.78	34.3438	1.5	
jul	5	2460862.00	20	23	32.14	-23	10	40.30	34.3388	1.4	
jul	6	2460863.00	20	23	26.68	-23	11	5.85	34.3341	1.3	
jul	7	2460864.00	20	23	21.18	-23	11	31.41	34.3297	1.2	
jul	8	2460865.00	20	23	15.64	-23	11	56.98	34.3255	1.2	
jul	9	2460866.00	20	23	10.06	-23	12	22.55	34.3216	1.1	
jul	10	2460867.00	20	23	4.44	-23	12	48.11	34.3180	1.0	
jul	11	2460868.00	20	22	58.79	-23	13	13.66	34.3146	1.0	
jul	12	2460869.00	20	22	53.11	-23	13	39.19	34.3116	0.9	
jul	13	2460870.00	20	22	47.40	-23	14	4.69	34.3088	0.8	
jul	14	2460871.00	20	22	41.66	-23	14	30.16	34.3063	0.8	
jul	15	2460872.00	20	22	35.90	-23	14	55.58	34.3041	0.7	

# Plutón, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
jul	16	2460873.00	20	22	30.11	-23	15	20.96	34.3022	0.6	
jul	17	2460874.00	20	22	24.30	-23	15	46.27	34.3006	0.6	
jul	18	2460875.00	20	22	18.47	-23	16	11.53	34.2993	0.5	
jul	19	2460876.00	20	22	12.63	-23	16	36.71	34.2982	0.4	
jul	20	2460877.00	20	22	6.76	-23	17	1.81	34.2975	0.4	
jul	21	2460878.00	20	22	0.89	-23	17	26.83	34.2970	0.3	
jul	22	2460879.00	20	21	55.00	-23	17	51.75	34.2968	0.2	
jul	23	2460880.00	20	21	49.10	-23	18	16.57	34.2969	0.1	
jul	24	2460881.00	20	21	43.20	-23	18	41.28	34.2973	0.1	
jul	25	2460882.00	20	21	37.30	-23	19	5.87	34.2981	0.0	
jul	26	2460883.00	20	21	31.39	-23	19	30.33	34.2991	23.9	
jul	27	2460884.00	20	21	25.48	-23	19	54.66	34.3003	23.9	
jul	28	2460885.00	20	21	19.58	-23	20	18.84	34.3019	23.8	
jul	29	2460886.00	20	21	13.68	-23	20	42.88	34.3038	23.7	
jul	30	2460887.00	20	21	7.79	-23	21	6.75	34.3060	23.7	
jul	31	2460888.00	20	21	1.91	-23	21	30.47	34.3084	23.6	
ago	1	2460889.00	20	20	56.04	-23	21	54.01	34.3112	23.5	
ago	2	2460890.00	20	20	50.19	-23	22	17.37	34.3142	23.5	
ago	3	2460891.00	20	20	44.35	-23	22	40.54	34.3176	23.4	
ago	4	2460892.00	20	20	38.53	-23	23	3.53	34.3212	23.3	
ago	5	2460893.00	20	20	32.73	-23	23	26.31	34.3251	23.3	
ago	6	2460894.00	20	20	26.95	-23	23	48.90	34.3293	23.2	
ago	7	2460895.00	20	20	21.20	-23	24	11.27	34.3337	23.2	
ago	8	2460896.00	20	20	15.48	-23	24	33.42	34.3385	23.1	
ago	9	2460897.00	20	20	9.78	-23	24	55.35	34.3435	23.0	
ago	10	2460898.00	20	20	4.12	-23	25	17.06	34.3489	23.0	
ago	11	2460899.00	20	19	58.48	-23	25	38.53	34.3545	22.9	
ago	12	2460900.00	20	19	52.88	-23	25	59.76	34.3604	22.8	
ago	13	2460901.00	20	19	47.32	-23	26	20.75	34.3665	22.8	
ago	14	2460902.00	20	19	41.80	-23	26	41.49	34.3729	22.7	
ago	15	2460903.00	20	19	36.32	-23	27	1.98	34.3797	22.6	
ago	16	2460904.00	20	19	30.88	-23	27	22.20	34.3866	22.6	
ago	17	2460905.00	20	19	25.48	-23	27	42.16	34.3939	22.5	
ago	18	2460906.00	20	19	20.13	-23	28	1.84	34.4014	22.4	
ago	19	2460907.00	20	19	14.84	-23	28	21.24	34.4092	22.4	
ago	20	2460908.00	20	19	9.59	-23	28	40.36	34.4173	22.3	
ago	21	2460909.00	20	19	4.40	-23	28	59.19	34.4256	22.3	
ago	22	2460910.00	20	18	59.26	-23	29	17.73	34.4342	22.2	
ago	23	2460911.00	20	18	54.18	-23	29	35.96	34.4431	22.1	
ago	24	2460912.00	20	18	49.16	-23	29	53.88	34.4522	22.1	
ago	25	2460913.00	20	18	44.20	-23	30	11.49	34.4616	22.0	
ago	26	2460914.00	20	18	39.30	-23	30	28.78	34.4712	21.9	
ago	27	2460915.00	20	18	34.47	-23	30	45.75	34.4811	21.9	
ago	28	2460916.00	20	18	29.71	-23	31	2.39	34.4912	21.8	
ago	29	2460917.00	20	18	25.02	-23	31	18.70	34.5015	21.8	
ago	30	2460918.00	20	18	20.40	-23	31	34.68	34.5121	21.7	
ago	31	2460919.00	20	18	15.85	-23	31	50.31	34.5230	21.6	
sep	1	2460920.00	20	18	11.38	-23	32	5.60	34.5341	21.6	
sep	2	2460921.00	20	18	6.98	-23	32	20.55	34.5454	21.5	

# Plutón, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
sep	3	2460922.00	20	18	2.67	-23	32	35.14	34.5569	21.4	
sep	4	2460923.00	20	17	58.43	-23	32	49.38	34.5687	21.4	
sep	5	2460924.00	20	17	54.27	-23	33	3.27	34.5807	21.3	
sep	6	2460925.00	20	17	50.20	-23	33	16.79	34.5929	21.3	
sep	7	2460926.00	20	17	46.21	-23	33	29.96	34.6053	21.2	
sep	8	2460927.00	20	17	42.30	-23	33	42.76	34.6179	21.1	
sep	9	2460928.00	20	17	38.48	-23	33	55.19	34.6308	21.1	
sep	10	2460929.00	20	17	34.75	-23	34	7.25	34.6438	21.0	
sep	11	2460930.00	20	17	31.11	-23	34	18.95	34.6571	21.0	
sep	12	2460931.00	20	17	27.56	-23	34	30.26	34.6705	20.9	
sep	13	2460932.00	20	17	24.11	-23	34	41.20	34.6842	20.8	
sep	14	2460933.00	20	17	20.74	-23	34	51.76	34.6980	20.8	
sep	15	2460934.00	20	17	17.48	-23	35	1.94	34.7120	20.7	
sep	16	2460935.00	20	17	14.31	-23	35	11.73	34.7262	20.7	
sep	17	2460936.00	20	17	11.24	-23	35	21.13	34.7406	20.6	
sep	18	2460937.00	20	17	8.27	-23	35	30.14	34.7552	20.5	
sep	19	2460938.00	20	17	5.40	-23	35	38.76	34.7699	20.5	
sep	20	2460939.00	20	17	2.64	-23	35	46.97	34.7849	20.4	
sep	21	2460940.00	20	16	59.97	-23	35	54.80	34.7999	20.4	
sep	22	2460941.00	20	16	57.42	-23	36	2.22	34.8152	20.3	
sep	23	2460942.00	20	16	54.97	-23	36	9.23	34.8306	20.2	
sep	24	2460943.00	20	16	52.63	-23	36	15.85	34.8461	20.2	
sep	25	2460944.00	20	16	50.40	-23	36	22.06	34.8618	20.1	
sep	26	2460945.00	20	16	48.27	-23	36	27.86	34.8776	20.1	
sep	27	2460946.00	20	16	46.26	-23	36	33.26	34.8936	20.0	
sep	28	2460947.00	20	16	44.36	-23	36	38.25	34.9097	19.9	
sep	29	2460948.00	20	16	42.57	-23	36	42.84	34.9259	19.9	
sep	30	2460949.00	20	16	40.90	-23	36	47.01	34.9423	19.8	
oct	1	2460950.00	20	16	39.34	-23	36	50.78	34.9587	19.8	
oct	2	2460951.00	20	16	37.89	-23	36	54.14	34.9753	19.7	
oct	3	2460952.00	20	16	36.56	-23	36	57.10	34.9920	19.6	
oct	4	2460953.00	20	16	35.35	-23	36	59.64	35.0088	19.6	
oct	5	2460954.00	20	16	34.25	-23	37	1.78	35.0257	19.5	
oct	6	2460955.00	20	16	33.26	-23	37	3.52	35.0427	19.4	
oct	7	2460956.00	20	16	32.40	-23	37	4.85	35.0598	19.4	
oct	8	2460957.00	20	16	31.65	-23	37	5.78	35.0769	19.3	
oct	9	2460958.00	20	16	31.02	-23	37	6.31	35.0942	19.3	
oct	10	2460959.00	20	16	30.51	-23	37	6.43	35.1115	19.2	
oct	11	2460960.00	20	16	30.12	-23	37	6.15	35.1289	19.1	
oct	12	2460961.00	20	16	29.85	-23	37	5.46	35.1463	19.1	
oct	13	2460962.00	20	16	29.70	-23	37	4.38	35.1638	19.0	
oct	14	2460963.00	20	16	29.67	-23	37	2.89	35.1814	19.0	
oct	15	2460964.00	20	16	29.77	-23	37	1.00	35.1990	18.9	
oct	16	2460965.00	20	16	29.98	-23	36	58.71	35.2167	18.8	
oct	17	2460966.00	20	16	30.32	-23	36	56.02	35.2344	18.8	
oct	18	2460967.00	20	16	30.77	-23	36	52.92	35.2522	18.7	
oct	19	2460968.00	20	16	31.36	-23	36	49.44	35.2700	18.6	
oct	20	2460969.00	20	16	32.06	-23	36	45.55	35.2878	18.6	
oct	21	2460970.00	20	16	32.89	-23	36	41.27	35.3056	18.5	

# Plutón, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
oct	22	2460971.00	20	16	33.84	-23	36	36.59	35.3235	18.5	
oct	23	2460972.00	20	16	34.91	-23	36	31.52	35.3414	18.4	
oct	24	2460973.00	20	16	36.11	-23	36	26.07	35.3592	18.3	
oct	25	2460974.00	20	16	37.43	-23	36	20.22	35.3771	18.3	
oct	26	2460975.00	20	16	38.87	-23	36	13.99	35.3950	18.2	
oct	27	2460976.00	20	16	40.44	-23	36	7.38	35.4128	18.1	
oct	28	2460977.00	20	16	42.12	-23	36	0.39	35.4306	18.1	
oct	29	2460978.00	20	16	43.93	-23	35	53.02	35.4485	18.0	
oct	30	2460979.00	20	16	45.86	-23	35	45.28	35.4662	18.0	
oct	31	2460980.00	20	16	47.92	-23	35	37.17	35.4840	17.9	
nov	1	2460981.00	20	16	50.09	-23	35	28.69	35.5017	17.8	
nov	2	2460982.00	20	16	52.38	-23	35	19.84	35.5194	17.8	
nov	3	2460983.00	20	16	54.79	-23	35	10.64	35.5370	17.7	
nov	4	2460984.00	20	16	57.32	-23	35	1.08	35.5546	17.6	
nov	5	2460985.00	20	16	59.97	-23	34	51.17	35.5721	17.6	
nov	6	2460986.00	20	17	2.74	-23	34	40.91	35.5896	17.5	
nov	7	2460987.00	20	17	5.62	-23	34	30.30	35.6070	17.4	
nov	8	2460988.00	20	17	8.63	-23	34	19.34	35.6243	17.4	
nov	9	2460989.00	20	17	11.74	-23	34	8.05	35.6416	17.3	
nov	10	2460990.00	20	17	14.98	-23	33	56.41	35.6587	17.2	
nov	11	2460991.00	20	17	18.33	-23	33	44.44	35.6758	17.2	
nov	12	2460992.00	20	17	21.79	-23	33	32.14	35.6928	17.1	
nov	13	2460993.00	20	17	25.37	-23	33	19.51	35.7097	17.0	
nov	14	2460994.00	20	17	29.06	-23	33	6.55	35.7266	17.0	
nov	15	2460995.00	20	17	32.87	-23	32	53.27	35.7433	16.9	
nov	16	2460996.00	20	17	36.79	-23	32	39.66	35.7599	16.8	
nov	17	2460997.00	20	17	40.82	-23	32	25.75	35.7763	16.8	
nov	18	2460998.00	20	17	44.96	-23	32	11.52	35.7927	16.7	
nov	19	2460999.00	20	17	49.21	-23	31	56.99	35.8089	16.6	
nov	20	2461000.00	20	17	53.57	-23	31	42.15	35.8251	16.6	
nov	21	2461001.00	20	17	58.03	-23	31	27.01	35.8410	16.5	
nov	22	2461002.00	20	18	2.61	-23	31	11.59	35.8569	16.4	
nov	23	2461003.00	20	18	7.28	-23	30	55.87	35.8726	16.4	
nov	24	2461004.00	20	18	12.06	-23	30	39.87	35.8881	16.3	
nov	25	2461005.00	20	18	16.95	-23	30	23.59	35.9035	16.2	
nov	26	2461006.00	20	18	21.94	-23	30	7.04	35.9188	16.2	
nov	27	2461007.00	20	18	27.02	-23	29	50.22	35.9338	16.1	
nov	28	2461008.00	20	18	32.21	-23	29	33.14	35.9488	16.0	
nov	29	2461009.00	20	18	37.49	-23	29	15.81	35.9635	15.9	
nov	30	2461010.00	20	18	42.87	-23	28	58.22	35.9781	15.9	
dic	1	2461011.00	20	18	48.34	-23	28	40.39	35.9925	15.8	
dic	2	2461012.00	20	18	53.91	-23	28	22.31	36.0067	15.7	
dic	3	2461013.00	20	18	59.57	-23	28	4.00	36.0207	15.7	
dic	4	2461014.00	20	19	5.32	-23	27	45.47	36.0345	15.6	
dic	5	2461015.00	20	19	11.16	-23	27	26.70	36.0482	15.5	
dic	6	2461016.00	20	19	17.09	-23	27	7.72	36.0616	15.5	
dic	7	2461017.00	20	19	23.10	-23	26	48.52	36.0749	15.4	
dic	8	2461018.00	20	19	29.20	-23	26	29.11	36.0880	15.3	
dic	9	2461019.00	20	19	35.39	-23	26	9.49	36.1008	15.2	

# Plutón, 2025

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

mes	día	dj	h	$\alpha$			$\delta$			dis UA	hp h
				m	s	o	'	"			
dic	10	2461020.00	20	19	41.65	-23	25	49.68	36.1134	15.2	
dic	11	2461021.00	20	19	48.00	-23	25	29.66	36.1259	15.1	
dic	12	2461022.00	20	19	54.43	-23	25	9.46	36.1381	15.0	
dic	13	2461023.00	20	20	0.94	-23	24	49.07	36.1501	15.0	
dic	14	2461024.00	20	20	7.52	-23	24	28.50	36.1618	14.9	
dic	15	2461025.00	20	20	14.18	-23	24	7.76	36.1734	14.8	
dic	16	2461026.00	20	20	20.92	-23	23	46.85	36.1847	14.7	
dic	17	2461027.00	20	20	27.72	-23	23	25.77	36.1957	14.7	
dic	18	2461028.00	20	20	34.60	-23	23	4.54	36.2066	14.6	
dic	19	2461029.00	20	20	41.55	-23	22	43.16	36.2172	14.5	
dic	20	2461030.00	20	20	48.56	-23	22	21.64	36.2275	14.4	
dic	21	2461031.00	20	20	55.64	-23	21	59.98	36.2376	14.4	
dic	22	2461032.00	20	21	2.78	-23	21	38.19	36.2475	14.3	
dic	23	2461033.00	20	21	9.98	-23	21	16.28	36.2571	14.2	
dic	24	2461034.00	20	21	17.24	-23	20	54.25	36.2664	14.2	
dic	25	2461035.00	20	21	24.56	-23	20	32.11	36.2755	14.1	
dic	26	2461036.00	20	21	31.94	-23	20	9.86	36.2843	14.0	
dic	27	2461037.00	20	21	39.37	-23	19	47.52	36.2929	13.9	
dic	28	2461038.00	20	21	46.85	-23	19	25.09	36.3012	13.9	
dic	29	2461039.00	20	21	54.38	-23	19	2.58	36.3092	13.8	
dic	30	2461040.00	20	22	1.96	-23	18	39.99	36.3169	13.7	
dic	31	2461041.00	20	22	9.59	-23	18	17.34	36.3244	13.7	

# Satélites de los planetas, 2025

Planeta	Satélite	Periodo orbital (días)	Semieje mayor ( $10^3$ km)	Excentricidad	Inclinación	Razón Ms/Mp	Radio (km)	Albedo
Tie 1	Luna	27.321661	384.400	0.0549	5.145	0.0123	1737.4	0.11
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

## Satélites de los planetas, 2025

Planeta	Satélite	Periodo orbital (días)	Semieje mayor ( $10^3$ km)	Excentricidad	Inclinación	Razón Ms/Mp	Radio (km)	Albedo
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
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

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## Satélites de los planetas, 2025

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Planeta	Satélite	Periodo orbital (días)	Semieje mayor ( $10^3$ km)	Excentricidad	Inclinación	Razón $M_s/M_p$	Radio (km)	Albedo
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 retrógrado

irr forma irregular

p inclinación de la órbita relativa al ecuador del planeta

e inclinación de la órbita relativa a la eclíptica

t inclinación de la órbita relativa al ecuador terrestre

$M_s$  masa del satélite

$M_p$  masa del planeta

# Parámetros orbitales y físicos, 2025

## 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 ( $\times 10^{-3}$ )
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	6.7772
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	periodo de rotación	semidiámetro mínimo
	km	kg	$\text{g/cm}^3$	días	"
Luna	1737.4	$7,3458 \times 10^{22}$	3.34	+27.32166	2010.7
Mercurio	2439.7	$3,3010 \times 10^{23}$	5.43	+58.6462	12.3
Venus	6051.8	$4,8673 \times 10^{24}$	5.24	-243,0185	63.0
Tierra	6378.1	$5,9721 \times 10^{24}$	5.513	+0,99726963	
Marte	3396.2	$6,4169 \times 10^{23}$	3.93	+1,02595676	25.1
Júpiter	71492.0	$1,8981 \times 10^{27}$	1.33	+0,41354	49.9
Saturno	60268.0	$5,6831 \times 10^{26}$	0.69	+0,44401	20.7
Urano	25559.0	$8,6890 \times 10^{25}$	1.27	-0,71833	4.1
Plutón	1195.0	$1,3041 \times 10^{22}$	1.82	-6,3872	0.11

\*Movimiento de rotación retrógrado.

# Sistema de constantes y parámetros, 2025

Unión Astronómica Internacional (IAU 1976)

## Tiempos y épocas de referencia

### Duración del año en 1990

Tipo de año	días	d	h	m	s
Trópico (equinoccio a equinoccio)	365.242190	365	05	48	45.19
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

Tipo de mes	días	d	h	m	s
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

Tipo de día	d	h	m	s	seg. solares
Tiempo solar medio	1.00273790935	24	03	56.555367	86636.555367
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, 2025

Unión Astronómica Internacional (IAU 1976)

## Parámetros del Sol, la Tierra y la Luna

### Sol

Radio	$6,96 \times 10^8$ m
Semidiámetro a la distancia media	$15' 59,63'' = 959,63''$
Masa	$1,9891 \times 10^{33}$ g
Densidad media	$1,41$ g cm <sup>-3</sup>
Gravedad superficial	$29,398$ cm s <sup>-2</sup>
Inclinación del ecuador solar (respecto de la eclíptica)	$7^\circ 15'$
Longitud del nodo ascendente (T en siglos desde J2000.0)	$75^\circ 46' + 84'T$
Periodo sinódico de rotación (f: latitud en el Sol)	$(26,90 + 5,2 \sin(2f))$ días
Periodo sideral de rotación (para longitudes heliográficas)	25.38 días
Apex	$a = 18\text{h } 10' \quad \delta = +37^\circ$
Rapidez en el sistema local de reposo	$1,94 \times 10^4$ 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	$23^\circ 26' 21,448\text{j}$
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/s <sup>2</sup>

## 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	$15.04106717866910 \text{ '' /s} = 7.29211510 \times 10^{-5} \text{ rad s}^{-1}$

## 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	$-0.0188626'' - 0.0476128'' T$

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# Sistema de constantes y parámetros, 2025

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Unión Astronómica Internacional (IAU 1976)

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Figura y campo de gravedad	
Radio ecuatorial (a)	6378140 m
Radio polar (b)	6356755 m
Masa	$5,9742 \times 10^{24}$ g
Densidad media	$5,52$ g/cm <sup>3</sup>
Factor dinámico (J2)	$0,00108263 \times 10^{-11}$
Gravedad normal (g), latitud (f)	$g = 9,80621 - 0,02593 \cos(2f) + 0,00003 \cos(4f)$ m/s <sup>2</sup>
Constante de gravitación geocéntrica	$3,986005 \times 10^{14}$ m <sup>3</sup> s <sup>-2</sup>

## Luna

Radio medio	1738 km
Semidiámetro a la distancia media	15' 32.6"
Masa	$7,3483 \times 10^{22}$ kg
Densidad media	$3,34$ g/cm <sup>2</sup>
Gravedad superficial	$1,62$ m/s <sup>2</sup> = 0,17 g

## Órbita de la Luna en torno a la Tierra

Movimiento sidereal medio	$2,661699489 \times 10^{-6}$ rad/s
Distancia media de la Tierra a la Luna	$3,844 \times 10^5$ 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	$4,671 \times 10^3$ km
Excentricidad media	0.05490
Inclinación media (respecto de la eclíptica)	$5,145396^\circ$
Inclinación media (respecto del ecuador de la Luna)	$6^\circ 41'$
Límites de la declinación geocéntrica	$+29^\circ$ $-29^\circ$
Periodo de revolución del nodo	6798 d
Periodo de revolución del perigeo	3232 d
Periodo Saros	223 lunaciones = 19 pasos del Sol por el nodo $6585 \frac{1}{3}$ días
Rapidez orbital media	$1023$ m/s = 0,000591 UA/día
Aceleración centrípeta media	$0,00272$ m/s <sup>2</sup> = 0,0003 g



# Nomenclatura de estrellas brillantes, 2025

Nombres de estrellas			Nombres de estrellas		
Propios	Clasificación Bayer	NBSC	Propios	Clasificación Bayer	NBSC
Acamar	$\theta$ Eri	897	Algomeyla	$\beta$ CMi	2845
Achernar	$\alpha$ Eri	472	Algomeysa	$\alpha$ CMi	2943
Achird	$\eta$ Cas	219	Algorab	$\delta$ Crv	4757
Acrux	$\alpha$ Cru	4730	Alhajoth	$\alpha$ Aur	1708
Acubens	$\alpha$ Cnc	3572	Al Hammam	$\zeta$ Peg	8634
Adhafera	$\zeta$ Leo	4031	Alhena	$\gamma$ Gem	2421
Adhara	$\varepsilon$ CMa	2618	Alioth	$\varepsilon$ UMa	5191
Adhil	$\xi$ And	390	Al Kaffal Jidmah	$\gamma$ Cet	804
Adib	$\alpha$ Dra	5921	Alkaid	$\eta$ UMA	5191
Agena	$\beta$ Cen	5267	Al Kalbal Asad	$\alpha$ Leo	3982
Ain	$\varepsilon$ Tau	1409	Alkalurops	$\mu$ Boo	5733
Ain al Rami	$\nu$ Sgr	7116	Al Kaphrab	$\chi$ UMA	4518
Ak	$\alpha$ Uma	4301	Alkes	$\alpha$ Crt	4287
Akrab	$\beta$ Sco	5984	Alkhiba	$\alpha$ Crv	4623
Aladfar	$\eta$ Lyr	7298	Al Kirdah	$\xi$ Cep	8417
Alamak	$\gamma$ And	603	Almaak	$\gamma$ And	603
Al Anchatal Nahr	$\tau$ Eri	850	Almaaz	$\varepsilon$ Aur	1605
Al Anf	$\varepsilon$ Peg	8308	Al Minliar al Asad	$\kappa$ Leo	3731
Al Anz	$\varepsilon$ Aur	1605	Al Minliar al Shuja	$\sigma$ Hya	3418
Alaraph	$\alpha$ Vir	5056	Almuredin	$\varepsilon$ Vir	4932
Alaraph	$\beta$ Vir	4540	Alnair	$\alpha$ Gru	8425
Alascha	$\lambda$ Sco	6527	Al Nasl	$\gamma$ Sgr	6746
Al Athfar	$\mu$ Lyr	6903	Alnath	$\alpha$ Ari	617
Al Atik	$o$ Per	1131	Alnilam	$\varepsilon$ Ori	1903
Al Baldah	$\pi$ Sgr	7264	Alnitak	$\zeta$ Ori	1948
Al Bali	$\varepsilon$ Aqr	7950	Al Niyat	$\sigma$ Sco	6048
Albireo	$\beta$ Cyg	7417	Al Niyat	$\tau$ Sco	6165
Al Chiba	$\alpha$ Crv	4623	Alphard	$\alpha$ Hya	3748
Alcor	80 Uma	5062	Alphecca	$\alpha$ CrB	5793
Alcyone	$\nu$ Tau	1165	Alpheratz	$\alpha$ And	15
Aldebarán	$\alpha$ Tau	1457	Alphirk	$\beta$ Cep	8238
Alderamin	$\alpha$ Cep	8162	Alrai	$\gamma$ Cep	8974
Aldhafara	$\zeta$ Leo	4031	Alrami	$\alpha$ Sgr	7348
Al Dhiba	$\iota$ Dra	5744	Al Rescha	$\alpha$ Psc	595
Aldhibah	$\zeta$ Dra	6396	Alruccabah	$\alpha$ Umi	424
Al Dihi	$\iota$ Dra	5744	Al Rukbahal Daj	$\omega$ Cyg	7851
Aldib	$\delta$ Dra	7310	Alsafi	$\sigma$ Dra	7462
AL Dibah	$\zeta$ Dra	6396	Alsah	$\alpha$ Sge	7479
Alfard	$\alpha$ Hya	3748	Al Samanal Nakah	$\beta$ Cas	21
Alfecca	$\alpha$ CrA	7254	Alsciaukat	31 Lyn	3275
Alfirk	$\beta$ Cep	8238	Alshain	$\beta$ Aql	7602
Alga	$\theta$ Ser	7141	Alshat	$\nu$ Cap	7773
Algebar	$\beta$ Ori	1713	Alshemali	$\mu$ Leo	3905
Algedi Prima	$\alpha$ Cap	7747	Al Sheratain	$\beta$ Ari	553
Algedi Secunda	$\alpha$ Cap	7754	Alsuhail	$\lambda$ Vel	3634
Algeiba	$\gamma$ Leo	4057	Al Suhailala Muhlif	$\gamma$ Vel	3206
Algenib	$\gamma$ Peg	39	Altair	$\alpha$ Aql	7557
Algenib	$\alpha$ Per	1017	Altais	$\delta$ Dra	7310
Algenubi	$\varepsilon$ Leo	3873	AlTarf	$\beta$ Cnc	3249
Algieba	$\gamma$ Leo	4058	Alterf	$\lambda$ Leo	3773
Algol	$\beta$ Per	936	Aludra	$\eta$ CMA	2827

# Nomenclatura de estrellas brillantes, 2025

Nombres de estrellas			Nombres de estrellas		
Propios	Clasificación Bayer	NBSC	Propios	Clasificación Bayer	NBSC
Alula Australia	ξ UMa	4374	Cebalrai	β Oph	6603
Alula Borealis	ν UMa	4377	Ceginus	γ Boo	5435
Alwaid	β Dra	6536	Celaeno	16 Tau	1140
Al Wazor	δ CMa	2693	Chara	β CVn	4785
Alya	θ Ser	7141	Chertan	θ Leo	4359
Alzirr	ξ Gem	2484	Cor Caroli	α CVn	4915
Ancha	θ Aqr	8499	Cor Tauri	α TAU	1457
Angetenar	τ Eri	850	Cursa	β Eri	1666
Ankaa	α Phe	99	Dabih Major	β Cap	7776
Anser	α Vul	7405	Demon Star	β per	936
Antares	α Sco	6134	Deneb	α Cyg	7924
Arcturus	α Boo	5340	Deneb	ε Aql	7176
Arich	γ Vir	4825	Deneb	ε Del	7852
Arietis	α Ari	617	Deneb	η Cet	334
Arkab Posterior	β Sgr	7343	Deneb	ζ Aql	7235
Arkab Prior	β Sgr	7337	Deneb Algedi	δ Cap	8322
Arneb	α Lep	1865	Denebkaitos	ι Cet	74
Arnai	γ Cep	8974	Denebola	β Leo	4534
Ascella	ζ Sgr	7194	Dhur	δ Leo	4357
Asellus Australis	δ Cnc	3461	Diadem	α Com	4968
Asellus Borealis	γ Cnc	3449	Diphda	β Cet	188
Asellus Primus	θ Boo	5404	Dschubba	δ Sco	5953
Asellus Secundus	ι Boo	5350	Dubhe	α UMa	4301
Asellus Tertius	κ Boo	5329	Ed Asich	ι Dra	5744
Asmidiske	ι Car	3699	El Acola	ξ UMa	4374
Asmidiske	ξ Pup	3045	Elacrab	β Sco	5984
Asuia	ψ Dra	6636	EL Kaprah	κ UMa	3594
Atik	ο Per	1131	El Karidab	δ Sgr	6859
Atlas	27 Tau	1178	EL Khereb	τ Peg	8880
Atria	α Tri	544	Elkhiffa Australis	α Lib	5530
Auva	δ Vir	4910	Elkhiffa Borealis	β Lib	5685
Avior	ε Car	3307	El Koprah	χ UMa	4518
Azelfafage	π Cyg	8301	El Nath	β Tau	1791
Azha	η Eri	874	El Phekrab	μ UMa	4069
Baham	θ Peg	8450	Enif	ε Peg	8308
Baten Kaitos	ζ Cet	539	Erakis	μ Cep	8316
Becrux	β Cru	4853	Etamin	γ Dra	6705
Beid	ο Eri	1298	Fomalhaut	α Psa	8728
Bellatrix	γ Ori	1790	Fornacis	α For	963
Benetnash	η UMa	5191	Fumal Samakah	β Psc	8773
Betelgeuse	α Ori	2061	Furud	ζ CMa	2282
Botein	δ Ari	951	Gacrux	γ Cru	4763
Brachiu	γ Sco	1809	Gemma	α CrB	5793
Bunda	ξ Agr	8264	Genam	ξ Dra	6688
Caja	ω Her	6117	Gianfar	λ Dra	4434
Calx	μ Gem	2298	Giedi Prima	α Cap	7747
Canopus	α Car	2326	Giedi Secunda	α Cap	7754
Capella	α Aur	1708	Gienah	γ Crv	4662
Castor	α Gema	2890	Gienah	ε Cyg	7949
Castula	ν Cas	253	Gildun	δ UMi	6789
Castula	ν Cas	265	Gomeisa	β CMi	2845

# Nomenclatura de estrellas brillantes, 2025

Nombres de estrellas			Nombres de estrellas		
Propios	Clasificación Bayer	NBSC	Propios	Clasificación Bayer	NBSC
Gorgonea Quarta	$\omega$ UMa	4374	Merope	23 Tau	1156
Gorgonea Tertia	$\rho$ UMa	4377	Mesartim	$\gamma$ Ari	545
Hadar	$\beta$ Dra	6536	Minelauva	$\beta$ Vir	4540
Haedus	$\zeta$ CMa	2693	Minkar	$\varepsilon$ Crv	4630
Hamal	$\alpha$ Ser	7141	Mintaka	$\delta$ Ori	1852
Hassaleh	$\iota$ Gem	2484	Mira	$o$ Cet	681
Hatysa	$\iota$ Aqr	8499	Mirach	$\beta$ And	337
Head of Hydrus	$\alpha$ Eri	850	Miram	$\eta$ Per	834
Heka	$\lambda$ Phe	99	Mirphak	$\alpha$ Per	2294
Hércules	$\beta$ Vul	7405	Mirza	$\beta$ CMa	2286
Heze	$\zeta$ Sco	6134	Misam	$\kappa$ Per	941
Hoedus II	$\nu$ Boo	5340	Mizar	$\zeta$ UMa	5055
Homam	$\zeta$ Vir	4825	Mufrid	$\eta$ Boo	5235
Hyadum I	$\gamma$ Ari	617	Muscida	$o$ UMa	3323
Hyadum II	$\delta$ Sgr	7343	Muscida	$\pi$ UMa	3403
Isis	$\gamma$ Sgr	7337	Naos	$\zeta$ Pup	3165
Izar	$\alpha$ Lep	1865	Nashira	$\gamma$ Cap	8278
Jabbah	$\varepsilon$ Cep	8974	Nicolaus	$\alpha$ Del	7906
Jed	$\zeta$ Sgr	7194	Nihal	$\beta$ Lep	1829
Jugum	$\delta$ Cnc	3461	Nodus I	$\zeta$ Dra	6396
Kaffaljdhma	$\gamma$ Cnc	3449	Nunki	$\sigma$ Sgr	7121
Kaus Australis	$\theta$ Boo	5404	Nusakan	$\beta$ CrB	5747
Kaus Borealis	$\iota$ Boo	5350	Oculus Boreus	$\varepsilon$ Tau	1409
Keid	$\kappa$ Boo	5329	Peacock	$\alpha$ Pav	7790
Kitalphar	$\iota$ Car	3699	Phact	$\alpha$ Col	1956
Kocab	$\xi$ Pup	3045	Phad	$\gamma$ UMa	4554
Kornephoros	$\psi$ Dra	6636	Pherkad	$\gamma$ UMi	5735
Kraz	$o$ Per	1131	Pherkad Minor	$\lambda$ UMi	5714
Ksora	27 Tau	1178	Pleione	28 Tau	1180
Kuma	$\alpha$ Tri	544	Polaris	$\alpha$ UMi	424
Lesath	$\delta$ Vir	4910	Pullux	$\beta$ Gem	2990
Maasym	$\varepsilon$ Car	3307	Praecipua	46 LMi	4247
Maia	$\pi$ Cyg	8301	Praepes	$\eta$ Gem	2216
Maiaplacidus	$\eta$ Eri	874	Praesaepe	$\varepsilon$ Cnc	3429
Marfak	$\theta$ Peg	8450	Prima Giedi	$\alpha$ Cap	7747
Marfak	$\zeta$ Cet	539	Procyon	$\alpha$ CMi	2943
Marfak	$\beta$ Cru	4853	Propus	$\iota$ Gem	2821
Marfic	$o$ Eri	1298	Rana	$\delta$ Eri	1136
Markab	$\gamma$ Ori	1790	Rasalgheti	$\alpha$ Her	6406
Matar	$\eta$ UMa	5191	Rasalhague	$\alpha$ Oph	6556
Mebсутa	$\alpha$ Ori	2061	Ras Elased Austral	$\varepsilon$ Leo	3873
Megrez	$\delta$ Ari	951	Regulus	$\alpha$ Leo	3982
Mekbuda	$\gamma$ Sco	1809	Rigel	$\beta$ Ori	1713
Menchib	$\xi$ Agr	8264	Rigil Kent	$\alpha$ Cen	5459
Menkalinan	$\omega$ Her	6117	Rijilal Awwa	$\mu$ Vir	5487
Menkar	$\mu$ Gem	2298	Rotanev	$\beta$ Del	7882
Menkar	$\alpha$ Car	2326	Ruchbah	$\varepsilon$ Cas	542
Menkent	$\alpha$ Aur	1708	Saad el Sund	$\beta$ Aqr	8232
Merak	$\alpha$ Gema	2890	Sabik	$\eta$ Oph	6378
Meres	$v$ Cas	253	Sadalachbia	$\gamma$ Aqr	8518
Meridiana	$v$ Cas	265	Sadalbari	$\mu$ Peg	8684

# Nomenclatura de estrellas brillantes, 2025

Nombres de estrellas		
Propios	Clasificación Bayer	NBSC
Sadalmelik	$\alpha$ Aqr	8414
Sadir	$\gamma$ Cyg	7796
Saidak	80 UMa	5062
Saiph	$\kappa$ Ori	2004
Saiph	$\eta$ Ori	1788
Sargas	$\theta$ Sco	6553
Sarin	$\delta$ Her	6410
Sartan	$\alpha$ Cnc	3572
Sceptrum	53 Eri	1481
Scheat	$\beta$ Peg	8775
Scheat	$\delta$ Aqr	8709
Segin	$\varepsilon$ Cas	542
Schaula	$\lambda$ Sco	6527
Schedir	$\alpha$ Cas	168
Sheliak	$\beta$ Lyr	7106
Sirius	$\alpha$ CMa	2491
Situla	$\kappa$ Aqr	8610
Spica	$\alpha$ Vir	5056
Subra	$o$ Leo	3852
Superba	$\lambda$ CVn	4846
Syrma	$\iota$ Vir	5338
Tabit	$\pi$ Ori	1543
Tabit	$\nu$ Ori	1855

Nombres de estrellas		
Propios	Clasificación Bayer	NBSC
Talitha	$\iota$ UMa	3569
Tarazed	$\gamma$ Aql	7525
Tayeta	19 Tau	1845
Tegmen	$\zeta$ Cnc	3208
Terebellum	$\beta$ Sgr	7604
Theemim	$\nu$ Eri	1464
Thuban	$\alpha$ Dra	5291
Torcularis Septentr.	Psc	510
Tyl	$\varepsilon$ Dra	7582
Unukalhai	$\alpha$ Ser	5854
Vega	$\alpha$ Lyr	7001
Vindemiatrix	$\varepsilon$ Vir	4932
Wasat	$\delta$ Gem	2777
Wazn	$\beta$ Col	2040
Yed Posterior	$\varepsilon$ Oph	5985
Zaniah	$\eta$ Vir	4689
Zaurak	$\gamma$ Eri	1231
Zibal	$\zeta$ Eri	984
Zuben Elakrab	$\gamma$ Lib	5787
Zuben Elakribi	$\delta$ Lib	5586
Zuben Hakrabi	$\zeta$ Lib	5848
Zuben Hakrabi	$\nu$ Lib	5794

# Número de estrellas (Catálogo Hiparco), 2025

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

# Número de estrellas (Catálogo Hiparco), 2025

Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
7818	477	$\tau$ And	9440	594	$\pi$ For	11072	695	$\kappa$ For	12486	794	$\iota$ Eri
7965	478	V557 Cas	9487	595	$\alpha$ Psc	11279	696	V554 Per	12777	799	13 Per
8016	480	42 Cas	9487	596	113 Psc	11313	699	65 And	12777	799	$\theta$ Per
7939	481	V772 Cas	9570	599	$\epsilon$ Tri	11249	702	$\xi$ Ari	12768	800	14 Per
7751	487	p Eri	9459	602	x Phe	11261	704	71 Cet	12719	801	35 Ari
7884	489	$\nu$ Psc	9640	603	$\gamma^1$ And	11001	705	$\delta$ Hyi	12484	802	$\zeta$ Hor
8046	491	44 Cas	9640	604	$\gamma^2$ And	11569	707	$\iota$ Cas	12706	804	86 Cet
7981	493	107 Psc	9621	605	10 Ari	11345	708	$\rho$ Cet	12706	804	$\gamma$ Cet
8068	496	$\varphi$ Per	9589	607	60 Cet	11465	709	66 And	12394	806	$\epsilon$ Hyi
7955	497	$\pi$ Scl	9631	610	61 Cet	11348	710	AB Cet	12784	808	36 Ari
8115	499	V773 Cas	9677	612	$\nu$ For	11432	712	11 Tri	12803	809	o Ari
7978	506	$q^1$ Eri	9836	613	$\kappa$ Ari	11258	714	$\lambda$ Hor	12803	809	37 Ari
8159	508	109 Psc	9809	614	WZ Psc	11095	715	$\kappa$ Hyi	12653	810	$\iota$ Hor
8102	509	$\tau$ Cet	9859	615	11 Ari	11486	717	12 Tri	12770	811	$\pi$ Cet
8198	510	o Psc	9884	617	$\alpha$ Ari	11484	718	73 Cet	12770	811	89 Cet
8209	514	$\epsilon$ Scl	9990	618	V472 Per	11484	718	$\xi^2$ Cet	12832	812	38 Ari
8271	515	VY Psc	9977	620	58 And	11548	720	13 Tri	12832	812	UV Ari
7879	516	$\tau^1$ Hyi	10064	622	$\beta$ Tri	11407	721	$\kappa$ Eri	12828	813	$\mu$ 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	$\varphi$ For	13133	815	RZ Cas
8544	530	1 Ari	10176	628	59 And	11678	729	26 Ari	12843	818	$\tau^1$ 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	$\zeta$ 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	$\epsilon$ Cas	10234	639	63 Cet	11783	740	$\sigma$ Cet	13121	830	VZ Ari
8814	543	55 And	10438	640	55 Cas	11783	740	76 Cet	13064	832	Z Eri
8796	544	$\alpha$ Tri	10280	642	TZ Tri	11843	741	29 Ari	12871	833	$\gamma$ Hor
8832	545	$\gamma^1$ Ari	10340	643	60 And	11867	744	$\lambda^1$ For	13268	834	$\eta$ Per
8778	547	BK Cet	10366	645	6 Per	11918	749	$\omega$ For	13268	834	15 Per
9009	548	$\omega$ Cas	10306	646	$\eta$ Ari	12086	750	15 Tri	13040	835	$\eta^1$ For
8833	549	$\xi$ Psc	10328	648	19 Ari	12002	752	77 Cet	13165	836	42 Ari
8366	550	$\tau^2$ Hyi	10324	649	$\xi^1$ Cet	12093	754	78 Cet	13165	836	$\pi$ Ari
8903	553	$\beta$ Ari	10305	650	66 Cet	12093	754	$\nu$ Cet	12876	837	$\zeta$ Hyi
8837	555	$\psi$ Phe	10320	652	$\mu$ 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	$\varphi$ Phe	10559	655	7 Tri	12153	763	31 Ari	13147	841	$\beta$ For
8993	559	7 Ari	10540	656	20 Ari	12184	764	30 Ari	13328	843	17 Per
9110	563	$\iota$ Ari	10535	657	21 Ari	12189	765	30 Ari	13197	844	$\gamma^1$ For
9061	565	56 Cet	10644	660	$\delta$ Tri	12122	767	$\iota^1$ For	13202	845	$\gamma^2$ For
9007	566	x Eri	10718	661	8 Per	12247	771	81 Cet	13327	847	$\sigma$ Ari
9222	568	3 Per	10729	662	x Per	12186	772	$\lambda^2$ For	13327	847	43 Ari
9153	569	$\lambda$ Ari	10687	663	W And	12332	773	32 Ari	13225	848	$\eta^2$ For
8928	570	$\eta^2$ Hyi	10670	664	$\gamma$ Tri	12332	773	$\nu$ Ari	13288	850	$\tau^2$ Eri
9480	575	48 Cas	10642	666	67 Cet	11757	776	$\mu$ Hyi	13288	850	2 Eri
9598	580	50 Cas	10418	667	$\pi$ Hyi	12288	777	$\iota^2$ For	13265	851	$\eta^3$ For
9727	581	47 Cas	10732	669	$\theta$ Ari	12225	778	$\eta$ Hor	13141	852	$\nu$ Hor
9353	582	112 Psc	10819	670	62 And	12387	779	$\delta$ Cet	13531	854	18 Per
9326	583	57 Cet	10602	674	$\varphi$ Eri	12387	779	82 Cet	13531	854	$\tau$ Per
9347	585	$\nu$ Cet	10793	675	10 Tri	12387	779	$\delta$ Cet	13531	854	$\tau$ Per
9347	585	59 Cet	10513	678	$\pi^2$ Hyi	12390	781	$\epsilon$ 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	$\psi$ 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	$\alpha$ Hyi	11174	690	V440 Per	12530	790	84 Cet	13702	869	46 Ari
9763	592	49 Cas	11046	691	70 Cet	12640	793	$\mu$ Ari	13702	869	$\rho$ Ari
8991	593	$\sigma$ Hyi	11220	694	64 And	12640	793	34 Ari	13244	872	$\nu$ Hyi

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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	$\kappa$ Per	16228	1035	CS Cam	17378	1136	$\delta$ Eri
13701	874	3 Eri	14677	944	55 Ari	16083	1038	2 Tau	17378	1136	$\delta$ Eri
13701	874	$\eta$ Eri	14817	947	$\omega$ Per	16083	1038	$\xi$ Tau	17378	1136	23 Eri
13756	877	EH Cet	14817	947	28 Per	16083	1038	$\xi$ Tau	17489	1140	16 Tau
13834	878	47 Ari	14838	951	57 Ari	16281	1040	CE Cam	17499	1142	17 Tau
13879	879	$\pi$ Per	14838	951	$\delta$ Ari	15987	1042	$\chi^1$ 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	$\sigma$ Per	17531	1145	q Tau
13914	887	48 Ari	14954	962	94 Cet	16335	1052	35 Per	17457	1146	24 Eri
13914	887	$\varepsilon$ Ari	14879	963	$\alpha$ For	16112	1054	$\chi^2$ For	17959	1148	$\gamma$ Cam
13914	888	48 Ari	15110	972	58 Ari	16156	1058	$\chi^3$ For	17573	1149	20 Tau
13914	888	$\varepsilon$ Ari	15110	972	$\zeta$ 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	$\lambda$ Cet	15241	978	V573 Per	16369	1066	5 Tau	17563	1153	v Tau
13847	897	$\theta^2$ Eri	14521	981	BN Hyi	16369	1066	f Tau	17563	1153	29 Tau
13847	897	$\theta^1$ Eri	15338	982	30 Per	16499	1069	36 Per	17884	1155	BE Cam
13847	898	$\theta^2$ Eri	15197	984	$\zeta$ Eri	16341	1070	v Eri	17608	1156	23 Tau
13847	898	$\theta^1$ 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	$\pi$ Eri
13942	901	$\zeta$ 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	$\pi$ Eri
14040	904	CV Eri	15444	989	31 Per	16511	1079	6 Tau	17702	1165	$\eta$ 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	$\kappa$ Ret	17846	1170	V376 Per
14060	907	$\rho^1$ Eri	15514	995	59 Ari	16537	1084	18 Eri	17618	1171	$\sigma$ For
13884	909	$\beta$ Hor	15457	996	$\kappa^1$ Cet	16537	1084	$\varepsilon$ Eri	17651	1173	27 Eri
14143	910	93 Cet	15457	996	$\kappa^1$ Cet	16537	1084	$\varepsilon$ Eri	17651	1173	$\tau^6$ Eri
14135	911	$\alpha$ Cet	15457	996	96 Cet	16664	1086	7 Tau	17771	1174	30 Tau
14135	911	92 Cet	15557	1000	60 Ari	16826	1087	$\psi$ Per	17771	1174	e Tau
14135	911	$\alpha$ Cet	15648	1002	32 Per	16826	1087	$\psi$ Per	17440	1175	$\beta$ Ret
14086	914	$\varepsilon$ For	15648	1002	1 Per	16826	1087	37 Per	17886	1177	42 Per
14328	915	$\gamma$ Per	15474	1003	$\tau^4$ Eri	16611	1088	$\tau^5$ Eri	17886	1177	V467 Per
14328	915	$\gamma$ Per	15474	1003	16 Eri	16611	1088	19 Eri	17886	1177	n Per
14328	915	23 Per	15474	1003	$\tau^4$ 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	$\rho^2$ Eri	15627	1005	$\tau^1$ Ari	16803	1100	EG Eri	17851	1180	28 Tau
14382	918	$\kappa$ Per	15627	1005	61 Ari	16852	1101	10 Tau	17717	1181	$\tau^7$ Eri
14146	919	$\tau^3$ Eri	15627	1005	$\tau^1$ Ari	17296	1105	BD Cam	17717	1181	28 Eri
14146	919	11 Eri	15330	1006	$\zeta^1$ Ret	16870	1106	$\gamma$ Eri	17738	1184	$\rho$ For
14354	921	25 Per	15619	1007	97 Cet	17027	1111	21 Eri	18033	1194	V766 Tau
14354	921	$\rho$ Per	15619	1007	$\kappa^2$ Cet	17007	1114	$\tau$ For	17874	1195	g Eri
14354	921	$\rho$ 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	$\rho^3$ Eri	15890	1009	CQ Cam	17167	1121	22 Eri	18246	1203	$\zeta$ Per
14376	927	52 Ari	15371	1010	$\zeta^2$ Ret	17167	1121	FY Eri	18246	1203	44 Per
14376	927	52 Ari	15770	1011	V575 Per	17358	1122	$\delta$ Per	17678	1208	$\gamma$ Hyi
14376	928	52 Ari	15696	1012	62 Ari	17358	1122	$\delta$ Per	18350	1209	x Per
14376	928	52 Ari	15737	1015	63 Ari	17358	1122	39 Per	18453	1210	43 Per
14240	934	$\mu$ Hor	15737	1015	$\tau^2$ Ari	17313	1123	o Per	18255	1211	32 Eri
14576	936	$\beta$ Per	15863	1017	33 Per	17313	1123	40 Per	18255	1212	32 Eri
14576	936	$\beta$ Per	15863	1017	$\alpha$ Per	17309	1126	13 Tau	18216	1213	$\tau^8$ Eri
14576	936	26 Per	15861	1022	64 Ari	17448	1131	o Per	18216	1213	$\tau^8$ Eri
14632	937	$\iota$ Per	15201	1025	$\iota$ 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	$\theta$ Hyi	15900	1030	o Tau	17304	1134	$\delta$ For	18471	1218	32 Tau
14586	940	54 Ari	15900	1030	1 Tau	17529	1135	$\nu$ Per	18532	1220	45 Per

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Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
18532	1220	$\epsilon$ Per	19811	1306	f Per	20542	1380	$\delta$ Tau	21248	1453	50 Eri
18532	1220	$\epsilon$ 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	$\nu$ 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	$\xi$ Eri	21421	1457	$\alpha$ Tau
18455	1225	DL Eri	19777	1318	39 Eri	20635	1387	$\kappa$ Tau	21421	1457	$\alpha$ Tau
18614	1228	$\xi$ Per	19877	1319	48 Tau	20635	1387	65 Tau	21402	1458	88 Tau
18614	1228	$\xi$ Per	19860	1320	$\mu$ Tau	20641	1388	67 Tau	21402	1458	d Tau
18614	1228	46 Per	19860	1320	49 Tau	20641	1388	$\kappa^2$ Tau	21444	1463	$\nu$ Eri
18543	1231	$\gamma$ Eri	19855	1321	V891 Tau	20648	1389	68 Tau	21444	1463	48 Eri
18543	1231	$\gamma$ Eri	19859	1322	V774 Tau	20648	1389	V776 Tau	21444	1463	$\nu$ Eri
18543	1231	34 Eri	20070	1324	b Per	20648	1389	$\delta^3$ Tau	21393	1464	52 Eri
18724	1239	35 Tau	20070	1324	b Per	20661	1391	70 Tau	21393	1464	$\nu^2$ Eri
18724	1239	$\lambda$ Tau	19849	1325	40 Eri	20711	1392	$\nu$ Tau	21281	1465	$\alpha$ Dor
18724	1239	$\lambda$ Tau	19849	1325	$o^2$ Eri	20711	1392	69 Tau	21281	1465	$\alpha$ Dor
18673	1240	36 Eri	19747	1326	$\alpha$ Hor	20711	1392	$\nu$ Tau	21730	1466	2 Cam
18673	1240	$\tau^9$ Eri	19990	1329	$\omega^2$ Tau	20535	1393	d Eri	21727	1467	3 Cam
18673	1240	$\tau^9$ Eri	19990	1329	$\omega$ Tau	20535	1393	$\nu^3$ Eri	21604	1471	HU Tau
18788	1244	35 Eri	19990	1329	50 Tau	20535	1393	43 Eri	21588	1472	89 Tau
18597	1247	$\delta$ Ret	20087	1331	51 Tau	20713	1394	71 Tau	21589	1473	c Tau
18691	1250	XY Dor	19780	1336	$\alpha$ Ret	20713	1394	V777 Tau	21589	1473	90 Tau
18907	1251	38 Tau	19893	1338	$\gamma$ Dor	20384	1395	$\eta$ Ret	21547	1474	51 Eri
18907	1251	$\nu$ Tau	19893	1338	$\gamma$ Dor	20732	1396	$\pi$ 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	$\sigma^1$ Tau
18957	1253	V113 Tau	20186	1341	56 Tau	20789	1399	72 Tau	21683	1479	$\sigma^2$ Tau
19038	1256	37 Tau	20186	1341	V724 Tau	20877	1407	75 Tau	21683	1479	92 Tau
19167	1261	$\lambda$ Per	20252	1343	54 Per	20873	1408	76 Tau	21594	1481	53 Eri
19167	1261	47 Per	20075	1345	GZ Eri	20889	1409	$\epsilon$ Tau	21594	1481	l Eri
19076	1262	39 Tau	20205	1346	$\gamma$ Tau	20889	1409	74 Tau	21735	1484	93 Tau
18744	1264	$\gamma$ Ret	20205	1346	54 Tau	20885	1411	$\theta^1$ Tau	21479	1492	R Dor
18744	1264	$\gamma$ Ret	20042	1347	$\nu^4$ Eri	20885	1411	77 Tau	21928	1494	59 Per
18772	1266	$\iota$ Ret	20042	1347	41 Eri	20894	1412	78 Tau	21763	1496	54 Eri
19171	1268	GS Tau	20250	1348	$\varphi$ Tau	20894	1412	$\theta^2$ Tau	21763	1496	DM Eri
19171	1268	41 Tau	20250	1348	52 Tau	20894	1412	$\theta^2$ Tau	21881	1497	94 Tau
19205	1269	$\psi$ Tau	20354	1350	V469 Per	20901	1414	b Tau	21881	1497	$\tau$ 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	$\alpha$ Cae
19343	1273	c Per	20219	1351	V483 Tau	21148	1417	DL Cam	21861	1503	$\beta$ 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	$\epsilon$ Ret	20922	1423	DU Eri	21986	1506	55 Eri
19335	1278	50 Per	20261	1356	58 Tau	20049	1426	$\delta$ Men	21986	1506	DW Eri
19388	1283	43 Tau	20261	1356	V696 Tau	21039	1428	81 Tau	22024	1508	56 Eri
19388	1283	$\omega^1$ 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	$\lambda \pi c$
19513	1287	p Tau	20400	1368	60 Tau	21242	1434	57 Per	22109	1520	$\mu$ 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	$\kappa$ Dor
19483	1290	37 Eri	20430	1369	59 Tau	21192	1441	DZ Eri	22263	1532	58 Eri
19554	1292	45 Tau	20020	1372	$\theta$ Ret	21060	1443	$\theta$ Cae	22453	1533	1 Aur
19672	1297	V113 Tau	20455	1373	$\delta^1$ Tau	21273	1444	$\rho$ 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	$\rho$ Tau	22280	1539	$\zeta$ Cae
19587	1298	$o^1$ Eri	20484	1376	63 Tau	21278	1449	EH Eri	21949	1541	$\mu$ Men
19571	1300	GW Eri	20579	1377	55 Per	21278	1449	46 Eri	22783	1542	9 Cam
19515	1302	$\delta$ Hor	20533	1378	62 Tau	21296	1451	DV Eri	22783	1542	$\alpha$ Cam
19812	1303	51 Per	20591	1379	56 Per	21296	1451	47 Eri	22449	1543	$\pi^3$ Ori
19812	1303	$\mu$ Per	20542	1380	64 Tau	21248	1453	$\nu^1$ Eri	22449	1543	1 Ori

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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	$\beta$ Tau
22509	1544	$\pi^2$ Ori	23743	1623	12 Cam	24608	1708	13 Aur	25428	1791	112 Tau
22565	1547	97 Tau	22871	1629	$\eta$ Men	24608	1708	$\alpha$ Aur	25194	1793	SW Col
22565	1547	V480 Tau	23474	1634	1 Lep	24512	1711	108 Tau	25410	1798	113 Tau
22565	1547	$\iota$ Tau	23783	1637	9 Aur	24575	1712	AE Aur	25098	1801	$\kappa$ $\pi$ c
22479	1549	60 Eri	23783	1637	V398 Aur	24436	1713	$\beta$ 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	$\beta$ Ori	25541	1805	$\varphi$ Aur
22549	1552	$\pi$ 4 Ori	23767	1641	10 Aur	23148	1716	$\xi$ Men	25499	1808	115 Tau
22854	1555	5 Cam	23767	1641	$\eta$ Aur	24555	1718	18 Ori	25539	1810	o Tau
22667	1556	o1 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	$\psi$ Ori
22667	1556	4 Ori	23482	1649	$\eta^1$ $\pi$ c	24738	1722	PU Aur	25473	1811	$\psi^2$ Ori
22701	1560	61 Eri	23595	1652	$\gamma^1$ Cae	24727	1726	16 Aur	25473	1811	$\psi$ Ori
22701	1560	$\omega$ Eri	23596	1653	$\gamma^2$ 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	$\iota$ $\pi$ c	23685	1654	$\epsilon$ Lep	24813	1729	$\lambda$ Aur	25583	1816	117 Tau
22534	1564	$\iota$ $\pi$ c	23685	1654	2 Lep	24813	1729	15 Aur	25303	1818	$\theta$ $\pi$ c
22797	1567	$\pi$ 05 Ori	23835	1656	104 Tau	24799	1732	IQ Aur	25695	1821	118 Tau
22797	1567	$\pi$ 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	$\beta$ Lep
23040	1568	7 Cam	23794	1657	66 Eri	24674	1735	$\tau$ 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	$\pi$ 1 Ori	23900	1659	103 Tau	24879	1740	19 Aur	25429	1836	$\lambda$ Dor
22845	1570	7 Ori	23883	1660	105 Tau	24659	1743	o Col	25785	1837	CK Ori
23015	1577	$\iota$ Aur	23883	1660	V115 Tau	24372	1744	$\theta$ Dor	25813	1839	32 Ori
23015	1577	3 Aur	23852	1662	13 Ori	24817	1746	21 Ori	25861	1842	33 Ori
22957	1580	o2 Ori	23649	1663	$\eta$ 2 $\pi$ c	25048	1749	20 Aur	25861	1842	n1 Ori
22957	1580	9 Ori	23879	1664	14 Ori	25048	1749	$\rho$ 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	$\beta$ Eri	24827	1754	Tx Lep	25945	1845	119 Tau
22958	1582	62 Eri	23875	1666	67 Eri	24845	1756	$\lambda$ 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	$\delta$ Ori
23088	1590	k Tau	23983	1672	h Ori	24873	1757	$\nu$ Lep	25930	1852	$\delta$ Ori
23088	1590	98 Tau	23941	1673	68 Eri	25011	1761	V136 Ori	25930	1852	34 Ori
23179	1592	4 Aur	23693	1674	$\zeta$ Dor	25044	1765	22 Ori	25923	1855	$\nu$ Ori
23261	1599	5 Aur	24010	1676	15 Ori	25044	1765	o Ori	25923	1855	36 Ori
23123	1601	10 Ori	23467	1677	$\beta$ Men	24829	1767	$\zeta$ $\pi$ c	26408	1857	19 Cam
23123	1601	$\pi$ 6 Ori	24348	1678	14 Cam	25192	1768	22 Aur	26064	1858	120 Tau
23268	1602	6 Aur	23972	1679	$\lambda$ Eri	25142	1770	23 Ori	26064	1858	V960 Tau
23522	1603	10 Cam	23972	1679	69 Eri	25292	1773	$\sigma$ Aur	25859	1862	$\epsilon$ Col
23522	1603	$\beta$ Cam	23972	1679	$\lambda$ Eri	25292	1773	21 Aur	26093	1864	35 Ori
23416	1605	$\epsilon$ Aur	24340	1689	$\mu$ Aur	25216	1774	110 Tau	25985	1865	11 Lep
23416	1605	$\epsilon$ Aur	24340	1689	11 Aur	25278	1780	V111 Tau	25985	1865	$\alpha$ 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	n2 Ori
23231	1611	64 Eri	24244	1696	$\iota$ 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	$\rho$ Ori	25282	1787	27 Ori	26176	1876	$\varphi^1$ Ori
23453	1612	$\zeta$ Aur	24331	1698	17 Ori	25281	1788	$\eta$ Ori	26207	1879	$\lambda$ Ori
23453	1612	$\zeta$ Aur	24305	1702	$\mu$ Lep	25281	1788	28 Ori	26207	1879	39 Ori
23364	1617	$\psi$ Eri	24305	1702	$\mu$ Lep	25281	1788	$\eta$ Ori	26207	1880	$\lambda$ Ori
23364	1617	65 Eri	24305	1702	5 Lep	25302	1789	V108 Ori	26207	1880	39 Ori
23497	1620	$\iota$ Tau	24327	1705	$\kappa$ Lep	25302	1789	25 Ori	26233	1890	V104 Ori
23497	1620	102 Tau	24327	1705	4 Lep	25302	1789	$\psi$ 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	$\gamma$ 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	$\delta$ Aur	29388	2176	41 Aur
26220	1893	$\theta$ 1 Ori	26868	1973	WZ Col	28358	2077	33 Aur	29034	2177	$\theta$ Col
26220	1893	$\theta$ 1 Ori	27181	1977	$\gamma$ Tau	28237	2084	139 Tau	29064	2181	$\pi$ 2 Col
26220	1894	41 Ori	27072	1983	$\gamma$ Lep	28103	2085	$\eta$ Lep	29379	2185	5 Gem
26220	1894	V101 Ori	27072	1983	13 Lep	28103	2085	16 Lep	29416	2190	TV Gem
26220	1894	$\theta$ 1 Ori	27265	1985	129 Tau	28010	2087	$\xi$ Col	29433	2193	68 Ori
26220	1894	$\theta$ 1 Ori	27316	1989	131 Tau	28360	2088	$\beta$ Aur	28909	2194	$\eta$ 1 Dor
26221	1895	41 Ori	27338	1990	130 Tau	28360	2088	34 Aur	29323	2195	V653 Mon
26221	1895	$\theta$ 1 Ori	26264	1991	$\iota$ Men	28360	2088	$\beta$ Aur	29450	2197	6 Gem
26224	1896	41 Ori	26264	1991	$\iota$ Men	28404	2091	35 Aur	29450	2197	BU Gem
26224	1896	$\theta$ 1 Ori	27592	1992	29 Cam	28404	2091	$\pi$ Aur	29434	2198	f1 Ori
26235	1897	$\theta$ 2 Ori	27364	1993	133 Tau	28404	2091	$\pi$ Aur	29434	2198	69 Ori
26235	1897	43 Ori	27483	1995	29 Aur	28098	2092	$\sigma$ Col	29426	2199	$\xi$ Ori
26241	1899	44 Ori	27483	1995	$\tau$ Aur	28380	2095	37 Aur	29426	2199	70 Ori
26241	1899	$\iota$ Ori	27204	1996	$\mu$ Col	28380	2095	$\theta$ Aur	29730	2201	40 Cam
26263	1900	V137 Ori	27288	1998	$\zeta$ Lep	28380	2095	$\theta$ Aur	29401	2202	V638 Mon
26268	1901	45 Ori	27288	1998	14 Lep	28271	2100	V100 Ori	29263	2203	AF Col
26311	1903	$\epsilon$ Ori	27386	1999	52 Ori	28271	2100	59 Ori	29276	2212	$\delta$ $\pi$ c
26311	1903	46 Ori	27341	2001	V103 Ori	28499	2101	V444 Aur	29276	2212	$\delta$ $\pi$ c
26311	1903	$\epsilon$ Ori	27468	2002	132 Tau	28499	2101	36 Aur	29488	2213	IP CMa
26382	1905	122 Tau	27366	2004	$\kappa$ Ori	28296	2103	60 Ori	29919	2215	UW Lyn
26366	1907	40 Ori	27366	2004	53 Ori	28199	2106	$\gamma$ Col	29919	2215	1 Lyn
26366	1907	$\varphi$ <sup>2</sup> Ori	27731	2006	30 Cam	28321	2107	V474 Mon	29655	2216	$\eta$ Gem
26451	1910	$\zeta$ Tau	27511	2010	134 Tau	28321	2107	1 Mon	29655	2216	$\eta$ Gem
26451	1910	123 Tau	27639	2011	31 Aur	28325	2108	2 Mon	29655	2216	7 Gem
26451	1910	$\zeta$ Tau	27639	2011	$\nu$ Aur	28677	2119	38 Aur	29696	2219	44 Aur
26536	1914	26 Aur	27673	2012	32 Aur	28328	2120	$\eta$ Col	29696	2219	$\kappa$ Aur
26069	1922	$\beta$ Dor	27673	2012	$\nu$ Aur	28614	2124	61 Ori	29650	2220	71 Ori
26069	1922	$\beta$ Dor	27100	2015	$\delta$ Dor	28614	2124	$\mu$ Ori	29134	2221	$\nu$ Dor
26606	1924	V433 Aur	27581	2016	135 Tau	27566	2125	$\kappa$ Men	29704	2223	f2 Ori
26412	1926	$\nu$ 1 Col	27661	2018	V440 Aur	28574	2128	3 Mon	29704	2223	72 Ori
26300	1927	YX $\pi$ c	27321	2020	$\beta$ $\pi$ c	28691	2130	64 Ori	29651	2227	5 Mon
26640	1928	125 Tau	26394	2022	$\pi$ Men	28823	2132	39 Aur	29651	2227	$\gamma$ Mon
26549	1931	$\sigma$ Ori	27971	2027	31 Cam	28734	2134	1 Gem	29884	2228	42 Aur
26549	1931	48 Ori	27971	2027	TU Cam	28716	2135	$\chi$ 2 Ori	29736	2229	73 Ori
26594	1934	47 Ori	27949	2029	$\xi$ Aur	28716	2135	$\chi$ 2 Ori	29789	2230	8 Gem
26594	1934	$\omega$ Ori	27949	2029	30 Aur	28716	2135	62 Ori	30060	2238	UZ Lyn
26594	1934	$\omega$ Ori	27658	2031	55 Ori	28744	2142	V696 Mon	30060	2238	2 Lyn
26460	1935	$\nu$ 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	$\delta$ 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	$\eta$ 2 Dor
26777	1946	126 Tau	27628	2040	$\beta$ Col	28756	2149	72 Col	29850	2247	75 Ori
26727	1948	$\zeta$ Ori	27530	2042	$\gamma$ $\pi$ c	28596	2151	SW $\pi$ c	29850	2247	1 Ori
26727	1948	50 Ori	27913	2047	54 Ori	29246	2152	37 Cam	29885	2255	6 Mon
26727	1949	$\zeta$ Ori	27913	2047	$\chi$ 1 Ori	28910	2155	$\theta$ Lep	29807	2256	$\kappa$ Col
26727	1949	50 Ori	27965	2052	57 Ori	28910	2155	18 Lep	30272	2257	4 Lyn
25918	1953	$\gamma$ Men	28162	2054	V403 Aur	28874	2156	S Lep	30019	2258	V115 Ori
26634	1956	$\alpha$ Col	27810	2056	$\lambda$ Col	29038	2159	$\nu$ Ori	29271	2261	$\alpha$ Men
26728	1957	V105 Ori	27810	2056	$\lambda$ 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	$\zeta$ CMa
26885	1963	b Ori	27989	2061	58 Ori	28984	2166	YY Lep	30122	2282	1 CMa
26169	1964	WX Men	27989	2061	$\alpha$ Ori	29048	2168	19 Lep	30214	2284	FR CMa
26865	1968	12 Lep	27989	2061	$\alpha$ Ori	28957	2171	$\pi$ 1 Col	30343	2286	$\mu$ Gem
27249	1969	26 Cam	27369	2062	$\lambda$ Men	29225	2173	3 Gem	30343	2286	13 Gem
26953	1970	V119 Ori	28041	2063	U Ori	29225	2173	PU Gem	30343	2286	$\mu$ Gem
27196	1971	o Aur	27534	2064	$\epsilon$ Dor	29388	2175	41 Aur	30520	2289	$\psi$ <sup>1</sup> Aur

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Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
30520	2289	$\psi^1$ Aur	31681	2421	24 Gem	32921	2529	d Gem	33856	2646	$\sigma$ CMa
30520	2289	46 Aur	31681	2421	$\gamma$ Gem	32838	2534	V592 Mon	33971	2648	19 Mon
30651	2291	RR Lyn	31646	2422	V640 Mon	32759	2538	$\kappa$ CMa	33971	2648	V637 Mon
30679	2293	5 Lyn	31564	2423	6 CMa	32759	2538	$\kappa$ CMa	34088	2650	43 Gem
30324	2294	$\beta$ CMa	31564	2423	$\nu^1$ CMa	32759	2538	13 CMa	34088	2650	$\zeta$ Gem
30324	2294	$\beta$ CMa	31737	2425	53 Aur	33041	2539	OX Aur	34088	2650	$\zeta$ Gem
30324	2294	2 CMa	31832	2427	$\psi^2$ Aur	33041	2539	59 Aur	33977	2653	o2 CMa
30277	2296	$\delta$ Col	31832	2427	50 Aur	33018	2540	$\theta$ Gem	33977	2653	24 CMa
30419	2298	8 Mon	31592	2429	7 CMa	33018	2540	34 Gem	33977	2653	o2 CMa
30419	2298	$\epsilon$ Mon	31592	2429	$\nu^2$ CMa	33064	2541	60 Aur	34045	2657	$\gamma$ CMa
30422	2299	$\epsilon$ 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	$\psi^8$ Aur	34081	2666	C Pup
30426	2306	IU CMa	31700	2443	$\nu^3$ CMa	32607	2550	$\alpha$ $\pi$ C	34234	2670	V569 Mon
30564	2308	BL Ori	31700	2443	8 CMa	32768	2553	$\tau$ Pup	34356	2671	R Gem
30541	2310	T Mon	31685	2451	$\nu$ Pup	33269	2557	V352 Aur	34059	2672	H Pup
30342	2320	$\nu$ $\pi$ C	32019	2453	25 Gem	31897	2559	$\zeta$ Men	34000	2674	V450 Car
30438	2326	$\alpha$ 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	$\psi^4$ Aur	33040	2567	KX CMa	34440	2684	45 Gem
30827	2332	48 Aur	32104	2466	26 Gem	33377	2568	$\psi^9$ Aur	33384	2689	$\theta$ Men
30972	2338	47 Aur	32438	2470	12 Lyn	33277	2569	37 Gem	34360	2690	FV CMa
30883	2343	$\nu$ Gem	32246	2473	27 Gem	33092	2571	EY CMa	34444	2693	$\delta$ CMa
30883	2343	18 Gem	32246	2473	$\epsilon$ Gem	33092	2571	15 CMa	34444	2693	25 CMa
30772	2344	10 Mon	32489	2477	13 Lyn	33160	2574	$\theta$ CMa	34752	2696	63 Aur
30591	2348	G Pup	32249	2478	30 Gem	33160	2574	14 CMa	34693	2697	46 Gem
30321	2352	$\pi^1$ Dor	32311	2480	28 Gem	33152	2580	o1 CMa	34693	2697	$\tau$ Gem
30867	2356	$\beta$ Mon	32480	2483	56 Aur	33152	2580	16 CMa	34722	2700	47 Gem
30867	2356	11 Mon	32480	2483	$\psi^5$ Aur	33152	2580	o1 CMa	34622	2701	20 Mon
30867	2357	$\beta$ Mon	32362	2484	$\xi$ Gem	33165	2583	EZ CMa	34495	2702	A Pup
30867	2357	11 Mon	32362	2484	31 Gem	33485	2585	$\psi^1$ Aur	34912	2703	UY Lyn
30867	2358	$\beta$ Mon	32562	2487	57 Aur	33485	2585	16 Lyn	34579	2704	LZ CMa
30867	2358	11 Mon	32562	2487	$\psi^6$ Aur	33248	2588	17 CMa	34819	2706	48 Gem
30788	2361	$\lambda$ CMa	32404	2489	32 Gem	33302	2590	$\pi$ 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	$\alpha$ CMa	33345	2593	$\mu$ CMa	34769	2714	$\delta$ 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	$\iota$ CMa	34909	2717	51 Gem
30565	2377	$\pi^2$ Dor	32463	2494	16 Mon	33347	2596	20 CMa	34909	2717	BQ Gem
31159	2382	12 Mon	32385	2501	HP CMa	33347	2596	$\iota$ 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	$\xi^1$ CMa	32578	2506	18 Mon	32912	2602	$\iota$ Vol	35025	2725	52 Gem
31125	2387	$\xi^1$ 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	$\gamma^1$ Vol
31434	2398	49 Aur	32740	2512	IS Gem	33579	2618	$\epsilon$ CMa	34481	2736	$\gamma^2$ Vol
31665	2402	11 Lyn	32844	2516	$\psi^7$ 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 $\pi$ C	32537	2518	x Pup	33927	2630	42 Gem	34937	2741	GG CMa
31137	2412	$\mu$ $\pi$ C	32753	2519	33 Gem	33927	2630	$\omega$ Gem	36547	2742	VZ Cam
31416	2414	$\xi^2$ CMa	32753	2519	OV Gem	33927	2630	$\omega$ 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	$\psi^3$ Aur	32531	2526	V448 Car	33856	2646	$\sigma$ CMa	34899	2746	OU Pup
31789	2420	52 Aur	32921	2529	36 Gem	33856	2646	22 CMa	34899	2746	1 Pup

# Número de estrellas (Catálogo Hiparco), 2025

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	$\gamma$ CMi	37934	2977	BC Cam	38835	3102	j Pup
35037	2749	$\omega$ 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	$\omega$ CMa	36393	2857	64 Gem	37704	2983	c Gem	39261	3109	53 Cam
35341	2753	64 Aur	36429	2861	b Gem	37740	2985	$\kappa$ 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	$\chi$ Car
35350	2763	$\lambda$ Gem	36363	2875	$\gamma$ Pup	37826	2990	$\beta$ Gem	38827	3117	$\chi$ Car
35210	2764	145 CMa	36377	2878	$\sigma$ Pup	37826	2990	78 Gem	39348	3119	AE Lyn
35735	2772	47 Cam	36377	2878	$\sigma$ Pup	37811	2991	79 Gem	39348	3119	54 Cam
35264	2773	$\pi$ Pup	36641	2880	$\delta$ 1 CMi	37648	2993	1 Pup	38917	3121	O Pup
35264	2773	$\pi$ Pup	36641	2880	7 CMi	37677	2996	3 Pup	39079	3122	27 Mon
35550	2777	$\delta$ Gem	36760	2886	68 Gem	37677	2996	1 Pup	39023	3123	12 Pup
35550	2777	55 Gem	36723	2887	$\delta$ 2 CMi	37908	3003	g Gem	39191	3124	$\omega$ 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	$\tau$ CMa	36850	2890	$\alpha$ Gem	37842	3009	PV Pup	38957	3129	V Pup
35415	2782	$\tau$ CMa	36850	2890	66 Gem	37842	3009	2 Pup	39263	3132	$\omega$ 2 Cnc
35783	2783	19 Lyn	36850	2891	66 Gem	37843	3010	2 Pup	39263	3132	4 Cnc
35785	2784	19 Lyn	36850	2891	$\alpha$ Gem	38016	3013	$\pi$ 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	v2 Pup	36812	2901	$\delta$ 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	$\chi$ Gem
35710	2793	65 Aur	36962	2905	69 Gem	37504	3024	$\zeta$ Vol	39153	3151	PY Pup
35699	2795	56 Gem	36962	2905	$\nu$ 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	$\delta$ Vol	36778	2911	z Pup	38070	3034	o Pup	39567	3163	8 Cnc
35907	2805	66 Aur	36039	2919	$\epsilon$ Men	38070	3034	o Pup	39429	3165	$\zeta$ 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	$\xi$ Pup	39659	3169	9 Cnc
35933	2817	OT Gem	37036	2928	PT Pup	38170	3045	7 Pup	39659	3169	$\mu$ 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	$\mu$ Cnc
36046	2821	$\iota$ Gem	37300	2938	f Gem	38373	3059	13 CMi	39780	3176	10 Cnc
35951	2825	FW CMa	37300	2938	74 Gem	38373	3059	$\zeta$ CMi	39780	3176	$\mu$ 2 Cnc
35904	2827	$\eta$ CMa	37279	2943	$\alpha$ CMi	38406	3061	BC CMi	39584	3179	MX Vel
35904	2827	$\eta$ 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	$\rho$ Pup
36041	2828	2 CMi	37173	2944	m Pup	38623	3065	25 Lyn	39757	3185	$\rho$ Pup
36041	2828	$\epsilon$ CMi	37609	2946	24 Lyn	38639	3066	26 Lyn	39757	3185	15 Pup
36156	2837	61 Gem	37174	2957	MY Pup	38538	3067	$\varphi$ Gem	39530	3186	V375 Car
35960	2842	V368 Pup	37297	2961	n1 Pup	38538	3067	83 Gem	39863	3188	$\zeta$ Mon
35960	2843	V368 Pup	37322	2963	d2 Pup	38427	3073	10 Pup	39863	3188	29 Mon
36188	2845	3 CMi	37329	2964	d3 Pup	38370	3078	QU Pup	40023	3191	14 Cnc
36188	2845	$\beta$ CMi	37521	2967	NZ Gem	38414	3080	a Pup	40023	3191	$\psi$ Cnc
36188	2845	$\beta$ CMi	37447	2970	26 Mon	38455	3084	b Pup	39906	3192	16 Pup
36238	2846	63 Gem	37447	2970	$\alpha$ 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	$\eta$ CMi	37629	2973	$\sigma$ Gem	38518	3090	J Pup	39953	3207	$\gamma$ <sup>2</sup> Vel
36366	2852	62 Gem	37629	2973	$\sigma$ Gem	38848	3095	1 Cnc	39953	3207	$\gamma$ <sup>2</sup> Vel
36366	2852	$\rho$ Gem	37415	2974	R Pup	38792	3099	PX Pup	39953	3207	$\gamma$ Vel

# Número de estrellas (Catálogo Hiparco), 2025

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	$\beta$ Pyx	43409	3518	$\gamma$ Pyx
40167	3208	$\zeta$ 2 Cnc	41375	3321	2 Hya	42540	3439	NY Vel	43584	3519	51 Cnc
40167	3208	$\zeta$ 1 Cnc	41375	3321	LM Hya	42459	3440	HW Vel	43584	3519	$\sigma$ 1 Cnc
40167	3209	16 Cnc	41250	3322	V438 Pup	42662	3441	9 Hya	43347	3520	g Vel
40167	3209	$\zeta$ 2 Cnc	41704	3323	o UMa	42504	3442	NZ Vel	43575	3521	BO Cnc
40167	3209	$\zeta$ 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	$\rho$ 1 Cnc
40167	3210	$\zeta$ 2 Cnc	41361	3328	NO Pup	42536	3447	o Vel	43587	3522	55 Cnc
40167	3210	$\zeta$ 1 Cnc	41574	3329	28 Cnc	42806	3449	43 Cnc	43496	3523	15 Hya
40084	3211	19 Pup	41574	3329	CX Cnc	42806	3449	$\gamma$ 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	$\eta$ Vol	42624	3452	n Vel	43413	3527	KX Vel
40240	3215	BM Cnc	41475	3335	VV Pyx	42799	3454	$\eta$ Hya	43685	3528	CY Lyn
39794	3223	$\epsilon$ Vol	41564	3337	LO Hya	42799	3454	7 Hya	43903	3531	6 UMa
40091	3225	NS Pup	40888	3340	$\theta$ Cha	42799	3454	$\eta$ Hya	43721	3532	57 Cnc
40091	3225	h1 Pup	41515	3343	XY Pyx	42679	3456	LN Vel	43834	3540	$\rho$ 2 Cnc
40259	3229	20 Pup	41312	3347	$\beta$ 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	$\theta$ Vol	43813	3547	$\zeta$ Hya
40274	3237	r Pup	41816	3355	30 Cnc	42911	3461	$\delta$ Cnc	43851	3550	60 Cnc
40321	3240	OS Pup	41816	3355	$v$ <sup>1</sup> Cnc	42911	3461	47 Cnc	43822	3552	17 Hya
40326	3243	h2 Pup	41822	3357	31 Cnc	42712	3462	HX Vel	43822	3553	17 Hya
40285	3244	NO Vel	41822	3357	$\theta$ Cnc	42954	3464	46 Cnc	43932	3555	$\sigma$ 2 Cnc
40534	3248	R Cnc	41726	3364	AB Pyx	42917	3465	b Cnc	43932	3555	59 Cnc
40526	3249	$\beta$ Cnc	41975	3365	32 Lyn	42917	3465	BI Cnc	43825	3556	$\delta$ Pyx
40526	3249	17 Cnc	41909	3366	$\eta$ 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	Hi Vel	43807	3562	IY Vel
40843	3262	$\chi$ Cnc	41940	3369	$v$ <sup>2</sup> Cnc	42828	3468	$\alpha$ 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	$\lambda$ Cnc	42133	3387	35 Cnc	43100	3474	$\iota$ Cnc	44127	3569	9 UMa
40706	3270	q Pup	42438	3391	3 UMa	43103	3475	48 Cnc	44127	3569	$\iota$ UMa
41075	3275	31 Lyn	42438	3391	$\pi$ <sup>1</sup> UMa	43103	3475	$\iota$ Cnc	43783	3571	c Car
40945	3282	w Pup	42146	3398	3 Hya	42834	3476	D Vel	44066	3572	$\alpha$ Cnc
41117	3284	20 Cnc	42146	3398	HV Hya	42884	3477	d Vel	44066	3572	65 Cnc
41117	3284	d1 Cnc	42527	3403	$\pi$ <sup>2</sup> UMa	43121	3481	50 Cnc	43878	3574	H Vel
41067	3289	22 Pup	42527	3403	4 UMa	43109	3482	$\epsilon$ Hya	44154	3575	64 Cnc
41163	3290	21 Cnc	42265	3406	36 Cnc	43109	3482	11 Hya	44154	3575	$\sigma$ 3 Cnc
41039	3294	B Vel	42265	3406	c Cnc	43109	3482	$\epsilon$ Hya	44390	3576	8 UMa
41107	3296	V436 Pup	42088	3407	C Vel	43067	3484	D Hya	44390	3576	$\rho$ UMa
41211	3297	1 Hya	42313	3410	4 Hya	43067	3484	12 Hya	44126	3577	FZ Cnc
41319	3299	25 Cnc	42313	3410	$\delta$ Hya	42913	3485	$\delta$ Vel	44248	3579	10 UMa
41319	3299	d2 Cnc	42353	3412	37 Cnc	43023	3487	a Vel	43937	3582	V376 Car
40817	3301	$\kappa$ <sup>1</sup> Vol	42177	3413	HV Vel	43114	3490	AI Pyx	43937	3582	b1 Car
40834	3302	$\kappa$ <sup>2</sup> Vol	42134	3414	e2 Car	43234	3492	$\rho$ Hya	44307	3587	66 Cnc
41377	3304	$\varphi$ 1 Cnc	42129	3415	e1 Car	43234	3492	13 Hya	44093	3588	FZ Vel
41377	3304	22 Cnc	42402	3418	$\sigma$ Hya	43082	3494	OP Vel	44342	3589	67 Cnc
41037	3307	$\epsilon$ Car	42402	3418	5 Hya	43105	3498	V344 Car	44191	3591	w Vel
41404	3310	23 Cnc	42334	3420	$\eta$ Pyx	43105	3498	f Car	44213	3593	IU Vel
41404	3310	$\varphi$ <sup>2</sup> Cnc	42604	3422	34 Lyn	43305	3500	14 Hya	44471	3594	$\kappa$ UMa
41404	3311	23 Cnc	42312	3426	e Vel	43305	3500	KX Hya	44471	3594	12 UMa
41404	3311	$\varphi$ <sup>2</sup> Cnc	42516	3427	39 Cnc	42637	3502	$\eta$ Cha	44405	3595	69 Cnc
41389	3312	24 Cnc	42556	3429	41 Cnc	43644	3505	5 UMa	44405	3595	$\nu$ Cnc
41389	3313	24 Cnc	42556	3429	$\epsilon$ Cnc	43644	3505	b UMa	44143	3598	b2 Car
41307	3314	C Hya	42509	3431	a Hya	43531	3508	35 Lyn	44299	3600	IZ Vel
40702	3318	$\alpha$ Cha	42509	3431	6 Hya	43454	3510	54 Cnc	44512	3601	70 Cnc
41400	3319	27 Cnc	42483	3433	$\zeta$ Pyx	43354	3517	HZ Vel	44337	3605	OY Vel

# Nombre de estrellas (Catálogo Hiparco), 2025

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	$\sigma^1$ UMa	45556	3699	$\iota$ 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	$\omega$ Hya	45860	3705	40 Lyn	47096	3818	7 Leo	47956	3902	$\nu$ Cha
44511	3614	c Vel	45860	3705	$\alpha$ Lyn	46950	3819	L Vel	48356	3903	$\nu 1$ Hya
44382	3615	$\alpha$ 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	$\mu$ Leo
45038	3616	$\sigma^2$ 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	$\theta$ Pyx	47145	3831	IM Vel	48437	3909	8 Sex
44901	3619	f UMa	46247	3722	EZ UMa	47249	3832	34 Hya	48437	3909	$\gamma$ Sex
44818	3621	72 Cnc	45999	3724	KU Hya	47310	3834	2 Sex	48374	3912	m Vel
44818	3621	$\tau$ Cnc	45856	3728	k Car	47175	3836	M Vel	48682	3917	SY UMa
44798	3623	$\kappa$ Cnc	46146	3731	$\kappa$ 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	$\kappa$ Cnc	46026	3733	$\lambda$ Pyx	47431	3845	$\iota$ Hya	48527	3924	V335 Vel
45075	3624	$\tau$ UMa	45941	3734	$\kappa$ 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	$\nu$ Leo
44946	3627	$\xi$ Cnc	46390	3748	$\alpha$ Hya	47452	3849	38 Hya	48774	3940	$\varphi$ Vel
44946	3627	77 Cnc	46390	3748	30 Hya	47452	3849	$\kappa$ Hya	48799	3941	IV Vel
44824	3628	$\kappa$ 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	$\lambda$ Vel	46454	3754	2 Leo	47508	3852	14 Leo	48926	3947	$\eta$ Ant
44816	3634	$\lambda$ Vel	46454	3754	$\omega$ 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	$\pi$ Leo
44961	3641	20 Hya	46733	3757	h UMa	47631	3857	13 LMi	49081	3951	20 LMi
44626	3642	V345 Car	46509	3759	$\tau 1$ Hya	47522	3858	I Hya	49220	3952	EO Leo
45001	3644	$\varepsilon$ Pyx	46509	3759	31 Hya	46928	3860	$\zeta$ Cha	49329	3961	13 Sex
45333	3648	16 UMa	46652	3764	7 LMi	46928	3860	$\zeta$ Cha	49402	3970	40 Hya
45333	3648	c UMa	46515	3765	$\varepsilon$ Ant	47701	3861	f Leo	49402	3970	$\nu 2$ Hya
45170	3650	$\pi 1$ 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	$\eta$ Leo
45085	3654	GX Vel	46977	3771	24 UMa	47723	3866	$\psi$ 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	$\theta$ Ant	49637	3980	31 Leo
45080	3659	V357 Car	46750	3773	$\lambda$ Leo	47694	3872	IP Vel	49641	3981	$\alpha$ Sex
45080	3659	a Car	46853	3775	25 UMa	47908	3873	17 Leo	49641	3981	15 Sex
45455	3660	17 UMa	46853	3775	$\theta$ UMa	47908	3873	$\varepsilon$ Leo	49669	3982	$\alpha$ Leo
45189	3661	KL Vel	46774	3779	6 Leo	47717	3875	O Vel	49669	3982	32 Leo
45493	3662	DD UMa	46657	3780	$\zeta 1$ Ant	47959	3877	18 Leo	49065	3983	$\mu$ Cha
45493	3662	18 UMa	46657	3781	$\zeta 1$ Ant	48029	3880	19 Leo	49812	3989	17 Sex
45493	3662	e UMa	46771	3782	$\xi$ 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	$\psi$ Vel	47854	3884	l Car	49841	3994	$\lambda$ Hya
45336	3665	$\theta$ Hya	46776	3787	32 Hya	47854	3884	l Car	49865	3996	18 Sex
45410	3669	$\pi$ Cnc	46776	3787	$\tau 2$ Hya	48319	3888	$\nu$ UMa	49929	3998	34 Leo
45410	3669	82 Cnc	46734	3789	$\zeta 2$ Ant	48319	3888	$\nu$ UMa	49751	3999	S Car
45410	3669	$\pi 2$ 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	$\zeta$ Oct	46107	3795	$\iota$ Cha	48218	3889	20 Leo	50222	4008	U UMa
45527	3681	23 Hya	46810	3798	S Ant	48002	3890	$\nu$ Car	49934	4009	QY Car
45439	3682	l Vel	47006	3799	26 UMa	48002	3891	$\nu$ 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	$\varphi$ UMa	50191	4023	q Vel
45238	3685	$\beta$ Car	46701	3803	N Vel	48402	3894	30 UMa	50303	4024	23 LMi
45688	3690	38 Lyn	46701	3803	N Vel	48324	3898	23 Leo	50448	4026	32 UMa
45496	3696	g Car	46982	3814	33 Hya	48224	3896	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	$\rho$ Leo	52943	4232	$\nu$ Hya	54539	4335	52 UMa
50335	4031	$\zeta$ Leo	51624	4133	$\rho$ Leo	52633	4234	$\delta$ 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	$\lambda$ UMa	51576	4140	p Car	52980	4237	41 Sex	54682	4343	$\beta$ Crt
50333	4035	37 Leo	51576	4140	PP Car	53261	4246	44 UMa	54682	4343	11 Crt
50099	4037	$\omega$ 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	p5 Leo
50414	4042	22 Sex	51718	4145	44 Hya	53295	4248	$\omega$ UMa	54849	4356	69 Leo
50414	4042	$\varepsilon$ Sex	51775	4146	48 Leo	53154	4250	V524 Car	54872	4357	68 Leo
50332	4045	GY Vel	51676	4147	V369 Car	53252	4251	b3 Hya	54872	4357	$\delta$ Leo
50685	4047	EN UMa	51802	4148	49 Leo	53273	4253	p1 Leo	54879	4359	70 Leo
50456	4049	AG Ant	51802	4148	TX Leo	53355	4254	48 LMi	54879	4359	$\theta$ 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	$\varphi$ <sup>2</sup> 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	$\gamma$ 2 Leo	52009	4163	U Hya	53379	4263	KQ Vel	55084	4368	$\varphi$ Leo
50583	4057	$\gamma$ 1 Leo	51912	4164	t1 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	$\gamma$ 2 Leo	51986	4167	p Vel	53449	4267	56 Leo	55137	4371	75 Leo
50583	4058	$\gamma$ 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	$\xi$ UMa
50684	4064	RS Sex	52085	4171	$\varphi$ <sup>3</sup> Hya	53502	4273	$\iota$ Ant	55203	4374	$\xi$ UMa
50684	4064	23 Sex	52085	4171	$\varphi$ Hya	53530	4274	IW Vel	55203	4375	53 UMa
50801	4069	$\mu$ UMa	52043	4173	V514 Car	53589	4276	U Car	55203	4375	$\xi$ UMa
50801	4069	34 UMa	51839	4174	$\gamma$ Cha	53721	4277	47 UMa	55203	4375	$\xi$ UMa
50755	4070	42 Leo	52353	4178	38 UMa	53740	4287	7 Crt	55219	4377	$\nu$ UMa
50933	4072	ET UMa	52154	4180	x Vel	53740	4287	$\alpha$ 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	$\delta$ 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	$\beta$ UMa	55434	4386	$\sigma$ 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	$\pi$ Cen
51008	4088	DE Leo	52577	4195	VY UMa	53907	4299	p2 Leo	55560	4392	56 UMa
51056	4090	30 LMi	52370	4196	V518 Car	53954	4300	60 Leo	55598	4395	$\lambda$ Crt
51069	4094	42 Hya	52405	4198	V519 Car	53954	4300	b Leo	55598	4395	13 Crt
51069	4094	$\mu$ Hya	52419	4199	$\theta$ Car	54061	4301	50 UMa	55642	4399	78 Leo
51233	4100	31 LMi	52468	4200	w Car	54061	4301	$\alpha$ UMa	55642	4399	$\iota$ Leo
51233	4100	$\beta$ LMi	52468	4200	V520 Car	54049	4306	62 Leo	55650	4400	79 Leo
51213	4101	CX Leo	52584	4201	36 Sex	54049	4306	p3 Leo	55687	4402	14 Crt
51213	4101	45 Leo	52685	4202	41 UMa	54136	4309	51 UMa	55687	4402	$\varepsilon$ Crt
51172	4104	$\alpha$ Ant	52638	4203	42 LMi	54182	4310	63 Leo	55705	4405	$\gamma$ Crt
51401	4106	35 UMa	52340	4206	DR Cha	54182	4310	$\chi$ Leo	55705	4405	15 Crt
51192	4110	V399 Car	52686	4208	51 Leo	53702	4312	$\eta$ Oct	55765	4408	81 Leo
51459	4112	36 UMa	52686	4208	m Leo	54204	4314	$\chi$ 1 Hya	55791	4410	80 Leo
51420	4113	32 LMi	52689	4209	k Leo	54255	4317	$\chi$ 2 Hya	55846	4414	83 Leo
51232	4114	s Car	52689	4209	52 Leo	54255	4317	$\chi$ 2 Hya	55874	4416	16 Crt
51362	4116	$\delta$ Sex	52737	4214	b1 Hya	54336	4319	65 Leo	55874	4416	$\kappa$ Crt
51362	4116	29 Sex	52727	4216	$\mu$ Vel	54336	4319	p4 Leo	55945	4418	$\tau$ Leo
51376	4118	$\delta$ Ant	52882	4223	43 LMi	54388	4322	64 Leo	55945	4418	84 Leo
51437	4119	$\beta$ 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	$\beta$ 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	$\delta$ 1 Cha	54539	4335	$\psi$ 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	$\beta$ Leo	59654	4652	D Cen	60904	4752	AI Com
56211	4434	$\lambda$ Dra	57632	4534	$\beta$ Leo	59678	4653	DL Cru	60941	4753	18 Com
56211	4434	1 Dra	57669	4537	j Cen	59747	4656	$\delta$ Cru	60979	4755	V928 Cen
56242	4437	88 Leo	57757	4540	5 Vir	59747	4656	$\delta$ Cru	60957	4756	20 Com
56201	4438	V809 Cen	57757	4540	$\beta$ Vir	59774	4660	69 UMa	60965	4757	7 Crv
56243	4441	o1 Cen	57803	4546	B Cen	59774	4660	$\delta$ UMa	60965	4757	$\delta$ Crv
56243	4441	o1 Cen	57936	4552	$\beta$ Hya	59803	4662	$\gamma$ Crv	60978	4760	74 UMa
56250	4442	o2 Cen	57936	4552	$\beta$ Hya	59803	4662	4 Crv	60988	4761	7 CVn
56250	4442	o2 Cen	58001	4554	$\gamma$ UMa	59819	4663	6 Com	60992	4762	75 UMa
56280	4443	17 Crt	58001	4554	64 UMa	59796	4665	DK Dra	61084	4763	$\gamma$ Cru
56280	4444	17 Crt	58110	4559	6 Vir	59831	4666	2 CVn	60998	4765	CQ Dra
56343	4450	$\xi$ Hya	58112	4560	65 UMa	59847	4667	7 Com	60998	4765	4 Dra
56445	4455	89 Leo	58112	4560	DN UMa	59929	4671	$\epsilon$ $\mu$ s	61071	4766	UU Com
56473	4456	90 Leo	58117	4561	65 UMa	59929	4671	$\epsilon$ $\mu$ s	61071	4766	21 Com
56480	4460	A Cen	58159	4564	95 Leo	60000	4674	$\beta$ Cha	61136	4768	BG Cru
56583	4461	2 Dra	58159	4564	o Leo	60009	4679	$\zeta$ Cru	61136	4768	35 Cru
56518	4463	V763 Cen	58181	4566	66 UMa	60030	4681	13 Vir	61199	4773	$\gamma$ $\mu$ s
56518	4463	c1 Cen	58188	4567	$\eta$ Crt	60059	4682	F Cen	61174	4775	$\eta$ Crv
56573	4466	c2 Cen	58188	4567	30 Crt	60066	4684	FM Com	61174	4775	8 Crv
56561	4467	$\lambda$ Cen	58272	4571	LV Hya	60087	4685	8 Com	61246	4777	20 Vir
56633	4468	21 Crt	58484	4583	$\epsilon$ Cha	60098	4688	9 Com	61295	4780	22 Com
56633	4468	$\theta$ Crt	58510	4585	7 Vir	60129	4689	$\eta$ Vir	61318	4781	21 Vir
56647	4471	91 Leo	58510	4585	b Vir	60129	4689	15 Vir	61318	4781	q Vir
56647	4471	$\nu$ Leo	58545	4586	FR Cam	60122	4690	3 CVn	61317	4785	8 CVn
56700	4476	c3 Cen	58590	4589	8 Vir	60172	4695	c Vir	61317	4785	$\beta$ CVn
56770	4477	59 UMa	58590	4589	$\pi$ Vir	60172	4695	16 Vir	61359	4786	$\beta$ Crv
56675	4479	$\pi$ Cha	58587	4590	TY Crv	60189	4696	5 Crv	61359	4786	9 Crv
56789	4480	60 UMa	58587	4590	31 Crt	60189	4696	$\zeta$ Crv	61281	4787	$\kappa$ Dra
56779	4483	$\omega$ Vir	58684	4594	67 UMa	60202	4697	11 Com	61281	4787	$\kappa$ Dra
56779	4483	$\omega$ Vir	58684	4594	DP UMa	60260	4700	$\epsilon$ Cru	61281	4787	5 Dra
56779	4483	1 Vir	58758	4599	$\theta$ 1 Cru	60212	4701	70 UMa	61394	4789	23 Com
56802	4488	$\iota$ Crt	58858	4602	2 Com	60320	4703	$\zeta$ 2 $\mu$ s	61415	4791	24 Com
56802	4488	24 Crt	58867	4603	$\theta$ 2 Cru	60329	4704	$\zeta$ 1 $\mu$ s	61418	4792	24 Com
56899	4491	VX Crt	58867	4603	$\theta$ 2 Cru	60351	4707	12 Com	61384	4795	6 Dra
56862	4492	GT $\mu$ s	58905	4605	$\kappa$ Cha	60353	4708	17 Vir	61496	4797	TU Crv
56922	4494	o Hya	58948	4608	9 Vir	60425	4711	6 Crv	61585	4798	$\alpha$ $\mu$ s
56975	4495	92 Leo	58948	4608	o Vir	60449	4712	x1 Cen	61585	4798	$\alpha$ $\mu$ s
56997	4496	61 UMa	59072	4616	$\eta$ 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	$\delta$ Cen	60514	4717	GN Com	61571	4801	25 Com
57175	4511	V810 Cen	59196	4621	$\delta$ Cen	60514	4717	13 Com	61622	4802	$\tau$ Cen
57283	4514	27 Crt	59199	4623	$\alpha$ Crv	60610	4724	x2 Cen	61703	4806	KY $\mu$ s
57283	4514	$\zeta$ 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	$\xi$ Vir	59232	4625	V817 Cen	60718	4730	$\alpha$ 1 Cru	61692	4811	9 CVn
57380	4517	$\nu$ Vir	59285	4626	10 Vir	60718	4730	$\alpha$ 2 Cru	61740	4813	26 Vir
57380	4517	3 Vir	59309	4629	11 Vir	60718	4731	$\alpha$ 1 Cru	61740	4813	$\chi$ Vir
57380	4517	$\nu$ Vir	59316	4630	2 Crv	60718	4731	$\alpha$ 2 Cru	61796	4814	FH $\mu$ s
57399	4518	$\chi$ UMa	59316	4630	$\epsilon$ 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	$\lambda$ $\mu$ s	59394	4635	3 Crv	60742	4737	$\gamma$ Com	61789	4817	1 Cen
57512	4526	V918 Cen	59449	4638	$\rho$ Cen	60742	4737	15 Com	61932	4819	$\gamma$ Cen
57565	4527	93 Leo	59468	4640	4 Com	60746	4738	16 Com	61981	4820	R $\mu$ s
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	$\sigma$ Cen	61910	4822	VV Crv
57581	4530	$\mu$ $\mu$ s	59551	4645	S $\mu$ s	60795	4745	73 UMa	61966	4823	CH Cru
57581	4530	$\mu$ $\mu$ s	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	$\gamma$ Vir	63210	4913	V945 Cen	64792	5011	e Vir	66458	5127	25 CVn
61941	4825	29 Vir	63121	4914	12 CVn	64852	5015	$\sigma$ Vir	66657	5132	$\varepsilon$ Cen
61941	4826	$\gamma$ Vir	63121	4914	$\alpha$ 1 CVn	64852	5015	60 Vir	66657	5132	$\varepsilon$ Cen
61941	4826	29 Vir	63125	4915	$\alpha$ 2 CVn	64844	5017	20 CVn	66666	5134	V744 Cen
61960	4828	$\rho$ Vir	63125	4915	12 CVn	64844	5017	AO CVn	66645	5135	V765 Cen
61960	4828	30 Vir	63125	4915	$\alpha$ 2 CVn	64924	5019	61 Vir	66821	5141	Q Cen
61960	4828	$\rho$ Vir	63076	4916	8 Dra	64962	5020	$\gamma$ Hya	66634	5142	82 UMa
61968	4829	d1 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	$\delta$ $\mu$ s	65112	5026	V964 Cen	66803	5150	m Vir
61936	4833	76 UMa	63462	4924	37 Com	65109	5028	$\iota$ Cen	66803	5150	82 Vir
62268	4842	$\iota$ Cru	63494	4925	46 Vir	65072	5032	23 CVn	66700	5153	CQ UMa
62322	4844	$\beta$ $\mu$ s	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 $\mu$ s	65387	5041	m Cen	67036	5158	V827 Cen
62267	4847	32 Vir	63503	4931	78 UMa	65468	5042	$\iota$ $\mu$ s	66936	5159	84 Vir
62267	4847	FM Vir	63608	4932	$\varepsilon$ Vir	65301	5044	63 Vir	67057	5165	83 Vir
62267	4847	d2 Vir	63608	4932	47 Vir	65323	5047	65 Vir	67153	5168	1 Cen
62325	4849	33 Vir	63724	4933	$\xi$ 1 Cen	65420	5050	66 Vir	67153	5168	i Cen
62356	4851	27 Com	63750	4937	48 Vir	65628	5051	$\iota$ $\mu$ s	67139	5170	85 Vir
62434	4853	$\beta$ Cru	63820	4938	V789 Cen	65376	5052	CL CVn	67261	5171	V766 Cen
62434	4853	$\beta$ Cru	63945	4940	f Cen	65378	5054	79 UMa	67234	5172	M Cen
62376	4854	EP Vir	64004	4942	$\xi$ 2 Cen	65378	5054	$\zeta$ 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	$\zeta$ UMa	67288	5181	87 Vir
62478	4861	28 Com	63950	4949	40 Com	65474	5056	$\alpha$ Vir	67239	5182	3 Boo
62423	4863	7 Dra	63950	4949	FS Com	65474	5056	67 Vir	67275	5185	$\tau$ Boo
62541	4865	29 Com	64094	4952	$\theta$ $\mu$ s	65474	5056	$\alpha$ Vir	67275	5185	4 Boo
62516	4866	11 CVn	64094	4952	$\theta$ $\mu$ s	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	$\iota$ Oct	64078	4955	49 Vir	65581	5064	i Vir	67464	5190	$\nu$ Cen
62683	4874	p Cen	64122	4957	g Vir	65755	5066	EZ $\mu$ s	67464	5190	$\nu$ Cen
62732	4876	DS Cru	64166	4958	45 Hya	65639	5068	69 Vir	67301	5191	$\eta$ UMa
62757	4878	37 Vir	64166	4958	$\psi$ 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	$\theta$ Vir	65790	5081	71 Vir	67472	5193	$\mu$ Cen
62896	4889	n Cen	64320	4965	V824 Cen	66121	5082	S Cha	67472	5193	$\mu$ Cen
62931	4890	$\kappa$ Cru	64217	4967	15 CVn	66753	5084	$\kappa$ 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	$\alpha$ Com	65936	5089	d Cen	67459	5200	$\nu$ Boo
62986	4895	S Cru	64241	4969	42 Com	66015	5094	73 Vir	67459	5200	5 Boo
63007	4897	$\lambda$ Cru	64241	4969	$\alpha$ Com	66015	5094	HX Vir	67480	5201	e Boo
63007	4897	$\lambda$ Cru	64246	4971	17 CVn	66006	5095	l Vir	67480	5201	6 Boo
63003	4898	$\mu$ 1 Cru	64425	4975	V831 Cen	66006	5095	74 Vir	67669	5210	V983 Cen
63005	4899	$\mu$ 2 Cru	64407	4981	53 Vir	66091	5099	75 Vir	67669	5210	3 Cen
63005	4899	$\mu$ 2 Cru	64394	4983	$\beta$ 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	$\psi$ 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	$\psi$ Vir	64661	4993	$\eta$ $\mu$ s	66200	5105	o Vir	67786	5221	4 Cen
62956	4905	$\varepsilon$ UMa	64661	4993	$\eta$ $\mu$ s	66200	5105	CW Vir	67819	5222	y Cen
62956	4905	$\varepsilon$ UMa	64577	4995	55 Vir	66249	5107	$\zeta$ 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	$\delta$ 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	$\zeta$ 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	$\alpha$ 1 Cen	72487	5533	38 Boo
67929	5232	90 Vir	69701	5338	$\iota$ Vir	71681	5460	$\alpha$ 2 Cen	72631	5535	11 Lib
67927	5235	$\eta$ Boo	70638	5339	$\delta$ Oct	71908	5463	$\alpha$ Cir	72524	5538	39 Boo
67927	5235	8 Boo	69673	5340	16 Boo	71908	5463	$\alpha$ Cir	72965	5539	$\zeta$ Cir
67848	5238	86 UMa	69673	5340	$\alpha$ Boo	71618	5468	33 Boo	73223	5540	R Aps
68092	5244	92 Vir	69713	5350	21 Boo	71860	5469	$\alpha$ Lup	72800	5543	V101 Cen
68103	5247	9 Boo	69713	5350	$\iota$ Boo	71860	5469	$\alpha$ Lup	72659	5544	$\xi$ Boo
68245	5248	$\varphi$ Cen	69713	5350	$\iota$ Boo	72370	5470	$\alpha$ Aps	72659	5544	37 Boo
68282	5249	$\nu$ 1 Cen	69732	5351	19 Boo	71762	5475	29 Boo	72659	5544	$\xi$ Boo
68269	5250	47 Hya	69732	5351	$\lambda$ Boo	71762	5475	$\pi$ 2 Boo	73771	5545	$\pi$ 2 Oct
68276	5255	10 Boo	69829	5352	CY Boo	71762	5475	$\pi$ 1 Boo	72929	5548	12 Lib
68390	5257	48 Hya	69996	5354	$\iota$ Lup	71762	5476	29 Boo	73129	5551	$\theta$ Cir
68523	5260	$\nu$ 2 Cen	69929	5355	CS Vir	71762	5476	$\pi$ 2 Boo	73129	5551	$\theta$ Cir
68815	5261	$\theta$ Aps	70069	5358	v Cen	71762	5476	$\pi$ 1 Boo	72848	5553	DE Boo
68815	5261	$\theta$ Aps	69974	5359	100 Vir	71795	5477	$\zeta$ Boo	72934	5554	$\xi$ 1 Lib
68478	5263	11 Boo	69974	5359	$\lambda$ Vir	71795	5477	30 Boo	72934	5554	13 Lib
68520	5264	$\tau$ Vir	69879	5361	A Boo	71795	5478	$\zeta$ Boo	73095	5556	c Lup
68520	5264	93 Vir	69989	5365	18 Boo	71795	5478	30 Boo	74296	5557	$\omega$ Oct
68702	5267	$\beta$ Cen	70012	5366	$\nu$ Vir	71832	5480	31 Boo	72607	5563	$\beta$ UMi
68702	5267	$\beta$ Cen	70012	5366	102 Vir	71837	5481	32 Boo	72607	5563	7 UMi
68673	5269	V828 Cen	70090	5367	$\psi$ Cen	71974	5484	4 Lib	73133	5564	15 Lib
68842	5278	V992 Cen	70027	5370	20 Boo	72010	5485	c1 Cen	73133	5564	$\xi$ 2 Lib
68862	5285	$\chi$ Cen	70270	5375	HX Lup	71957	5487	$\mu$ Vir	73165	5570	16 Lib
68862	5285	$\chi$ Cen	70300	5378	V761 Cen	71957	5487	107 Vir	73273	5571	$\beta$ Lup
68895	5287	$\pi$ Hya	70300	5378	a Cen	72121	5488	BU Cir	73334	5576	$\kappa$ Cen
68895	5287	49 Hya	70306	5381	51 Hya	72104	5489	c2 Cen	73284	5577	59 Hya
68933	5288	5 Cen	70306	5381	k Hya	71995	5490	W Boo	73249	5578	17 Lib
68933	5288	$\theta$ Cen	70336	5383	2 Lib	71995	5490	34 Boo	73310	5582	18 Lib
68940	5290	95 Vir	70574	5395	$\tau$ 1 Lup	75736	5491	BP Oct	73473	5586	$\delta$ Lib
68756	5291	$\alpha$ Dra	70574	5395	$\tau$ 1 Lup	71876	5492	DL Dra	73473	5586	19 Lib
68756	5291	11 Dra	70576	5396	$\tau$ 2 Lup	72290	5495	b Lup	73473	5586	$\delta$ Lib
69122	5292	V883 Cen	70497	5404	$\theta$ 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	$\eta$ 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	$\omega$ Boo
69269	5301	ET Vir	70753	5407	1 Hya	72194	5503	5 Lib	73568	5600	41 Boo
69896	5303	$\eta$ Aps	70755	5409	105 Vir	72105	5505	36 Boo	73620	5601	110 Vir
69226	5304	12 Boo	70755	5409	$\varphi$ Vir	72105	5505	$\epsilon$ Boo	73555	5602	$\beta$ 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	$\epsilon$ Boo	73714	5603	$\gamma$ Sco
69491	5311	V716 Cen	70791	5420	24 Boo	72220	5511	109 Vir	73714	5603	$\sigma$ Lib
69415	5312	50 Hya	71116	5421	V Cen	72208	5512	EK Boo	73714	5603	20 Lib
69389	5313	CU Vir	71121	5425	$\sigma$ Lup	72323	5514	55 Hya	73714	5603	$\sigma$ Lib
69427	5315	$\kappa$ Vir	71121	5425	$\sigma$ Lup	72357	5516	56 Hya	73764	5604	GM Lup
69427	5315	98 Vir	71053	5429	$\rho$ Boo	72378	5517	57 Hya	73807	5605	$\pi$ Lup
69618	5316	V795 Cen	71053	5429	25 Boo	72432	5519	V768 Cen	73807	5606	$\pi$ Lup
69112	5321	4 UMi	70692	5430	5 UMi	72489	5523	$\mu$ Lib	73745	5616	$\psi$ Boo
69536	5323	14 Boo	71115	5434	26 Boo	72489	5523	7 Lib	73745	5616	43 Boo
69754	5326	R Cen	71075	5435	$\gamma$ Boo	73540	5525	$\pi$ 1 Oct	73695	5618	44 Boo
69481	5328	17 Boo	71075	5435	27 Boo	72571	5526	58 Hya	73695	5618	i Boo
69481	5328	$\kappa$ 1 Boo	71075	5435	$\gamma$ Boo	72571	5526	E Hya	73695	5618	i Boo
69483	5329	$\kappa$ 2 Boo	71040	5437	ER Dra	72773	5527	AX Cir	73937	5619	HZ Lup
69483	5329	17 Boo	71352	5440	$\eta$ Cen	72683	5528	o Lup	73945	5622	21 Lib
69483	5329	$\kappa$ 2 Boo	71168	5441	CP Boo	72603	5530	$\alpha$ 1 Lib	73945	5622	$\nu$ Lib
69612	5330	15 Boo	71284	5447	$\sigma$ Boo	72603	5530	8 Lib	74066	5624	HR Lup
69614	5331	FS Vir	71284	5447	28 Boo	72622	5531	9 Lib	74117	5626	$\lambda$ Lup
70248	5336	$\epsilon$ Aps	71280	5452	CH Boo	72622	5531	$\alpha$ 2 Lib	73841	5627	47 Boo
70248	5336	$\epsilon$ Aps	71536	5453	$\rho$ Lup	72487	5533	h Boo	73841	5627	k Boo

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

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Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
78265	5944	$\pi$ Sco	79374	6027	$\nu$ Sco	80197	6107	20 CrB	81305	6164	V918 Sco
78265	5944	6 Sco	79374	6027	14 Sco	80197	6107	$\nu^1$ CrB	81266	6165	$\tau$ Sco
78159	5947	$\varepsilon$ CrB	79404	6028	13 Sco	80214	6108	21 CrB	81266	6165	23 Sco
78159	5947	13 CrB	79404	6028	c2 Sco	80214	6108	$\nu^2$ CrB	81126	6168	35 Her
78384	5948	$\eta$ Lup	79399	6029	c1 Sco	80645	6109	$\iota$ TrA	81126	6168	$\sigma$ Her
78401	5953	7 Sco	79399	6029	12 Sco	80351	6111	21 Her	81300	6171	12 Oph
78401	5953	$\delta$ Sco	79664	6030	$\delta$ TrA	80351	6111	o Her	81300	6171	V213 Oph
78400	5954	49 Lib	79375	6031	$\psi$ Sco	80473	6112	5 Oph	81710	6172	$\eta^1$ TrA
78322	5958	T CrB	79375	6031	15 Sco	80473	6112	$\rho$ Oph	81472	6174	V100 Sco
78436	5959	50 Lib	79387	6033	16 Sco	80473	6113	5 Oph	81377	6175	$\zeta$ Oph
78180	5960	CL Dra	79332	6035	q Her	80473	6113	$\rho$ Oph	81377	6175	$\zeta$ Oph
78662	5961	$\iota$ 1 Nor	79349	6039	LQ Her	80582	6115	$\varepsilon$ Nor	81377	6175	13 Oph
78639	5962	$\eta$ Nor	79349	6039	10 Her	79822	6116	$\eta$ 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	$\theta$ Nor	80463	6117	24 Her	81292	6185	17 Dra
78459	5968	15 CrB	79488	6047	9 Her	80463	6117	$\omega$ Her	81292	6186	17 Dra
78459	5968	$\rho$ CrB	79540	6048	$\chi$ Sco	80463	6117	$\omega$ Her	81634	6194	36 Her
78493	5971	$\iota$ CrB	79540	6048	17 Sco	80569	6118	$\chi$ Oph	81641	6195	37 Her
78493	5971	14 CrB	79754	6055	V368 Nor	80569	6118	$\chi$ Oph	81497	6200	42 Her
78554	5972	$\pi$ Ser	79593	6056	$\delta$ 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	$\gamma$ 1 Nor	80788	6120	V378 Nor	81693	6212	40 Her
78727	5977	$\xi$ Sco	79672	6060	18 Sco	80460	6123	25 Her	81693	6212	$\zeta$ Her
78727	5978	$\xi$ Sco	79932	6062	S Nor	80375	6127	DQ Dra	81729	6213	39 Her
78914	5980	$\delta$ Nor	79607	6063	TZ CrB	80620	6128	V210 Oph	82273	6217	$\alpha$ TrA
78592	5982	$\nu$ Her	79607	6063	$\sigma$ CrB	80628	6129	3 Oph	81833	6220	44 Her
78592	5982	6 Her	79607	6063	17 CrB	80628	6129	$\nu$ Oph	81833	6220	$\eta$ Her
78820	5984	8 Sco	79607	6064	TZ CrB	80782	6131	QU Nor	81660	6223	g Dra
78820	5984	$\beta$ 1 Sco	79607	6064	$\sigma$ CrB	80331	6132	$\eta$ Dra	81660	6223	18 Dra
78821	5985	8 Sco	79607	6064	17 CrB	80331	6132	14 Dra	82037	6224	16 Oph
78821	5985	$\beta$ 2 Sco	79666	6065	16 Her	80763	6134	$\alpha$ Sco	82140	6225	25 Sco
78527	5986	13 Dra	79881	6070	d Sco	80763	6134	21 Sco	82073	6228	i Her
78527	5986	$\theta$ Dra	79963	6071	$\lambda$ Nor	80763	6134	$\alpha$ Sco	82073	6228	43 Her
78918	5987	$\theta$ Lup	80000	6072	$\gamma$ 2 Nor	83255	6139	CW Oct	82363	6229	$\eta$ Ara
78877	5988	V929 Sco	79757	6074	$\nu$ CrB	80815	6141	i Sco	82162	6232	19 Oph
78933	5993	9 Sco	79757	6074	18 CrB	80815	6141	22 Sco	82216	6234	l Her
78933	5993	$\omega$ 1 Sco	79882	6075	$\beta$ Oph	80945	6142	V105 Sco	82216	6234	V776 Her
79153	5994	$\iota$ 2 Nor	79882	6075	2 Oph	80704	6146	30 Her	82216	6234	45 Her
78990	5997	$\omega$ 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	$\varepsilon$ Sco
79080	5999	V856 Sco	80079	6081	19 Sco	80894	6147	$\varphi$ 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	$\sigma$ Sco	80816	6148	27 Her	82369	6243	20 Oph
79043	6008	7 Her	80112	6084	20 Sco	80816	6148	$\beta$ Her	82493	6245	V973 Sco
79043	6008	$\kappa$ Her	80112	6084	$\sigma$ Sco	80883	6149	10 Oph	82514	6247	$\mu^1$ Sco
79045	6009	7 Her	79804	6086	AT Dra	80883	6149	$\lambda$ Oph	82514	6247	$\mu^1$ Sco
79072	6010	47 Ser	79992	6092	22 Her	81252	6151	$\theta$ TrA	82543	6249	V919 Sco
79072	6010	FS Ser	79992	6092	$\tau$ Her	80843	6152	s Her	82402	6250	47 Her
79102	6013	8 Her	79992	6092	$\tau$ Her	80975	6153	$\omega$ Oph	82402	6250	k Her
79119	6018	16 CrB	80179	6093	50 Ser	80975	6153	$\omega$ Oph	82545	6252	$\mu$ 2 Sco
79119	6018	$\tau$ CrB	80179	6093	$\sigma$ Ser	80975	6153	9 Oph	82321	6254	52 Her
79497	6019	$\zeta$ Nor	80170	6095	20 Her	81122	6155	$\mu$ Nor	82321	6254	V637 Her
80047	6020	$\delta$ 1 Aps	80170	6095	$\gamma$ Her	81122	6155	$\mu$ Nor	82480	6255	21 Oph
80047	6020	$\delta$ 1 Aps	80170	6095	$\gamma$ Her	80809	6156	34 Her	82650	6257	V106 Sco
80057	6021	$\delta$ 2 Aps	80686	6098	$\zeta$ TrA	81007	6158	28 Her	82422	6258	50 Her
79490	6022	V367 Nor	81065	6102	$\gamma$ Aps	81007	6158	n Her	82669	6261	V900 Sco
79101	6023	$\varphi$ Her	80181	6103	19 CrB	81008	6159	h Her	82671	6262	$\zeta$ 1 Sco
79101	6023	$\varphi$ Her	80181	6103	$\xi$ CrB	81008	6159	29 Her	82671	6262	$\zeta$ 1 Sco
79101	6023	11 Her	80343	6104	$\psi$ Oph	80650	6161	15 Dra	82526	6268	49 Her
79509	6024	$\kappa$ Nor	80343	6104	4 Oph	81852	6163	$\beta$ 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	$\zeta^2$ Sco	84405	6401	36 Oph	85423	6492	d Oph	86414	6588	$\iota$ 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	$\omega$ Dra
82587	6279	53 Her	84345	6406	$\alpha$ 1 Her	85355	6498	49 Oph	86201	6596	28 Dra
82730	6280	23 Oph	84345	6406	$\alpha$ Her	85355	6498	$\sigma$ Oph	86667	6602	83 Her
82673	6281	$\iota$ Oph	84345	6406	$\alpha$ 2 Her	85727	6500	$\delta$ Ara	86742	6603	60 Oph
82673	6281	25 Oph	84345	6407	64 Her	85751	6505	V862 Ara	86742	6603	$\beta$ Oph
82911	6283	V861 Sco	84345	6407	$\alpha$ 1 Her	85696	6508	34 Sco	86731	6608	84 Her
83081	6285	$\zeta$ Ara	84345	6407	$\alpha$ Her	85696	6508	$\nu$ Sco	86831	6609	61 Oph
82960	6288	27 Sco	84345	6407	$\alpha$ 2 Her	85379	6509	x Her	86809	6611	V624 Her
82798	6290	V644 Her	84379	6410	65 Her	85379	6509	77 Her	87073	6615	$\iota$ Sco
82925	6291	24 Oph	84379	6410	$\delta$ Her	85792	6510	$\alpha$ Ara	87072	6616	X Sgr
82780	6292	56 Her	84979	6411	$\iota$ Aps	85792	6510	$\alpha$ Ara	87072	6616	3 Sgr
82802	6293	54 Her	84479	6412	V236 Oph	85755	6519	c Oph	87163	6621	V389 Sgr
83153	6295	$\epsilon$ 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	$\mu$ Her
83000	6299	$\kappa$ Oph	84969	6417	$\zeta$ Aps	85693	6526	76 Her	86974	6623	86 Her
83000	6299	$\kappa$ Oph	84380	6418	67 Her	85693	6526	$\lambda$ Her	86946	6626	V826 Her
83323	6304	V828 Ara	84380	6418	$\pi$ Her	85927	6527	$\lambda$ Sco	87108	6629	62 Oph
82987	6305	57 Her	84650	6422	V107 Sco	85927	6527	$\lambda$ Sco	87108	6629	$\gamma$ Oph
83196	6310	26 Oph	84626	6424	o Oph	85927	6527	35 Sco	87294	6631	$\iota$ Sco
83431	6314	$\epsilon$ 2 Ara	84626	6424	39 Oph	85790	6533	78 Her	86614	6636	$\psi^1$ 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	$\beta$ Dra	86620	6637	$\psi^1$ 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	$\sigma$ Ara	87194	6644	87 Her
83331	6321	29 Oph	84573	6431	u Her	85934	6543	V642 Her	87460	6647	V957 Sco
82080	6322	$\epsilon$ 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	$\epsilon$ UMi	84704	6434	V211 Oph	85998	6548	f Oph	87616	6662	V906 Sco
83207	6324	$\epsilon$ Her	84606	6436	e Her	85998	6548	53 Oph	87624	6663	V951 Sco
83207	6324	58 Her	84606	6436	69 Her	86305	6549	$\pi$ Ara	87280	6664	88 Her
83308	6326	V451 Her	84893	6445	40 Oph	86228	6553	$\theta$ Sco	87280	6664	V744 Her
83491	6327	V923 Sco	84893	6445	$\xi$ Oph	85819	6554	24 Dra	87280	6664	z Her
83313	6332	59 Her	84880	6446	53 Ser	85819	6554	$\nu$ 1 Dra	87706	6672	63 Oph
83313	6332	d Her	84880	6446	$\nu$ Ser	85829	6555	$\nu$ 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	$\iota$ Ara	86032	6556	$\alpha$ Oph	87812	6684	V205 Oph
83462	6346	61 Her	85079	6451	$\iota$ Ara	86263	6561	$\xi$ 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	$\theta$ Oph	85805	6566	27 Dra	87585	6688	32 Dra
83613	6355	60 Her	84970	6453	$\theta$ Oph	85805	6566	f Dra	87585	6688	$\xi$ Dra
83608	6369	21 Dra	84970	6453	42 Oph	86284	6567	$\mu$ Oph	87808	6695	$\theta$ Her
83608	6369	$\mu$ Dra	84887	6457	70 Her	86284	6567	57 Oph	87808	6695	91 Her
83608	6370	21 Dra	84862	6458	72 Her	86486	6569	$\lambda$ Ara	88048	6698	64 Oph
83608	6370	$\mu$ Dra	84862	6458	w Her	86254	6571	79 Her	88048	6698	$\nu$ Oph
84105	6374	V854 Ara	85084	6459	43 Oph	86036	6573	26 Dra	88116	6700	4 Sgr
83838	6377	c Her	85258	6461	$\beta$ Ara	86182	6574	82 Her	87234	6701	35 Dra
84012	6378	$\eta$ Oph	85267	6462	$\gamma$ Ara	86182	6574	y Her	87850	6702	OP Her
84012	6378	35 Oph	84835	6464	74 Her	86628	6576	V626 Ara	87933	6703	$\xi$ Her
84143	6380	$\eta$ Sco	85312	6468	$\kappa$ Ara	86670	6580	$\kappa$ Sco	87933	6703	92 Her
84311	6384	V829 Ara	84949	6469	V819 Her	86670	6580	$\kappa$ Sco	87933	6703	$\xi$ Her
84054	6391	V620 Her	85157	6480	73 Her	86565	6581	o Ser	87833	6705	33 Dra
84054	6391	63 Her	85112	6484	$\rho$ Her	86565	6581	56 Ser	87833	6705	$\gamma$ Dra
84332	6392	V915 Sco	85112	6484	75 Her	86565	6581	o Ser	87998	6707	94 Her
84177	6393	37 Oph	85112	6485	$\rho$ Her	86929	6582	$\eta$ Pav	87998	6707	$\nu$ Her
83895	6396	22 Dra	85112	6485	75 Her	86796	6585	$\mu$ Ara	87998	6707	$\nu$ Her
83895	6396	$\zeta$ Dra	85340	6486	b Oph	86414	6588	$\iota$ 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	δ1 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	η2 CrA
88149	6712	V204 Oph	89369	6816	14 Sgr	90853	6938	δ2 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 <sup>2</sup> CrA	92133	7084	CX Dra
88172	6720	V974 Her	90133	6829	φ Oct	90969	6953	κ <sup>1</sup> CrA	92646	7087	κ Tel
92824	6721	χ 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	ν1 Lyr
87728	6725	34 Dra	89527	6834	V239 Oph	91004	6961	24 Sgr	92398	7100	8 Lyr
87728	6725	ψ <sup>2</sup> 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 <sup>2</sup> 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	γ1 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	ν1 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	ν2 Sgr
88635	6746	γ2 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	δ1 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	δ2 Lyr
88794	6779	103 Her	90496	6913	λ Sgr	91919	7051	4 Lyr	92791	7139	δ2 Lyr
88818	6781	100 Her	90797	6916	ν Pav	91919	7051	ε1 Lyr	92946	7141	θ1 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	ε1 Lyr	92951	7142	θ2 Ser
88886	6787	102 Her	90441	6918	59 Ser	91926	7053	ε2 Lyr	92951	7142	63 Ser
85822	6789	23 UMi	90441	6918	d Ser	91926	7053	5 Lyr	93057	7145	ξ1 Sgr
85822	6789	δ UMi	89908	6920	43 Dra	91926	7054	ε2 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	ζ1 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	ζ2 Lyr	93085	7150	ξ2 Sgr
88127	6809	40 Dra	89937	6927	χ 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	η1 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	$\pi$ Sgr	94648	7352	$\tau$ 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	$\kappa$ Aql
93203	7172	11 Aql	94724	7274	$\tau$ Pav	95260	7358	V377 Vul	96483	7446	39 Aql
93104	7174	V542 Lyr	94013	7275	V176 Cyg	95477	7362	$\chi$ 1 Sgr	96468	7447	41 Aql
92997	7175	48 Dra	94385	7279	20 Aql	95477	7362	47 Sgr	96468	7447	$\iota$ Aql
93244	7176	13 Aql	94311	7283	V471 Lyr	95503	7363	49 Sgr	96387	7457	11 Cyg
93244	7176	$\epsilon$ Aql	94311	7283	19 Lyr	95503	7363	$\chi$ 3 Sgr	96458	7458	U Vul
93194	7178	14 Lyr	94377	7285	V338 Sge	95398	7369	2 Sge	96556	7460	42 Aql
93194	7178	$\gamma$ Lyr	94477	7287	V128 Aql	95081	7371	58 Dra	96721	7461	QQ Tel
93177	7179	V543 Lyr	94477	7287	21 Aql	95081	7371	$\pi$ Dra	96100	7462	61 Dra
92782	7180	$\nu$ Dra	94140	7290	55 Dra	95372	7372	2 Cyg	96100	7462	$\sigma$ Dra
92782	7180	52 Dra	94643	7292	42 Sgr	95447	7373	b Aql	96516	7463	4 Sge
93270	7183	V387 Vul	94643	7292	$\psi$ Sgr	95447	7373	31 Aql	96516	7463	$\epsilon$ Sge
93210	7185	V545 Lyr	94302	7295	53 Dra	95564	7375	50 Sgr	96739	7464	V409 Sgr
93542	7188	$\zeta$ CrA	94730	7296	RY Sgr	95501	7377	30 Aql	96441	7469	13 Cyg
93279	7192	$\lambda$ Lyr	94481	7298	$\eta$ Lyr	95501	7377	$\delta$ Aql	96441	7469	$\theta$ 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	$\nu$ Aql	96665	7474	$\sigma$ 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	$\sigma$ Aql
93506	7194	$\zeta$ Sgr	94820	7304	d Sgr	95932	7393	$\mu$ Tel	96688	7475	V340 Sge
93552	7197	V701 CrA	94703	7306	1 Vul	84535	7394	$\lambda$ UMi	96808	7476	54 Sgr
93309	7201	V547 Lyr	94685	7308	V473 Lyr	84535	7394	$\lambda$ UMi	96808	7476	e1 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	$\varphi$ Cyg
93815	7213	$\rho$ Tel	94376	7310	$\delta$ Dra	95793	7400	c Aql	96757	7479	$\alpha$ 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	$\theta$ Lyr	95673	7403	V558 Lyr	96693	7483	14 Cyg
93340	7218	49 Dra	94834	7315	$\omega$ 1 Aql	95771	7405	$\alpha$ 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	$\beta$ Sge
93187	7224	EE Dra	94827	7318	2 Vul	95656	7408	$\iota$ 1 Cyg	96837	7488	6 Sge
93717	7225	15 Aql	94885	7319	23 Aql	95656	7408	7 Cyg	96950	7489	e2 Sgr
93717	7225	h Aql	94913	7321	24 Aql	95818	7409	7 Vul	96950	7489	55 Sgr
93825	7226	$\gamma$ CrA	94910	7326	U Sge	95937	7414	e Aql	96931	7493	46 Aql
93825	7227	$\gamma$ CrA	94779	7328	$\kappa$ Cyg	95937	7414	36 Aql	96957	7497	$\chi$ Aql
104382	7228	$\sigma$ Oct	94779	7328	1 Cyg	95929	7415	V923 Aql	96957	7497	47 Aql
104382	7228	$\sigma$ Oct	95261	7329	$\eta$ 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	$\tau$ Sgr	94982	7331	28 Aql	95947	7417	$\beta$ 1 Cyg	97077	7506	10 Vul
93747	7235	17 Aql	95002	7332	$\omega$ 2 Aql	95951	7418	6 Cyg	97091	7508	PS Vul
93747	7235	$\zeta$ Aql	95002	7332	29 Aql	95951	7418	$\beta$ 2 Cyg	96919	7509	V135 Cyg
93805	7236	16 Aql	95066	7333	26 Aql	95853	7420	$\iota$ <sup>2</sup> Cyg	97421	7510	$\nu$ Tel
93805	7236	$\lambda$ Aql	95066	7333	f Aql	95853	7420	10 Cyg	97139	7511	48 Aql
93887	7241	V419 Sgr	95073	7336	27 Aql	95853	7420	$\iota$ Cyg	97139	7511	$\psi$ Aql
94005	7242	$\delta$ CrA	95073	7336	d Aql	96234	7422	V408 Sgr	97290	7515	f Sgr
93820	7243	R Aql	95241	7337	$\beta$ 1 Sgr	96341	7424	$\iota$ 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	$\rho$ 1 Sgr	96003	7428	V181 Cyg	97150	7518	SU Cyg
93996	7249	V402 Sgr	95168	7340	44 Sgr	96229	7429	$\mu$ Aql	97229	7519	49 Aql
93713	7251	51 Dra	95168	7340	$\rho$ 1 Sgr	96229	7429	38 Aql	97229	7519	$\nu$ Aql
94114	7254	$\alpha$ CrA	95176	7342	46 Sgr	96327	7430	37 Aql	97142	7520	V209 Cyg
93808	7258	V550 Lyr	95176	7342	$\nu$ Sgr	96406	7431	h1 Sgr	97151	7523	V973 Cyg
94160	7259	$\beta$ CrA	95176	7342	$\nu$ Sgr	96406	7431	51 Sgr	97674	7524	NZ Pav
93917	7261	17 Lyr	95294	7343	$\beta$ 2 Sgr	96275	7437	9 Vul	97278	7525	50 Aql
93903	7262	$\iota$ Lyr	95188	7344	45 Sgr	96440	7439	V433 Sgr	97278	7525	$\gamma$ Aql
93903	7262	$\iota$ Lyr	95188	7344	$\rho$ 2 Sgr	96465	7440	52 Sgr	97165	7528	$\delta$ Cyg
93903	7262	18 Lyr	95347	7348	$\alpha$ Sgr	96465	7440	h2 Sgr	97165	7528	18 Cyg

# Número de estrellas (Catálogo Hiparco), 2025

Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
93124	7165	FF Aql	94141	7264	$\pi$ Sgr	94648	7352	$\tau$ 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	$\kappa$ Aql
93203	7172	11 Aql	94724	7274	$\tau$ Pav	95260	7358	V377 Vul	96483	7446	39 Aql
93104	7174	V542 Lyr	94013	7275	V176 Cyg	95477	7362	$\chi$ 1 Sgr	96468	7447	41 Aql
92997	7175	48 Dra	94385	7279	20 Aql	95477	7362	47 Sgr	96468	7447	$\iota$ Aql
93244	7176	13 Aql	94311	7283	V471 Lyr	95503	7363	49 Sgr	96387	7457	11 Cyg
93244	7176	$\epsilon$ Aql	94311	7283	19 Lyr	95503	7363	$\chi$ 3 Sgr	96458	7458	U Vul
93194	7178	14 Lyr	94377	7285	V338 Sge	95398	7369	2 Sge	96556	7460	42 Aql
93194	7178	$\gamma$ Lyr	94477	7287	V128 Aql	95081	7371	58 Dra	96721	7461	QQ Tel
93177	7179	V543 Lyr	94477	7287	21 Aql	95081	7371	$\pi$ Dra	96100	7462	61 Dra
92782	7180	$\nu$ Dra	94140	7290	55 Dra	95372	7372	2 Cyg	96100	7462	$\sigma$ Dra
92782	7180	52 Dra	94643	7292	42 Sgr	95447	7373	b Aql	96516	7463	4 Sge
93270	7183	V387 Vul	94643	7292	$\psi$ Sgr	95447	7373	31 Aql	96516	7463	$\epsilon$ Sge
93210	7185	V545 Lyr	94302	7295	53 Dra	95564	7375	50 Sgr	96739	7464	V409 Sgr
93542	7188	$\zeta$ CrA	94730	7296	RY Sgr	95501	7377	30 Aql	96441	7469	13 Cyg
93279	7192	$\lambda$ Lyr	94481	7298	$\eta$ Lyr	95501	7377	$\delta$ Aql	96441	7469	$\theta$ 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	$\nu$ Aql	96665	7474	$\sigma$ 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	$\sigma$ Aql
93506	7194	$\zeta$ Sgr	94820	7304	d Sgr	95932	7393	$\mu$ Tel	96688	7475	V340 Sge
93552	7197	V701 CrA	94703	7306	1 Vul	84535	7394	$\lambda$ UMi	96808	7476	54 Sgr
93309	7201	V547 Lyr	94685	7308	V473 Lyr	84535	7394	$\lambda$ UMi	96808	7476	e1 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	$\varphi$ Cyg
93815	7213	$\rho$ Tel	94376	7310	$\delta$ Dra	95793	7400	c Aql	96757	7479	$\alpha$ 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	$\theta$ Lyr	95673	7403	V558 Lyr	96693	7483	14 Cyg
93340	7218	49 Dra	94834	7315	$\omega$ 1 Aql	95771	7405	$\alpha$ 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	$\beta$ Sge
93187	7224	EE Dra	94827	7318	2 Vul	95656	7408	$\iota$ 1 Cyg	96837	7488	6 Sge
93717	7225	15 Aql	94885	7319	23 Aql	95656	7408	7 Cyg	96950	7489	e2 Sgr
93717	7225	h Aql	94913	7321	24 Aql	95818	7409	7 Vul	96950	7489	55 Sgr
93825	7226	$\gamma$ CrA	94910	7326	U Sge	95937	7414	e Aql	96931	7493	46 Aql
93825	7227	$\gamma$ CrA	94779	7328	$\kappa$ Cyg	95937	7414	36 Aql	96957	7497	$\chi$ Aql
104382	7228	$\sigma$ Oct	94779	7328	1 Cyg	95929	7415	V923 Aql	96957	7497	47 Aql
104382	7228	$\sigma$ Oct	95261	7329	$\eta$ 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	$\tau$ Sgr	94982	7331	28 Aql	95947	7417	$\beta$ 1 Cyg	97077	7506	10 Vul
93747	7235	17 Aql	95002	7332	$\omega$ 2 Aql	95951	7418	6 Cyg	97091	7508	PS Vul
93747	7235	$\zeta$ Aql	95002	7332	29 Aql	95951	7418	$\beta$ 2 Cyg	96919	7509	V135 Cyg
93805	7236	16 Aql	95066	7333	26 Aql	95853	7420	$\iota$ 2 Cyg	97421	7510	$\nu$ Tel
93805	7236	$\lambda$ Aql	95066	7333	f Aql	95853	7420	10 Cyg	97139	7511	48 Aql
93887	7241	V419 Sgr	95073	7336	27 Aql	95853	7420	$\iota$ Cyg	97139	7511	$\psi$ Aql
94005	7242	$\delta$ CrA	95073	7336	d Aql	96234	7422	V408 Sgr	97290	7515	f Sgr
93820	7243	R Aql	95241	7337	$\beta$ 1 Sgr	96341	7424	$\iota$ 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	$\rho$ 1 Sgr	96003	7428	V181 Cyg	97150	7518	SU Cyg
93996	7249	V402 Sgr	95168	7340	44 Sgr	96229	7429	$\mu$ Aql	97229	7519	49 Aql
93713	7251	51 Dra	95168	7340	$\rho$ 1 Sgr	96229	7429	38 Aql	97229	7519	$\nu$ Aql
94114	7254	$\alpha$ CrA	95176	7342	46 Sgr	96327	7430	37 Aql	97142	7520	V209 Cyg
93808	7258	V550 Lyr	95176	7342	$\nu$ Sgr	96406	7431	h1 Sgr	97151	7523	V973 Cyg
94160	7259	$\beta$ CrA	95176	7342	$\nu$ Sgr	96406	7431	51 Sgr	97674	7524	NZ Pav
93917	7261	17 Lyr	95294	7343	$\beta$ 2 Sgr	96275	7437	9 Vul	97278	7525	50 Aql
93903	7262	$\iota$ Lyr	95188	7344	45 Sgr	96440	7439	V433 Sgr	97278	7525	$\gamma$ Aql
93903	7262	$\iota$ Lyr	95188	7344	$\rho$ 2 Sgr	96465	7440	52 Sgr	97165	7528	$\delta$ Cyg
93903	7262	18 Lyr	95347	7348	$\alpha$ Sgr	96465	7440	h2 Sgr	97165	7528	18 Cyg

# Número de estrellas (Catálogo Hiparco), 2025

Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
97295	7534	17 Cyg	98103	7610	$\varphi$ Aql	99303	7708	b2 Cyg	100469	7779	$\kappa$ 1 Sgr
97365	7536	7 Sge	98103	7610	61 Aql	99303	7708	V162 Cyg	100250	7786	V158 Cyg
97365	7536	$\delta$ Sge	98624	7612	$\mu$ 2 Pav	99303	7708	28 Cyg	100591	7787	$\kappa$ 2 Sgr
97365	7536	$\delta$ Sge	98068	7613	22 Cyg	99457	7709	BE Cap	100435	7789	25 Vul
97473	7544	$\pi$ Aql	98258	7614	g Sgr	99473	7710	$\theta$ Aql	100751	7790	$\alpha$ 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	$\zeta$ Sge	98110	7615	$\eta$ Cyg	99529	7712	$\xi$ 1 Cap	100453	7796	37 Cyg
97485	7551	V176 Cyg	98353	7618	60 Sgr	99529	7712	1 Cap	100453	7796	$\gamma$ Cyg
97749	7552	V396 Sgr	98055	7619	24 Cyg	99572	7715	$\xi$ Cap	100261	7804	AC Dra
97650	7553	51 Aql	98055	7619	$\psi$ Cyg	99572	7715	$\xi$ 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	$\theta$ 1 Sgr	99518	7718	19 Vul	100881	7814	10 Cap
97649	7557	53 Aql	98421	7624	$\theta$ 2 Sgr	99531	7719	20 Vul	100881	7814	$\pi$ Cap
97649	7557	$\alpha$ Aql	98608	7625	$\nu$ 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	$\gamma$ Sge	99742	7724	$\rho$ Aql	101027	7822	$\rho$ 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	$\chi$ Cyg	98438	7645	VZ Sge	99639	7730	30 Cyg	100859	7828	V212 Cyg
97629	7564	$\chi$ Cyg	98425	7647	V174 Cyg	99738	7731	21 Vul	101120	7829	o Cap
97679	7565	V395 Vul	98425	7647	25 Cyg	99738	7731	$\nu$ 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	o1 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	b3 Cyg	101067	7835	42 Cyg
97804	7570	$\eta$ Aql	98543	7653	15 Vul	99770	7736	29 Cyg	101160	7836	1 $\delta$
97804	7570	55 Aql	98543	7653	NT Vul	99918	7738	3 Cap	101138	7844	V201 Cyg
97804	7570	$\eta$ Aql	98636	7657	16 Vul	99824	7739	QR Vul	101138	7844	$\omega$ 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	$\nu$ Mic
97796	7574	9 Sge	99240	7665	$\delta$ Pav	99853	7741	QS Vul	101214	7847	44 Cyg
97796	7574	QZ Sge	98844	7667	62 Aql	99874	7744	23 Vul	101612	7848	$\varphi$ 1 Pav
97871	7575	V129 Aql	98823	7669	63 Aql	99913	7746	18 Sge	101093	7850	2 Cep
97635	7576	20 Cyg	98823	7669	$\tau$ Aql	100027	7747	5 Cap	101093	7850	$\theta$ Cep
97635	7576	d Cyg	98910	7671	V140 Aql	100027	7747	$\alpha$ 1 Cap	101243	7851	$\omega$ 2 Cyg
97944	7578	V420 Sgr	98819	7672	15 Sge	100062	7748	4 Cap	101243	7851	46 Cyg
98032	7581	$\iota$ Sgr	99120	7673	$\xi$ Tel	99255	7750	1 Cep	101421	7852	2 $\delta$
97433	7582	63 Dra	98953	7675	65 Sgr	99255	7750	$\kappa$ Cep	101421	7852	$\varepsilon$ $\delta$
97433	7582	$\varepsilon$ Dra	98583	7676	e Dra	99848	7751	V148 Cyg	101483	7858	3 $\delta$
97928	7584	56 Aql	98583	7676	64 Dra	99848	7751	o2 Cyg	101483	7858	$\eta$ $\delta$
98495	7590	$\varepsilon$ Pav	98863	7678	V176 Cyg	99848	7751	32 Cyg	101773	7859	$\rho$ Pav
97886	7592	13 Vul	98920	7679	$\eta$ Sge	99951	7753	24 Vul	101773	7859	$\rho$ Pav
97966	7593	57 Aql	98920	7679	16 Sge	100064	7754	6 Cap	102162	7863	$\mu$ 1 Oct
97967	7594	57 Aql	98954	7680	V147 Aql	100064	7754	$\alpha$ 2 Cap	102125	7864	$\mu$ 2 Oct
97938	7595	$\xi$ Aql	98658	7682	65 Dra	100195	7761	7 Cap	101474	7866	V212 Cyg
97938	7595	59 Aql	98702	7685	$\rho$ Dra	100195	7761	$\sigma$ Cap	101474	7866	47 Cyg
97980	7596	58 Aql	98702	7685	67 Dra	100044	7763	P Cyg	101772	7869	$\alpha$ Ind
98066	7597	$\omega$ 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	$\zeta$ $\delta$
97845	7600	V819 Cyg	99031	7689	b1 Cyg	100108	7769	36 Cyg	101589	7871	4 $\delta$
98036	7602	60 Aql	99031	7689	V200 Cyg	100122	7770	35 Cyg	101692	7873	70 Aql
98036	7602	$\beta$ Aql	99031	7689	27 Cyg	100310	7773	$\nu$ Cap	101641	7874	26 Vul
98478	7603	$\mu$ 1 Pav	99171	7690	64 Aql	100310	7773	8 Cap	101983	7875	$\varphi$ 2 Pav
98162	7604	59 Sgr	99221	7694	AV Cap	100325	7775	$\beta$ 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	$\beta$ 1 Cap	101716	7880	27 Vul
98085	7609	S Sge	99352	7705	17 Sge	100345	7776	$\beta$ Cap	102157	7881	$\nu$ Pav
98085	7609	10 Sge	99352	7705	$\theta$ Sge	100142	7777	V177 Cyg	101769	7882	$\beta$ $\delta$

## Número de estrellas (Catálogo Hiparco), 2025

Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
101769	7882	6 $\delta$	102790	7952	$\zeta$ Ind	104019	8060	22 Cap	105269	8157	V133 Cyg
101800	7883	$\iota$ $\delta$	102633	7953	13 $\delta$	103828	8062	V198 Cyg	105412	8160	16 Aqr
101800	7883	5 $\delta$	102571	7956	T Cyg	104031	8066	3 Equ	105199	8162	$\alpha$ Cep
101847	7884	1 Aql	102422	7957	$\eta$ Cep	104177	8069	$\eta$ Mic	105199	8162	5 Cep
101847	7884	71 Aql	102422	7957	3 Cep	104148	8070	$\delta$ Mic	105413	8163	9 Equ
101765	7885	48 Cyg	102589	7963	54 Cyg	104139	8075	23 Cap	105259	8164	V381 Cep
101810	7886	EU $\delta$	102589	7963	$\lambda$ Cyg	104139	8075	$\theta$ Cap	105515	8167	$\iota$ Cap
101923	7889	$\tau$ Cap	102589	7963	$\lambda$ Cyg	104101	8077	4 Equ	105515	8167	$\iota$ Cap
101923	7889	$\tau^2$ Cap	102831	7965	$\alpha$ Mic	104060	8079	$\xi$ Cyg	105515	8167	32 Cap
101923	7889	14 Cap	102950	7968	$\iota$ Ind	104060	8079	62 Cyg	105268	8171	V382 Cep
101867	7891	29 Vul	102805	7973	15 $\delta$	104234	8080	24 Cap	105268	8171	6 Cep
101882	7892	8 $\delta$	102819	7974	14 $\delta$	104185	8084	DT Cyg	105502	8173	1 Peg
101882	7892	$\theta$ $\delta$	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	$\beta$ Equ
101916	7896	$\kappa$ $\delta$	102989	7979	$\beta$ Mic	104217	8086	61 Cyg	105570	8178	10 Equ
101916	7896	7 $\delta$	102978	7980	18 Cap	104365	8087	$\chi$ Cap	105696	8180	$\theta$ 2 Mic
101936	7897	1 Aqr	102978	7980	$\omega$ Cap	104365	8087	25 Cap	105858	8181	$\gamma$ Pav
101984	7900	15 Cap	102945	7982	4 Aqr	104194	8089	f2 Cyg	105665	8183	33 Cap
101984	7900	$\nu$ 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	$\gamma$ Ind
101958	7906	$\alpha$ $\delta$	103005	7985	5 Aqr	104755	8092	$\circ$ Pav	105729	8192	20 Aqr
101958	7906	9 $\delta$	103227	7986	$\beta$ Ind	104459	8093	$\nu$ 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	$\beta$ Pav	103045	7990	$\mu$ Aqr	104521	8097	$\gamma$ Equ	105881	8204	34 Cap
102080	7918	10 $\delta$	103004	7995	31 Vul	104521	8097	$\gamma$ Equ	105881	8204	$\zeta$ Cap
102333	7920	$\eta$ 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 $\delta$	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	$\alpha$ Cyg	103261	8006	EM Aqr	104451	8113	T Cep	105860	8210	IK Peg
102098	7924	$\alpha$ Cyg	103191	8007	BW Vul	104732	8115	$\zeta$ Cyg	106039	8213	b Cap
102195	7927	V568 Cyg	103200	8008	32 Vul	104732	8115	64 Cyg	106039	8213	36 Cap
102281	7928	$\delta$ $\delta$	103294	8011	17 $\delta$	104858	8123	$\delta$ Equ	106067	8214	5 PsA
102281	7928	11 $\delta$	103298	8012	16 $\delta$	104858	8123	7 Equ	105942	8215	70 Cyg
102281	7928	$\delta$ $\delta$	103401	8015	7 Aqr	104963	8127	$\varphi$ 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	$\alpha$ Oct	104974	8128	29 Cap	105949	8224	V426 Cep
102773	7934	$\sigma$ Pav	104043	8021	$\alpha$ Oct	104887	8130	65 Cyg	106140	8225	2 Peg
102485	7936	16 Cap	103545	8024	DV Aqr	104887	8130	$\tau$ Cyg	105972	8227	7 Cep
102485	7936	$\psi$ Cap	103413	8028	$\nu$ Cyg	104887	8130	$\tau$ Cyg	106093	8228	g Cyg
102487	7937	17 Cap	103413	8028	58 Cyg	104987	8131	$\alpha$ Equ	106093	8228	71 Cyg
102388	7939	30 Vul	103527	8030	18 $\delta$	104987	8131	8 Equ	106327	8229	$\xi$ Gru
102258	7940	V379 Cep	103511	8032	33 Vul	105140	8135	$\varepsilon$ Mic	106340	8230	6 PsA
102440	7941	U $\delta$	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	$\beta$ Aqr
102693	7943	$\iota$ Mic	103569	8034	$\varepsilon$ Equ	105319	8140	$\theta$ Ind	106032	8238	8 Cep
102358	7944	V414 Cep	103569	8034	1 Equ	105164	8141	15 Aqr	106032	8238	$\beta$ Cep
102253	7945	4 Cep	103738	8039	$\gamma$ Mic	105102	8143	67 Cyg	106032	8238	$\beta$ Cep
102531	7947	$\gamma$ 1 $\delta$	103682	8041	11 Aqr	105102	8143	$\sigma$ Cyg	106559	8245	37 Cap
102531	7947	12 $\delta$	103632	8047	f1 Cyg	105334	8145	T Ind	106481	8252	$\rho$ Cyg
102532	7948	12 $\delta$	103632	8047	V832 Cyg	105138	8146	$\nu$ Cyg	106481	8252	73 Cyg
102532	7948	$\gamma^2$ $\delta$	103632	8047	59 Cyg	105138	8146	66 Cyg	106654	8253	8 PsA
102488	7949	53 Cyg	103882	8048	$\zeta$ Mic	105138	8146	$\nu$ Cyg	107089	8254	$\nu$ Oct
102488	7949	$\varepsilon$ Cyg	103732	8053	V193 Cyg	105382	8151	$\theta$ 1 Mic	106551	8255	72 Cyg
102618	7950	2 Aqr	103732	8053	60 Cyg	105382	8151	$\theta$ 1 Mic	106703	8256	7 PsA
102618	7950	$\varepsilon$ Aqr	104085	8055	$\mu$ Ind	105091	8153	V421 Cep	106723	8260	39 Cap
102624	7951	3 Aqr	103981	8058	12 Aqr	105186	8154	68 Cyg	106723	8260	$\varepsilon$ Cap
102624	7951	k Aqr	103981	8059	12 Aqr	105186	8154	V180 Cyg	106723	8260	$\varepsilon$ Cap
102624	7951	EN Aqr	104019	8060	$\eta$ Cap	105678	8156	Y Pav	106642	8262	W Cyg

# Número de estrellas (Catálogo Hiparco), 2025

Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
106786	8264	$\xi$ Aqr	107608	8326	10 PsA	108917	8417	$\xi$ Cep	110273	8512	$\rho$ Aqr
106786	8264	23 Aqr	107608	8326	$\theta$ PsA	109139	8418	33 Aqr	110298	8513	30 Peg
106783	8265	3 Peg	107575	8328	11 Peg	109139	8418	$\iota$ Aqr	110618	8515	$\nu$ Ind
106711	8266	74 Cyg	107835	8333	o Ind	109056	8419	23 Peg	110391	8516	47 Aqr
106787	8267	5 Peg	107418	8334	$\nu$ Cep	109033	8421	HT Lac	110346	8517	PT Peg
106856	8270	4 Peg	107418	8334	10 Cep	109268	8425	$\alpha$ Gru	110395	8518	48 Aqr
106752	8272	CP Cyg	107418	8334	$\nu$ Cep	109005	8426	20 Cep	110395	8518	$\gamma$ Aqr
106897	8276	NZ Peg	107533	8335	81 Cyg	109082	8427	V365 Lac	110386	8520	31 Peg
106944	8277	d Aqr	107533	8335	$\pi^2$ Cyg	109017	8428	19 Cep	110386	8520	IN Peg
106944	8277	25 Aqr	107586	8339	12 Cep	109176	8430	24 Peg	110478	8521	$\pi$ 1 Gru
106985	8278	40 Cap	107763	8343	14 Peg	109176	8430	$\iota$ Peg	110478	8521	$\pi$ 1 Gru
106985	8278	$\gamma$ Cap	107788	8344	13 Peg	109285	8431	$\mu$ 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	$\nu$ PsA	110506	8524	$\pi$ 2 Gru
107843	8280	$\lambda$ Oct	108036	8351	51 Cap	109124	8434	V444 Cep	110408	8528	V405 Lac
107095	8283	42 Cap	108036	8351	$\mu$ Cap	109212	8436	OY Peg	110529	8529	49 Aqr
106999	8284	75 Cyg	108085	8353	$\gamma$ 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	$\tau$ PsA	110538	8538	3 Lac
107188	8288	$\kappa$ Cap	108281	8362	$\pi$ Ind	109422	8447	15 PsA	110538	8538	$\beta$ Lac
107151	8289	7 Peg	108347	8367	BZ Gru	109303	8448	AR Lac	110672	8539	$\pi$ Aqr
107097	8291	76 Cyg	108431	8368	$\delta$ Ind	109352	8449	$\pi$ 1 Peg	110672	8539	52 Aqr
112355	8294	CG Oct	108478	8369	$\kappa$ 1 Ind	109352	8449	27 Peg	110672	8539	$\pi$ Aqr
107232	8295	44 Cap	108478	8369	BG Ind	109427	8450	26 Peg	110838	8540	$\delta$ Tuc
107129	8297	V460 Cyg	108165	8371	13 Cep	109427	8450	$\theta$ 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	$\pi$ 1 Cyg	108494	8378	BW Cap	109410	8454	$\pi$ 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	$\pi$ 2 Peg	110936	8552	$\nu$ Gru
107380	8305	9 PsA	108661	8386	$\eta$ PsA	109458	8459	28 Peg	110997	8556	$\delta$ 1 Gru
107380	8305	$\iota$ PsA	108661	8386	12 PsA	109624	8462	39 Aqr	110960	8558	$\zeta$ 1 Aqr
107253	8307	79 Cyg	108870	8387	$\epsilon$ Ind	109492	8465	$\zeta$ Cep	110960	8558	55 Aqr
107315	8308	$\epsilon$ Peg	108691	8390	28 Aqr	109492	8465	$\zeta$ Cep	110960	8558	$\zeta$ 2 Aqr
107315	8308	8 Peg	108693	8392	20 Peg	109492	8465	21 Cep	110960	8559	$\zeta$ 1 Aqr
107315	8308	$\epsilon$ Peg	108699	8393	19 Peg	109400	8468	24 Cep	110960	8559	55 Aqr
107310	8309	78 Cyg	108797	8396	DX Aqr	109556	8469	$\lambda$ Cep	110960	8559	$\zeta$ 2 Aqr
107310	8309	$\mu$ 2 Cyg	108797	8396	29 Aqr	109556	8469	22 Cep	111043	8560	$\delta$ 2 Gru
107310	8309	$\mu$ 1 Cyg	108535	8400	16 Cep	110078	8471	$\psi$ Oct	111043	8560	$\delta$ 2 Gru
107310	8310	78 Cyg	108868	8401	30 Aqr	109789	8478	$\lambda$ PsA	110817	8561	26 Cep
107310	8310	$\mu$ 2 Cyg	108874	8402	o Aqr	109789	8478	16 PsA	110986	8562	36 Peg
107310	8310	$\mu$ 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	$\epsilon$ Oct	111138	8570	$\zeta$ PsA
107348	8313	9 Peg	108952	8405	13 PsA	109908	8486	$\mu$ 1 Gru	110991	8571	$\delta$ Cep
107350	8314	HN Peg	108772	8406	14 Cep	109973	8488	$\mu$ 2 Gru	110991	8571	$\delta$ Cep
107354	8315	10 Peg	108772	8406	LZ Cep	109857	8494	23 Cep	110991	8571	27 Cep
107354	8315	$\kappa$ Peg	108845	8407	V194 Cyg	109857	8494	$\epsilon$ Cep	111022	8572	V412 Lac
107259	8316	$\mu$ Cep	108975	8408	UU PsA	109857	8494	$\epsilon$ Cep	111022	8572	5 Lac
107259	8316	$\mu$ Cep	109081	8409	$\kappa$ 2 Ind	110000	8496	42 Aqr	111123	8573	57 Aqr
107119	8317	11 Cep	108991	8410	32 Aqr	109937	8498	1 Lac	111123	8573	$\sigma$ Aqr
107487	8318	47 Cap	109111	8411	$\lambda$ Gru	110003	8499	43 Aqr	111068	8574	38 Peg
107487	8318	AG Cap	109068	8413	$\nu$ Peg	110003	8499	$\theta$ Aqr	111072	8575	V350 Lac
107517	8319	48 Cap	109068	8413	22 Peg	110130	8502	$\alpha$ Tuc	111188	8576	$\beta$ PsA
107517	8319	$\lambda$ Cap	109074	8414	$\alpha$ Aqr	110023	8504	44 Aqr	111188	8576	17 PsA
107472	8321	12 Peg	109074	8414	34 Aqr	111196	8505	$\nu$ Oct	110787	8578	28 Cep
107556	8322	49 Cap	108924	8416	MO Cep	110179	8508	45 Aqr	110787	8578	$\rho$ 1 Cep
107556	8322	$\delta$ Cap	108924	8416	18 Cep	110103	8511	25 Cep	111104	8579	6 Lac
107556	8322	$\delta$ Cap	108917	8417	17 Cep	110273	8512	46 Aqr	111310	8582	$\nu$ Tuc

## Número de estrellas (Catálogo Hiparco), 2025

Estrella			Estrella			Estrella			Estrella		
NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre	NH	NBSC	nombre
111310	8582	$\nu$ Tuc	112615	8676	70 Aqr	113797	8770	V638 Cas	115102	8863	$\gamma$ Scl
111200	8583	58 Aqr	112716	8679	$\tau$ Aqr	113889	8773	4 Psc	115065	8864	9 And
111191	8584	GX Peg	112716	8679	71 Aqr	113889	8773	$\beta$ Psc	115065	8864	AN And
111169	8585	7 Lac	112716	8679	$\tau$ 2 Aqr	113957	8774	$\kappa$ Gru	115115	8865	$\psi$ 3 Aqr
111169	8585	$\alpha$ Lac	112748	8684	$\mu$ Peg	113881	8775	53 Peg	115115	8865	95 Aqr
111278	8586	39 Peg	112748	8684	48 Peg	113881	8775	$\beta$ Peg	115126	8866	94 Aqr
111394	8590	60 Aqr	112778	8690	V360 Lac	113881	8775	$\beta$ Peg	115142	8868	96 Aqr
111056	8591	$\rho$ 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	o Cep
111449	8592	59 Aqr	112724	8694	32 Cep	113963	8781	54 Peg	115152	8874	11 And
111449	8592	$\nu$ Aqr	112724	8694	$\iota$ Cep	113963	8781	$\alpha$ Peg	115191	8876	10 And
111497	8597	62 Aqr	112948	8695	22 PsA	113996	8782	83 Aqr	115227	8878	7 Psc
111497	8597	$\eta$ Aqr	112948	8695	$\gamma$ PsA	113996	8782	h Aqr	115250	8880	$\tau$ Peg
111594	8600	$\sigma$ 1 Gru	112935	8697	49 Peg	114131	8787	$\theta$ Gru	115250	8880	$\tau$ Peg
111643	8602	$\sigma$ 2 Gru	112935	8697	$\sigma$ Peg	114119	8789	86 Aqr	115250	8880	62 Peg
111546	8603	8 Lac	112961	8698	$\lambda$ Aqr	114119	8789	c1 Aqr	115271	8882	63 Peg
111710	8610	63 Aqr	112961	8698	73 Aqr	114132	8790	$\nu$ Gru	115280	8885	12 And
111710	8610	$\kappa$ Aqr	112961	8698	$\lambda$ 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	$\tau$ 1 Gru	114104	8797	1 Cas	115404	8890	97 Aqr
111532	8615	31 Cep	113137	8701	$\rho$ Ind	114187	8798	V343 Peg	115407	8891	65 Peg
111809	8616	VZ PsA	112997	8703	IM Peg	114189	8799	V342 Peg	115438	8892	b1 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	$\delta$ Aqr	114341	8812	c2 Aqr	115590	8904	4 Cas
111797	8627	30 Cep	113136	8709	76 Aqr	114341	8812	88 Aqr	115623	8905	$\nu$ Peg
111954	8628	$\varepsilon$ 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	b2 Aqr
112405	8630	$\beta$ 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	o Gru
112029	8634	$\zeta$ Peg	113186	8717	$\rho$ Peg	114222	8819	33 Cep	115738	8911	8 Psc
112029	8634	42 Peg	113186	8717	50 Peg	114222	8819	$\pi$ Cep	115738	8911	$\kappa$ Psc
112122	8636	$\beta$ Gru	113246	8720	$\delta$ PsA	114421	8820	$\iota$ Gru	115738	8911	$\kappa$ Psc
112122	8636	$\beta$ 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	$\tau$ 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	o 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	$\rho$ Gru	113368	8728	$\alpha$ PsA	114724	8834	90 Aqr	115830	8916	$\theta$ Psc
112179	8647	67 Aqr	113368	8728	24 PsA	114724	8834	$\varphi$ Aqr	115908	8919	CG Tuc
112211	8649	g Aqr	113357	8729	51 Peg	114855	8841	$\psi$ 1 Aqr	115919	8923	70 Peg
112211	8649	66 Aqr	113327	8731	EW Lac	114855	8841	91 Aqr	115990	8926	AR Cas
112158	8650	$\eta$ Peg	113503	8739	52 Peg	114844	8842	61 Peg	116076	8930	14 And
112158	8650	44 Peg	113532	8740	WX PsA	114996	8848	$\gamma$ Tuc	116118	8932	100 Aqr
112374	8655	$\eta$ Gru	113521	8742	2 Psc	114939	8850	92 Aqr	116119	8933	V354 Peg
112242	8656	13 Lac	113638	8747	$\zeta$ Gru	114939	8850	$\chi$ Aqr	116146	8934	13 Psc
112358	8660	45 Peg	113610	8750	3 Psc	114939	8850	$\chi$ Aqr	116231	8937	$\beta$ Scl
112781	8663	$\xi$ Oct	113561	8752	V509 Cas	114831	8851	V388 Cep	116247	8939	101 Aqr
112781	8663	$\xi$ Oct	113674	8757	81 Aqr	114971	8852	6 Psc	116247	8939	b3 Aqr
112447	8665	46 Peg	113640	8758	V378 And	114971	8852	$\gamma$ Psc	116264	8940	HW Peg
112447	8665	$\xi$ Peg	113726	8762	1 And	114904	8854	V649 Cas	116264	8940	71 Peg
112440	8667	47 Peg	113726	8762	o And	115033	8858	$\psi$ 2 Aqr	116310	8943	72 Peg
112440	8667	$\lambda$ Peg	113726	8762	o And	115033	8858	$\psi$ 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	$\varphi$ Gru	116355	8948	73 Peg
112542	8673	$\tau$ 1 Aqr	113860	8767	$\pi$ PsA	115022	8860	8 And	116389	8949	$\iota$ Phe
112623	8675	$\varepsilon$ Gru	113860	8767	$\pi$ PsA	115036	8861	ET And	116389	8949	$\iota$ Phe
112615	8676	FM Aqr	113802	8768	LN And	115836	8862	$\tau$ Oct	116495	8954	16 Psc

## Nombre de estrellas (Catálogo Hiparco), 2025

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	$\rho$ Cas
116584	8961	$\lambda$ And	116971	8988	105 Aqr	117447	9018	6 Cas	117887	9047	XZ Psc
116584	8961	$\lambda$ And	116971	8988	$\omega$ 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	$\gamma$ 2 Oct
116631	8965	$\iota$ And	117089	8998	i1 Aqr	117629	9031	ET Aqr	118121	9062	$\eta$ Tuc
116737	8966	$\theta$ Phe	117089	8998	106 Aqr	117629	9031	i3 Aqr	118131	9064	$\psi$ Peg
116709	8967	18 And	117218	9002	$i$ <sup>2</sup> Aqr	117629	9031	108 Aqr	118131	9064	84 Peg
116758	8968	102 Aqr	117218	9002	107 Aqr	117689	9032	$\gamma$ <sup>1</sup> Oct	118178	9065	1 Cet
116758	8968	$\omega$ <sup>1</sup> Aqr	117221	9003	$\psi$ And	117683	9033	22 Psc	118188	9066	R Cas
116771	8969	17 Psc	117221	9003	20 And	117718	9036	$\varphi$ Peg	118209	9067	27 Psc
116771	8969	$\iota$ Psc	117245	9004	TX Psc	117718	9036	81 Peg	118234	9069	$\pi$ Phe
116727	8974	35 Cep	117245	9004	19 Psc	117718	9036	$\varphi$ Peg	118214	9070	LQ And
116727	8974	$\gamma$ Cep	117315	9006	$\sigma$ Phe	117730	9039	HT Peg	118243	9071	$\sigma$ Cas
116820	8975	$\mu$ Scl	117301	9008	$\tau$ 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	$\kappa$ And	117375	9012	20 Psc	117774	9042	25 Psc	118268	9072	$\omega$ Psc
116889	8980	103 Aqr	117452	9016	$\delta$ Scl	117863	9045	7 Cas	118277	9073	BU Scl
116901	8982	104 Aqr	117430	9017	V650 Cas	117863	9045	$\rho$ Cas	118322	9076	$\varepsilon$ Tuc

# Posiciones medias de estrellas brillantes, 2025

Estrella	$\alpha$			$\delta$			$\alpha$	$\delta$				
NH	h	m	s	o	'	"	o	o	V	B-V	U-V	Espectro
118243	0	0	16.1	55	53	54.74	0.067011	55.898539	4.88	-0.05	-0.07	B1V...
118268	0	0	35.5	7	0	7.19	0.147906	7.001999	4.03	0.49	0.42	F4IV
118322	0	1	12.5	-65	26	36.32	0.302136	-65.443422	4.49	-0.04	-0.07	B9IV
122	0	2	52.1	-76	56	0.13	0.717201	-76.933369	4.78	1.26	1.25	K2III
154	0	3	14.4	-5	52	34.16	0.809844	-5.876156	4.37	2.35	1.63	M3III
301	0	5	1.1	-17	11	56.1	1.254432	-17.198917	4.55	-0.03	-0.05	B9IVn
355	0	5	46.7	-10	22	18.62	1.444719	-10.371840	4.99	1.64	1.62	K3Ibvar
443	0	6	36.8	-5	34	7.6	1.653175	-5.568779	4.61	1.04	1.03	K1III
677	0	9	40.6	29	13	51.2	2.419127	29.230890	2.07	-0.10	-0.04	B9p
746	0	10	30.3	59	17	32.58	2.626426	59.292382	2.28	0.40	0.38	F2III-IV
765	0	10	40.6	-45	36	50.02	2.669245	-45.613894	3.88	1.00	1.01	K0III
841	0	11	36.9	46	12	54.91	2.903932	46.215252	5.01	0.68	0.43	F2II
910	0	12	32.1	-15	19	57.53	3.133678	-15.332649	4.89	0.59	0.49	F5V
1067	0	14	31.3	15	19	25.39	3.630276	15.323719	2.83	-0.22	-0.19	B2IV
1168	0	15	53.6	20	20	50.45	3.973538	20.347347	4.79	1.93	1.57	M2III
1170	0	15	54.5	-18	47	47.72	3.977144	-18.796588	4.44	1.96	1.64	M1III
1366	0	18	23.7	38	49	25.44	4.598778	38.823733	4.61	0.07	0.06	A2V
1473	0	19	37.9	36	55	37.01	4.907812	36.926946	4.51	0.06	0.05	A2V
1562	0	20	42.0	-8	41	11.79	5.175155	-8.686609	3.56	1.13	1.21	K2III
1599	0	21	22.3	-64	43	59.64	5.342882	-64.733233	4.23	0.65	0.58	F9V
2021	0	27	3.8	-77	7	8.93	6.765615	-77.119146	2.82	0.68	0.62	G2IV
2072	0	27	26.0	-43	32	43.3	6.858410	-43.545362	3.93	0.20	0.17	A7V
2081	0	27	31.3	-42	10	26.79	6.880370	-42.174109	2.40	1.11	1.08	K0III...
2210	0	29	10.1	-32	52	21.34	7.292161	-32.872594	4.86	2.32	1.63	M2/M3III
2219	0	29	21.1	18	1	58.95	7.337860	18.033041	5.01	1.70	3.52	M3IIIvar
2472	0	32	37.5	-48	40	11.37	8.156090	-48.669824	4.76	0.01	0.02	A0V
2484	0	32	41.7	-62	49	32.73	8.173713	-62.825758	4.36	-0.02	-0.06	B9V
2487	0	32	42.5	-62	49	58.96	8.177113	-62.833044	4.53	0.14	0.15	A2V
2505	0	33	9.1	54	39	53.19	8.287929	54.664776	4.74	-0.08	-0.10	B8Vn
2599	0	34	25.3	63	4	29.12	8.605358	63.074755	4.17	0.17	0.13	B1Ia
2912	0	38	13.0	33	51	35.61	9.554181	33.859893	4.34	-0.08	-0.12	B5V
2920	0	38	21.9	54	2	20.29	9.591324	54.038970	3.69	-0.23	-0.20	B2IV
3031	0	39	52.7	29	27	0.05	9.969412	29.450013	4.34	0.92	0.87	G5III...
3092	0	40	39.9	31	0	1.94	10.166288	31.000539	3.27	1.23	1.27	K3III...
3179	0	41	55.7	56	40	44.64	10.482017	56.679067	2.24	1.13	1.17	K0II-IIIvar
3245	0	42	30.6	-45	57	7.72	10.627680	-45.952143	4.59	0.95	0.95	G8III
3300	0	43	27.7	50	39	14.0	10.865333	50.653889	4.80	-0.10	-0.10	B2.5V
3405	0	44	29.0	-57	19	51.4	11.121014	-57.330944	4.36	0.02	0.02	A0IV
3419	0	44	50.8	-17	51	5.38	11.211597	-17.851494	2.04	1.00	1.02	K0III
3414	0	44	51.2	47	9	55.08	11.213312	47.165299	4.95	0.19	0.17	A5V
3455	0	45	27.2	-10	28	29.33	11.363273	-10.474814	4.77	0.98	1.00	K0IIIvar
3504	0	46	7.2	48	25	31.0	11.530201	48.425279	4.48	0.00	-0.07	B5III
3693	0	48	40.0	24	24	18.88	12.166475	24.405244	4.08	1.06	1.10	K1II
3786	0	49	58.9	7	43	17.63	12.495405	7.721563	4.44	1.58	1.50	K5III
3801	0	50	15.2	51	6	31.62	12.563468	51.108782	4.90	-0.07	-0.09	B9III
3821	0	50	37.3	57	57	8.54	12.655236	57.952373	3.46	0.66	0.59	G0V SB
3881	0	51	11.8	41	13	6.99	12.798945	41.218608	4.53	-0.14	-0.14	B5V SB
4147	0	54	17.3	-1	0	32.25	13.572185	-1.008959	4.78	1.66	1.55	M0III
4151	0	54	34.1	61	15	57.31	13.642150	61.265921	4.80	0.61	0.54	F8V
4292	0	56	29.6	59	6	46.11	14.123293	59.112807	4.83	1.19	1.22	K2III
4436	0	58	8.7	38	38	17.84	14.536286	38.638290	3.86	0.14	0.13	A5V
4422	0	58	9.7	59	19	15.28	14.540259	59.320912	4.62	1.01	0.96	G8III-IV
4427	0	58	13.5	60	51	25.07	14.556386	60.856964	2.15	-0.02	-0.05	B0IV-evar
4463	0	58	32.7	23	33	16.58	14.636238	23.554605	4.40	0.94	0.94	G8III-IV
4577	0	59	48.9	-29	13	31.49	14.953855	-29.225413	4.30	-0.12	-0.15	B7IIIp
4906	1	4	14.7	8	1	30.75	16.061213	8.025208	4.27	0.98	0.95	K0III
5165	1	7	12.4	-46	35	19.07	16.801669	-46.588631	3.32	0.90	0.89	G8IIIvar
5348	1	9	26.9	-55	7	0.68	17.361906	-55.116854	3.94	-0.08	-0.12	B6V + B0V
5364	1	9	51.1	-10	3	3.8	17.463040	-10.051056	3.46	1.11	1.16	K2III
5434	1	10	57.6	47	22	44.58	17.740033	47.379051	4.26	-0.02	0.01	B7III
5447	1	11	8.2	35	45	22.19	17.784369	35.756163	2.07	1.74	1.58	M0IIIvar
5372	1	12	36.0	86	23	45.78	18.149989	86.396051	4.24	1.16	1.21	K2II-III
5542	1	12	38.1	55	17	14.5	18.158668	55.287362	4.34	0.19	0.17	A7Vvar
5571	1	12	48.2	21	10	9.59	18.200650	21.169331	4.66	0.99	1.02	K0III
5586	1	13	2.6	30	13	29.76	18.260782	30.224934	4.51	1.05	1.09	K0III-IV...
5742	1	15	6.7	24	43	5.65	18.778023	24.718237	4.67	1.02	1.05	K0III...
5862	1	16	19.4	-45	24	8.56	19.080793	-45.402377	4.97	0.62	0.57	F8V
5896	1	16	38.7	-68	44	53.46	19.161427	-68.748182	4.25	0.55	0.48	F6IV

# Posiciones medias de estrellas brillantes, 2025

Estrella	$\alpha$			$\delta$			$\alpha$	$\delta$				
NH	h	m	s	o	'	"	o	o	V	B-V	U-V	Espectro
6193	1	20	50.8	27	23	52.05	20.211781	27.397793	4.74	0.10	0.03	A3V
6242	1	21	40.1	58	22	3.55	20.416963	58.367652	4.95	0.93	0.68	F0Ia
6411	1	23	49.3	45	39	48.92	20.955360	45.663588	4.87	1.04	1.08	K0III-IV
6537	1	25	16.8	-8	3	18.93	21.319872	-8.055258	3.60	1.05	1.06	K0III
6670	1	26	51.4	-14	28	13.53	21.714250	-14.470426	4.90	1.29	1.23	K2III
6686	1	27	28.1	60	22	11.6	21.866947	60.369889	2.66	0.19	0.16	A5Vv SB
6692	1	27	43.5	68	15	55.8	21.931384	68.265501	4.72	1.01	1.05	K0III
6813	1	29	9.8	45	32	22.26	22.290638	45.539517	4.83	0.49	0.42	F5IV
6867	1	29	27.8	-43	11	38.82	22.365645	-43.194117	3.41	1.73	1.54	K5II-III
7007	1	31	30.1	6	16	22.8	22.875549	6.273000	4.84	1.42	1.37	K4III
7083	1	32	18.4	-48	56	49.44	23.076682	-48.947066	3.93	1.00	0.97	K0III-IV
7097	1	32	49.7	15	28	33.26	23.207125	15.475906	3.62	0.94	0.97	G8III
7294	1	35	35.0	59	21	53.7	23.895687	59.364916	4.68	1.01	0.99	K0III
7513	1	38	16.5	41	32	2.26	24.568804	41.533961	4.10	0.58	0.54	F8V
7588	1	38	39.9	-57	6	51.77	24.666240	-57.114381	0.45	-0.17	-0.16	B3Vp
7607	1	39	32.4	48	45	31.73	24.885004	48.758815	3.59	1.23	1.27	K3III
7719	1	40	51.7	44	31	1.23	25.215351	44.517008	5.01	0.87	-5.01	G8III...
7818	1	42	4.0	40	42	25.29	25.516806	40.707024	4.96	-0.06	-0.07	B8III
7884	1	42	44.5	5	36	51.79	25.685209	5.614385	4.45	1.37	1.35	K3III
7918	1	43	19.2	42	44	31.53	25.829847	42.742092	4.96	0.67	0.62	G2V
7999	1	43	59.9	-3	33	53.67	25.999381	-3.564909	4.98	1.26	1.38	K3II-III
8102	1	45	14.3	-15	48	27.11	26.309636	-15.807529	3.49	0.82	0.73	G8V
8068	1	45	14.6	50	49	7.34	26.310620	50.818707	4.01	-0.08	-0.10	B2Vpe
8198	1	46	43.4	9	17	2.71	26.680667	9.284085	4.26	0.93	0.94	K0III
8497	1	50	49.3	-10	33	50.41	27.705586	-10.564004	4.66	0.38	0.33	F3III
8645	1	52	42.2	-10	12	45.78	28.176053	-10.212716	3.74	1.07	1.14	K2III
8796	1	54	31.1	29	42	11.03	28.629481	29.703064	3.42	0.55	0.49	F6IV
8837	1	54	39.9	-46	11	2.96	28.666130	-46.184156	4.39	2.49	1.60	M4III SB
8833	1	54	51.6	3	18	39.54	28.714925	3.310984	4.61	0.93	0.93	K0III SB
8832	1	54	54.7	19	25	4.71	28.728034	19.417974	3.88	-0.03	-0.05	A1p Si
8928	1	55	36.6	-67	31	44.16	28.902649	-67.528935	4.68	0.95	0.93	G5III
8903	1	56	1.9	20	55	54.87	29.007841	20.931909	2.64	0.18	0.17	A5V...
8886	1	56	13.3	63	47	52.04	29.055601	63.797789	3.35	-0.12	-0.15	B2pvar
9007	1	56	57.0	-51	29	19.42	29.237662	-51.488727	3.69	0.90	0.84	G5IV
9061	1	57	51.1	-22	24	25.03	29.462989	-22.406953	4.92	1.45	1.43	K3III
9009	1	57	58.9	68	48	45.81	29.495395	68.812726	4.97	-0.06	-0.08	B8III
9095	1	58	10.6	-47	16	1.62	29.544210	-47.267118	4.82	0.89	0.86	G8III
9153	1	59	20.0	23	43	11.6	29.833151	23.719890	4.79	0.33	0.29	F0V
9236	1	59	35.3	-61	27	9.74	29.896924	-61.452707	2.86	0.34	0.29	F0V
9347	2	1	11.7	-20	57	31.69	30.298621	-20.958802	3.99	1.79	1.55	K5/M0III
9487	2	3	21.1	2	53	4.27	30.837726	2.884520	3.82	0.05	0.02	A2
9505	2	3	59.2	54	36	44.92	30.996866	54.612477	4.99	-0.02	-0.07	B8III
9480	2	4	3.6	71	1	57.96	31.015127	71.032767	4.49	0.20	0.16	A3IV
9640	2	5	26.9	42	27	10.9	31.362234	42.453028	2.10	1.37	1.37	B8V
9677	2	5	37.5	-29	10	46.43	31.406143	-29.179564	4.68	-0.12	-0.16	B9.5p (Si)
9598	2	5	37.5	72	32	48.67	31.406446	72.546853	3.95	0.03	-0.00	A2V
9884	2	8	35.7	23	34	56.99	32.148661	23.582496	2.01	1.13	1.15	K2III
9977	2	10	0.7	37	58	50.3	32.502748	37.980639	4.78	0.16	0.12	A5IV-V
10053	2	10	51.5	26	3	36.9	32.714468	26.060249	4.98	0.40	0.34	F2III
10064	2	11	2.7	35	6	29.96	32.761373	35.108323	3.00	0.17	0.14	A5III
10280	2	13	50.1	30	25	21.5	33.458838	30.422638	4.94	0.81	0.77	F5V comp SB
10324	2	14	20.2	8	57	52.22	33.584127	8.964505	4.36	0.90	0.88	G8II:
10340	2	14	48.5	44	21	8.39	33.701854	44.352330	4.84	1.49	1.48	K4III
10602	2	17	25.6	-51	24	1.17	34.356645	-51.400326	3.56	-0.11	-0.12	B8IV-V
10644	2	18	35.7	34	20	28.49	34.648659	34.341246	4.84	0.76	0.61	G0V
10670	2	18	48.9	33	57	55.63	34.703870	33.965452	4.03	-0.02	0.02	A1Vnn
11001	2	22	14.8	-68	32	59.08	35.561891	-68.549744	4.08	0.04	0.03	A3V
11345	2	27	10.3	-12	10	44.31	36.792790	-12.178976	4.88	-0.01	-0.03	A0V
11313	2	27	18.8	50	23	43.4	36.828363	50.395390	4.73	1.58	1.53	K4III
11407	2	27	55.5	-47	35	42.76	36.981155	-47.595212	4.24	-0.11	-0.14	B5IV
11484	2	29	30.1	8	34	21.31	37.375349	8.572586	4.30	-0.06	-0.05	B9III
11569	2	31	10.3	67	31	8.96	37.792904	67.519155	4.46	0.17	0.15	A5p Sr
11783	2	33	17.1	-15	8	11.63	38.321469	-15.136564	4.74	0.55	0.45	F5V
11918	2	34	57.4	-28	7	29.57	38.739065	-28.124881	4.96	-0.04	-0.05	B9V
12093	2	37	12.0	5	42	9.44	39.300071	5.702623	4.87	0.89	0.88	G8III
12394	2	40	1.9	-68	9	48.82	40.007798	-68.163560	4.12	-0.07	-0.06	B9III
12413	2	40	46.5	-42	47	14.91	40.193646	-42.787474	4.74	0.09	0.06	A2V
12387	2	40	46.7	0	26	10.31	40.194537	0.436198	4.08	-0.22	-0.21	B2IV

# Posiciones medias de estrellas brillantes, 2025

Estrella	$\alpha$			$\delta$			$\alpha$	$\delta$				
NH	h	m	s	o	'	"	o	o	V	B-V	U-V	Espectro
12390	2	40	47.3	-11	46	1.81	40.197085	-11.767170	4.83	0.53	0.45	F5V
12486	2	41	40.5	-39	45	5.08	40.418596	-39.751411	4.11	1.05	1.01	K0III
12623	2	43	50.8	40	18	9.19	40.961567	40.302554	4.91	0.62	0.58	F9V
12706	2	44	36.6	3	20	28.63	41.152566	3.341286	3.47	0.10	0.09	A3V
12719	2	44	56.1	27	48	55.97	41.233844	27.815546	4.65	-0.12	-0.12	B3V
12770	2	45	19.6	-13	45	14.54	41.331868	-13.754039	4.24	-0.11	-0.12	B7IV
12777	2	45	55.9	49	20	14.99	41.482955	49.337496	4.10	0.59	0.51	F7V
12876	2	45	59.1	-67	30	54.55	41.496421	-67.515153	4.83	0.08	0.06	A2IV/V
12843	2	46	17.1	-18	28	6.12	41.571401	-18.468366	4.47	0.54	0.48	F5/F6V
12828	2	46	18.5	10	13	13.26	41.577157	10.220350	4.27	0.37	0.31	F1III-IV
13061	2	49	24.9	29	21	10.94	42.353712	29.353040	4.52	1.04	1.11	K1III
13147	2	50	9.3	-32	18	12.29	42.538889	-32.303413	4.45	1.00	0.98	G8III
13244	2	50	25.0	-74	58	4.57	42.604176	-74.967937	4.76	1.27	1.34	K3III
13209	2	51	28.4	27	21	55.77	42.868125	27.365492	3.61	-0.08	-0.10	B8Vn
13254	2	52	11.0	38	25	27.29	43.045677	38.424248	4.22	0.41	0.34	F2III
13288	2	52	11.4	-20	54	9.77	43.047419	-20.902714	4.76	0.91	0.91	K0III
13268	2	52	33.1	56	0	9.99	43.137952	56.002774	3.77	1.64	1.69	K3Ib comp SB
13328	2	53	4.4	35	9	54.18	43.268348	35.165051	4.56	1.67	1.55	K5III
13531	2	56	3.5	52	52	5.38	44.014710	52.868162	3.93	0.80	0.76	G4III...
13701	2	57	39.9	-8	47	58.21	44.416153	-8.799502	3.89	1.08	1.09	k1III-IV
13847	2	59	13.9	-40	12	26.25	44.807951	-40.207292	2.88	0.17	0.13	A4III+...
13884	2	59	19.1	-63	58	30.87	44.829516	-63.975241	4.98	0.14	0.13	A5III
13879	3	0	22.9	39	45	55.61	45.095328	39.765446	4.68	0.11	0.07	A2Vn
13905	3	0	37.8	35	17	8.64	45.157569	35.285734	4.94	1.19	1.24	K2III
13914	3	0	39.5	21	26	30.66	45.164680	21.441849	4.63	0.05	0.05	A2Vs
13954	3	1	4.3	9	0	27.04	45.267773	9.007511	4.71	-0.09	-0.11	B6III
14146	3	3	30.7	-23	31	41.89	45.878004	-23.528304	4.08	0.18	0.16	A4V
14135	3	3	36.1	4	11	16.61	45.900587	4.187947	2.54	1.97	1.63	M2III
11767	3	5	3.9	89	22	26.56	46.266140	89.374044	1.97	0.70	0.64	F7:Ib-IIv SB
14328	3	6	38.3	53	36	27.29	46.659553	53.607580	2.91	0.77	0.72	G8III+...
14354	3	6	48.0	38	56	22.83	46.700124	38.939674	3.32	2.76	1.53	M3IIIvar
14382	3	7	27.2	56	48	25.91	46.863312	56.807199	4.77	0.99	1.02	K0II-III
14576	3	9	49.1	41	3	16.5	47.454632	41.054582	2.09	0.02	-0.00	B8V
14632	3	10	54.0	49	42	42.0	47.724944	49.711668	4.05	0.65	0.59	G0V
14668	3	11	12.4	44	57	18.5	47.801850	44.955139	3.79	0.94	0.98	K0III
14817	3	12	55.6	39	42	32.63	48.231592	39.709064	4.61	1.09	1.11	K1III
14838	3	13	4.6	19	49	21.02	48.269266	19.822505	4.35	0.96	1.03	K2IIIvar
14879	3	13	9.5	-28	53	28.86	48.289718	-28.891351	3.80	0.63	0.54	F8V
14862	3	14	44.7	74	29	29.94	48.686209	74.491651	4.85	0.05	0.04	A2Vnn
15110	3	16	21.4	21	8	18.27	49.089239	21.138409	4.87	0.02	-0.01	A1V
15197	3	17	3.9	-8	43	39.47	49.266401	-8.727630	4.80	0.28	0.23	A5m
15382	3	19	29.6	-22	25	16.92	49.873204	-22.421366	4.86	0.91	0.90	K0III
15416	3	20	18.9	34	18	58.54	50.078893	34.316260	4.85	1.41	1.49	K2II
15474	3	20	38.9	-21	40	6.41	50.161993	-21.668447	3.70	2.42	1.61	M3/M4III
15457	3	20	41.4	3	27	43.0	50.172560	3.461945	4.84	0.73	0.68	G5Vvar
15510	3	20	57.1	-42	58	37.43	50.237818	-42.977064	4.26	0.79	0.71	G8V
15549	3	21	52.3	29	8	27.27	50.468090	29.140909	4.47	1.61	1.55	K2II-III
15520	3	22	14.5	65	44	48.64	50.560249	65.746843	4.74	-0.12	-0.11	B2.5Vne
15648	3	23	8.6	43	25	21.39	50.785720	43.422608	4.96	0.06	0.05	A3V
15863	3	26	8.3	49	57	10.57	51.534476	49.952937	1.79	0.63	0.48	F5Ib
15900	3	26	10.6	9	7	2.34	51.544094	9.117316	3.61	0.90	0.89	G8III
16083	3	28	32.5	9	49	13.28	52.135553	9.820356	3.73	-0.07	-0.08	B9Vn
16147	3	29	51.5	49	9	9.99	52.464648	49.152774	4.99	-0.07	-0.09	B5V
16245	3	29	52.0	-62	51	7.89	52.466443	-62.852191	4.71	0.49	0.41	F5IV-V
16228	3	31	8.2	60	1	49.41	52.784025	60.030391	4.21	0.58	0.42	B9Ia
16244	3	31	11.1	49	35	53.59	52.796407	49.598219	4.67	-0.07	-0.10	B3V
16341	3	31	52.6	-4	59	23.57	52.969116	-4.989881	4.74	-0.07	-0.09	B9Vs
16281	3	31	57.0	58	58	6.1	52.987371	58.968361	4.55	0.79	0.49	A0Ia SB:
16369	3	32	16.3	13	1	23.06	53.067987	13.023072	4.14	1.01	1.11	K0II-III...
16335	3	32	22.0	48	5	2.93	53.091702	48.084148	4.36	1.42	1.37	K3III
16537	3	34	7.6	-9	22	27.72	53.531794	-9.374366	3.72	0.94	0.88	K2V
16611	3	34	54.8	-21	33	1.81	53.728133	-21.550503	4.26	-0.09	-0.11	B9V
16870	3	38	1.1	-40	11	40.92	54.504694	-40.194699	4.57	1.07	1.02	K0III
16852	3	38	10.0	0	28	51.24	54.541850	0.480901	4.29	0.66	0.57	F9V
16826	3	38	17.8	48	16	41.97	54.574112	48.278324	4.32	0.07	-0.06	B5Ve
17304	3	43	16.0	-31	51	37.34	55.816576	-31.860372	4.99	-0.15	-0.16	B5III
17351	3	43	47.2	-37	14	12.07	55.946633	-37.236686	4.59	1.12	1.19	K2IIICN...
17313	3	43	59.1	34	2	49.62	55.996475	34.047117	4.97	-0.03	-0.05	B0.5V

# Posiciones medias de estrellas brillantes, 2025

Estrella	$\alpha$			$\delta$			$\alpha$	$\delta$				
NH	h	m	s	o	'	"	o	o	V	B-V	U-V	Espectro
17378	3	44	27.9	-9	40	46.18	56.116426	-9.679496	3.52	0.94	0.92	K0IV
17440	3	44	34.2	-64	43	50.21	56.142551	-64.730613	3.84	1.11	1.13	K0IV SB
17358	3	44	44.1	47	52	11.51	56.183862	47.869865	3.01	-0.07	-0.12	B5III SB
17448	3	45	54.6	32	22	9.18	56.477479	32.369216	3.84	0.12	0.02	B1III
17499	3	46	22.9	24	11	35.77	56.595380	24.193269	3.72	-0.09	-0.10	B6III
17531	3	46	43.1	24	32	49.5	56.679443	24.547084	4.30	-0.08	-0.11	B6V
17529	3	46	55.2	42	39	35.06	56.729953	42.659739	3.77	0.52	0.42	F5IIvar
17678	3	46	57.5	-74	9	50.01	56.739721	-74.163890	3.26	1.94	1.59	M2III
17573	3	47	20.1	24	26	49.96	56.833953	24.447210	3.87	-0.02	-0.06	B8III
17593	3	47	20.6	-12	1	26.42	56.835994	-12.024007	4.43	1.89	1.60	M1III
17608	3	47	49.9	24	1	39.2	56.957875	24.027555	4.14	0.02	-0.05	B6IV
17651	3	47	56.7	-23	10	38.19	56.986280	-23.177275	4.22	0.51	0.43	F3/F5V
17587	3	48	16.6	63	25	35.74	57.069202	63.426593	4.78	0.79	0.75	A3V...
17702	3	48	59.5	24	11	1.5	57.248038	24.183749	2.85	-0.01	-0.09	B7III
17797	3	49	32.8	-37	32	44.67	57.386677	-37.545743	4.30	-0.02	-0.04	A+...
17874	3	50	24.9	-36	7	35.43	57.603808	-36.126510	4.17	0.92	0.93	G8III
17847	3	50	40.2	24	7	52.15	57.667624	24.131152	3.62	-0.03	-0.07	B8III
17884	3	51	52.1	65	36	20.57	57.966989	65.605715	4.39	2.58	1.87	M1III
17959	3	53	4.8	71	24	41.26	58.269866	71.411462	4.59	0.13	0.06	A2IVn
18216	3	54	47.9	-24	32	22.81	58.699488	-24.539669	4.64	-0.13	-0.14	B5V
18255	3	55	34.0	-2	52	51.88	58.891775	-2.881079	4.46	0.73	0.67	G8III
18246	3	55	43.6	31	57	34.26	58.931829	31.959516	2.84	0.18	0.27	B1Ib
18597	3	59	11.5	-61	19	53.88	59.798022	-61.331634	4.56	1.85	1.59	M2III
18543	3	59	13.0	-13	26	17.63	59.804141	-13.438232	2.97	1.78	1.59	M1IIIb Ca-1
18488	3	59	19.1	61	11	4.09	59.829511	61.184470	4.99	1.53	1.44	K3I-II
18532	3	59	33.5	40	5	4.11	59.889626	40.084474	2.90	-0.19	-0.20	B0.5V
18505	3	59	41.0	63	8	52.41	59.920629	63.147891	4.95	-0.01	-0.07	B9.5V
18614	4	0	36.8	35	51	52.78	60.153170	35.864661	3.98	0.16	0.02	O7.5Iab:
18673	4	1	0.8	-23	56	47.82	60.253270	-23.946618	4.62	-0.07	-0.12	Ap Si
18744	4	1	18.6	-62	5	29.35	60.327647	-62.091485	4.48	2.42	1.50	M4III
18772	4	1	45.5	-61	0	38.88	60.439439	-61.010800	4.97	1.41	1.39	K4III
18724	4	2	5.2	12	33	41.68	60.521501	12.561577	3.41	-0.08	-0.10	B3V + A
18907	4	4	30.4	6	3	32.01	61.126675	6.058891	3.91	0.03	0.03	A1V
19038	4	6	11.7	22	9	4.63	61.548880	22.151286	4.36	1.02	1.06	K0III
19018	4	6	34.9	59	13	37.84	61.645251	59.227177	5.00	0.69	0.49	F0II
19167	4	8	28.9	50	25	16.35	62.120286	50.421207	4.25	0.08	-0.01	A0IVn
19343	4	10	30.6	47	46	52.44	62.627279	47.781232	3.96	0.08	-0.03	B3Ve
19515	4	11	42.9	-41	55	48.37	62.928766	-41.930104	4.93	0.41	0.33	A9V
19587	4	13	6.4	-6	46	22.17	63.276787	-6.772826	4.04	0.38	0.33	F2II-III
19780	4	14	48.0	-62	24	46.47	63.700090	-62.412908	3.33	0.91	0.92	G7III
19747	4	14	51.6	-42	14	4.05	63.715088	-42.234458	3.85	1.09	1.08	K1III
19740	4	15	19.2	9	19	39.48	63.830159	9.327632	4.84	0.86	0.80	G5III
19777	4	15	36.3	-10	11	41.16	63.901372	-10.194766	4.87	1.12	1.16	K3III
19849	4	16	26.6	-7	36	51.46	64.110667	-7.614294	4.43	0.89	0.82	K1V
19811	4	16	37.1	40	32	55.38	64.154674	40.548716	4.67	1.07	1.01	G5II comp
19893	4	16	43.1	-51	25	31.44	64.179656	-51.425401	4.26	0.37	0.31	F4III
19812	4	16	46.0	48	28	29.08	64.191729	48.474744	4.12	0.93	0.94	G0Ib...
19860	4	16	54.8	8	57	19.21	64.228267	8.955337	4.27	-0.02	-0.05	B3IV
19921	4	16	57.8	-59	14	37.52	64.240648	-59.243756	4.44	1.05	1.08	K2IV
19990	4	18	44.9	20	38	27.66	64.687160	20.641017	4.93	0.30	0.26	A3m
20042	4	18	52.0	-33	44	19.67	64.716694	-33.738797	3.55	-0.09	-0.11	B9V
20070	4	20	9.5	50	21	31.84	65.039753	50.358846	4.60	0.16	0.04	A2V
20205	4	21	14.3	15	41	19.15	65.309546	15.688654	3.65	0.95	0.98	G8III
20250	4	21	54.9	27	24	42.21	65.478820	27.411724	4.97	1.35	1.15	K1III
20252	4	22	3.6	34	37	42.65	65.515096	34.628515	4.93	0.94	0.95	G8III
20354	4	23	23.6	46	33	37.3	65.848362	46.560362	4.80	0.03	-0.02	B4IV
20455	4	24	23.9	17	36	6.68	66.099789	17.601855	3.77	0.93	0.98	G8III
20535	4	25	0.2	-33	57	36.54	66.250780	-33.960150	3.97	1.53	1.47	K4III
20542	4	25	33.6	17	30	10.03	66.389956	17.502786	4.80	0.18	0.15	A7V
20635	4	26	53.0	22	21	7.2	66.720720	22.352001	4.21	0.16	0.14	A7IV-V
20648	4	26	57.5	17	59	8.95	66.739698	17.985820	4.30	0.08	0.05	A2IV
20713	4	27	47.6	15	40	32.04	66.948157	15.675567	4.48	0.33	0.26	F0V...
20711	4	27	49.6	22	52	16.31	66.956804	22.871198	4.28	0.32	0.26	A8Vn
20732	4	28	2.5	14	46	15.26	67.010253	14.770907	4.69	0.96	0.98	G8III
20877	4	29	53.5	16	24	58.3	67.472822	16.416195	4.96	1.12	1.14	K2IIvar
20885	4	30	1.5	16	1	6.16	67.506419	16.018377	3.84	1.02	0.95	G7III
20889	4	30	6.0	19	14	11.84	67.524865	19.236622	3.53	1.04	1.01	K0III
20894	4	30	6.7	15	55	37.0	67.528085	15.926946	3.40	0.21	0.18	A7III

# Posiciones medias de estrellas brillantes, 2025

Estrella	$\alpha$			$\delta$			$\alpha$	$\delta$	V	B-V	U-V	Espectro
NH	h	m	s	o	'	"	o	o				
21029	4	32	0.8	16	14	56.52	68.003556	16.249033	4.78	0.19	0.17	A6IV
21139	4	33	10.7	0	0	34.34	68.294619	0.009540	4.91	1.25	1.32	K3II-III
21248	4	34	30.9	-29	43	1.47	68.628872	-29.717075	4.49	1.00	0.97	K0III
21281	4	34	34.7	-54	59	40.57	68.644709	-54.994602	3.30	-0.08	-0.08	A0V:
21273	4	35	17.4	14	53	51.03	68.822529	14.897507	4.65	0.28	0.26	A8V
21393	4	36	32.9	-30	30	44.22	69.137167	-30.512283	3.81	0.93	0.96	G8III
21402	4	37	3.0	10	12	44.74	69.262478	10.212426	4.25	0.21	0.18	A5m
21421	4	37	22.7	16	33	36.55	69.344484	16.560154	0.87	1.67	1.54	K5III
21444	4	37	35.4	-3	18	5.56	69.397554	-3.301545	3.93	-0.20	-0.21	B2III SB
21476	4	38	27.2	41	19	3.12	69.613208	41.317534	4.25	1.13	1.17	G8II comp
21594	4	39	20.9	-14	15	21.18	69.836995	-14.255883	3.86	1.09	1.08	K1III
21589	4	39	34.7	12	33	41.14	69.894440	12.561427	4.27	0.15	0.12	A6V
21644	4	40	4.9	-12	4	27.0	70.020280	-12.074168	4.99	0.13	0.07	A0V
21683	4	40	43.7	15	58	5.03	70.182021	15.968063	4.67	0.19	0.15	A5Vn
21770	4	41	23.9	-41	49	2.22	70.349606	-41.817284	4.44	0.40	0.34	F2V
21763	4	41	33.6	-19	37	27.47	70.389836	-19.624298	4.32	2.27	1.60	M3/M4III
21881	4	43	46.2	23	0	20.28	70.942443	23.005632	4.27	-0.10	-0.11	B3V
22109	4	46	46.5	-3	12	32.44	71.693757	-3.209012	4.01	-0.13	-0.15	B5IV
22449	4	51	13.2	7	0	18.18	72.804962	7.005051	3.19	0.53	0.48	F6V
22453	4	51	37.3	37	32	0.67	72.905596	37.533521	4.89	1.51	1.45	K4II
22509	4	51	59.8	8	56	35.9	72.999305	8.943307	4.35	0.04	0.01	A1Vn
22549	4	52	33.6	5	38	52.69	73.140042	5.647970	3.68	-0.16	-0.16	B2III SB
22667	4	53	58.2	14	17	33.8	73.492561	14.292722	4.71	2.63	1.77	M3Sv
22701	4	54	8.7	-5	24	40.05	73.536402	-5.411125	4.36	0.33	0.26	A9IV
22678	4	54	20.1	36	44	47.39	73.583799	36.746498	4.79	1.46	1.41	K3III
22797	4	55	34.6	2	28	53.85	73.894148	2.481625	3.71	-0.18	-0.18	B2III SB
22845	4	56	17.7	10	11	27.06	74.073627	10.190850	4.64	0.11	0.09	A0V
22783	4	56	35.9	66	23	9.52	74.149765	66.385977	4.26	0.09	-0.01	O9.5Ia SB:
22957	4	57	48.0	13	33	15.61	74.450040	13.554337	4.06	1.16	1.16	K2III
23015	4	58	39.0	33	12	23.68	74.662298	33.206578	2.69	1.46	1.49	K3IIvar
23040	4	59	19.9	53	47	35.69	74.832813	53.793246	4.43	0.06	-0.02	A1V
23123	4	59	52.0	1	45	8.56	74.966693	1.752378	4.47	1.32	1.37	K2IIvar
23179	5	0	59.0	37	55	44.41	75.245824	37.929002	4.93	0.06	0.04	A1V
23231	5	1	6.8	-12	30	3.52	75.278490	-12.500978	4.78	0.33	0.27	F0V
23362	5	2	32.1	-20	0	58.05	75.633862	-20.016126	4.91	-0.04	-0.05	B9V
23364	5	2	40.5	-7	8	15.21	75.668559	-7.137557	4.80	-0.18	-0.16	B3V
23430	5	3	12.4	-26	14	25.06	75.801546	-26.240294	5.01	1.06	-5.01	K1III
23416	5	3	47.7	43	51	40.66	75.948850	43.861293	3.03	0.61	0.54	F0Ia
23453	5	4	15.4	41	6	47.87	76.064149	41.113298	3.69	1.12	1.15	K4II comp
23497	5	4	36.9	21	37	34.39	76.153734	21.626219	4.62	0.19	0.15	A7V
23595	5	5	20.1	-35	26	58.47	76.333659	-35.449576	4.55	1.19	1.18	K2III
23522	5	5	41.5	60	28	46.77	76.422969	60.479660	4.03	0.89	0.92	G0Ib
23693	5	5	59.1	-57	26	21.13	76.496281	-57.439202	4.71	0.60	0.53	F7V
23607	5	6	1.3	15	26	21.53	76.505404	15.439314	4.65	0.02	-0.06	A0p Si
23685	5	6	32.6	-22	20	16.97	76.636038	-22.338046	3.19	1.50	1.46	K4III
23767	5	8	17.9	41	16	9.04	77.074806	41.269179	3.18	-0.17	-0.15	B3V
23783	5	8	40.4	51	37	54.77	77.168322	51.631880	4.98	0.40	0.34	F0V
23835	5	8	57.1	18	40	44.41	77.238041	18.679003	4.91	0.74	0.66	G4V
23875	5	9	6.1	-5	3	15.38	77.275542	-5.054274	2.78	0.16	0.16	A3IIIvar
23972	5	10	22.0	-8	43	20.24	77.591529	-8.722289	4.25	-0.16	-0.19	B2IVn
24010	5	11	9.2	15	37	46.19	77.788498	15.629497	4.81	0.40	0.31	F2IV
24244	5	13	29.3	-11	50	22.53	78.372088	-11.839591	4.45	-0.08	-0.10	B8V
24372	5	13	48.2	-67	9	25.11	78.451006	-67.156975	4.81	1.22	1.27	K2III
24305	5	14	4.7	-16	10	34.5	78.519731	-16.176249	3.29	-0.09	-0.11	B9IV: HgMn
24327	5	14	24.6	-12	54	43.34	78.602396	-12.912038	4.36	-0.07	-0.09	B7V
24331	5	14	37.3	2	53	27.85	78.655412	2.891070	4.46	1.12	1.17	K3III...
24340	5	15	10.2	38	30	53.65	78.792350	38.514902	4.82	0.23	0.19	A4m
24436	5	15	45.8	-8	10	22.78	78.940684	-8.172995	0.18	0.03	-0.03	B8Ia
24504	5	17	3.8	32	43	1.97	79.265622	32.717215	5.01	0.22	-5.01	A9IV
24659	5	18	24.9	-34	52	16.98	79.603808	-34.871382	4.81	1.00	0.99	K0/K1III/IV
24608	5	18	34.2	46	1	26.94	79.642478	46.024150	0.08	0.83	0.80	M1: comp
24674	5	18	50.6	-6	49	3.35	79.710964	-6.817597	3.59	-0.10	-0.12	B5III
24727	5	19	50.7	33	23	54.09	79.961104	33.398359	4.54	1.32	1.25	K3III...
24845	5	20	45.1	-13	9	4.7	80.187782	-13.151305	4.29	-0.26	-0.23	B0.5IV
24822	5	20	48.2	22	7	21.98	80.201048	22.122773	4.96	0.92	0.94	G8III
24813	5	20	55.8	40	7	18.82	80.232578	40.121895	4.69	0.70	0.63	G0V
24927	5	21	32.5	-21	12	54.22	80.385282	-21.215062	4.70	-0.03	-0.05	A0V
25044	5	23	3.7	0	21	28.22	80.765528	-0.357840	4.72	-0.17	-0.17	B2IV-V

# Posiciones medias de estrellas brillantes, 2025

Estrella	$\alpha$			$\delta$			$\alpha$	$\delta$				
NH	h	m	s	o	'	"	o	o	V	B-V	U-V	Espectro
25142	5	24	10.2	3	34	6.82	81.042652	3.568562	4.99	-0.14	-0.10	B1V
25247	5	25	10.5	-7	47	7.06	81.293765	-7.785295	4.13	0.97	0.94	G8III
25281	5	25	45.4	-2	22	27.26	81.439336	-2.374240	3.35	-0.16	-0.24	B1V + B2
25278	5	25	54.5	17	24	25.38	81.476987	17.407051	5.00	0.62	0.54	F8V SB
25302	5	26	4.1	1	52	9.61	81.517052	1.869337	4.89	-0.19	-0.20	B1V:pe
25336	5	26	29.7	6	22	20.69	81.623863	6.372415	1.64	-0.22	-0.22	B2III
25428	5	27	53.9	28	37	44.45	81.974731	28.629014	1.65	-0.09	-0.13	B7III
25473	5	28	10.2	3	7	2.45	82.042592	3.117347	4.59	-0.21	-0.20	B2IV
25539	5	29	9.7	21	57	31.24	82.290402	21.958679	4.88	-0.13	-0.14	B2.5IV
25606	5	29	20.5	-20	44	23.49	82.335405	-20.739859	2.81	0.86	0.81	G5II
25737	5	31	1.6	-1	4	21.37	82.756515	-1.072603	4.71	1.70	1.59	K5III
25859	5	32	7.8	-35	27	9.46	83.032324	-35.452627	3.86	1.09	1.13	K1II/III
25813	5	32	8.7	5	58	2.27	83.036375	5.967298	4.20	-0.14	-0.14	B5V
25923	5	33	9.8	-7	16	59.66	83.291017	-7.283238	4.62	-0.28	-0.26	B0V
25930	5	33	18.4	0	16	50.21	83.326860	-0.280615	2.25	-0.21	-0.17	O9.5II
25945	5	33	42.2	18	36	47.09	83.425746	18.613080	4.32	2.54	2.06	M2Ib
25985	5	33	51.5	-17	48	16.87	83.464412	-17.804687	2.58	0.32	0.21	F0Ib
26069	5	33	53.7	-62	28	23.56	83.473718	-62.473211	3.76	0.69	0.64	F6Ia
25984	5	34	23.0	32	12	39.3	83.595751	32.210917	4.71	0.51	0.28	B5Iab
26176	5	36	13.0	9	30	23.77	84.054235	9.506602	4.39	-0.13	-0.16	B0IV...
26199	5	36	17.4	-5	59	7.89	84.072600	-5.985526	4.78	-0.27	-0.25	B0.5V
26220	5	36	30.9	-5	22	15.36	84.128834	-5.370933	4.98	0.00	0.00	O7
26207	5	36	32.3	9	57	3.62	84.134687	9.951005	3.39	-0.13	-0.16	O...
26235	5	36	38.0	-5	23	59.06	84.158276	-5.399740	4.98	0.03	-0.10	O9.5Vpe
26237	5	36	38.6	-4	49	19.51	84.160791	-4.822087	4.58	-0.19	-0.18	B2III...
26241	5	36	40.8	-5	53	37.1	84.169922	-5.893640	2.75	-0.22	-0.21	O9III
26311	5	37	30.3	-1	11	9.64	84.376427	-1.186012	1.69	-0.16	-0.18	B0Ia
26366	5	38	18.2	9	18	15.57	84.575922	9.304325	4.09	1.02	0.95	G8III-IV
26451	5	39	9.8	21	9	28.97	84.791055	21.158048	2.97	-0.15	-0.15	B4IIIp
26549	5	40	1.5	-2	35	8.58	85.006228	-2.585718	3.77	-0.25	-0.19	O9.5V...
26563	5	40	7.1	-7	11	56.45	85.029540	-7.199015	4.77	0.16	0.14	A4V
26594	5	40	31.8	4	8	8.6	85.132386	4.135721	4.50	-0.02	-0.10	B3IIIe
26634	5	40	35.0	-34	3	39.94	85.145691	-34.061094	2.65	-0.07	-0.12	B7IV
26727	5	42	2.6	-1	55	45.84	85.510983	-1.929399	1.74	-0.18	-0.20	O9.5Ib SB
26736	5	42	8.3	-1	6	56.41	85.534525	-1.115670	4.95	-0.21	-0.20	B2IV-V
26777	5	42	45.9	16	32	50.36	85.691209	16.547322	4.84	-0.10	-0.12	B3IV...
26885	5	43	47.6	1	29	12.2	85.948451	1.486722	4.90	1.17	1.14	K1III
27100	5	44	52.6	-65	43	31.51	86.219021	-65.725419	4.34	0.27	0.22	A7V
27072	5	45	31.9	-22	26	25.61	86.382691	-22.440446	3.59	0.57	0.48	F7V
27321	5	47	54.9	-51	3	26.7	86.978670	-51.057416	3.85	0.18	0.17	A3V
27288	5	48	6.8	-14	48	46.11	87.028246	-14.812809	3.55	0.11	0.10	A2Vann
27366	5	48	58.0	-9	39	39.03	87.241539	-9.660842	2.07	-0.14	-0.17	B0.5Iavar
27530	5	50	19.5	-56	9	36.42	87.581105	-56.160118	4.50	1.06	1.07	K1III
27468	5	50	34.6	24	34	34.29	87.644210	24.576192	4.88	1.04	1.02	G8IIIvar
27483	5	50	56.2	39	11	23.25	87.734139	39.189791	4.51	0.95	0.95	G8III
27511	5	50	58.6	12	39	33.63	87.744395	12.659342	4.89	-0.05	-0.07	B9IV
27628	5	51	52.2	-35	45	32.53	87.967632	-35.759036	3.12	1.10	1.15	K1.5III
27654	5	52	25.3	-20	52	37.76	88.105463	-20.877157	3.76	1.05	0.98	G8III/IV
27639	5	52	46.5	37	18	46.67	88.193877	37.312964	4.72	1.90	1.62	M1III
27673	5	53	15.2	39	9	21.38	88.313416	39.155938	3.97	1.07	1.13	K0III
27750	5	53	45.8	1	51	40.41	88.440636	1.861224	4.76	1.31	1.38	K2IIvar
27810	5	54	3.0	-33	47	45.32	88.512692	-33.795924	4.88	-0.14	-0.15	B5V
27890	5	54	20.6	-63	4	51.84	88.585927	-63.081068	4.65	1.03	1.02	K1III/IV
27830	5	54	55.5	27	37	5.9	88.731393	27.618306	4.56	0.00	-0.01	A0V
27913	5	55	53.4	20	16	50.92	88.972340	20.280812	4.39	0.66	0.59	G0V
28010	5	56	23.3	-37	7	1.43	89.097134	-37.117065	4.97	1.03	1.10	K1IIICN...
27989	5	56	33.0	7	24	42.25	89.137295	7.411737	0.45	2.32	1.50	M2Ib
27949	5	56	59.0	55	42	45.49	89.245991	55.712636	4.96	0.09	0.05	A2V
28103	5	57	34.1	-14	9	47.71	89.392000	-14.163252	3.71	0.39	0.34	F1V
28199	5	58	27.1	-35	16	50.25	89.613020	-35.280624	4.36	-0.16	-0.17	B2.5IV
28237	5	59	34.3	25	57	25.55	89.892970	25.957096	4.81	-0.04	-0.09	B1Ib
28328	5	59	56.6	-42	48	49.08	89.986004	-42.813633	3.96	1.06	1.15	K0III
28413	6	1	19.8	-3	4	23.9	90.332584	-3.073306	4.53	1.26	1.20	K2IIIvar
28360	6	1	23.8	44	56	59.84	90.348968	44.949957	1.90	0.05	0.08	A2V
28380	6	1	27.3	37	12	51.75	90.363865	37.214376	2.65	-0.06	-0.08	A0p Si
28358	6	1	37.6	54	17	10.84	90.406556	54.286346	3.72	0.99	1.01	K0III
28404	6	1	49.5	45	56	20.28	90.456099	45.938968	4.30	2.51	1.70	M3IIvar
28574	6	3	2.4	-10	35	51.49	90.760148	-10.597636	4.92	-0.08	-0.13	B5III

# Posiciones medias de estrellas brillantes, 2025

Estrella	$\alpha$			$\delta$			$\alpha$	$\delta$	V	B-V	U-V	Espectro
NH	h	m	s	o	'	"	o	o				
28614	6	3	47.0	9	38	50.09	90.945732	9.647246	4.12	0.19	0.17	Am...
28716	6	5	25.8	20	8	16.37	91.357442	20.137879	4.64	0.41	0.24	B2Iavar
28734	6	5	40.0	23	15	42.76	91.416460	23.261879	4.16	0.88	0.83	G7III
28816	6	6	7.5	-16	29	10.14	91.531446	-16.486149	4.92	0.21	0.20	Ap shell
28910	6	7	18.7	-14	56	15.16	91.827865	-14.937544	4.67	0.04	0.05	A0V
29034	6	8	24.8	-37	15	22.58	92.103486	-37.256273	5.00	-0.08	-0.10	B8:IV
29038	6	9	1.4	14	45	55.62	92.256021	14.765450	4.42	-0.17	-0.16	B3IV
29276	6	10	49.5	-54	58	24.84	92.706371	-54.973566	4.72	-0.24	-0.23	B0.5IV
29353	6	11	21.5	-65	35	38.41	92.839625	-65.594002	5.01	1.62	3.48	M2.5III
29426	6	13	23.1	14	12	11.03	93.346464	14.203064	4.45	-0.16	-0.18	B3IV
29434	6	13	31.3	16	7	28.85	93.380261	16.124680	4.95	-0.12	-0.15	B5Vn
29651	6	16	5.9	-6	16	56.84	94.024684	-6.282457	3.99	1.27	1.32	K3III
29655	6	16	24.8	22	29	58.03	94.103111	22.499453	3.31	2.70	1.60	M3III
29735	6	16	55.1	-13	43	35.85	94.229442	-13.726625	5.00	-0.05	-0.08	B9V
29696	6	16	59.9	29	29	19.49	94.249561	29.488746	4.32	1.04	1.02	G8IIvar
29807	6	17	28.2	-35	8	54.99	94.367610	-35.148609	4.37	0.94	0.98	G8II
29919	6	20	16.0	61	30	22.9	95.066649	61.506361	5.01	1.88	-5.01	M3III
30093	6	21	16.1	-2	57	18.44	95.317254	-2.955121	4.91	1.90	1.61	M1III
30122	6	21	18.0	-30	4	27.34	95.324996	-30.074262	3.02	-0.20	-0.16	B2.5V
29997	6	21	39.8	69	18	34.3	95.415945	69.309529	4.76	0.05	0.03	A0Vn
30060	6	21	52.4	59	0	4.17	95.468390	59.001158	4.44	0.05	0.03	A2Vs
30277	6	23	3.3	-33	26	55.51	95.763871	-33.448753	3.85	0.88	0.86	G7II
30324	6	23	49.5	-17	58	5.66	95.956360	-17.968239	1.98	-0.24	-0.24	B1II/III
30343	6	24	29.9	22	30	2.08	96.124609	22.500578	2.87	2.30	1.62	M3IIIvar
30438	6	24	32.6	-52	42	30.55	96.136009	-52.708485	-0.62	0.23	0.16	F0Ib
30419	6	25	7.0	4	34	48.27	96.279145	4.580076	4.39	0.25	0.21	A5IV
30520	6	26	51.5	49	16	28.49	96.714807	49.274580	4.92	1.94	1.91	K5Iabvar
30788	6	29	7.5	-32	35	43.7	97.281156	-32.595471	4.47	-0.16	-0.17	B4V
30867	6	30	3.2	-7	2	56.59	97.513500	-7.049054	3.76	-0.11	-0.11	B3Ve
30883	6	30	28.4	20	11	45.92	97.618157	20.196088	4.13	-0.10	-0.12	B6III
31125	6	32	55.4	-23	26	10.13	98.230806	-23.436147	4.34	-0.24	-0.24	B1III
31216	6	34	16.8	7	18	52.32	98.569851	7.314534	4.47	0.09	0.02	A0Ib
31407	6	35	33.9	-52	59	41.81	98.891027	-52.994946	4.35	0.06	-0.02	B9III
31416	6	36	7.8	-22	59	3.65	99.032398	-22.984347	4.54	-0.01	-0.04	A0III
31592	6	37	48.0	-19	16	37.26	99.449785	-19.277018	3.95	1.02	1.04	K1III+...
31685	6	38	33.4	-43	13	1.56	99.639277	-43.217100	3.17	-0.07	-0.10	B8III SB
31700	6	39	0.9	-18	15	32.04	99.753608	-18.258899	4.42	1.12	1.14	K0II/III
31681	6	39	10.8	16	22	38.97	99.794774	16.377492	1.93	0.04	0.00	A0IV
31827	6	40	26.7	-14	10	4.84	100.111337	-14.168012	4.82	1.45	1.46	K2III
31832	6	41	8.8	42	27	58.42	100.286669	42.466228	4.80	1.17	1.24	K3III
31978	6	42	22.7	9	52	20.87	100.594576	9.872465	4.66	-0.22	-0.23	O7
32249	6	45	25.3	13	12	9.23	101.355514	13.202563	4.49	1.11	1.17	K1III
32246	6	45	29.8	25	6	21.44	101.373965	25.105956	3.06	1.22	1.38	A3mA6-A9
32349	6	46	16.4	-16	45	1.18	101.568423	-16.750328	-1.44	-0.02	0.01	A0m...
32362	6	46	43.0	12	52	6.19	101.679128	12.868386	3.35	0.48	0.44	F5IV
32438	6	48	29.2	59	24	54.16	102.121801	59.415044	4.86	0.10	0.08	A3V
32607	6	48	29.5	-61	57	59.89	102.122936	-61.966636	3.24	0.28	0.23	A7IV
32533	6	48	42.7	8	0	36.3	102.177927	8.010083	4.77	1.36	1.40	K4III
32578	6	49	11.3	2	23	4.89	102.296985	2.384692	4.48	1.06	1.10	K0III
32761	6	50	26.1	-53	39	1.25	102.608640	-53.650347	4.41	0.92	0.90	G6II
32768	6	50	35.4	-50	38	35.27	102.647675	-50.643132	2.94	1.14	1.21	K0III...
32759	6	50	48.1	-32	32	12.22	102.700432	-32.536727	3.50	-0.10	-0.12	B1.5IVne
32855	6	51	48.5	-34	23	46.21	102.952310	-34.396169	4.99	1.28	1.38	K2/K3III
32844	6	52	33.8	41	45	3.56	103.140953	41.750990	4.99	1.23	1.26	K3III
33018	6	54	27.9	33	55	49.57	103.616058	33.930437	3.60	0.14	0.10	A3III
33092	6	54	39.2	-20	15	17.25	103.663489	-20.254792	4.82	-0.21	-0.21	B1Ib
33152	6	55	11.7	-24	12	54.15	103.798766	-24.215040	3.89	1.58	1.74	K3Iab
33160	6	55	22.5	-12	4	11.1	103.843772	-12.069751	4.08	1.49	1.42	K4III
33202	6	56	4.7	13	8	44.84	104.019514	13.145788	4.73	0.36	0.32	F0Vp
33302	6	56	43.9	-20	10	4.82	104.183087	-20.168006	4.66	0.46	0.37	F2IV/V
33357	6	56	57.9	-48	45	10.29	104.241258	-48.752860	4.94	2.05	1.67	M1III
33347	6	57	16.6	-17	5	10.83	104.319033	-17.086341	4.36	0.01	-0.06	B3Ib/II
33345	6	57	16.8	-14	4	31.84	104.320048	-14.075511	5.00	1.30	1.18	B9.5V
33485	6	59	28.5	45	3	38.16	104.868573	45.060601	4.90	0.05	0.03	A2Vn
33449	6	59	28.9	58	23	18.8	104.870621	58.388554	4.35	0.85	0.85	G5III-IV
33579	6	59	38.0	-29	0	19.73	104.908524	-29.005482	1.50	-0.20	-0.21	B2II
33856	7	2	44.4	-27	58	12.04	105.685124	-27.970010	3.49	1.82	1.73	K4III
33694	7	3	47.2	76	56	30.71	105.946863	76.941864	4.55	1.35	1.36	K4III

# Posiciones medias de estrellas brillantes, 2025

Estrella	$\alpha$			$\delta$			$\alpha$	$\delta$				
NH	h	m	s	o	'	"	o	o	V	B-V	U-V	Espectro
33977	7	4	5.6	-23	52	9.43	106.023305	-23.869285	3.02	-0.03	-0.08	B3Ia
33971	7	4	10.6	-4	16	31.56	106.044327	-4.275435	4.99	-0.19	-0.20	B1V
34059	7	4	34.6	-49	37	8.64	106.144082	-49.619065	4.92	0.15	0.14	A4IV
34045	7	4	54.8	-15	40	11.75	106.228232	-15.669930	4.11	-0.09	-0.11	B8II
34088	7	5	37.0	20	31	59.12	106.404042	20.533089	4.01	0.90	0.90	G3Ibv SB
34481	7	8	35.3	-70	32	11.59	107.147100	-70.536552	3.78	0.94	1.01	G8IIIvar
34444	7	9	26.0	-26	25	56.08	107.358223	-26.432244	1.83	0.67	0.67	F8Ia
34495	7	9	43.1	-39	41	40.94	107.429697	-39.694707	4.83	-0.17	-0.18	B3IV/V
34622	7	11	29.6	-4	16	33.89	107.873206	-4.276079	4.91	1.03	1.02	K0III
34693	7	12	45.4	30	12	12.05	108.189185	30.203348	4.41	1.25	1.26	K2III
34769	7	13	9.8	0	32	3.16	108.290988	-0.534210	4.15	0.02	-0.01	A2V
34834	7	13	18.2	-46	47	58.67	108.325990	-46.799630	4.49	0.40	0.32	F0IV
34752	7	13	24.2	39	16	43.25	108.350899	39.278681	4.91	1.48	1.45	K4II-III
34899	7	14	0.0	-45	13	29.34	108.500099	-45.224817	4.87	0.02	-0.00	Ap
34922	7	14	19.9	-44	40	44.89	108.582929	-44.679135	4.42	3.46	1.33	M5e
34981	7	15	17.8	-26	23	41.6	108.824333	-26.394888	4.42	-0.12	-0.17	B3III
35020	7	15	21.4	-48	18	50.82	108.839082	-48.314116	4.75	-0.07	-0.09	B8/B9V
35037	7	15	51.0	-26	48	55.19	108.962493	-26.815331	4.01	-0.08	-0.15	B2IV/Ve
35228	7	16	51.9	-68	0	0.15	109.216211	-68.000042	3.97	0.78	0.76	F6II
35205	7	17	36.6	-27	55	28.59	109.402547	-27.924609	4.66	2.11	1.59	M2III
35210	7	17	41.5	-23	21	33.77	109.423004	-23.359380	4.83	1.77	1.60	K4III
35264	7	18	3.1	-37	8	28.49	109.513127	-37.141248	2.71	1.65	1.62	K3Ib
35363	7	19	13.3	-36	46	42.37	109.805545	-36.778437	4.65	0.11	-0.10	B2V+...
35350	7	19	33.2	16	29	41.05	109.888330	16.494736	3.58	0.12	0.11	A3V...
35412	7	19	44.3	-24	36	13.06	109.934589	-24.603629	4.88	-0.06	-0.16	O7f
35415	7	19	46.1	-24	59	57.51	109.942298	-24.999308	4.37	-0.10	-0.13	O9Ib
35384	7	20	27.9	49	25	7.33	110.116261	49.418703	5.00	0.16	0.09	A4IIIn
35550	7	21	38.4	21	56	8.21	110.410108	21.935615	3.50	0.44	0.37	F0IV...
35727	7	23	21.0	-19	3	49.37	110.837519	-19.063714	4.94	0.01	-0.04	B5II/III
35904	7	25	6.5	-29	21	3.4	111.277203	-29.350945	2.45	0.01	-0.08	B5Ia
36041	7	27	2.2	9	13	35.12	111.759391	9.226422	4.99	0.96	0.99	G8III
36046	7	27	18.3	27	44	50.97	111.826082	27.747493	3.78	1.01	1.02	G9III+...
36188	7	28	31.8	8	14	18.94	112.132298	8.238595	2.89	-0.07	-0.10	B8Vvar
36145	7	28	37.9	49	9	37.04	112.158022	49.160290	4.61	0.02	-0.00	A1V
36284	7	29	32.8	8	52	28.42	112.386813	8.874561	4.33	1.48	1.43	K3III SB
36377	7	30	3.1	-43	21	1.88	112.512975	-43.350522	3.25	1.54	1.51	K5III SB
36366	7	30	44.8	31	44	1.91	112.686502	31.733864	4.16	0.40	0.32	F0V...
36431	7	30	56.5	-23	4	31.79	112.735643	-23.075498	4.85	0.35	0.24	A6Ib/II
36425	7	31	12.7	11	57	15.8	112.802709	11.954390	4.55	1.21	1.28	K2III
36429	7	31	23.6	27	51	49.07	112.848233	27.863629	5.01	1.11	-5.01	K2III
36514	7	31	42.4	-31	0	49.65	112.926755	-31.013793	4.65	0.89	0.90	G2Ib...
36773	7	34	58.2	-14	34	39.06	113.742623	-14.577517	4.82	1.37	1.36	A4Ia
36795	7	35	8.8	-22	20	57.6	113.786663	-22.349333	4.44	0.60	0.52	F6V
36850	7	36	13.1	31	49	55.43	114.054450	31.832064	1.58	0.05	0.03	A2V <sub>m</sub>
36942	7	36	18.7	-52	35	15.3	114.078047	-52.587582	4.93	1.39	1.37	K3III
36547	7	36	22.4	82	21	24.0	114.093474	82.356668	4.92	2.66	1.63	M4IIIa
36917	7	36	24.6	-28	25	24.99	114.102340	-28.423607	4.65	-0.12	-0.11	B8V
36962	7	37	29.2	26	50	20.92	114.371793	26.839145	4.06	1.66	1.54	K5III
37096	7	38	19.2	-35	1	24.5	114.579838	-35.023473	4.53	-0.08	-0.08	B8IV/V
37173	7	39	21.9	-25	25	14.46	114.841253	-25.420683	4.69	-0.07	-0.10	B8IV
37229	7	39	52.8	-26	51	35.12	114.969908	-26.859756	3.80	-0.15	-0.16	B5IV
37297	7	40	21.8	-38	21	50.42	115.090657	-38.364005	4.84	-0.17	-0.19	B3V
37279	7	40	37.9	5	9	38.03	115.158051	5.160563	0.40	0.49	0.43	F5IV-V
37265	7	40	49.4	34	31	32.45	115.205813	34.525680	4.89	0.47	0.41	F3III
37379	7	41	33.2	-15	19	16.95	115.388159	-15.321375	4.98	1.49	1.54	K3III
37504	7	41	33.6	-72	39	44.48	115.389860	-72.662355	3.93	1.02	1.03	K0III
37447	7	42	27.8	-9	36	33.0	115.615927	-9.609166	3.94	1.01	1.02	K0III
37648	7	44	34.4	-28	28	9.34	116.143229	-28.469262	4.63	1.76	1.63	K5III
37677	7	44	50.1	-29	0	48.64	116.208822	-29.013510	3.94	0.34	0.16	A2Iab
37629	7	44	53.9	28	49	18.6	116.224732	28.821834	4.23	1.12	1.12	K1III SB
37609	7	45	9.5	58	38	58.31	116.289599	58.649530	4.93	0.17	0.10	A3IV <sub>n</sub>
37740	7	45	58.9	24	20	13.21	116.495193	24.337004	3.57	0.90	0.93	G8III
37819	7	46	10.3	-38	1	39.94	116.542860	-38.027760	3.62	1.82	1.71	K4III
37826	7	46	52.2	27	57	52.99	116.717480	27.964720	1.16	0.97	0.99	K0IIIvar
37908	7	47	35.7	18	26	53.9	116.898609	18.448306	4.89	1.54	1.43	K5III
38089	7	49	6.5	-47	8	19.86	117.277023	-47.138850	4.69	1.03	1.04	K0III
38070	7	49	8.9	-25	59	53.64	117.287140	-25.998235	4.40	0.13	-0.07	B1IV:mne
38164	7	50	1.7	-46	26	3.2	117.506985	-46.434221	4.10	-0.17	-0.16	B0III

# Posiciones medias de estrellas brillantes, 2025

Estrella	$\alpha$			$\delta$			$\alpha$	$\delta$				
NH	h	m	s	o	'	"	o	o	V	B-V	U-V	Espectro
38170	7	50	22.1	-24	55	17.66	117.592172	-24.921571	3.34	1.08	1.22	G6Ia
38414	7	53	6.2	-40	38	18.87	118.275649	-40.638574	3.71	1.04	1.01	G5III...
38423	7	53	13.2	-34	46	0.59	118.304821	-34.766832	5.01	1.63	2.63	F3/F5V
38455	7	53	33.3	-38	55	33.19	118.388585	-38.925887	4.49	-0.18	-0.19	B2V
38500	7	53	47.6	-49	40	33.33	118.448445	-49.675926	4.63	-0.24	-0.23	B1.5Vp
38518	7	54	3.9	-48	9	57.78	118.516362	-48.166049	4.22	-0.11	-0.13	B0.5Ib
38538	7	55	3.0	26	41	59.62	118.762630	26.699894	4.97	0.14	0.10	A3V
38827	7	57	26.6	-53	2	49.39	119.361040	-53.047053	3.46	-0.17	-0.18	B3IVp
38835	7	57	57.4	-22	56	45.19	119.489064	-22.945886	4.20	0.75	0.72	F7/F8II
38901	7	58	41.3	-30	24	1.93	119.672112	-30.400536	4.76	0.24	0.15	A7III
38957	7	58	59.3	-49	18	37.96	119.746933	-49.310544	4.47	-0.14	-0.18	B1Vp + B2
39138	8	0	41.0	-63	38	1.04	120.170857	-63.633622	4.81	-0.16	-0.17	B3V
39079	8	1	0.4	-3	44	51.55	120.251522	-3.747654	4.93	1.22	1.21	K2III
39095	8	1	0.6	-18	28	1.43	120.252409	-18.467064	4.61	0.11	0.09	A1V
39211	8	2	30.9	-1	27	43.42	120.628809	-1.462062	4.69	1.54	1.48	K4III
39311	8	3	35.2	2	15	56.48	120.896866	2.265689	4.39	1.27	1.25	K2III
39429	8	4	29.3	-40	4	18.34	121.121929	-40.071762	2.21	-0.22	-0.27	O5IAf
39424	8	5	4.6	27	43	22.61	121.269158	27.722946	4.94	1.09	1.13	K2III
39794	8	8	2.8	-68	41	12.53	122.011815	-68.686814	4.35	-0.10	-0.11	B6IV
39757	8	8	37.9	-24	22	31.25	122.157730	-24.375347	2.83	0.42	0.46	F2mF5IIp
39903	8	9	27.5	-61	22	30.91	122.364566	-61.375254	4.74	0.53	0.44	F5V
39863	8	9	52.3	-3	3	23.52	122.467890	-3.056534	4.36	0.92	0.97	G2Ib
39906	8	10	9.9	-19	19	2.45	122.541247	-19.317347	4.40	-0.14	-0.16	B5V
39953	8	10	19.8	-47	24	28.81	122.582406	-47.408002	1.75	-0.14	-0.14	WC8 + O9I
39847	8	10	22.1	51	25	56.02	122.591938	51.432228	4.78	0.10	0.05	A2V
40091	8	12	16.5	-39	41	28.32	123.068909	-39.691201	4.44	1.62	1.59	K4III
40096	8	12	18.1	-43	3	35.4	123.075323	-43.059834	4.73	0.30	0.16	A7Ib
40084	8	12	27.9	-13	0	2.3	123.116432	-13.000640	4.72	0.93	0.94	K0III
40167	8	13	40.0	17	34	16.77	123.416568	17.571326	4.67	0.60	0.53	G0V
40274	8	14	27.6	-35	58	24.0	123.614785	-35.973334	4.78	-0.01	-0.11	B2ne
40259	8	14	30.2	-15	51	46.31	123.625744	-15.862865	4.99	1.02	1.07	G5Ib/II
40326	8	14	57.7	-40	25	20.43	123.740231	-40.422341	4.42	1.15	1.17	K1II/III
40526	8	17	53.5	9	6	28.52	124.472968	9.107921	3.53	1.47	1.48	K4III
40702	8	17	54.7	-76	59	37.79	124.477994	-76.993831	4.05	0.49	0.41	F5III
40706	8	19	30.9	-36	44	5.85	124.878555	-36.734957	4.44	0.25	0.22	A4m...
40888	8	19	55.2	-77	33	36.06	124.980195	-77.560015	4.34	1.10	1.16	K0II-IV
40945	8	22	23.4	-33	7	56.09	125.597706	-33.132246	4.83	1.35	1.42	K2/K3III
41037	8	23	3.4	-59	35	12.29	125.764207	-59.586748	1.86	1.16	1.20	K3III+B2V
41039	8	23	19.4	-48	34	5.39	125.830851	-48.568165	4.79	-0.12	-0.15	B1V
41075	8	24	34.3	43	6	20.46	126.143030	43.105684	4.25	1.61	1.55	K5III
41312	8	26	2.4	-66	13	0.05	126.510080	-66.216680	3.77	1.10	1.13	K2IIivar
41307	8	26	55.8	-3	59	16.43	126.732447	-3.987897	3.91	-0.02	-0.01	A0V
41704	8	32	22.4	60	37	53.08	128.093378	60.631412	3.35	0.87	0.86	G4II-III
42088	8	35	30.9	-50	1	39.45	128.878799	-50.027624	5.01	1.33	2.71	K1/K2II
42134	8	35	56.8	-58	5	33.18	128.986749	-58.092550	4.84	0.98	0.98	K0III
42312	8	38	32.8	-43	4	27.11	129.636526	-43.074197	4.11	0.20	0.11	A6II
42313	8	38	60.0	5	36	58.15	129.749772	5.616154	4.14	0.02	0.00	A1Vnn
42402	8	40	5.0	3	15	12.01	130.020859	3.253337	4.45	1.12	1.22	K2III
42483	8	40	46.0	-29	38	54.51	130.191535	-29.648476	4.86	0.99	0.90	G5III
42536	8	41	2.1	-53	0	27.43	130.258710	-53.007619	3.60	-0.16	-0.17	B3IV
42515	8	41	6.2	-35	23	42.58	130.275661	-35.395162	3.97	0.91	0.94	G5II/III
42568	8	41	11.8	-59	50	48.56	130.299295	-59.846823	4.31	-0.08	-0.12	B1.5III
42509	8	41	13.7	-12	33	47.28	130.307126	-12.563133	4.98	1.40	1.42	K3III
42570	8	41	28.8	-46	44	6.37	130.369867	-46.735102	3.77	0.92	0.67	F3Ia
42624	8	42	3.8	-47	24	13.34	130.515616	-47.403705	4.74	0.25	0.14	A5II
42527	8	42	25.9	64	14	13.47	130.607890	64.237075	4.59	1.18	1.18	K2III
42662	8	42	54.1	-16	1	56.76	130.725443	-16.032434	4.87	1.04	1.06	K0IIICN...
42726	8	43	9.9	-53	12	2.71	130.791296	-53.200754	4.83	-0.18	-0.17	B3IV
42799	8	44	33.0	3	18	30.83	131.137631	3.308565	4.30	-0.20	-0.19	B3V...
42828	8	44	37.1	-33	16	28.8	131.154473	-33.274666	3.68	-0.17	-0.18	B1.5III
42806	8	44	45.2	21	22	37.97	131.188198	21.377215	4.66	0.03	0.01	A1V
42835	8	44	55.2	-7	19	24.51	131.229935	-7.323474	4.63	0.85	0.84	G2Ib
42884	8	45	18.9	-42	44	14.69	131.328659	-42.737413	4.05	0.89	0.87	G5III
42913	8	45	25.2	-54	47	50.79	131.355015	-54.797442	1.93	0.05	0.04	A1V
42911	8	46	7.5	18	3	40.34	131.531403	18.061206	3.94	1.01	1.08	K0III
43023	8	46	53.9	-46	7	49.22	131.724527	-46.130339	3.87	0.09	0.01	A1III
43105	8	47	22.9	-56	51	30.28	131.845418	-56.858412	4.50	-0.16	-0.17	B3Vne
43067	8	47	34.6	-13	38	18.25	131.894005	-13.638402	4.32	0.91	0.90	G8III

# Posiciones medias de estrellas brillantes, 2025

Estrella	$\alpha$			$\delta$			$\alpha$	$\delta$				
NH	h	m	s	o	'	"	o	o	V	B-V	U-V	Espectro
43109	8	48	7.0	6	19	35.89	132.029281	6.326637	3.38	0.78	0.69	G0III-IV
43103	8	48	13.9	28	39	59.9	132.057743	28.666640	4.03	0.96	1.01	G8Iab:
43234	8	49	46.6	5	44	41.93	132.444014	5.744979	4.35	-0.03	-0.04	A0Vn
43347	8	50	40.9	-45	23	53.95	132.670303	-45.398321	4.94	0.06	0.04	A2III
43409	8	51	36.8	-27	48	3.51	132.903252	-27.800976	4.02	1.24	1.27	K3III
43783	8	55	38.4	-60	44	11.35	133.909869	-60.736485	3.84	-0.08	-0.10	B8III
43825	8	56	37.1	-27	46	35.44	134.154538	-27.776511	4.87	0.16	0.14	A3IV
43813	8	56	44.0	5	50	59.58	134.183483	5.849885	3.11	0.96	0.98	G8III-IV
43878	8	57	6.0	-52	48	59.09	134.274859	-52.816415	4.68	-0.11	-0.12	B5V
43937	8	57	36.7	-59	19	20.36	134.402743	-59.322323	4.93	-0.21	-0.18	B2IV-V
44066	8	59	52.4	11	45	36.05	134.968311	11.760013	4.26	0.14	0.14	A5m
44127	9	0	56.6	47	56	27.04	135.235923	47.940844	3.12	0.25	0.22	A7IV
44191	9	1	2.7	-41	20	54.26	135.261145	-41.348406	4.45	0.75	0.65	Fp
44248	9	2	17.0	41	40	53.38	135.570817	41.681494	3.96	0.53	0.46	F5V
44382	9	2	52.0	-66	29	30.49	135.716827	-66.491803	4.00	0.15	0.14	Am
44390	9	4	49.8	67	31	41.33	136.207354	67.528148	4.74	2.15	1.54	M3III
44511	9	5	2.3	-47	11	39.81	136.259703	-47.194393	3.75	1.11	1.17	K2III
44599	9	5	14.2	-72	41	55.2	136.309341	-72.698666	4.47	0.67	0.61	F6II-III
44471	9	5	21.4	47	3	16.91	136.338944	47.054696	3.57	0.03	0.01	A1Vn
44626	9	5	52.1	-70	38	4.69	136.467229	-70.634636	4.66	-0.13	-0.15	B2IVe
44659	9	7	18.4	4	59	30.82	136.826708	4.991895	4.99	1.17	1.19	K2II-III
44700	9	8	8.5	38	20	59.11	137.035279	38.349753	4.56	0.97	1.04	G8Ib-II
44816	9	8	56.2	-43	31	51.01	137.234075	-43.530837	2.23	1.69	1.67	K4Ib-II
44824	9	9	9.8	-25	57	28.34	137.290992	-25.957872	4.62	1.66	1.59	K4/K5III
44901	9	10	39.5	51	30	1.88	137.664787	51.500521	4.46	0.30	0.29	Am
45080	9	11	39.0	-59	3	56.21	137.912555	-59.065615	3.43	-0.17	-0.19	B2IV
45101	9	11	52.3	-62	24	56.4	137.967769	-62.415667	3.96	-0.18	-0.18	B3IV
45085	9	12	0.1	-44	58	2.6	138.000326	-44.967388	4.99	0.36	0.22	B5Ia
45038	9	12	37.3	67	1	42.07	138.155498	67.028353	4.80	0.57	0.49	F7IV-V
45075	9	13	0.4	63	24	28.95	138.251662	63.408041	4.67	0.45	0.38	Am
45238	9	13	29.9	-69	48	56.6	138.374518	-69.815722	1.67	0.02	0.07	A2IV
45336	9	15	40.9	2	12	30.5	138.920481	2.208474	3.89	-0.07	-0.06	B9.5V
45439	9	16	37.0	-38	40	18.01	139.154155	-38.671670	4.92	1.06	1.08	K1III
45448	9	16	46.3	-37	30	53.91	139.192776	-37.514974	4.63	0.52	0.47	F3/F5V
45496	9	16	55.8	-57	38	33.06	139.232494	-57.642515	4.34	1.83	1.60	M1III
45556	9	17	47.0	-59	22	34.85	139.445612	-59.376347	2.21	0.28	0.19	A8Ib
45493	9	18	0.8	53	54	54.57	139.503146	53.915160	4.80	0.26	0.20	A5V
45688	9	20	25.2	36	41	39.27	140.104979	36.694243	3.82	0.12	0.07	A1V
45751	9	20	59.7	-12	4	46.9	140.248587	-12.079695	4.77	0.91	0.93	G8III
45856	9	21	34.2	-62	30	25.87	140.392585	-62.507187	4.79	0.96	0.93	G6III
45811	9	21	43.3	-9	39	40.48	140.430335	-9.661246	4.80	0.92	0.91	F5V+...
45860	9	22	35.9	34	17	3.81	140.649418	34.284390	3.14	1.65	1.55	M0IIIvar
45902	9	22	37.1	-26	4	12.72	140.654415	-26.070199	4.71	1.91	1.63	M0III
45941	9	22	54.6	-55	6	50.08	140.727375	-55.113911	2.47	-0.17	-0.14	B2IV
46026	9	24	18.2	-28	56	20.06	141.076029	-28.938905	4.71	0.91	0.89	G8III
46146	9	26	7.7	26	4	21.78	141.532142	26.072716	4.47	1.20	1.22	K2III
46371	9	28	28.1	-22	27	7.09	142.116941	-22.451971	4.72	1.11	1.15	K1III
46390	9	28	49.9	-8	45	59.54	142.208104	-8.766538	1.99	1.39	1.44	K3III
46515	9	30	17.7	-36	3	29.88	142.573802	-36.058301	4.51	1.37	1.41	K3III
46509	9	30	26.0	-2	52	41.34	142.608195	-2.878151	4.59	0.52	0.41	F6V
46651	9	31	42.3	-40	34	25.34	142.926141	-40.573705	3.60	0.43	0.37	F2IV
46701	9	32	0.2	-57	8	27.32	143.000699	-57.140921	3.16	1.59	1.54	K5III
46750	9	33	9.9	22	51	21.15	143.291088	22.855875	4.32	1.63	1.54	K5IIIvar
46776	9	33	16.4	-1	17	42.07	143.318242	-1.295019	4.54	0.16	0.11	A3V
46771	9	33	18.6	11	11	17.08	143.327462	11.188079	4.99	0.89	1.05	K0IIIvar
46733	9	33	31.5	62	56	54.39	143.381193	62.948441	3.65	0.41	0.36	F0IV
46853	9	34	33.1	51	33	35.55	143.638044	51.559875	3.17	0.56	0.47	F6IV
46950	9	35	2.0	-51	21	47.28	143.758283	-51.363133	5.01	0.00	-0.97	B1.5IV
46974	9	35	11.4	-59	20	14.43	143.797644	-59.337342	4.08	0.01	-0.01	B5II
46952	9	35	46.4	36	17	1.89	143.943385	36.283859	4.54	0.91	0.91	G8III
47006	9	36	33.5	51	56	12.21	144.139782	51.936726	4.47	0.08	0.03	A2V
47029	9	36	38.6	39	30	27.41	144.160759	39.507614	4.81	1.00	0.99	K0III
46977	9	36	43.0	69	42	57.42	144.179295	69.715950	4.54	0.83	0.78	G4III-IV
47175	9	37	44.4	-49	27	49.28	144.434838	-49.463688	4.34	0.18	0.17	A5V
47205	9	38	32.8	6	43	23.05	144.636708	6.723070	5.00	1.03	1.05	K1IIIvar
47310	9	39	46.5	4	32	9.03	144.943688	4.535842	4.68	1.35	1.31	K3III
47391	9	40	3.8	-61	26	13.82	145.015865	-61.437174	4.51	-0.06	-0.07	B9V
47193	9	40	37.2	81	12	35.93	145.155067	81.209980	4.28	1.46	1.49	K3III

# Posiciones medias de estrellas brillantes, 2025

Estrella	$\alpha$			$\delta$			$\alpha$	$\delta$				
NH	h	m	s	o	'	"	o	o	V	B-V	U-V	Espectro
47431	9	41	8.9	-1	15	23.2	145.287132	-1.256444	3.90	1.29	1.31	K3IIIvar
47522	9	42	26.4	-23	42	12.92	145.610088	-23.703590	4.76	-0.10	-0.12	B5V
47508	9	42	30.0	9	46	39.4	145.625183	9.777611	3.52	0.59	0.52	A5V+...
47592	9	43	23.1	-24	1	34.15	145.846150	-24.026152	4.93	0.58	0.53	G0V
47758	9	45	19.9	-27	52	55.26	146.333017	-27.882017	4.78	0.61	0.52	A7V+...
47854	9	45	57.2	-62	37	8.45	146.488483	-62.619015	3.69	1.03	1.01	G5Iab/Ib
47908	9	47	17.2	23	39	25.77	146.821706	23.657158	2.97	0.81	0.81	G0II
48002	9	47	44.8	-65	11	1.1	146.936773	-65.183639	2.92	0.42	0.27	A9
48374	9	52	39.7	-46	39	41.82	148.165230	-46.661617	4.58	1.10	1.17	G5Ib
48356	9	52	41.8	-14	57	46.46	148.173963	-14.962906	4.11	0.92	0.92	G6/G8III
48319	9	52	47.4	58	55	1.46	148.197417	58.917072	3.78	0.39	0.29	F0IV
48402	9	53	49.7	53	56	37.15	148.457059	53.943653	4.55	0.09	0.04	A3IV
48455	9	54	12.1	25	53	13.32	148.550435	25.887034	3.88	1.13	1.22	K0III
48559	9	55	21.2	-26	2	53.4	148.838339	-26.048166	4.87	1.19	1.20	K2III
48615	9	56	3.9	-19	7	35.57	149.016071	-19.126548	4.94	1.75	1.56	K5III
48774	9	57	45.5	-54	40	58.84	149.439527	-54.683010	3.52	-0.04	-0.07	B5Ib
49029	10	1	33.0	7	55	24.2	150.387293	7.923390	4.68	1.96	1.59	M2III
49402	10	6	21.4	-13	11	6.07	151.588984	-13.185019	4.60	-0.07	-0.09	B8V
49583	10	8	42.6	16	38	20.95	152.177492	16.639152	3.48	0.06	-0.03	A0Ib
49593	10	8	55.2	35	7	11.64	152.230040	35.119901	4.49	0.19	0.19	A7V
49641	10	9	13.9	0	29	38.5	152.307787	-0.494027	4.48	-0.01	-0.03	A0III
49637	10	9	14.7	9	52	26.02	152.311345	9.873894	4.39	1.51	1.45	K4III
49669	10	9	43.0	11	50	37.62	152.429341	11.843783	1.36	-0.10	-0.09	B7V
49712	10	9	54.1	-51	55	48.63	152.475397	-51.930176	4.85	-0.10	-0.12	B3IV
49841	10	11	49.2	-12	28	37.02	152.955107	-12.476951	3.61	0.96	1.01	K0III
50099	10	14	20.8	-70	9	25.95	153.586819	-70.157209	3.29	-0.03	-0.07	B8III
50191	10	15	48.0	-42	14	33.7	153.950051	-42.242694	3.85	0.03	0.05	A2V
50371	10	17	56.1	-61	27	10.35	154.483626	-61.452874	3.39	1.45	1.54	K3II
50335	10	18	5.7	23	17	26.03	154.523762	23.290565	3.43	0.39	0.31	F0III
50372	10	18	37.2	42	47	9.62	154.655192	42.786005	3.45	0.05	0.03	A2IV
50555	10	20	34.1	-55	9	3.11	155.141915	-55.150863	4.59	1.50	1.60	K3II
50564	10	21	6.6	19	20	31.87	155.277682	19.342186	4.78	0.53	0.45	F6IV
50583	10	21	21.9	19	42	47.14	155.341172	19.713095	2.01	1.17	1.13	K0III
50676	10	21	51.6	-56	9	54.25	155.464843	-56.165070	4.50	-0.08	-0.10	B3III
50799	10	23	24.8	-41	46	21.46	155.853223	-41.772629	4.82	1.06	1.09	K1IIIvar
50847	10	23	43.6	-67	1	23.78	155.931627	-67.023271	4.97	-0.12	-0.13	B8V
50801	10	23	50.1	41	22	13.2	155.958619	41.370333	3.06	1.77	1.60	M0III SB
50954	10	24	54.2	-74	9	13.43	156.225761	-74.153731	3.99	0.43	0.37	F2IV
50933	10	25	57.2	65	26	7.08	156.488505	65.435299	4.94	-0.02	-0.05	A0sp...
51069	10	27	18.7	-16	57	45.92	156.828029	-16.962757	3.83	1.47	1.46	K4III
51056	10	27	21.7	33	39	56.97	156.840298	33.665826	4.72	0.31	0.26	F0V
51172	10	28	18.5	-31	11	33.88	157.077143	-31.192745	4.28	1.47	1.43	K4III
51192	10	28	21.3	-57	45	43.68	157.088672	-57.762134	4.65	0.69	0.47	A6Ia
51232	10	28	48.7	-58	51	46.07	157.202996	-58.862797	3.81	0.41	0.32	F2II
51233	10	29	20.6	36	34	33.15	157.335900	36.575874	4.20	0.89	0.91	G8III-IV
51438	10	30	58.8	-72	6	59.01	157.745017	-72.116393	4.72	0.06	0.04	A2III
51495	10	31	37.8	-73	20	41.78	157.907522	-73.344940	4.94	1.71	1.68	K4/K5III
51459	10	32	14.7	55	50	52.83	158.061136	55.848008	4.82	0.58	0.54	F8V
51523	10	32	21.0	-53	50	18.66	158.087397	-53.838518	4.89	0.58	0.50	F6V
51576	10	32	55.7	-61	48	34.08	158.232189	-61.809466	3.30	0.02	-0.09	B4Vne
51624	10	34	8.4	9	10	36.58	158.534969	9.176828	3.84	-0.13	-0.15	B1Ib SB
51658	10	34	42.3	40	17	36.55	158.676231	40.293486	4.72	0.23	0.22	A7V
51839	10	35	45.7	-78	43	55.21	158.940594	-78.732002	4.11	1.71	1.58	M0III
51849	10	36	33.8	-57	40	58.24	159.140839	-57.682845	4.45	1.62	1.60	K3/K4II
51808	10	37	13.8	75	34	43.81	159.307357	75.578835	4.86	0.94	0.96	K0III
51986	10	38	22.0	-48	21	6.34	159.591828	-48.351760	3.84	0.35	0.30	A3m+...
51979	10	38	24.8	-27	32	24.39	159.603500	-27.540107	4.87	1.89	1.63	M1III
52009	10	38	48.0	-13	30	49.22	159.700218	-13.513672	4.89	2.27	2.80	C
52102	10	39	43.0	-59	18	31.63	159.928996	-59.308785	4.69	1.63	1.56	K4/K5III:
52085	10	39	48.7	-17	0	18.64	159.953083	-17.005177	4.91	0.85	0.92	G8III
52098	10	40	8.4	31	50	36.35	160.035143	31.843431	4.68	0.82	0.82	G0II
52154	10	40	18.9	-55	43	45.63	160.078908	-55.729342	4.29	0.96	1.02	G2II
52370	10	43	8.2	-64	35	33.34	160.784249	-64.592596	4.76	-0.13	-0.14	B3V
52419	10	43	51.8	-64	31	14.74	160.965706	-64.520761	2.74	-0.24	-0.22	B0Vp
52468	10	44	30.3	-60	41	35.85	161.126064	-60.693292	4.58	1.79	1.70	K3Ib
52425	10	44	52.6	68	56	25.62	161.219170	68.940450	5.01	1.38	-5.01	K3III
52502	10	45	2.0	-64	5	15.47	161.258498	-64.087631	4.80	-0.12	-0.13	B5Vn
52633	10	46	0.3	-80	39	59.34	161.501130	-80.666483	4.45	-0.19	-0.19	B2.5IV

# Posiciones medias de estrellas brillantes, 2025

Estrella	$\alpha$			$\delta$			$\alpha$	$\delta$				
NH	h	m	s	o	'	"	o	o	V	B-V	U-V	Espectro
52736	10	47	46.7	-64	30	38.01	161.944472	-64.510558	4.87	-0.18	-0.15	B3IV
52727	10	47	51.4	-49	32	54.92	161.964329	-49.548590	2.69	0.91	0.90	G5III SB
52943	10	50	52.1	-16	19	24.06	162.717267	-16.323351	3.11	1.22	1.23	K0/K1III
53253	10	54	31.4	-58	58	53.52	163.630815	-58.981532	3.78	0.96	0.94	K0III-IV...
53229	10	54	43.4	34	4	36.65	163.680625	34.076848	3.79	1.07	1.04	K0III-IV
53295	10	55	25.9	43	3	10.92	163.857915	43.053034	4.66	0.01	-0.04	A1Vs
53417	10	56	58.7	24	36	49.9	164.244545	24.613862	4.30	0.07	0.02	A1
53502	10	57	53.6	-37	16	9.24	164.473360	-37.269234	4.60	0.99	1.01	K0III
53740	11	1	0.1	-18	25	50.04	165.250586	-18.430565	4.08	1.06	1.08	K1III
53773	11	1	18.7	-42	21	23.8	165.328102	-42.356610	4.37	0.13	0.12	A3IV
53807	11	1	51.7	3	28	57.3	165.465501	3.482584	4.84	1.13	1.14	K1III
53824	11	2	3.2	5	57	58.47	165.513148	5.966242	4.98	0.18	0.17	A5III
53907	11	3	6.8	-2	37	9.42	165.778226	-2.619282	4.73	1.77	1.59	K5III
53910	11	3	21.9	56	14	37.69	165.841323	56.243802	2.34	0.02	0.03	A1V
53954	11	3	40.5	20	2	36.88	165.918684	20.043578	4.42	0.03	0.05	A1m
54061	11	5	17.2	61	36	41.02	166.321592	61.611393	1.81	1.03	1.06	F7V comp
54182	11	6	19.0	7	11	59.4	166.579107	7.199834	4.62	0.39	0.33	F2III-IVvar
54204	11	6	32.8	-27	25	35.1	166.636482	-27.426418	4.92	0.43	0.37	F3IV/V
54301	11	7	34.7	-62	33	16.31	166.894410	-62.554529	4.62	0.97	0.99	G8III
54463	11	9	40.1	-59	6	21.48	167.417308	-59.105967	3.93	1.19	1.23	G0Ia0
54539	11	11	4.9	44	21	31.8	167.770392	44.358833	3.00	1.09	1.14	K1III
54682	11	12	53.8	-22	57	38.03	168.224237	-22.960564	4.46	0.04	0.03	A1V
54751	11	13	41.0	-60	26	56.41	168.421016	-60.449004	4.59	0.70	0.54	A6Ia
54872	11	15	26.9	20	23	4.2	168.861889	20.384500	2.56	0.12	0.13	A4V
54879	11	15	33.7	15	17	28.09	168.890327	15.291135	3.33	0.01	-0.00	A2V
54951	11	16	32.6	22	57	24.37	169.135788	22.956769	4.56	2.27	1.66	M3III
55084	11	17	56.5	-3	47	17.82	169.485328	-3.788283	4.45	0.25	0.21	A7IVn
55219	11	19	50.4	32	57	16.64	169.959898	32.954622	3.49	1.37	1.40	K3III SB
55266	11	20	30.3	38	2	41.14	170.126266	38.044761	4.76	0.11	0.11	A2V
55282	11	20	35.9	-14	54	46.12	170.149767	-14.912811	3.56	1.12	1.11	K0III
55425	11	22	9.4	-54	37	25.42	170.539209	-54.623729	3.90	-0.16	-0.16	B5Vn
55434	11	22	26.1	5	53	28.92	170.608545	5.891366	4.05	-0.06	-0.06	B9.5Vs
55560	11	24	12.6	43	20	29.39	171.052398	43.341499	4.99	0.94	1.00	G8II
55588	11	24	25.8	-36	17	56.42	171.107670	-36.299007	5.00	1.47	1.46	K4III
55642	11	25	14.1	10	23	25.36	171.308781	10.390379	4.00	0.47	0.42	F2IV SB
55687	11	25	52.8	-10	59	44.84	171.470111	-10.995788	4.81	1.67	1.56	K5III
55705	11	26	8.3	-17	49	12.04	171.534771	-17.820012	4.06	0.24	0.22	A9V
55945	11	29	13.8	2	43	4.54	172.307709	2.717928	4.95	0.95	1.00	G8II-III
56127	11	31	36.0	-3	8	29.54	172.899949	-3.141539	4.77	1.62	1.53	K4III
56211	11	32	54.3	69	11	15.95	173.226177	69.187764	3.82	1.79	1.61	M0IIIvar
56280	11	33	31.2	-29	23	44.34	173.380018	-29.395650	4.93	0.61	0.54	F8V
56343	11	34	14.3	-31	59	36.15	173.559753	-31.993374	3.54	0.92	0.95	G8III
56480	11	35	57.3	-54	23	52.37	173.988744	-54.397881	4.62	-0.06	-0.08	B9V
56561	11	36	56.6	-63	9	12.13	174.236005	-63.153369	3.11	-0.01	-0.04	B9II:
56633	11	37	57.4	-9	56	23.95	174.489282	-9.939986	4.70	-0.06	-0.07	B9.5Vn
56647	11	38	14.2	0	57	43.54	174.558971	-0.962095	4.30	0.98	0.98	G9III
56862	11	40	39.7	-65	31	53.07	175.165341	-65.531407	5.01	0.84	-5.01	G2III+A
56922	11	41	27.7	-34	52	49.32	175.365452	-34.880366	4.70	-0.05	-0.07	B9V
56986	11	42	5.1	-62	13	26.14	175.521184	-62.223928	4.93	1.11	1.11	G3Ib
57175	11	44	43.3	-62	37	24.0	176.180341	-62.623332	5.00	0.87	0.78	F9Ia
57283	11	46	2.2	-18	29	17.71	176.509080	-18.488252	4.71	0.94	0.96	G8III
57328	11	46	34.8	8	7	4.6	176.644800	8.117945	4.84	0.19	0.17	A4V
57363	11	46	47.7	-66	51	44.51	176.698919	-66.862365	3.63	0.17	0.16	A7III
57380	11	47	9.0	6	23	17.7	176.787676	6.388251	4.04	1.79	1.50	M0III
57399	11	47	22.8	47	38	10.84	176.845044	47.636343	3.69	1.15	1.18	K0III
57443	11	47	43.0	-40	37	59.13	176.928992	-40.633092	4.89	0.73	0.66	G3/G5V
57439	11	47	43.9	-61	18	45.55	176.932840	-61.312654	4.11	0.88	0.90	G0II
57565	11	49	16.9	20	4	39.56	177.320538	20.077656	4.50	0.69	0.55	A comp SB
57581	11	49	27.2	-66	56	56.22	177.363538	-66.948950	4.75	1.62	1.52	K4III
57632	11	50	20.5	14	25	49.76	177.585321	14.430489	2.14	0.10	0.09	A3Vvar
57669	11	50	54.6	-63	55	21.24	177.727370	-63.922566	4.30	-0.09	-0.15	B3V
57696	11	51	9.0	-70	21	34.7	177.787377	-70.359640	4.98	1.31	1.36	G5Ib
57757	11	52	0.2	1	37	23.59	178.000883	1.623219	3.59	0.61	0.52	F8V
57803	11	52	24.1	-45	18	31.9	178.100274	-45.308861	4.47	1.24	1.28	K4III
57851	11	53	5.1	-65	20	24.24	178.271205	-65.340066	4.89	-0.11	-0.12	B4V
57936	11	54	10.6	-34	2	39.8	178.544314	-34.044390	4.29	-0.07	-0.10	Ap Si
58001	11	55	9.4	53	33	3.37	178.789128	53.550936	2.41	0.06	0.04	A0V SB
58484	12	0	52.8	-78	21	20.28	180.220147	-78.355633	4.88	-0.02	-0.05	B9Vn

# Posiciones medias de estrellas brillantes, 2025

Estrella	$\alpha$			$\delta$			$\alpha$	$\delta$				
NH	h	m	s	o	'	"	o	o	V	B-V	U-V	Espectro
58590	12	2	9.6	6	28	25.79	180.539874	6.473831	4.65	0.14	0.12	A5V
58758	12	4	18.3	-63	26	49.98	181.076199	-63.447215	4.32	0.36	0.28	Am
58867	12	5	36.9	-63	18	0.14	181.403590	-63.300039	4.72	-0.06	-0.08	B2IV
58948	12	6	29.2	8	35	34.39	181.621836	8.592887	4.12	0.96	0.97	G8III
59072	12	8	11.6	-64	44	53.61	182.048136	-64.748224	4.14	0.41	0.35	F2III
59173	12	9	23.2	-50	47	47.0	182.346732	-50.796388	4.46	-0.16	-0.16	B2IIIne
59196	12	9	39.5	-50	51	27.01	182.414596	-50.857503	2.58	-0.12	-0.13	B2IVne
59199	12	9	42.5	-24	51	58.8	182.426950	-24.866334	4.02	0.40	0.33	F0IV/V
59316	12	11	24.9	-22	45	25.35	182.853629	-22.757041	3.02	1.23	1.33	K2III
59449	12	12	57.8	-52	30	12.39	183.240770	-52.503441	3.97	-0.17	-0.16	B3V
59747	12	16	28.7	-58	53	0.07	184.119480	-58.883352	2.79	-0.25	-0.19	B2IV
59774	12	16	40.3	56	53	18.99	184.168089	56.888608	3.32	0.03	0.08	A3Vvar
59803	12	17	5.7	-17	40	46.06	184.273877	-17.679460	2.58	-0.10	-0.11	B8III
59847	12	17	36.7	23	48	13.18	184.402941	23.803662	4.93	0.94	0.96	K0III
59856	12	17	45.9	32	55	5.81	184.441040	32.918280	4.99	1.12	1.14	K1III
59929	12	18	55.7	-68	5	40.94	184.732178	-68.094704	4.06	2.82	1.60	M5III
60009	12	19	47.9	-64	8	13.49	184.949604	-64.137080	4.06	-0.18	-0.17	B2.5V
60000	12	19	50.0	-79	26	43.82	184.958185	-79.445507	4.24	-0.11	-0.12	B5Vn
60059	12	20	20.0	-55	16	38.99	185.083315	-55.277497	5.01	1.59	3.54	M1III
60129	12	21	11.3	0	48	22.22	185.297144	-0.806171	3.89	0.03	0.03	A2IV
60172	12	21	37.4	3	10	21.19	185.405716	3.172552	4.97	1.19	1.17	K1III
60202	12	21	59.0	17	39	9.03	185.496031	17.652510	4.72	1.02	1.01	G8III
60260	12	22	42.8	-60	32	4.21	185.678517	-60.534503	3.59	1.39	1.39	K3/K4III
60351	12	23	46.0	25	42	16.14	185.941505	25.704483	4.78	0.61	0.52	F8:p...
60485	12	25	14.8	51	25	8.1	186.311666	51.418917	4.76	0.89	0.88	G7III
60646	12	27	5.1	38	52	33.18	186.771384	38.875883	5.01	0.94	-5.01	G8III-IV
60697	12	27	39.3	27	7	35.91	186.913763	27.126642	4.92	0.28	0.28	F0p
60710	12	27	53.0	-51	35	5.86	186.970785	-51.584962	4.82	-0.16	-0.14	B3Vn
60718	12	27	59.6	-63	13	57.88	186.998333	-63.232743	0.77	-0.26	-0.24	B0.5IV
60742	12	28	11.3	28	7	34.62	187.046928	28.126283	4.35	1.04	1.13	K2IIICN+...
60746	12	28	14.5	26	41	3.07	187.060530	26.684186	4.98	0.05	0.09	A4V
60823	12	29	23.7	-50	21	53.88	187.348639	-50.364966	3.91	-0.20	-0.19	B3V
60965	12	31	9.6	-16	39	12.42	187.790057	-16.653450	2.94	-0.04	-0.01	B9.5V
60998	12	31	13.2	69	3	24.92	187.805175	69.056923	5.01	1.56	3.37	M3IIIa
61084	12	32	33.4	-57	14	55.03	188.139044	-57.248620	1.59	2.37	1.60	M4III
61174	12	33	21.7	-16	20	0.0	188.340293	-16.333334	4.30	0.44	0.39	F2V
61199	12	33	58.1	-72	15	56.68	188.492101	-72.265746	3.84	-0.14	-0.16	B5V
61281	12	34	33.9	69	38	41.07	188.641059	69.644741	3.85	-0.02	-0.12	B6IIIp
61317	12	34	56.1	41	13	2.58	188.733586	41.217385	4.24	0.67	0.59	G0V
61359	12	35	42.1	-23	31	59.45	188.925603	-23.533180	2.65	0.88	0.89	G5II
61384	12	35	48.4	69	52	41.8	188.951629	69.878278	4.95	1.27	1.31	K2III
61394	12	36	6.0	22	29	20.22	189.025038	22.488949	4.80	0.03	0.01	A0IV
61585	12	38	40.8	-69	16	5.14	189.670114	-69.268094	2.69	-0.23	-0.18	B2IV-V
61622	12	39	4.3	-48	40	29.82	189.767965	-48.674949	3.85	0.06	0.05	A2V
61740	12	40	32.3	-8	7	58.28	190.134525	-8.132855	4.66	1.15	1.24	K2III
61789	12	41	13.8	-40	7	17.51	190.307591	-40.121531	4.63	-0.06	-0.08	B8II/III
61932	12	42	53.9	-49	5	35.16	190.724433	-49.093099	2.20	-0.01	-0.02	A1IV
61941	12	42	55.7	-1	35	11.43	190.731917	-1.586507	2.74	0.43	0.37	F0V+...
61960	12	43	9.1	10	5	46.73	190.787852	10.096315	4.88	0.08	0.08	A0V
61966	12	43	23.0	-59	49	5.9	190.845950	-59.818305	4.91	-0.02	-0.04	B6IV
62012	12	43	58.6	-48	56	47.12	190.994060	-48.946422	4.66	1.03	1.07	K0III
62268	12	47	6.4	-61	6	49.54	191.776752	-61.113761	4.69	1.03	1.05	K1III
62327	12	47	48.9	-56	37	15.92	191.953918	-56.621090	4.62	-0.16	-0.15	B3V
62322	12	47	49.1	-68	14	23.1	191.954453	-68.239751	3.04	-0.19	-0.18	B2V
62434	12	49	11.0	-59	49	14.45	192.295837	-59.820679	1.25	-0.27	-0.24	B0.5III
62683	12	52	2.6	-34	7	57.97	193.010764	-34.132768	4.90	-0.01	-0.03	B9V
62763	12	52	55.1	27	24	5.35	193.229526	27.401487	4.93	0.70	0.68	G0III
62886	12	54	31.7	21	6	22.76	193.632016	21.106322	4.89	0.91	0.90	G8III
62867	12	54	31.8	-49	4	31.25	193.632528	-49.075348	4.33	1.33	1.34	K3/K4III
62896	12	54	49.3	-40	18	41.45	193.705433	-40.311514	4.25	0.27	0.22	A4IV
62956	12	55	8.0	55	49	8.1	193.783439	55.818917	1.76	-0.04	-0.02	A0p
62985	12	55	39.2	-9	40	27.71	193.913330	-9.674363	4.77	2.18	1.59	M3IIIvar
63003	12	56	3.8	-57	18	32.87	194.016009	-57.309130	4.03	-0.26	-0.18	B2IV-V
63007	12	56	8.3	-59	16	40.04	194.034644	-59.277790	4.62	-0.15	-0.15	B4Vn
63090	12	56	51.8	3	15	38.65	194.215793	3.260736	3.39	2.24	1.57	M3III
63125	12	57	11.9	38	10	45.5	194.299797	38.179305	2.89	-0.13	-0.12	M0spe...
63355	13	0	9.7	17	16	20.74	195.040211	17.272429	4.76	1.79	1.57	M0III
63462	13	1	28.3	30	38	48.24	195.367944	30.646732	4.88	1.13	1.17	K1IIIp

# Posiciones medias de estrellas brillantes, 2025

Estrella	$\alpha$			$\delta$			$\alpha$	$\delta$				
NH	h	m	s	o	'	"	o	o	V	B-V	U-V	Espectro
63503	13	1	48.3	56	13	35.23	195.451279	56.226452	4.93	0.45	0.37	F2V
63608	13	3	25.3	10	49	23.28	195.855270	10.823134	2.85	0.83	0.93	G8IIIvar
63613	13	3	59.9	-71	40	41.84	195.999433	-71.678288	3.61	1.17	1.19	K2III
63724	13	5	0.1	-49	39	27.57	196.250423	-49.657657	4.83	0.05	0.03	A0V
63945	13	7	43.6	-48	35	36.05	196.931584	-48.593347	4.71	-0.14	-0.15	B5V
64004	13	8	22.1	-50	2	9.89	197.092305	-50.036081	4.27	-0.18	-0.18	B1.5V
64022	13	8	22.7	27	29	14.6	197.094646	27.487389	4.80	1.55	1.48	K5III
64166	13	10	24.0	-23	14	59.99	197.600013	-23.249998	4.94	1.02	1.05	K0III
64241	13	11	12.2	17	23	41.4	197.800831	17.394833	4.32	0.53	0.46	F5V
64238	13	11	14.6	-5	40	20.88	197.810817	-5.672467	4.38	0.01	-0.01	A1V
64394	13	13	2.4	27	44	53.58	198.259922	27.748216	4.23	0.67	0.57	G0V
64408	13	13	26.7	-37	55	57.02	198.361383	-37.932506	4.85	0.73	0.69	G3V
64425	13	13	51.2	-60	2	55.98	198.463435	-60.048883	4.58	-0.07	-0.07	B8V
64540	13	14	51.0	40	0	58.61	198.712366	40.016280	4.94	1.03	1.06	K0III
64583	13	15	48.0	-59	13	55.88	198.949791	-59.232189	4.90	0.56	0.49	F7IV
64661	13	16	56.7	-68	1	18.82	199.236288	-68.021896	4.79	-0.09	-0.08	B8V
64844	13	18	39.8	40	26	12.2	199.665809	40.436721	4.72	0.31	0.31	F3III
64852	13	18	51.9	5	20	13.26	199.716414	5.337018	4.78	1.97	1.64	M2III
64820	13	18	54.1	-66	54	37.43	199.725616	-66.910397	4.86	1.50	1.48	K2Ib/II
64924	13	19	42.7	-18	26	56.41	199.927835	-18.449002	4.74	0.75	0.71	G5V
64962	13	20	16.7	-23	18	5.89	200.069688	-23.301635	2.99	0.90	0.92	G8III
65109	13	21	60.0	-36	50	28.31	200.499959	-36.841198	2.75	0.02	0.07	A2V
65271	13	24	14.8	-61	6	52.74	201.061464	-61.114650	4.52	-0.13	-0.14	B3V
65378	13	24	56.0	54	47	22.59	201.233387	54.789607	2.23	0.07	0.06	A2V
65387	13	25	41.2	-64	39	41.37	201.421842	-64.661492	4.52	0.87	0.82	G5III-IV
65477	13	26	13.7	54	51	9.05	201.557087	54.852513	3.99	0.19	0.17	A5V SB
65474	13	26	30.5	-11	17	28.57	201.626899	-11.291269	0.98	-0.25	-0.23	B1V
65639	13	28	47.0	-16	6	7.91	202.195879	-16.102198	4.76	1.02	1.10	K1IIICN...
65721	13	29	39.0	13	38	35.89	202.412728	13.643304	4.97	0.77	0.71	G5V
65936	13	32	29.4	-39	31	59.66	203.122611	-39.533238	3.90	1.10	1.19	G8II/III
66006	13	33	15.7	-6	23	5.42	203.315409	-6.384838	4.68	2.06	1.61	M3III
66200	13	35	23.8	3	31	46.57	203.849052	3.529602	4.92	0.03	0.03	A1p SrCrEu
66234	13	35	28.5	48	52	59.77	203.868747	48.883269	4.68	0.10	0.13	A5V
66257	13	35	54.7	37	3	1.2	203.977735	37.050334	4.91	0.55	0.40	F2IV SB
66249	13	35	57.9	0	43	26.89	203.991060	-0.724135	3.38	0.12	0.11	A3V
66458	13	38	34.1	36	9	49.54	204.642247	36.163761	4.82	0.31	0.24	A7III
66657	13	41	28.1	-53	35	21.22	205.366891	-53.589229	2.29	-0.23	-0.17	B1III
66738	13	41	41.1	54	32	59.64	205.421344	54.549899	4.63	1.97	1.63	M2IIvar
66821	13	43	20.6	-54	40	54.53	205.835648	-54.681814	4.99	-0.03	-0.06	B8Vn+...
67153	13	47	6.2	-33	10	3.33	206.775792	-33.167590	4.23	0.44	0.39	F3V
67234	13	48	14.0	-51	33	14.88	207.058396	-51.554134	4.64	0.93	0.95	G8/K0III
67275	13	48	26.8	17	19	48.25	207.111684	17.330071	4.50	0.51	0.51	F7V
67301	13	48	31.4	49	11	0.91	207.130853	49.183586	1.85	-0.08	-0.10	B3V SB
67459	13	50	40.8	15	40	18.25	207.669773	15.671737	4.05	1.60	1.52	K5IIvar
67457	13	50	53.3	-34	34	22.55	207.722148	-34.572930	4.19	3.00	1.52	M5III
67480	13	50	53.5	21	8	14.45	207.723024	21.137348	4.92	1.38	1.43	K4III
67464	13	50	59.9	-41	48	32.34	207.749664	-41.808984	3.41	-0.24	-0.23	B2IV
67472	13	51	7.0	-42	35	41.67	207.779228	-42.594908	3.47	-0.21	-0.17	B2IV-Ve
67494	13	51	13.5	-18	15	27.09	207.806267	-18.257525	4.96	1.09	1.06	K0III
67627	13	52	9.9	64	35	38.42	208.041123	64.594005	4.58	2.35	1.57	M3III
67665	13	52	53.4	34	18	59.89	208.222513	34.316636	4.76	1.63	1.61	K5III
67669	13	53	15.8	-33	6	55.86	208.316051	-33.115516	4.32	-0.12	-0.15	B5
67786	13	54	38.5	-32	2	55.02	208.660598	-32.048615	4.75	-0.10	-0.11	B4IV
67927	13	55	52.2	18	16	11.97	208.967672	18.269992	2.68	0.65	0.58	G0IV
68002	13	57	5.6	-47	24	27.89	209.273248	-47.407747	2.55	-0.18	-0.18	B2.5IV
68191	13	59	27.1	-63	48	15.74	209.862931	-63.804371	4.71	1.05	1.07	K4III
68245	13	59	47.1	-42	13	10.42	209.946091	-42.219562	3.83	-0.23	-0.22	B2IV
68282	14	0	13.0	-44	55	19.5	210.054157	-44.922084	3.87	-0.22	-0.21	B2IV-V
68520	14	2	54.8	1	25	21.95	210.728394	1.422764	4.23	0.14	0.12	A3V
68523	14	3	16.6	-45	43	15.49	210.819324	-45.720969	4.34	0.65	0.60	F6II
68756	14	5	4.0	64	15	2.16	211.266460	64.250599	3.67	-0.08	-0.05	A0III SB
68702	14	5	34.8	-60	29	20.54	211.395109	-60.489040	0.61	-0.25	-0.23	B1III
68862	14	7	33.9	-41	17	46.4	211.891293	-41.296223	4.36	-0.21	-0.20	B2V
68895	14	7	47.3	-26	48	3.18	211.947217	-26.800884	3.25	1.10	1.09	K2III
68933	14	8	8.8	-36	29	24.66	212.036683	-36.490183	2.06	1.01	1.01	K0IIIb
69112	14	8	47.2	77	25	24.12	212.196606	77.423367	4.80	1.34	1.37	K3III
69226	14	11	32.0	24	58	12.88	212.883309	24.970246	4.82	0.57	0.54	F9IVw
69191	14	11	34.2	-53	33	14.25	212.892357	-53.553958	4.74	0.92	0.94	G8III

# Posiciones medias de estrellas brillantes, 2025

Estrella	$\alpha$			$\delta$			$\alpha$	$\delta$				
NH	h	m	s	o	'	"	o	o	V	B-V	U-V	Espectro
69269	14	12	12.0	-16	25	9.09	213.050093	-16.419192	4.93	1.94	1.68	M1III
69389	14	13	31.4	2	17	27.12	213.380656	2.290866	4.99	-0.11	-0.12	B9p Si
69427	14	14	13.4	-10	23	22.97	213.555718	-10.389713	4.18	1.35	1.32	K3III
69483	14	14	22.4	51	40	4.96	213.593484	51.668044	4.53	0.23	0.23	A8IV
69673	14	16	47.7	19	2	59.01	214.198908	19.049724	-0.05	1.22	1.24	K2IIIp
69713	14	17	2.7	51	14	48.93	214.261291	51.246926	4.75	0.19	0.24	A9V
69701	14	17	19.1	-6	7	11.4	214.329612	-6.119832	4.07	0.59	0.51	F7V
69732	14	17	19.7	45	58	7.9	214.331995	45.968861	4.18	0.04	0.09	A0sh
69879	14	19	2.9	35	23	25.13	214.761856	35.390315	4.80	1.00	1.06	K1III
69974	14	20	27.3	-13	29	7.94	215.113859	-13.485538	4.52	0.11	0.13	A1V
70027	14	20	55.8	16	11	24.79	215.232600	16.190220	4.84	1.16	1.23	K3III
69996	14	20	59.7	-46	10	11.77	215.248845	-46.169936	3.55	-0.18	-0.18	B2.5IV
69896	14	21	25.7	-81	7	6.67	215.357060	-81.118518	4.89	0.24	0.24	A2m...
70069	14	22	3.8	-56	29	50.58	215.515696	-56.497384	4.30	0.21	0.08	B6Ib
70090	14	22	4.2	-37	59	50.7	215.517314	-37.997416	4.05	-0.02	-0.03	A0IV
70104	14	22	17.8	-45	17	56.45	215.574085	-45.299013	4.78	0.36	0.31	F0IV
70264	14	24	23.9	-58	34	8.18	216.099584	-58.568940	4.76	0.83	0.80	G8/K1+F/G
70306	14	24	31.7	-27	52	0.62	216.132177	-27.866838	4.78	1.31	1.30	K3III
70300	14	24	34.1	-39	37	22.96	216.142243	-39.623045	4.41	-0.20	-0.18	B2V
70327	14	24	36.0	8	19	52.89	216.150138	8.331359	4.86	0.07	0.01	A0V
70497	14	26	2.5	51	43	48.63	216.510325	51.730175	4.04	0.59	0.50	F7V
70692	14	27	29.5	75	34	41.72	216.872940	75.578255	4.25	1.42	1.43	K4III
70574	14	27	43.9	-45	19	51.98	216.933061	-45.331106	4.56	-0.14	-0.15	B2IV
70576	14	27	46.7	-45	29	19.96	216.944582	-45.488878	4.33	0.58	0.43	A7:+...
70755	14	29	29.0	-2	20	25.76	217.370680	-2.340489	4.81	0.73	0.69	G2II
70753	14	29	37.8	-29	36	6.82	217.407328	-29.601895	4.97	-0.05	-0.07	B7/B8V
70638	14	31	4.7	-83	46	30.45	217.769640	-83.775125	4.31	1.30	1.30	K2III
71053	14	32	54.0	30	15	29.89	218.224828	30.258303	3.57	1.22	1.30	K3III
71075	14	33	4.6	38	11	41.5	218.269122	38.194862	3.04	0.17	0.19	A7IIIvar
71121	14	34	17.5	-50	33	51.1	218.572841	-50.564196	4.44	-0.18	-0.18	B2III
71284	14	35	45.6	29	37	59.51	218.940150	29.633196	4.47	0.41	0.36	F3Vwvar
71352	14	37	5.0	-42	15	52.22	219.271037	-42.264506	2.33	-0.17	-0.16	B1Vn+A
71536	14	39	33.5	-49	31	51.98	219.889415	-49.531106	4.05	-0.16	-0.15	B5V
71681	14	41	16.2	-60	56	3.58	220.317437	-60.934328	1.35	0.88	0.90	K1V
71683	14	41	17.3	-60	56	3.86	220.322238	-60.934405	-0.01	0.69	0.71	G2V
71762	14	41	53.5	16	18	32.11	220.473078	16.308918	4.49	0.02	-0.00	B9p MnHg
71795	14	42	20.1	13	37	8.87	220.583577	13.619130	3.78	0.06	0.04	A3IVn
71832	14	42	51.9	8	3	12.15	220.716221	8.053376	4.86	0.96	0.99	G8IIIvar
71865	14	43	30.1	-37	53	53.08	220.875538	-37.898079	4.01	-0.18	-0.16	B2.5V
71860	14	43	34.8	-47	29	31.43	220.895091	-47.492063	2.30	-0.21	-0.15	B1.5III
71957	14	44	22.1	-5	46	1.47	221.092236	-5.767075	3.87	0.47	0.39	F2III
71995	14	44	30.8	26	25	6.65	221.128115	26.418514	4.80	2.13	1.67	M3III
71908	14	44	30.9	-65	4	45.17	221.128895	-65.079213	3.18	0.26	0.26	F1Vp
72010	14	45	10.6	-35	16	43.68	221.293983	-35.278801	4.06	1.35	1.36	K3III
72105	14	46	4.2	26	57	56.59	221.517392	26.965719	2.35	0.95	0.97	A0
72125	14	46	23.9	16	51	22.27	221.599622	16.856185	4.60	0.94	0.97	K0III
72104	14	46	30.6	-35	17	42.87	221.627367	-35.295243	4.92	0.02	0.01	A0V
72220	14	47	30.2	1	47	12.03	221.875862	1.786674	3.73	0.01	-0.01	A0V
72607	14	50	38.3	74	2	48.49	222.659653	74.046804	2.07	1.46	1.47	K4IIIvar
72370	14	50	59.4	-79	8	40.45	222.747348	-79.144570	3.83	1.42	1.43	K5III
72571	14	51	44.8	-28	3	45.71	222.936512	-28.062697	4.42	1.43	1.37	K3III
72622	14	52	15.1	-16	8	41.66	223.062892	-16.144906	2.75	0.16	0.15	A3IV
72631	14	52	18.3	-2	24	13.63	223.076192	-2.403787	4.93	0.97	0.99	G8...
72659	14	52	32.0	18	59	40.27	223.133505	18.994520	4.54	0.82	0.72	G8V+K4V
72683	14	53	15.5	-43	40	32.6	223.314495	-43.675723	4.32	-0.14	-0.15	B5IV
73199	14	57	58.4	65	49	37.55	224.493136	65.827097	4.63	2.85	1.59	M5III
73165	14	58	28.7	-4	26	54.98	224.619683	-4.448605	4.47	0.38	0.32	F0V
73273	15	0	9.4	-43	13	53.91	225.039179	-43.231642	2.68	-0.23	-0.18	B2III
73334	15	0	46.5	-42	12	5.65	225.193757	-42.201569	3.13	-0.21	-0.21	B2IV
73473	15	2	17.9	-8	37	5.11	225.574393	-8.618087	4.91	0.07	0.00	B9.5V
73555	15	2	52.6	40	17	16.43	225.719126	40.287896	3.49	0.89	0.96	G8III
73568	15	3	11.6	24	54	23.2	225.798233	24.906445	4.80	1.54	1.51	K4III
73620	15	4	9.2	1	59	31.92	226.038312	1.992199	4.39	1.04	1.03	K0III
73695	15	4	36.0	47	33	7.56	226.150086	47.552099	4.83	0.71	0.65	G2V+G2V
73745	15	5	30.4	26	50	49.69	226.376491	26.847135	4.52	1.23	1.24	K2III
73714	15	5	31.3	-25	22	43.33	226.380464	-25.378701	3.25	2.23	1.67	M3/M4III
73807	15	6	48.4	-47	8	44.88	226.701590	-47.145799	3.91	-0.15	-0.14	B5
73996	15	8	23.3	24	46	8.35	227.097007	24.768985	4.93	0.51	0.43	F5V

# Posiciones medias de estrellas brillantes, 2025

Estrella	$\alpha$			$\delta$			$\alpha$	$\delta$				
NH	h	m	s	o	'	"	o	o	V	B-V	U-V	Espectro
74117	15	10	30.8	-45	22	22.7	227.628250	-45.372972	4.07	-0.18	-0.16	B3V
74392	15	13	38.1	-19	53	6.96	228.408640	-19.885268	4.54	-0.06	-0.07	Asp...
74376	15	13	39.4	-48	49	46.31	228.414349	-48.829530	3.88	-0.02	-0.03	B9V
74395	15	14	3.9	-52	11	26.75	228.516276	-52.190763	3.41	0.91	0.92	G8III
74449	15	14	29.5	-44	35	30.57	228.622777	-44.591825	4.83	-0.19	-0.18	B3IV
74604	15	16	8.4	-31	36	37.72	229.035043	-31.610479	4.91	0.48	0.37	F3III
74666	15	16	29.9	33	13	5.22	229.124582	33.218116	3.46	0.96	0.96	G8III
74785	15	18	20.4	-9	28	30.33	229.585070	-9.475092	2.61	-0.08	-0.07	B8V
74857	15	19	20.3	-30	14	19.49	229.834605	-30.238746	4.35	1.03	1.10	K1III/III
74824	15	19	27.2	-58	53	25.81	229.863479	-58.890501	4.07	0.08	0.09	A3V
74837	15	19	44.5	-63	41	54.43	229.935485	-63.698453	4.85	1.20	1.26	K2.5III
74911	15	20	15.4	-47	57	50.48	230.064180	-47.964023	4.27	-0.07	-0.09	B8V
75097	15	20	40.8	71	44	19.72	230.170074	71.738811	3.00	0.12	0.06	A3II-III
74946	15	21	13.6	-68	46	1.24	230.306465	-68.767012	2.87	0.04	0.01	A1V
75141	15	22	59.9	-40	44	7.43	230.749461	-40.735396	3.22	-0.23	-0.23	B1.5IV
75177	15	23	22.7	-36	20	59.23	230.844513	-36.349787	3.57	1.59	1.53	K5III
75206	15	23	51.8	-48	0	56.22	230.965775	-48.015615	4.99	0.59	0.52	F8V
75312	15	24	13.5	30	11	39.92	231.056245	30.194423	4.99	0.65	0.58	G2V
75264	15	24	21.8	-44	46	35.83	231.090750	-44.776618	3.37	-0.20	-0.19	B2IV-V
75304	15	24	44.3	-36	56	44.86	231.184608	-36.945795	4.54	-0.16	-0.15	B4V
75323	15	25	21.0	-59	24	24.27	231.337645	-59.406741	4.48	0.18	0.17	B5III+F8
75411	15	25	25.3	37	17	8.74	231.355332	37.285760	4.31	0.35	0.31	F0V
75458	15	25	28.2	58	52	23.99	231.367613	58.873330	3.29	1.07	1.17	K2III
75379	15	25	32.5	-10	24	43.16	231.385205	-10.411988	4.92	0.52	0.45	F5IV
75501	15	26	56.6	-38	49	11.08	231.735745	-38.819746	4.60	0.02	0.00	A0V
75695	15	28	50.8	29	0	59.12	232.211564	29.016423	3.66	0.37	0.32	F0p
76008	15	30	40.7	77	15	32.39	232.669593	77.258998	5.00	1.61	1.54	K5III
76041	15	32	39.8	40	48	38.03	233.165876	40.810564	4.98	0.15	0.09	A5V
76127	15	33	55.4	31	16	17.5	233.480974	31.271526	4.14	-0.12	-0.13	B6Vnn
76219	15	35	31.9	-10	9	0.42	233.882877	-10.150117	4.61	1.02	1.00	K1IV
76267	15	35	44.0	26	37	39.65	233.933129	26.627681	2.22	0.05	0.03	A0V
76276	15	35	59.0	10	27	13.24	233.995896	10.453677	3.80	0.30	0.27	F0IV
76297	15	36	47.4	-41	14	53.64	234.197553	-41.248232	2.80	-0.22	-0.22	B2IV
76333	15	36	54.7	-14	52	20.82	234.227802	-14.872449	3.91	1.02	1.01	K0III
76371	15	37	35.5	-45	2	21.29	234.397918	-45.039247	4.55	-0.20	-0.17	B3IVp
76470	15	38	31.6	-28	12	58.95	234.631710	-28.216375	3.60	1.36	1.36	K3III
76440	15	38	59.2	-66	23	47.74	234.746554	-66.396594	4.11	1.12	1.16	K0III
76552	15	39	43.2	-42	38	48.42	234.930156	-42.646782	4.34	1.42	1.41	K4.5III
76600	15	40	10.6	-29	51	29.92	235.044059	-29.858310	3.66	-0.18	-0.18	B2.5V
76669	15	40	18.3	36	33	3.98	235.076079	36.551106	4.64	-0.09	-0.10	B7V+...
76705	15	41	20.3	-34	29	29.56	235.334534	-34.491544	4.66	0.97	0.96	G8/K0III
76742	15	41	44.7	-23	53	53.29	235.436216	-23.898137	4.97	1.25	1.30	K3III
76852	15	42	39.1	19	35	15.3	235.662895	19.587582	4.51	0.07	0.06	A1V
76829	15	42	53.4	-44	44	28.46	235.722645	-44.741240	4.64	0.47	0.41	F5IV-V
77055	15	43	9.9	77	42	37.51	235.791476	77.710420	4.29	0.05	0.04	A3Vn
76880	15	43	22.4	-19	45	32.54	235.843178	-19.759038	4.75	1.74	1.57	K5III
76952	15	43	46.7	26	12	49.09	235.944491	26.213637	3.81	0.04	0.02	A1Vs
76945	15	44	15.6	-34	47	19.35	236.065120	-34.788707	4.75	-0.15	-0.15	B5V
77070	15	45	29.1	6	20	44.51	236.371355	6.345697	2.63	1.09	1.17	K2III
77233	15	47	19.6	15	20	29.92	236.831821	15.341644	3.65	0.09	0.07	A3V
77257	15	47	38.6	7	16	24.16	236.910733	7.273379	4.42	0.66	0.60	G0Vvar
77450	15	49	51.0	18	3	43.81	237.462603	18.062170	4.09	1.73	1.62	M1III
77512	15	50	37.6	25	59	20.78	237.656870	25.989105	4.59	0.82	0.79	G5III-IV
77516	15	50	54.6	-3	30	26.04	237.727554	-3.507235	3.54	-0.03	-0.04	A0V
77622	15	52	2.9	4	24	4.94	238.011999	4.401372	3.71	0.13	0.15	A2m
77655	15	52	9.5	35	34	35.09	238.039553	35.576413	4.79	0.97	1.00	K0III-IV
77661	15	52	20.9	20	54	1.37	238.087050	20.900380	4.74	1.60	1.53	K5III
77635	15	52	28.0	-25	49	33.79	238.116722	-25.826054	4.63	-0.04	-0.07	B1.5Vn
77634	15	52	31.9	-33	42	5.1	238.132708	-33.701416	3.97	-0.05	-0.04	B9.5III-IV
77760	15	53	31.4	42	22	39.85	238.380625	42.377735	4.60	0.63	0.56	F9V
77840	15	55	5.8	-25	24	2.19	238.774256	-25.400607	4.59	-0.06	-0.07	B2.5Vn
77853	15	55	14.0	-16	48	7.63	238.808471	-16.802118	4.13	1.02	1.00	K0III
77952	15	57	19.2	-63	30	13.92	239.330197	-63.503866	2.83	0.36	0.32	F2III
78072	15	57	35.6	15	34	41.07	239.398302	15.578075	3.85	0.54	0.48	F6V
78180	15	58	21.8	54	40	28.21	239.590912	54.674502	4.96	0.29	0.27	F0IV
78104	15	58	24.7	-29	17	8.24	239.602869	-29.285623	3.87	-0.18	-0.20	B2IV/V
78159	15	58	36.4	26	48	9.83	239.651694	26.802730	4.14	1.17	1.23	K3III
78207	15	59	34.5	-14	21	4.24	239.893530	-14.351177	4.95	-0.06	-0.08	B8Ia/Iab

# Posiciones medias de estrellas brillantes, 2025

Estrella	$\alpha$			$\delta$			$\alpha$	$\delta$				
NH	h	m	s	o	'	"	o	o	V	B-V	U-V	Espectro
78265	16	0	20.9	-26	11	5.48	240.086929	-26.184856	2.89	-0.18	-0.18	B1V+B2V
78323	16	1	11.3	-41	48	49.78	240.297005	-41.813828	4.99	0.97	0.99	G8III
78384	16	1	45.6	-38	27	57.79	240.440106	-38.466052	3.42	-0.23	-0.21	B2.5IV
78401	16	1	47.7	-22	41	31.22	240.448874	-22.692005	2.29	-0.09	-0.12	B0.2IV
78527	16	2	20.1	58	29	37.04	240.583857	58.493624	4.01	0.55	0.53	F8IV-V
78493	16	2	25.7	29	46	41.36	240.606928	29.778156	4.98	-0.03	-0.05	A0p...
78554	16	3	21.3	22	43	57.44	240.838863	22.732623	4.82	0.09	0.07	A3V
78592	16	3	33.5	45	57	48.01	240.889509	45.963337	4.72	-0.06	-0.09	B9III
78650	16	4	50.3	-25	56	1.6	241.209415	-25.933777	4.96	1.25	1.23	K3III
78639	16	5	1.9	-49	17	47.73	241.257819	-49.296593	4.65	0.91	0.90	G8III
78655	16	5	2.8	-38	40	12.73	241.261771	-38.670203	4.90	-0.15	-0.15	B6III/IV
78662	16	5	32.6	-57	50	31.16	241.386040	-57.841988	4.63	0.30	0.25	A7IV
78820	16	6	52.5	-19	52	23.52	241.718608	-19.873201	2.56	-0.04	-0.07	B0.5V
78821	16	6	52.7	-19	52	10.15	241.719739	-19.869485	4.90	0.00	-0.02	B2V
78918	16	8	12.9	-36	52	6.33	242.053825	-36.868425	4.22	-0.19	-0.18	B2.5Vn
78914	16	8	14.2	-45	14	18.34	242.059317	-45.238428	4.73	0.20	0.23	Am
78933	16	8	15.2	-20	44	10.18	242.063240	-20.736160	3.93	0.01	-0.05	B1V
78990	16	8	51.3	-20	56	8.0	242.213769	-20.935554	4.31	0.85	0.83	G6/G8III
79043	16	9	11.3	16	58	42.18	242.296937	16.978383	5.00	0.93	0.93	G8III
79101	16	9	32.3	44	51	55.79	242.384433	44.865498	4.23	-0.02	-0.04	B9MNP...
79119	16	9	52.1	36	25	27.03	242.467015	36.424174	4.73	1.00	1.01	K0III-IV
79375	16	13	21.0	-10	7	45.07	243.337453	-10.129186	4.93	0.09	0.09	A3IV
79374	16	13	25.9	-19	31	30.1	243.357935	-19.525027	4.00	0.14	0.08	B2IV
79404	16	13	49.5	-27	59	23.96	243.456379	-27.989990	4.58	-0.15	-0.17	B2V
79509	16	15	25.6	-54	41	31.23	243.856439	-54.692009	4.95	0.99	1.02	G4III
79593	16	15	38.4	-3	45	33.13	243.909913	-3.759203	2.73	1.82	1.58	M1III
79822	16	16	44.7	75	41	28.14	244.186378	75.691151	4.95	0.46	0.39	F5V
79664	16	17	41.0	-63	44	44.59	244.420961	-63.745719	3.86	1.03	1.10	G5II
79790	16	18	51.8	-50	7	40.43	244.715997	-50.127896	4.97	0.88	0.79	F9Ia
79882	16	19	37.7	-4	45	14.06	244.906952	-4.753905	3.23	0.96	0.97	G8III
79881	16	19	49.8	-28	40	29.81	244.957590	-28.674947	4.80	-0.01	0.01	A0V:
79992	16	20	28.2	46	14	60.0	245.117693	46.250000	3.91	-0.19	-0.15	B5IV
80000	16	21	41.2	-50	12	50.84	245.421791	-50.214122	4.01	1.03	1.08	G8III
80079	16	22	7.4	-24	13	43.15	245.530676	-24.228654	4.55	0.80	0.76	A4I/III
80112	16	22	41.4	-25	39	6.38	245.672487	-25.651772	2.90	0.31	0.30	B1III
80170	16	23	0.3	19	5	32.39	245.751467	19.092329	3.74	0.34	0.30	A9II
80181	16	23	3.2	30	49	52.02	245.763152	30.831116	4.86	0.93	0.97	K0III
80179	16	23	19.3	0	58	9.82	245.830492	0.969395	4.82	0.39	0.34	F0V
80047	16	24	3.2	-78	45	9.31	246.013244	-78.752586	4.68	2.67	1.68	M5III
80331	16	24	18.2	61	27	10.14	246.075699	61.452817	2.73	0.84	0.91	G8III
80343	16	25	32.9	-20	5	42.91	246.387095	-20.095254	4.48	0.99	1.00	K0III
80463	16	26	33.1	13	58	26.31	246.638109	13.973975	4.57	0.02	0.00	B9p Cr
80473	16	27	4.0	-23	30	14.19	246.766512	-23.503943	4.57	0.25	0.23	B2V
80650	16	27	54.2	68	42	31.09	246.975661	68.708636	4.94	0.02	-0.05	A0III
80569	16	28	27.3	-18	30	44.99	247.113755	-18.512498	4.22	0.24	0.22	B2Vne
80582	16	28	59.6	-47	36	33.72	247.248346	-47.609366	4.46	-0.04	-0.07	B4V
80628	16	29	8.3	-8	25	41.07	247.284625	-8.428075	4.62	0.20	0.18	A3m
80704	16	29	26.6	41	49	23.57	247.360617	41.823215	4.83	3.61	1.29	M6III:var
80763	16	30	55.3	-26	29	11.39	247.730392	-26.486496	1.06	2.90	1.86	M1Ib+B2.5V
80686	16	31	7.3	-70	8	10.85	247.780392	-70.136346	4.90	0.64	0.56	F9V
80816	16	31	16.6	21	25	58.54	247.819168	21.432929	2.78	0.94	0.95	G8III
80815	16	31	42.5	-25	10	9.75	247.927021	-25.169374	4.79	-0.12	-0.12	B3V
80883	16	32	9.4	1	55	41.84	248.039359	1.928290	3.82	0.03	0.02	A2V
80894	16	32	33.2	-16	40	0.95	248.138147	-16.666930	4.29	0.89	0.92	G8/K0III
80911	16	32	59.7	-34	45	26.27	248.248806	-34.757298	4.24	-0.17	-0.17	B2III-IV
80975	16	33	36.0	-21	31	9.28	248.400008	-21.519245	4.45	0.12	0.13	Ap
81008	16	33	45.4	11	25	58.03	248.439313	11.432786	4.84	1.58	1.50	K4III
81126	16	34	53.2	42	22	55.69	248.721808	42.382137	4.20	0.02	-0.01	B9Vvar
81122	16	35	50.2	-44	5	46.27	248.959237	-44.096187	4.86	0.18	0.04	B0Ia
81065	16	37	14.8	-78	56	50.04	249.311869	-78.947233	3.86	0.92	0.92	K0IV SB
81266	16	37	25.1	-28	16	0.62	249.354787	-28.266840	2.82	-0.24	-0.21	B0V
81304	16	37	59.9	-35	18	18.98	249.499630	-35.305271	4.18	1.72	1.53	K5III
81377	16	38	31.1	-10	37	4.19	249.629407	-10.617831	2.54	0.10	0.04	O9.5V
81497	16	39	24.1	48	52	32.37	249.850392	48.875659	4.86	2.03	1.56	M2.5III
81660	16	41	3.5	64	32	12.63	250.264687	64.536842	4.84	1.19	1.21	K1p
81693	16	42	12.5	31	33	15.76	250.552123	31.554378	2.81	0.70	0.65	F9IV
81724	16	43	0.0	-17	47	24.8	250.750045	-17.790221	4.91	1.13	1.09	G8II/III
82080	16	43	22.7	81	59	14.1	250.844418	81.987250	4.21	0.91	0.90	G5IIIvar

# Posiciones medias de estrellas brillantes, 2025

Estrella	$\alpha$			$\delta$			$\alpha$	$\delta$				
NH	h	m	s	o	'	"	o	o	V	B-V	U-V	Espectro
81833	16	43	43.9	38	52	17.69	250.932834	38.871580	3.48	0.89	0.92	G8III-IV
82020	16	45	44.6	56	43	59.0	251.435664	56.733055	4.84	0.44	0.38	F2V
81852	16	46	36.1	-77	33	51.46	251.650457	-77.564294	4.23	1.04	1.06	K0III
82321	16	49	56.7	45	56	10.87	252.486072	45.936354	4.82	0.10	0.09	A2p...
82369	16	51	11.9	-10	49	38.24	252.799526	-10.827289	4.64	0.55	0.48	F7IV
82273	16	51	16.2	-69	4	10.83	252.817585	-69.069674	1.91	1.45	1.45	K2IIb-IIIa
82396	16	51	45.6	-34	20	14.62	252.940205	-34.337393	2.29	1.10	1.14	K2IIIb
82363	16	51	54.7	-59	4	59.04	252.978058	-59.083067	3.77	1.67	1.56	K5III
82514	16	53	32.5	-38	5	19.56	253.385246	-38.088768	3.00	-0.20	-0.20	B1.5IV+B
82545	16	54	0.3	-38	3	31.24	253.501461	-38.058678	3.56	-0.21	-0.21	B2IV
82673	16	55	10.3	10	7	22.01	253.792959	10.122780	4.39	-0.13	-0.09	B8V
82671	16	55	44.1	-42	24	6.79	253.933592	-42.401886	4.70	0.71	0.44	B1Iae
82860	16	56	7.7	65	5	31.25	254.032035	65.092014	4.88	0.56	0.48	F6Vvar
82729	16	56	19.1	-42	24	8.67	254.079493	-42.402410	3.62	1.37	1.39	K4III
83000	16	58	50.0	9	20	5.27	254.708134	9.334798	3.19	1.10	1.16	K2IIvar
83081	17	0	39.4	-56	1	37.42	255.164309	-56.027060	3.12	1.60	1.55	K5III
83207	17	1	13.5	30	53	13.49	255.306107	30.887080	3.92	-0.04	-0.02	A0V
83153	17	1	32.8	-53	11	47.49	255.386632	-53.196526	4.06	1.42	1.45	K4III
83262	17	2	21.6	-4	15	38.64	255.589815	-4.260734	4.82	1.49	1.48	K4III
83430	17	4	15.4	14	3	15.7	256.064252	14.054362	4.97	2.08	1.60	M3III
83608	17	5	49.4	54	25	59.98	256.455799	54.433327	4.91	0.54	0.47	F5
83574	17	6	26.6	-34	9	25.12	256.611033	-34.156979	4.83	0.38	0.26	B2Iab
83613	17	6	31.1	12	42	17.97	256.629449	12.704992	4.89	0.11	0.12	A4IV
83895	17	8	49.0	65	40	45.84	257.204378	65.679401	3.17	-0.14	-0.12	B6III
84012	17	11	47.5	-15	45	20.96	257.947879	-15.755822	2.43	0.06	0.06	A2.5Va
84143	17	13	55.0	-43	16	14.23	258.479349	-43.270619	3.32	0.47	0.44	F3p
84345	17	15	46.0	14	21	36.96	258.941827	14.360265	2.78	1.13	1.16	M5IIvar
84380	17	15	53.6	36	46	42.1	258.973445	36.778360	3.16	1.31	1.44	K3IIvar
84379	17	16	2.2	24	48	27.58	259.009304	24.807661	3.12	0.06	0.08	A3IV SB
84405	17	16	51.9	-26	38	20.45	259.216396	-26.639015	4.33	0.92	0.85	K2:III:
84514	17	17	52.5	0	28	27.44	259.468723	-0.474288	4.72	1.09	1.12	K2III
84573	17	18	13.6	33	4	14.66	259.556580	33.070740	4.80	-0.17	-0.17	B1.5Vp
84606	17	18	30.5	37	15	45.72	259.627104	37.262701	4.64	0.07	0.04	A2V
84833	17	21	23.7	18	1	46.84	260.348828	18.029678	5.01	1.61	3.67	M2III
84880	17	22	12.8	-12	52	20.68	260.553286	-12.872412	4.32	0.07	0.04	A0/A1V
84893	17	22	29.0	-21	8	22.14	260.620967	-21.139483	4.39	0.47	0.39	F2/F3V
84970	17	23	31.4	-25	1	26.78	260.880637	-25.024105	3.27	-0.21	-0.19	B2IV
85822	17	23	56.7	86	33	47.86	260.986188	86.563295	4.35	0.04	0.02	A1Vn
85112	17	24	31.2	37	7	13.62	261.129990	37.120449	4.15	0.01	-0.01	B9.5III
84969	17	24	33.3	-67	47	36.98	261.138671	-67.793606	4.76	1.18	1.19	K1III
85258	17	27	20.6	-55	33	5.24	261.835743	-55.551455	2.84	1.50	1.48	K3Ib-II
85267	17	27	27.8	-56	23	56.95	261.865750	-56.399153	3.31	-0.12	-0.15	B1Ib
85355	17	27	44.1	4	7	3.42	261.933654	4.117616	4.34	1.44	1.48	K3IIvar
85340	17	27	52.5	-24	11	52.74	261.968664	-24.197984	4.16	0.30	0.28	A3IV:m
85365	17	27	56.2	-5	6	33.45	261.984354	-5.109290	4.53	0.46	0.39	F3V
85423	17	28	55.6	-29	53	20.62	262.231834	-29.889062	4.28	0.45	0.40	F3III
85670	17	30	57.9	52	16	46.93	262.741216	52.279702	2.79	0.93	0.95	G2II
85693	17	31	43.6	26	5	23.39	262.931512	26.089830	4.41	1.39	1.43	K3IIvar
85696	17	32	26.3	-37	18	53.39	263.109433	-37.314831	2.70	-0.23	-0.18	B2IV
85819	17	32	38.0	55	9	49.95	263.158357	55.163874	4.89	0.28	0.25	Am...
85829	17	32	43.5	55	9	9.73	263.181104	55.152704	4.86	0.30	0.28	Am
85755	17	32	55.1	-23	58	54.14	263.229672	-23.981706	4.78	0.08	0.02	A0V
85727	17	33	18.9	-60	42	8.65	263.328671	-60.702402	3.60	-0.10	-0.10	B8V
85792	17	33	44.5	-49	53	39.8	263.435607	-49.894389	2.84	-0.15	-0.14	B2Vne
85927	17	35	16.8	-37	7	16.26	263.820011	-37.121183	1.62	-0.24	-0.23	B1.5IV+...
86032	17	36	4.4	12	32	25.82	264.018376	12.540506	2.08	0.17	0.15	A5III
86201	17	36	45.0	68	44	31.64	264.187483	68.742122	4.77	0.49	0.43	F5V
86092	17	37	29.5	-46	31	17.77	264.372774	-46.521602	4.56	0.01	-0.02	A0V
86170	17	38	14.5	-38	39	7.02	264.560491	-38.651950	4.26	1.09	1.07	G8/K0III/IV
86263	17	38	59.8	-15	24	52.13	264.749134	-15.414480	3.54	0.29	0.26	F0IIIp
86228	17	39	5.2	-43	0	45.42	264.771592	-43.012617	1.86	0.48	0.41	F1II
86284	17	39	11.0	-8	8	4.15	264.795748	-8.134485	4.58	0.22	0.13	B8II-III MNp
86414	17	40	8.4	45	59	25.2	265.035136	45.990333	3.82	-0.21	-0.18	B3V SB
86614	17	41	25.8	72	7	54.9	265.357631	72.131915	4.57	0.50	0.43	F5IV-V
86486	17	42	17.8	-49	25	46.56	265.573986	-49.429601	4.76	0.49	0.41	F3IV
86565	17	42	47.9	-12	53	20.31	265.699477	-12.888976	4.24	0.10	0.09	A2Va
86670	17	44	11.4	-39	2	31.29	266.047538	-39.042026	2.39	-0.22	-0.17	B1.5III
86742	17	44	41.2	4	33	21.05	266.171561	4.555846	2.76	1.10	1.17	K2III

# Posiciones medias de estrellas brillantes, 2025

Estrella	$\alpha$			$\delta$			$\alpha$	$\delta$				
NH	h	m	s	o	'	"	o	o	V	B-V	U-V	Espectro
86736	17	44	54.3	-21	41	43.16	266.226268	-21.695322	4.86	0.54	0.47	F6/F7V
86974	17	47	24.9	27	42	14.87	266.853542	27.704130	3.42	0.71	0.75	G5IV
86929	17	48	8.3	-64	44	0.49	267.034454	-64.733471	3.61	1.09	1.16	K1III
87072	17	49	6.6	-27	50	24.16	267.277438	-27.840045	4.53	0.76	0.60	F7II
87108	17	49	7.5	2	41	48.95	267.281210	2.696931	3.75	0.05	0.04	A0V
87073	17	49	18.3	-40	8	9.13	267.326307	-40.135869	2.99	0.64	0.51	F3Ia
87220	17	50	46.4	-31	42	40.95	267.693296	-31.711376	4.79	0.01	-0.03	B8Ib/II
87261	17	51	31.9	-37	3	2.44	267.883114	-37.050677	3.19	1.15	1.19	K0/K1III
87294	17	51	54.3	-40	5	51.89	267.976378	-40.097746	4.78	0.41	0.26	A6Ib
87585	17	53	55.3	56	51	56.71	268.480348	56.865751	3.73	1.11	1.18	K2III
87808	17	57	5.0	37	14	42.6	269.270741	37.245168	3.86	1.17	1.35	K1IIIvar
87833	17	57	9.1	51	28	59.91	269.287884	51.483309	2.24	1.54	1.52	K5III
87846	17	58	35.0	-44	20	44.39	269.646040	-44.345664	4.85	1.15	1.18	K2III
87933	17	58	42.7	29	14	36.24	269.677801	29.243400	3.70	0.89	0.94	K0III
87998	17	59	26.0	30	11	7.41	269.858468	30.185393	4.41	0.51	0.38	F2II
87936	17	59	32.6	-41	43	8.95	269.886039	-41.719154	4.88	1.88	1.62	M0III
88048	18	0	22.8	-9	46	37.96	270.095158	-9.777210	3.32	0.95	0.99	K0III
88060	18	0	40.1	-30	15	19.25	270.167017	-30.255348	5.00	2.00	1.65	K5/M0III
88128	18	1	8.8	16	44	53.3	270.286732	16.748140	4.67	1.12	1.25	K0II-III
88116	18	1	17.7	-23	49	6.51	270.323704	-23.818475	4.74	-0.01	-0.03	B9V
88149	18	1	28.8	4	21	58.29	270.369889	4.366193	4.79	-0.08	-0.10	B2Ve
88175	18	1	47.0	-3	41	33.38	270.445617	-3.692605	4.62	0.45	0.39	F3V
88192	18	1	52.5	2	55	45.99	270.468880	2.929441	3.93	0.10	0.03	B5Ib
88267	18	2	32.6	21	35	38.94	270.635913	21.594150	4.26	0.47	0.41	G5
88290	18	2	60.0	1	18	13.03	270.749953	1.303619	4.42	0.06	0.05	A2Vn
88404	18	4	25.3	-8	10	51.49	271.105243	-8.180969	4.77	0.45	0.41	F5V+...
88567	18	6	35.5	-29	34	43.93	271.647969	-29.578870	4.66	0.81	0.77	G0Ib/II
88601	18	6	41.6	2	29	39.34	271.673170	2.494260	4.03	0.96	0.86	K0V SB
88657	18	7	3.6	22	13	11.0	271.765169	22.219721	4.96	2.18	1.66	M3IIIa+...
88635	18	7	23.3	-30	25	25.02	271.847089	-30.423617	2.98	0.99	0.98	K0III
88788	18	8	12.1	43	27	46.72	272.050362	43.462977	5.00	0.91	0.91	G8III...
88765	18	8	28.8	8	44	9.45	272.119783	8.735958	4.64	0.92	0.95	G8III-IV
88794	18	8	29.5	28	45	51.32	272.123083	28.764256	3.84	-0.02	-0.02	B9.5V
88771	18	8	30.8	9	33	58.64	272.128132	9.566290	3.71	0.18	0.16	A4IVs
88714	18	8	32.5	-50	5	20.01	272.135613	-50.088891	3.65	-0.06	-0.10	B2Ib
88726	18	8	36.5	-43	25	23.95	272.152241	-43.423320	4.92	0.29	0.26	A5V
88839	18	9	38.5	-28	27	15.35	272.410245	-28.454263	4.55	1.00	0.94	K0IIICNpvar
88886	18	9	48.2	20	49	1.54	272.450876	20.817095	4.37	-0.19	-0.16	B2IV
88866	18	10	56.2	-63	39	57.13	272.734030	-63.665869	4.33	0.23	0.23	Am
89172	18	12	49.0	31	24	35.67	273.204259	31.409909	4.96	2.16	1.64	M3III
89112	18	13	3.2	-45	56	57.87	273.263158	-45.949408	4.52	0.95	1.01	G5III
89153	18	13	13.4	-23	41	46.67	273.305788	-23.696297	4.96	1.02	1.05	K0III
89348	18	13	59.2	64	24	10.09	273.496784	64.402802	4.99	0.51	0.44	F5V
89341	18	15	14.1	-21	3	9.13	273.808645	-21.052535	3.84	0.21	0.20	B2III:
89642	18	19	17.4	-36	45	14.32	274.822681	-36.753977	3.10	2.24	1.58	M2III
89678	18	19	35.5	-27	2	1.34	274.898145	-27.033706	4.66	1.62	1.63	K3III
89908	18	20	19.3	71	20	51.0	275.080349	71.347501	4.22	-0.11	-0.09	A0p (Si)
89937	18	20	31.4	72	44	23.95	275.130813	72.739987	3.55	0.62	0.49	F7Vvar
89826	18	20	42.6	36	4	26.79	275.177438	36.074108	4.33	1.10	1.16	K2IIIvar
89861	18	21	19.9	21	58	14.01	275.332955	21.970558	4.92	1.82	1.59	M1III
89918	18	22	5.6	3	23	14.81	275.523354	3.387448	4.85	0.90	0.91	G8III
89931	18	22	34.1	-29	49	3.15	275.642048	-29.817543	2.72	1.35	1.38	K3III
89962	18	22	34.9	-2	53	35.28	275.645341	-2.893134	3.23	0.96	0.94	K0III-IV
90156	18	24	13.7	58	48	46.02	276.057238	58.812783	4.98	0.05	0.08	A3V
90139	18	24	44.4	21	46	47.39	276.184790	21.779830	3.85	1.13	1.17	K2III
90135	18	25	0.4	-8	55	19.04	276.251631	-8.921956	4.66	0.94	0.93	K0III
90098	18	25	28.9	-61	28	52.56	276.370341	-61.481266	4.35	1.50	1.46	M1III SB
90185	18	25	48.2	-34	22	22.02	276.450904	-34.372783	1.79	0.01	-0.03	B9.5III
90344	18	25	59.9	65	34	34.1	276.499600	65.576139	4.82	1.16	1.18	K2III
90289	18	26	48.9	-20	31	43.15	276.703840	-20.528654	4.81	1.27	1.31	A1/A2V
90422	18	28	47.6	-45	57	15.5	277.198506	-45.954306	3.49	-0.18	-0.18	B3IV
90496	18	29	29.3	-25	24	29.44	277.372058	-25.408177	2.82	1.04	1.02	K1IIIb
90595	18	30	35.9	-14	33	1.39	277.649750	-14.550387	4.67	0.10	0.08	A1IV/V
90568	18	30	43.3	-49	3	23.45	277.680280	-49.056514	4.10	1.02	0.99	G8/K0III
90905	18	32	57.7	57	3	45.38	278.240499	57.062605	4.77	0.67	0.61	F7Ib
90830	18	33	34.5	-45	53	51.69	278.393916	-45.897692	4.92	-0.08	-0.10	B6IV
90797	18	33	39.4	-62	15	40.47	278.414179	-62.261240	4.63	-0.11	-0.12	B8III
90982	18	35	15.4	-42	17	39.71	278.814228	-42.294363	4.62	0.95	0.99	G5III

# Posiciones medias de estrellas brillantes, 2025

Estrella	$\alpha$			$\delta$			$\alpha$	$\delta$				
NH	h	m	s	o	'	"	o	o	V	B-V	U-V	Espectro
91117	18	36	32.7	-8	13	38.2	279.136145	-8.227277	3.85	1.28	1.32	K2III
91262	18	37	45.3	38	48	19.79	279.438771	38.805496	0.03	-0.01	-0.00	A0Vvar
91726	18	43	37.2	-9	1	45.6	280.904860	-9.029334	4.70	0.40	0.36	F2IIIp d Del
91845	18	44	51.6	-8	15	4.3	281.214817	-8.251195	4.88	1.07	1.11	G8II
91919	18	45	8.2	39	41	41.73	281.284060	39.694926	4.67	0.19	0.17	F1V
91926	18	45	10.7	39	38	14.97	281.294405	39.637490	4.59	0.20	0.18	A8Vn
91971	18	45	36.2	37	37	47.82	281.400955	37.629949	4.34	0.18	0.19	Am
91792	18	45	52.5	-71	24	17.52	281.468810	-71.404868	4.01	1.14	1.13	K2III
91918	18	45	58.1	-35	37	3.48	281.492120	-35.617634	4.86	-0.19	-0.17	B2V
92043	18	46	42.8	20	34	8.94	281.678342	20.569151	4.19	0.55	0.48	F6V
92088	18	47	3.4	26	41	15.85	281.763993	26.687737	4.83	1.16	1.20	K3III
92041	18	47	11.5	-26	57	55.93	281.798059	-26.965535	3.17	-0.10	-0.11	B8.5III
92024	18	47	50.6	-64	50	48.22	281.960919	-64.846729	4.78	0.21	0.20	A7V
92161	18	48	6.1	18	12	30.04	282.025287	18.208346	4.34	0.16	0.15	A5III
92175	18	48	28.7	-4	43	18.76	282.119487	-4.721877	4.22	1.09	1.09	G5II...
92420	18	50	58.5	33	23	25.89	282.743628	33.390525	3.52	0.02	0.00	A8:V comp SB
92512	18	51	31.2	59	25	1.66	282.880097	59.417128	4.63	1.20	1.19	K0II-III SB
92689	18	53	48.4	50	44	16.36	283.451499	50.737879	4.92	0.88	0.90	G8III
92782	18	54	0.3	71	19	40.58	283.501100	71.327938	4.82	1.10	1.15	K0III
92609	18	54	28.8	-62	9	29.91	283.619948	-62.158307	4.22	-0.14	-0.15	B2II-III
92791	18	55	20.9	36	55	45.22	283.837289	36.929228	4.22	2.60	1.57	M4IIvar
92761	18	55	39.2	-22	42	52.68	283.913504	-22.714633	4.86	1.35	1.41	K1II
92818	18	55	46.7	22	40	32.74	283.944528	22.675761	4.57	0.86	0.78	G4III+...
92862	18	56	3.7	43	58	39.98	284.015466	43.977772	4.08	3.14	1.40	M5IIIvar
92845	18	56	36.3	-22	38	26.69	284.151403	-22.640746	5.00	1.25	1.35	K1Ib/II
92855	18	56	47.4	-26	15	58.47	284.197412	-26.266242	2.05	-0.13	-0.13	B2.5V
92946	18	57	26.4	4	14	6.94	284.359787	4.235261	4.62	0.20	0.16	A5V
92951	18	57	27.8	4	14	1.83	284.365982	4.233843	4.98	0.22	0.20	A5Vn
93026	18	58	22.6	-5	48	52.74	284.594126	-5.814651	4.83	1.03	1.06	K1III
93085	18	59	11.8	-21	4	27.89	284.799181	-21.074415	3.52	1.09	1.15	G8/K0II/III
93015	18	59	27.6	-67	12	4.36	284.865186	-67.201211	4.40	0.59	0.53	F5Ib-II:
93194	18	59	51.0	32	43	22.18	284.962648	32.722829	3.25	-0.03	-0.05	B9III
93174	19	0	22.8	-37	4	30.87	285.094915	-37.075241	4.83	0.44	0.40	F3IV/V
93148	19	0	25.3	-52	54	21.11	285.105495	-52.905863	4.85	-0.03	-0.05	A0V
93244	19	0	44.0	15	6	4.82	285.183292	15.101339	4.02	1.00	1.08	K2III
93279	19	0	55.7	32	10	46.14	285.232177	32.179484	4.94	1.32	1.47	K3III
93408	19	2	6.6	46	58	8.61	285.527652	46.969059	5.00	0.23	0.19	A7V
93429	19	2	59.5	-5	42	17.05	285.748039	-5.704735	4.02	1.08	1.08	K1IIIvar
93506	19	4	10.5	-29	50	41.91	286.043870	-29.844975	2.60	0.06	0.06	A3IV
93542	19	4	51.2	-42	3	36.02	286.213204	-42.060005	4.74	-0.02	-0.03	A0Vn
93683	19	6	9.4	-21	42	20.03	286.539028	-21.705563	3.76	0.98	1.01	K0III
93747	19	6	32.1	13	53	59.26	286.633791	13.899795	2.99	-0.01	0.01	A0Vn
93805	19	7	33.1	-4	50	45.08	286.888123	-4.845854	3.43	-0.09	-0.10	B9Vn
93825	19	8	4.7	-37	1	41.12	287.019752	-37.028089	4.23	0.59	0.52	F7IV-V
93864	19	8	28.5	-27	38	4.46	287.118687	-27.634572	3.32	1.15	1.17	K1/K2III
94005	19	10	3.5	-40	27	30.61	287.514669	-40.458504	4.57	1.06	1.07	K1III
94114	19	11	8.6	-37	51	58.04	287.785766	-37.866123	4.11	0.03	0.04	A0/A1V
94141	19	11	13.5	-20	59	4.61	287.806431	-20.984614	2.88	0.44	0.38	F2II/III
94160	19	11	43.1	-39	18	6.18	287.929544	-39.301717	4.10	1.11	1.16	K0II/IIICN.
94376	19	12	29.2	67	42	13.6	288.121707	67.703777	3.07	0.94	0.99	G9III
94490	19	14	19.0	57	44	49.54	288.579042	57.747094	5.00	1.12	1.16	K2III
94481	19	14	34.6	39	11	17.37	288.644395	39.188159	4.43	-0.19	-0.15	B2.5IV
94648	19	14	57.9	73	23	58.2	288.741385	73.399500	4.45	1.15	1.26	K3III
94643	19	17	2.9	-25	12	51.8	289.261930	-25.214389	4.86	0.67	0.57	K0/K1III+..
94713	19	17	12.3	38	10	38.9	289.301279	38.177472	4.35	1.13	1.26	K0II
94703	19	17	16.0	21	26	1.74	289.316723	21.433817	4.76	-0.05	-0.06	B4IV
94779	19	17	38.2	53	24	49.06	289.409357	53.413627	3.80	0.85	0.95	K0III
94820	19	19	4.4	-18	54	33.2	289.768200	-18.909221	4.88	0.99	1.01	K0III
95081	19	20	43.7	65	45	40.68	290.182107	65.761300	4.60	0.01	0.03	A2III <sub>s</sub>
95066	19	21	51.6	-5	22	11.57	290.464954	-5.369882	4.98	0.93	0.94	G8III-IV...
95168	19	23	5.9	-17	48	3.55	290.774539	-17.800987	3.92	0.25	0.23	F0III/IV
95176	19	23	8.1	-15	54	32.22	290.783676	-15.908950	4.52	0.34	0.08	F2p
95241	19	24	24.1	-44	24	45.84	291.100389	-44.412734	3.96	-0.07	-0.09	B9V
95294	19	24	59.5	-44	45	12.39	291.247783	-44.753441	4.27	0.42	0.35	F2III
95372	19	25	5.1	29	40	10.52	291.271135	29.669588	4.99	-0.11	-0.12	B3IV
95347	19	25	35.2	-40	34	10.87	291.396720	-40.569687	3.96	-0.10	-0.10	B8V
95501	19	26	44.1	3	9	49.88	291.683890	3.163855	3.36	0.38	0.32	F0IV
95585	19	27	46.4	0	23	15.4	291.943418	0.387612	4.64	0.75	0.58	F2Ib

# Posiciones medias de estrellas brillantes, 2025

Estrella	$\alpha$			$\delta$			$\alpha$	$\delta$				
NH	h	m	s	o	'	"	o	o	V	B-V	U-V	Espectro
95771	19	29	43.2	24	42	53.65	292.429940	24.714901	4.44	1.68	1.50	M0 comp
95853	19	30	17.7	51	46	56.69	292.573658	51.782415	3.76	0.18	0.15	A5Vn
95947	19	31	42.1	28	0	41.78	292.925589	28.011606	3.05	1.05	1.09	K3II+...
96100	19	32	13.9	69	42	8.86	293.057792	69.702462	4.67	0.85	0.79	K0V
96052	19	32	40.3	34	30	20.28	293.167956	34.505633	4.74	-0.12	-0.15	B3IV
96229	19	35	17.2	7	25	52.81	293.821804	7.431335	4.45	1.14	1.18	K3III
96275	19	35	39.3	19	49	38.74	293.913694	19.827429	5.00	-0.08	-0.09	B8IIIIn
96341	19	37	2.1	-48	2	46.34	294.258640	-48.046206	4.88	1.06	1.10	G9III
96441	19	37	4.4	50	16	42.83	294.268225	50.278563	4.49	0.44	0.40	F4V
96468	19	37	59.5	-1	13	55.12	294.497911	-1.231979	4.36	-0.06	-0.08	B5III
96465	19	38	12.2	-24	49	46.09	294.550728	-24.829469	4.59	-0.06	-0.07	B8/B9V
96483	19	38	12.8	-6	58	21.91	294.553128	-6.972752	4.93	0.03	-0.05	B0.5III
96683	19	40	20.2	30	12	37.9	295.084134	30.210526	4.68	0.89	0.97	G8III-IV...
96757	19	41	11.4	18	4	15.03	295.297371	18.070842	4.39	0.77	0.78	G0II
96837	19	42	8.8	17	32	0.3	295.536855	17.533415	4.39	0.96	1.04	G8II
97118	19	45	8.9	37	24	52.15	296.286942	37.414486	4.89	0.94	0.95	G8III
97165	19	45	43.2	45	11	29.71	296.430064	45.191585	2.86	-0.02	-0.00	B9.5III
97295	19	47	20.8	33	47	7.75	296.836755	33.785487	5.00	0.55	0.48	F5
97278	19	47	25.5	10	40	24.88	296.856187	10.673576	2.72	1.44	1.51	K3II
97290	19	47	47.8	-19	42	7.51	296.949077	-19.702086	4.87	1.03	1.06	K0III
97433	19	47	59.9	70	19	50.59	296.999407	70.330720	3.84	0.88	0.89	G8III
97365	19	48	28.7	18	35	43.91	297.119401	18.595531	3.68	1.27	1.31	M2II+B6
97496	19	50	3.8	19	12	15.44	297.515711	19.204289	5.01	0.09	-5.01	A3V
97649	19	51	58.8	8	56	1.51	297.994929	8.933752	0.76	0.27	0.22	A7IV-V
97679	19	52	7.2	22	40	23.67	298.029919	22.673242	4.90	-0.12	-0.15	B2.5V
97804	19	53	43.4	1	4	8.68	298.430879	1.069079	3.87	0.73	0.63	F6Ibv SB
97886	19	54	29.9	24	8	40.32	298.624664	24.144533	4.57	-0.02	-0.05	B9.5III
97938	19	55	26.2	8	31	31.91	298.859142	8.525531	4.71	1.03	1.02	K0III
98055	19	56	14.0	52	30	19.04	299.058386	52.505290	4.91	0.12	0.12	A4Vn
98073	19	56	20.9	58	54	45.54	299.086906	58.912651	4.98	1.56	1.58	K5II-III
98036	19	56	31.1	6	28	6.85	299.129618	6.468570	3.71	0.89	0.85	G8IVvar
98068	19	56	43.5	38	33	11.12	299.181307	38.553088	4.95	-0.07	-0.09	B5IV
98032	19	56	57.3	-41	48	14.33	299.238634	-41.803979	4.12	1.09	1.06	K0III
98110	19	57	12.9	35	8	59.14	299.303672	35.149760	3.89	0.98	1.02	K0IIIvar
98066	19	57	20.7	-26	14	3.98	299.336240	-26.234440	4.70	0.79	0.75	G3/G5III
98162	19	58	27.3	-27	6	17.62	299.613847	-27.104896	4.54	1.39	1.46	K3III
98258	19	59	20.7	-15	25	34.36	299.836248	-15.426211	5.01	0.04	-5.01	A2V
98337	19	59	50.7	19	33	34.99	299.961100	19.559719	3.51	1.65	1.57	K5III
98353	20	0	27.1	-26	7	45.9	300.112746	-26.129418	4.84	0.91	0.88	G8II/III
98412	20	1	20.1	-35	12	36.35	300.333740	-35.210098	4.37	-0.15	-0.15	B2.5IV
98543	20	2	6.2	27	49	21.12	300.525988	27.822533	4.66	0.19	0.18	A4III
98702	20	2	51.1	67	56	40.64	300.712879	67.944621	4.51	1.23	1.31	K3III
98495	20	3	22.9	-72	50	41.25	300.845195	-72.844792	3.97	-0.04	-0.03	A0V
98608	20	3	48.1	-59	18	32.29	300.950412	-59.308970	4.95	3.25	1.36	M6III
98688	20	4	10.2	-27	38	30.06	301.042326	-27.641685	4.43	2.50	1.64	M4III
98761	20	5	11.3	-37	52	22.79	301.297271	-37.872998	4.77	1.40	1.42	K4III
98842	20	5	53.1	-31	59	15.21	301.471164	-31.987557	4.99	1.17	1.21	K1III/IV
99255	20	7	52.5	77	47	7.84	301.968846	77.785512	4.38	-0.06	-0.05	B9III
99120	20	9	15.6	-52	48	38.7	302.315111	-52.810749	4.93	1.83	1.59	M1II
99303	20	10	19.5	36	54	48.21	302.581394	36.913392	4.93	-0.13	-0.14	B2.5V
99240	20	11	6.8	-66	7	9.25	302.778112	-66.119237	3.55	0.76	0.75	G5IV-Vvar
99473	20	12	34.3	0	44	53.05	303.143086	-0.748070	3.24	-0.06	-0.07	B9.5III
99655	20	13	55.8	56	38	40.58	303.482679	56.644605	4.28	0.14	0.11	A3IV-Vn
99639	20	14	3.0	46	53	30.18	303.512602	46.891718	4.80	0.19	0.10	A5IIIIn
99675	20	14	23.0	46	49	3.16	303.595685	46.817545	3.80	1.15	1.27	K2II+...
99742	20	15	24.6	15	16	24.55	303.852619	15.273485	4.94	0.09	0.07	A2V
99770	20	15	26.4	36	52	59.36	303.860093	36.883155	4.93	0.21	0.15	A2V
99848	20	16	12.5	47	47	29.11	304.051961	47.791418	3.96	1.45	1.45	K3Ib-II comp
99824	20	16	17.9	25	40	5.86	304.074742	25.668296	4.79	-0.22	-0.18	B3V
99874	20	16	46.7	27	53	27.59	304.194709	27.890996	4.50	1.30	1.26	K3III
100044	20	18	40.7	38	6	39.61	304.669466	38.111003	4.77	0.44	0.38	B2pe
100027	20	19	0.7	-12	25	55.41	304.752726	-12.432060	4.30	1.05	0.93	G3Ib
100064	20	19	25.1	-12	28	6.54	304.854664	-12.468483	3.58	0.92	0.88	G6/G8III
100310	20	22	1.7	-12	40	53.54	305.506951	-12.681540	4.77	-0.06	-0.05	B9IV
100345	20	22	23.6	-14	42	12.71	305.598326	-14.703531	3.05	0.90	0.79	A5:n
100453	20	23	5.7	40	20	13.8	305.773562	40.337166	2.23	0.65	0.67	F8Ib
100587	20	24	49.9	32	16	16.22	306.207787	32.271171	4.43	1.31	1.33	K3III
100751	20	27	34.8	-56	39	24.57	306.895053	-56.656826	1.94	-0.10	-0.12	B2IV

# Posiciones medias de estrellas brillantes, 2025

Estrella	$\alpha$			$\delta$			$\alpha$	$\delta$				
NH	h	m	s	o	'	"	o	o	V	B-V	U-V	Espectro
101093	20	29	56.4	63	4	43.96	307.484968	63.078879	4.21	0.20	0.20	A7III
101027	20	30	15.8	-17	43	56.22	307.565812	-17.732284	4.77	0.44	0.39	F3V
101076	20	30	23.4	30	27	8.33	307.597667	30.452314	4.01	0.46	0.40	F5II
101138	20	30	47.7	49	2	11.0	307.698899	49.036388	4.94	-0.06	-0.09	B2.5IV
101101	20	30	56.1	-2	48	11.63	307.733774	-2.803230	4.91	1.12	1.16	K2III
101421	20	34	23.1	11	23	16.39	308.596285	11.387886	4.03	-0.10	-0.12	B6III
101474	20	34	50.8	35	20	13.25	308.711824	35.337014	4.61	1.78	1.59	K2Ib comp
101589	20	36	27.3	14	45	37.03	309.113854	14.760287	4.64	0.14	0.12	A3V
101612	20	37	36.0	-60	29	58.51	309.400016	-60.499586	4.75	0.34	0.29	F1III
101692	20	38	0.5	-2	27	51.1	309.501949	-2.464193	4.91	1.66	1.61	K5II
101769	20	38	42.0	14	40	54.57	309.674813	14.681824	3.64	0.50	0.42	F5IV
101772	20	39	17.5	-47	12	23.23	309.822868	-47.206453	3.11	0.98	1.00	K0III
101847	20	39	36.5	-1	1	6.72	309.901959	-1.018533	4.31	0.91	0.95	G8III SB
101867	20	39	36.9	21	17	20.41	309.903908	21.289002	4.81	-0.01	-0.03	A0V
101773	20	39	37.9	-61	26	45.82	309.907849	-61.446061	4.86	0.52	0.45	Fm delta Del
101958	20	40	46.6	16	0	0.94	310.194162	16.000260	3.77	-0.01	-0.06	B9V
102098	20	42	15.0	45	22	14.23	310.562570	45.370620	1.25	0.16	0.09	A2Ia
102281	20	44	36.2	15	9	51.1	311.150995	15.164195	4.43	0.34	0.30	A7IIIp d Del
102422	20	45	44.4	61	56	13.52	311.435023	61.937088	3.41	0.94	0.91	K0IV
102333	20	45	50.2	-51	50	2.15	311.459166	-51.833930	4.51	0.30	0.28	A6:var
102431	20	45	55.5	57	40	14.31	311.481190	57.670643	4.52	0.58	0.54	F8IV-V
102388	20	45	56.0	25	21	37.61	311.483274	25.360449	4.92	1.11	1.18	K2III
102453	20	46	40.1	30	48	41.66	311.667224	30.811572	4.22	1.01	1.05	K0III
102395	20	47	8.7	-66	6	55.87	311.786348	-66.115519	3.42	0.20	0.16	A5IV
102488	20	47	11.8	34	3	52.72	311.798988	34.064646	2.48	1.00	1.02	K0III
102485	20	47	33.1	-25	10	58.04	311.888094	-25.182789	4.13	0.49	0.43	F5V
102532	20	47	47.8	16	12	51.78	311.949091	16.214384	4.27	1.03	1.04	K1IV
102571	20	48	9.0	34	28	0.31	312.037461	34.466754	4.93	1.25	1.29	K3IIIvar
102589	20	48	21.3	36	35	0.37	312.088749	36.583435	4.53	-0.12	-0.08	B6IV
102618	20	49	0.5	-9	24	19.4	312.252027	-9.405388	3.78	-0.01	0.00	A1V
102624	20	49	2.1	-4	56	13.56	312.258865	-4.937099	4.43	2.21	1.64	M3IIIvar
102724	20	49	45.4	46	12	28.83	312.438986	46.208009	4.81	0.59	0.57	B3Ia
102790	20	51	10.3	-46	8	12.05	312.792822	-46.136680	4.90	1.57	1.49	K5III
102831	20	51	30.2	-33	41	21.4	312.875929	-33.689278	4.89	0.97	1.00	G8III
103004	20	53	10.4	27	11	27.92	313.293443	27.191089	4.56	0.87	0.83	G8III
102978	20	53	17.4	-26	49	38.89	313.322522	-26.827471	4.12	1.76	1.63	K4III
103045	20	53	58.9	-8	53	26.34	313.495434	-8.890649	4.73	0.36	0.33	A3m
103089	20	54	5.9	44	28	59.1	313.524433	44.483082	4.80	-0.16	-0.13	B5V
103227	20	56	43.1	-58	21	44.46	314.179589	-58.362350	3.67	1.11	1.25	K0III
103413	20	58	4.5	41	15	52.11	314.518926	41.264475	3.94	0.01	0.03	A1Vn
103632	21	0	38.5	47	37	11.81	315.160471	47.619947	4.74	-0.06	-0.08	B1ne
103738	21	2	48.0	-32	9	44.05	315.700020	-32.162235	4.67	0.90	0.89	G8III
104019	21	5	48.4	-19	45	27.84	316.451612	-19.757733	4.82	0.18	0.17	A5V
104060	21	5	48.6	44	1	44.26	316.452323	44.028962	3.72	1.63	1.61	K5Ibv SB
104139	21	7	19.9	-17	8	6.28	316.832920	-17.135077	4.08	0.00	-0.01	A1V
104194	21	7	25.7	47	45	1.44	316.857199	47.750400	4.56	1.54	1.57	K4II
104234	21	8	34.1	-24	54	28.26	317.141999	-24.907850	4.49	1.81	1.60	K5/M0III
104459	21	10	56.2	-11	16	18.32	317.734002	-11.271754	4.50	0.92	0.93	G8III
104521	21	11	32.2	10	13	55.72	317.884325	10.232144	4.70	0.26	0.26	F0p
104732	21	13	58.6	30	19	49.14	318.494218	30.330316	3.21	0.97	0.99	G8II SB
104858	21	15	40.7	10	6	29.53	318.919528	10.108201	4.47	0.57	0.53	F5V+...
104887	21	15	45.8	38	9	11.64	318.940943	38.153232	3.74	0.46	0.39	F1IV
104987	21	17	3.3	5	21	2.81	319.263594	5.350781	3.92	0.62	0.55	G0III+...
105102	21	18	22.2	39	30	3.23	319.592619	39.500896	4.22	0.25	0.10	B9Iab
105138	21	18	55.2	35	0	11.36	319.730175	35.003156	4.41	-0.09	-0.10	B2Vne
105199	21	19	7.3	62	41	36.9	319.780319	62.693583	2.45	0.26	0.26	A7IV-V
105140	21	19	25.9	-32	4	13.41	319.857736	-32.070392	4.71	0.09	0.07	A0V
105319	21	21	36.8	-53	20	51.65	320.403216	-53.347680	4.39	0.21	0.19	A5V
105382	21	22	20.0	-40	42	22.83	320.583446	-40.706341	4.80	0.07	0.03	A2p
105502	21	23	13.3	19	54	43.08	320.805586	19.911965	4.08	1.05	1.11	K1III
105515	21	23	37.1	-16	43	46.95	320.904752	-16.729710	4.28	0.89	0.89	G8III
105881	21	28	4.5	-22	18	18.15	322.018566	-22.305042	3.77	0.88	1.00	G4Ibp...
105858	21	28	27.1	-65	15	22.41	322.113141	-65.256225	4.21	0.61	0.49	F6V
106032	21	28	54.0	70	40	22.0	322.224772	70.672777	3.23	-0.25	-0.20	B2IIIv SB
106039	21	30	7.7	-21	42	0.91	322.532235	-21.700254	4.50	0.89	0.89	K0III
106140	21	31	3.6	23	44	57.15	322.765027	23.749209	4.52	1.82	1.62	M1III
106278	21	32	51.4	-5	27	43.88	323.214236	-5.462189	2.90	0.82	0.83	G0Ib
106481	21	34	53.5	45	42	15.64	323.722877	45.704346	3.98	0.94	0.89	G8III

# Posiciones medias de estrellas brillantes, 2025

Estrella	$\alpha$			$\delta$			$\alpha$	$\delta$				
NH	h	m	s	o	'	"	o	o	V	B-V	U-V	Espectro
106551	21	35	46.3	38	38	52.04	323.942937	38.647789	4.87	1.06	1.08	K1III
106723	21	38	27.7	-19	21	21.1	324.615381	-19.355862	4.51	-0.17	-0.18	B3V:p
106801	21	38	32.5	62	11	50.26	324.635195	62.197294	4.76	0.38	0.25	B2Ib
106786	21	39	3.9	-7	44	35.65	324.766237	-7.743235	4.68	0.19	0.17	A7V
106985	21	41	27.5	-16	33	3.88	325.364442	-16.551079	3.69	0.32	0.32	A7III:mp...
107119	21	42	12.2	71	25	45.1	325.550974	71.429193	4.55	1.07	1.11	K0III
107136	21	42	56.9	51	18	21.9	325.737175	51.306084	4.69	-0.12	-0.12	B3IV
107188	21	44	2.2	-18	45	15.31	326.009046	-18.754253	4.72	0.91	0.87	G8III
107089	21	44	7.4	-77	16	55.63	326.030930	-77.282118	3.73	0.98	1.01	K0III
107259	21	44	13.8	58	53	50.46	326.057445	58.897350	4.23	3.57	2.24	M2Ia
107310	21	45	14.4	28	51	24.74	326.309873	28.856871	4.49	0.58	0.51	F6V
107315	21	45	23.8	9	59	22.8	326.349065	9.989668	2.38	1.42	1.52	K2Ibvar
107348	21	45	40.6	17	27	54.83	326.419247	17.465231	4.34	1.05	1.16	G5Ib
107354	21	45	45.5	25	45	39.7	326.439519	25.761028	4.14	0.48	0.42	F5IV
107418	21	46	7.4	61	14	20.07	326.530756	61.238910	4.25	0.73	0.47	A2Iavar
107380	21	46	24.9	-32	54	51.75	326.603757	-32.914376	4.35	-0.05	-0.05	B9.5V
107533	21	47	41.2	49	25	39.48	326.921530	49.427635	4.23	-0.13	-0.12	B3III
107556	21	48	24.2	-16	0	55.97	327.100748	-16.015546	2.85	0.35	0.18	A5mF2 (IV)
108085	21	55	25.2	-37	15	0.72	328.855226	-37.250199	3.00	-0.10	-0.08	B8III
108431	21	59	35.2	-54	52	38.75	329.896768	-54.877430	4.40	0.35	0.30	F0IV
108917	22	4	27.8	64	45	11.03	331.116019	64.753063	4.26	0.44	0.38	Am
108874	22	4	35.5	-2	2	7.59	331.147917	-2.035441	4.74	-0.03	-0.10	B7IVe
108870	22	5	14.3	-56	41	12.47	331.309781	-56.686796	4.69	1.15	1.06	K5V
109068	22	6	55.5	5	10	49.81	331.731098	5.180503	4.86	1.45	1.44	K4III
109074	22	7	3.2	0	11	56.53	331.763149	-0.199036	2.95	0.92	0.97	G2Ib
109111	22	7	36.0	-39	25	33.4	331.900196	-39.425943	4.47	1.31	1.35	M0III
109139	22	7	46.3	-13	45	0.1	331.942908	-13.750029	4.29	-0.06	-0.07	B8V
109176	22	8	9.4	25	28	6.62	332.039273	25.468506	3.77	0.51	0.43	F5V
109268	22	9	47.1	-46	50	36.59	332.446176	-46.843498	1.73	-0.05	-0.07	B7IV
109285	22	9	49.4	-32	52	9.71	332.455920	-32.869363	4.50	0.06	0.05	A2V
109289	22	9	52.6	-33	55	29.74	332.469193	-33.924929	4.99	1.50	1.50	K4III
109400	22	10	12.4	72	28	4.1	332.551859	72.467806	4.79	0.91	0.92	G8III
109410	22	11	4.7	33	18	9.96	332.769552	33.302767	4.28	0.52	0.47	F5III
109427	22	11	26.8	6	19	14.77	332.861470	6.320771	3.52	0.09	0.09	A2V
109422	22	11	35.6	-32	25	42.52	332.898230	-32.428479	4.94	0.54	0.49	F6V
109492	22	11	41.1	58	19	39.68	332.921250	58.327689	3.39	1.58	1.56	K1Ibv SB
109754	22	14	55.8	39	50	28.63	333.732605	39.841287	4.50	1.36	1.39	K3III
109857	22	15	55.5	57	10	17.44	333.981139	57.171511	4.18	0.33	0.28	F0IV
109937	22	17	2.3	37	52	31.66	334.259711	37.875462	4.14	1.33	1.45	K3III
109908	22	17	6.1	-41	13	32.73	334.275325	-41.225759	4.79	0.83	0.79	G8III+...
110003	22	18	8.3	-7	39	36.02	334.534691	-7.660006	4.17	0.95	0.98	G8III-IV
110130	22	20	10.8	-60	8	20.9	335.045035	-60.139138	2.87	1.37	1.39	K3III
110351	22	22	2.1	46	39	54.99	335.508591	46.665275	4.55	-0.10	-0.10	B6V
110371	22	22	27.6	28	27	29.14	335.614907	28.458094	4.78	0.06	-0.01	B9III
110386	22	22	44.0	12	19	53.51	335.683489	12.331531	4.82	-0.16	-0.13	B2IV-V
110395	22	22	56.0	-1	15	43.35	335.733390	-1.262042	3.86	-0.06	-0.06	A0V
110538	22	24	30.9	52	21	26.85	336.128943	52.357457	4.42	1.03	1.01	G9III
110609	22	25	30.3	49	36	22.24	336.376154	49.606177	4.55	0.18	0.09	B9Iab
110672	22	26	32.4	1	30	13.71	336.635065	1.503808	4.80	-0.18	-0.17	B1Ve
110838	22	29	4.2	-64	50	36.79	337.267683	-64.843552	4.51	-0.01	-0.03	B8V
110882	22	29	6.7	4	49	15.0	337.277696	4.820832	4.78	1.07	1.04	K0III
110991	22	30	4.0	58	32	48.19	337.516541	58.546720	4.07	0.81	0.78	G2Ibvar
110960	22	30	6.3	0	6	26.77	337.526449	0.107435	3.65	0.50	0.41	F3III-IV
111022	22	30	32.9	47	50	16.31	337.637189	47.837863	4.34	1.90	1.68	M0II
110997	22	30	44.7	-43	22	17.48	337.686151	-43.371521	3.97	0.98	1.02	G6/G8III
111043	22	31	13.9	-43	37	30.14	337.807878	-43.625040	4.12	2.49	1.57	M4.5IIIa
111104	22	31	32.8	43	15	15.42	337.886446	43.254285	4.52	-0.09	-0.09	B2IV
111123	22	31	57.4	-10	33	5.15	337.989185	-10.551431	4.82	-0.04	-0.05	A0IVs
111169	22	32	17.8	50	24	51.13	338.074188	50.414202	3.76	0.05	0.03	A1V
111188	22	32	54.7	-32	13	15.35	338.227805	-32.220930	4.29	0.03	0.01	A1V
111310	22	34	39.5	-61	51	29.37	338.664612	-61.858159	4.91	2.50	1.61	M4III
111497	22	36	37.7	0	0	38.83	339.157086	0.010787	4.04	-0.07	-0.08	B9IV-Vn
111674	22	38	22.6	51	40	39.13	339.593972	51.677535	4.64	0.28	0.25	A8IV
111841	22	40	21.9	39	10	58.74	340.091291	39.182985	4.89	-0.23	-0.21	O9V
111944	22	41	35.4	44	24	35.18	340.397663	44.409771	4.50	1.25	1.32	K3III
111954	22	42	1.5	-26	54	57.51	340.506165	-26.915975	4.18	-0.07	-0.10	B8V
112029	22	42	41.8	10	57	44.12	340.674101	10.962255	3.41	-0.06	-0.09	B8.5V
112051	22	42	54.9	29	26	24.28	340.728934	29.440076	4.80	0.02	-0.01	A1IV

# Posiciones medias de estrellas brillantes, 2025

Estrella	$\alpha$			$\delta$			$\alpha$	$\delta$	V	B-V	U-V	Espectro
NH	h	m	s	o	'	"	o	o				
112122	22	44	8.5	-46	45	28.17	341.035459	-46.757826	2.07	2.60	1.61	M5III
112158	22	44	9.6	30	21	14.33	341.039813	30.353979	2.93	0.87	0.85	G2II-III..
112211	22	44	55.2	-18	42	6.08	341.230039	-18.701688	4.68	1.35	1.36	K3III
112203	22	44	56.0	-41	17	15.87	341.233304	-41.287741	4.84	1.01	1.03	K0III
112519	22	47	8.4	83	17	26.33	341.785079	83.290648	4.77	1.25	1.26	K3III
112374	22	47	8.7	-53	22	22.69	341.786126	-53.372968	4.84	1.21	1.18	K2IIHCNIV
112440	22	47	43.3	23	41	55.32	341.930561	23.698699	3.97	0.99	1.07	G8II-III
112447	22	47	55.8	12	18	5.9	341.982516	12.301639	4.20	0.60	0.50	F7V
112405	22	48	27.1	-81	15	18.56	342.113135	-81.255157	4.13	0.24	0.21	A9IV/V
112623	22	50	2.7	-51	11	22.69	342.511395	-51.189635	3.49	0.10	0.08	A3V
112724	22	50	31.8	66	20	9.92	342.632323	66.336090	3.50	1.06	1.05	K0III
112716	22	50	54.2	-13	27	44.68	342.725986	-13.462412	4.05	1.72	1.57	K5III
112748	22	51	11.8	24	44	6.63	342.799185	24.735175	3.51	0.89	0.93	M2III
112917	22	53	8.6	43	26	53.91	343.285950	43.448307	4.95	1.71	1.56	M0III
112948	22	53	54.1	-32	44	46.1	343.475570	-32.746140	4.46	-0.01	-0.04	A0III
112961	22	53	54.5	-7	26	52.09	343.477049	-7.447804	3.73	2.07	1.63	M2IIvar
113116	22	53	54.7	84	29	3.27	343.477846	84.484242	4.70	1.38	1.42	K4III
113136	22	55	58.0	-15	41	23.17	343.991470	-15.689769	3.27	0.08	0.07	A3V
113186	22	56	28.5	8	56	59.54	344.118922	8.949871	4.91	0.00	-0.00	A1V
113246	22	57	19.2	-32	24	33.41	344.330110	-32.409281	4.20	0.96	0.95	G8III
113288	22	57	30.6	49	52	13.88	344.377294	49.870523	4.99	1.87	1.78	K5Ibvar
113368	22	59	1.2	-29	29	33.88	344.755016	-29.492744	1.17	0.16	0.14	A3V
113638	23	2	20.3	-52	37	28.28	345.584626	-52.624523	4.11	1.01	0.96	G8III
113726	23	3	3.3	42	27	48.4	345.763894	42.463443	3.62	-0.05	-0.10	B6pv SB
113881	23	4	58.5	28	13	13.42	346.243567	28.220395	2.44	2.31	1.66	M2II-IIIvar
113889	23	5	8.4	3	57	16.12	346.284857	3.954478	4.48	-0.09	-0.12	B6Ve
113919	23	5	17.2	50	11	29.81	346.321668	50.191615	4.64	1.02	1.06	K0III
113963	23	5	59.8	15	20	26.33	346.498964	15.340647	2.49	0.00	-0.00	B9.5III
114104	23	7	38.7	59	33	32.57	346.911353	59.559047	4.84	-0.02	-0.06	B0.5IV
114119	23	8	0.8	-23	36	38.22	347.003370	-23.610618	4.48	0.92	0.89	G8III
114144	23	8	15.2	9	32	41.63	347.063492	9.544897	4.54	1.79	1.56	M2III
114131	23	8	16.4	-43	23	21.69	347.068483	-43.389358	4.28	0.44	0.42	F5me...
114155	23	8	19.1	25	36	17.92	347.079737	25.604978	4.76	1.30	1.28	K0IIp
114222	23	8	37.6	75	31	38.64	347.156708	75.527401	4.41	0.84	0.80	G2III
114341	23	10	46.2	-21	2	20.75	347.692500	-21.039097	3.68	1.16	1.20	K1III
114375	23	11	14.4	-22	19	28.6	347.810166	-22.324612	4.71	0.75	0.67	A3IV:
114421	23	11	45.6	-45	6	55.54	347.940228	-45.115426	3.88	0.95	1.00	K0III SB
114570	23	13	40.7	49	32	47.26	348.419658	49.546461	4.53	0.35	0.30	F0V
114724	23	15	36.5	-5	54	55.03	348.902278	-5.915286	4.22	1.89	1.54	M2III
114855	23	17	11.6	-8	57	10.29	349.298239	-8.952859	4.24	1.06	1.11	K0III
114939	23	18	8.2	-7	35	28.94	349.534135	-7.591374	4.93	2.56	1.61	M3III
114971	23	18	27.2	3	25	7.38	349.613342	3.418716	3.70	0.97	0.92	G7III
114996	23	18	52.3	-58	6	12.68	349.717787	-58.103521	3.99	0.50	0.41	F1III
115022	23	18	53.2	49	9	20.2	349.721860	49.155612	4.82	2.14	1.67	M2III
115033	23	19	11.7	-9	2	50.46	349.798694	-9.047351	4.41	-0.14	-0.14	B5Vn
115088	23	19	37.1	68	15	10.58	349.904571	68.252938	4.75	0.86	0.84	K0III
115102	23	20	9.9	-32	23	57.16	350.041148	-32.399212	4.41	1.08	1.11	K1III
115115	23	20	15.2	-9	28	31.77	350.063411	-9.475491	4.99	0.00	-0.02	A0V
115250	23	21	51.9	23	52	43.98	350.466384	23.878882	4.58	0.23	0.18	A5V
115438	23	24	16.5	-19	57	59.17	351.068882	-19.966437	3.96	1.10	1.08	K0III
115590	23	25	55.5	62	25	28.56	351.481416	62.424599	4.96	1.94	1.68	M1III
115623	23	26	37.1	23	32	36.43	351.654746	23.543454	4.42	0.67	0.62	F8IV
115669	23	27	21.1	-20	30	26.56	351.838039	-20.507378	4.38	1.52	1.46	K4III
115738	23	28	12.4	1	23	31.65	352.051741	1.392125	4.95	0.01	0.04	A0p
115830	23	29	13.8	6	30	59.23	352.307305	6.516452	4.27	1.03	1.06	K1III
115919	23	30	24.7	12	53	57.15	352.602972	12.899209	4.54	0.93	0.94	G8III
115990	23	31	10.1	58	41	28.2	352.792236	58.691165	4.89	-0.11	-0.12	B3IV
116231	23	34	18.2	-37	41	1.35	353.575977	-37.683709	4.38	-0.09	-0.10	B9.5IVMNpe.
116247	23	34	34.7	-20	46	43.58	353.644697	-20.778773	4.70	0.03	0.02	A0V
116310	23	35	11.1	31	27	56.67	353.796239	31.465741	4.97	1.36	1.38	K4III
116389	23	36	24.8	-42	28	51.17	354.103174	-42.480880	4.69	0.10	0.08	A2V
116584	23	38	46.6	46	35	50.26	354.694201	46.597294	3.81	0.96	0.98	G8III-IV
116602	23	39	11.2	-45	21	29.95	354.796881	-45.358320	4.74	0.08	0.08	A2V
116631	23	39	21.2	43	24	35.8	354.838236	43.409944	4.29	-0.06	-0.08	B8V
116727	23	40	19.5	77	46	36.99	355.081309	77.776943	3.21	0.99	1.03	K1IV
116758	23	41	4.5	-14	5	9.05	355.268841	-14.085848	4.97	0.29	0.26	A7V
116771	23	41	13.8	5	45	42.76	355.307689	5.761877	4.13	0.59	0.51	F7V
116805	23	41	37.8	44	28	33.29	355.407541	44.475913	4.15	-0.06	-0.07	B9IVn

# Posiciones medias de estrellas brillantes, 2025

Estrella	$\alpha$			$\delta$			$\alpha$	$\delta$				
NH	h	m	s	°	'	"	°	°	V	B-V	U-V	Espectro
116901	23	43	3.3	-17	40	48.1	355.763922	-17.680029	4.82	0.81	0.82	G2Ib/II
116928	23	43	19.0	1	55	2.42	355.829245	1.917339	4.49	0.22	0.20	A7V
116971	23	44	0.8	-14	24	30.66	356.003358	-14.408516	4.49	-0.04	-0.03	B9V
117073	23	45	14.5	29	30	8.17	356.310536	29.502270	4.93	0.93	0.94	K0III
117221	23	47	15.8	46	33	46.17	356.815938	46.562825	4.97	1.05	1.09	G5Ib
117245	23	47	39.9	3	37	31.45	356.916084	3.625401	4.95	2.57	2.51	C5II
117301	23	48	16.0	58	47	44.96	357.066712	58.795821	4.88	1.08	1.12	K1III
117452	23	50	13.4	-27	59	42.22	357.555721	-27.995062	4.59	-0.01	0.00	A0V
117863	23	55	37.3	57	38	34.84	358.905564	57.643010	4.51	1.15	1.19	F8Iavar
118121	23	58	53.4	-64	9	53.15	359.722317	-64.164763	5.00	0.07	0.06	A1V
118131	23	59	1.7	25	16	56.58	359.756988	25.282382	4.63	2.21	1.58	M3III
118209	23	59	57.0	-3	25	5.04	359.987294	-3.418066	4.88	0.92	0.93	G9III

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 950					
V		Sp			
5.24		F3/F5V			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	0.21672	0.19817	-34.99686	17:29
Ene	8	0.21669	0.19814	-34.99689	17:01
Ene	15	0.21667	0.19812	-34.99677	16:34
Ene	22	0.21664	0.19809	-34.99672	16:06
Ene	29	0.21662	0.19807	-34.99651	15:39
Feb	5	0.21659	0.19804	-34.99634	15:11
Feb	12	0.21658	0.19803	-34.99601	14:43
Feb	19	0.21656	0.19801	-34.99577	14:16
Feb	26	0.21656	0.19801	-34.99537	13:48
Mar	5	0.21654	0.19799	-34.99503	13:21
Mar	12	0.21655	0.198	-34.99454	12:53
Mar	19	0.21655	0.198	-34.99415	12:25
Mar	26	0.21657	0.19802	-34.99361	11:58
Abr	2	0.21658	0.19803	-34.99314	11:30
Abr	9	0.21661	0.19806	-34.99255	11:03
Abr	16	0.21663	0.19808	-34.99206	10:35
Abr	23	0.21667	0.19812	-34.99146	10:07
Abr	30	0.21671	0.19816	-34.99093	09:40
May	7	0.21676	0.19821	-34.99032	09:12
May	14	0.21681	0.19826	-34.98982	08:45
May	21	0.21687	0.19832	-34.98924	08:17
May	28	0.21693	0.19838	-34.98874	07:49
Jun	4	0.217	0.19845	-34.98821	07:22
Jun	11	0.21706	0.19851	-34.98778	06:54
Jun	18	0.21714	0.19859	-34.98733	06:27
Jun	25	0.21721	0.19866	-34.98695	05:59
Jul	2	0.21728	0.19873	-34.9866	05:31
Jul	9	0.21735	0.1988	-34.98633	05:04
Jul	16	0.21742	0.19887	-34.98609	04:36
Jul	23	0.21749	0.19894	-34.98589	04:09
Jul	30	0.21755	0.199	-34.98579	03:41
Ago	6	0.21761	0.19906	-34.98573	03:13
Ago	13	0.21767	0.19912	-34.98574	02:46
Ago	20	0.21772	0.19917	-34.98576	02:18
Ago	27	0.21776	0.19921	-34.98591	01:51
Sep	3	0.2178	0.19925	-34.98606	01:23
Sep	10	0.21783	0.19928	-34.9863	00:55
Sep	17	0.21786	0.19931	-34.9865	00:28
Sep	24	0.21787	0.19932	-34.98685	00:00
Oct	1	0.21789	0.19934	-34.98715	23:33
Oct	8	0.21789	0.19934	-34.98753	23:05
Oct	15	0.2179	0.19935	-34.98783	22:37
Oct	22	0.21788	0.19933	-34.98826	22:10
Oct	29	0.21788	0.19933	-34.98859	21:42
Nov	5	0.21786	0.19931	-34.98899	21:15
Nov	12	0.21785	0.1993	-34.98926	20:47
Nov	19	0.21782	0.19927	-34.98964	20:19
Nov	26	0.2178	0.19925	-34.98988	19:52
Dic	3	0.21776	0.19921	-34.99018	19:24
Dic	10	0.21775	0.1992	-34.9903	18:57
Dic	17	0.21771	0.19916	-34.99053	18:29
Dic	24	0.21769	0.19914	-34.99059	18:01
Dic	31	0.21765	0.1991	-34.9907	17:34

HIP 1599					
V		Sp			
4.23		F9V			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	0.35622	0.33767	-64.73325	17:37
Ene	8	0.35614	0.33759	-64.73314	17:10
Ene	15	0.35607	0.33752	-64.73285	16:42
Ene	22	0.356	0.33745	-64.73262	16:14
Ene	29	0.35594	0.33739	-64.73221	15:47
Feb	5	0.35588	0.33733	-64.73182	15:19
Feb	12	0.35584	0.33729	-64.73126	14:52
Feb	19	0.35579	0.33724	-64.73078	14:24
Feb	26	0.35576	0.33721	-64.73013	13:56
Mar	5	0.35573	0.33718	-64.72954	13:29
Mar	12	0.35572	0.33717	-64.72881	13:01
Mar	19	0.35571	0.33716	-64.72818	12:34
Mar	26	0.35572	0.33717	-64.72741	12:06
Abr	2	0.35573	0.33718	-64.72672	11:38
Abr	9	0.35577	0.33722	-64.72593	11:11
Abr	16	0.35579	0.33724	-64.72527	10:43
Abr	23	0.35585	0.3373	-64.7245	10:16
Abr	30	0.3559	0.33735	-64.72383	09:48
May	7	0.35599	0.33744	-64.72311	09:20
May	14	0.35605	0.3375	-64.72252	08:53
May	21	0.35615	0.3376	-64.72188	08:25
May	28	0.35624	0.33769	-64.72134	07:58
Jun	4	0.35636	0.33781	-64.7208	07:30
Jun	11	0.35645	0.3379	-64.72039	07:03
Jun	18	0.35658	0.33803	-64.71998	06:35
Jun	25	0.35668	0.33813	-64.71967	06:07
Jul	2	0.35681	0.33826	-64.71941	05:40
Jul	9	0.35692	0.33837	-64.71926	05:12
Jul	16	0.35705	0.3385	-64.71915	04:45
Jul	23	0.35715	0.3386	-64.71911	04:17
Jul	30	0.35727	0.33872	-64.71918	03:49
Ago	6	0.35736	0.33881	-64.71932	03:22
Ago	13	0.35746	0.33891	-64.71952	02:54
Ago	20	0.35754	0.33899	-64.71976	02:27
Ago	27	0.35762	0.33907	-64.72013	01:59
Sep	3	0.35768	0.33913	-64.72051	01:31
Sep	10	0.35774	0.33919	-64.72097	01:04
Sep	17	0.35778	0.33923	-64.7214	00:36
Sep	24	0.35781	0.33926	-64.72197	00:09
Oct	1	0.35782	0.33927	-64.72248	23:41
Oct	8	0.35782	0.33927	-64.72306	23:13
Oct	15	0.35782	0.33927	-64.72354	22:46
Oct	22	0.35779	0.33924	-64.72414	22:18
Oct	29	0.35776	0.33921	-64.72463	21:51
Nov	5	0.35771	0.33916	-64.72515	21:23
Nov	12	0.35767	0.33912	-64.72551	20:55
Nov	19	0.3576	0.33905	-64.72597	20:28
Nov	26	0.35754	0.33899	-64.72626	20:00
Dic	3	0.35746	0.33891	-64.72656	19:33
Dic	10	0.3574	0.33885	-64.72667	19:05
Dic	17	0.35731	0.33876	-64.72685	18:37
Dic	24	0.35724	0.33869	-64.72684	18:10
Dic	31	0.35715	0.3386	-64.72684	17:42

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 2021					
V		Sp			
2.82		G2IV			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	0.45109	0.43254	-77.11916	17:43
Ene	8	0.45093	0.43238	-77.119	17:15
Ene	15	0.45077	0.43222	-77.11867	16:48
Ene	22	0.45062	0.43207	-77.11838	16:20
Ene	29	0.45047	0.43192	-77.11792	15:53
Feb	5	0.45034	0.43179	-77.11747	15:25
Feb	12	0.45023	0.43168	-77.11686	14:57
Feb	19	0.45013	0.43158	-77.11632	14:30
Feb	26	0.45005	0.4315	-77.11562	14:02
Mar	5	0.44998	0.43143	-77.11497	13:35
Mar	12	0.44995	0.4314	-77.11419	13:07
Mar	19	0.44991	0.43136	-77.11352	12:39
Mar	26	0.44991	0.43136	-77.11271	12:12
Abr	2	0.44991	0.43136	-77.11199	11:44
Abr	9	0.44996	0.43141	-77.11117	11:17
Abr	16	0.45	0.43145	-77.11048	10:49
Abr	23	0.45009	0.43154	-77.1097	10:21
Abr	30	0.45017	0.43162	-77.10902	09:54
May	7	0.45031	0.43176	-77.1083	09:26
May	14	0.45042	0.43187	-77.10771	08:59
May	21	0.45058	0.43203	-77.10708	08:31
May	28	0.45073	0.43218	-77.10656	08:03
Jun	4	0.45092	0.43237	-77.10605	07:36
Jun	11	0.45109	0.43254	-77.10567	07:08
Jun	18	0.4513	0.43275	-77.10529	06:41
Jun	25	0.45149	0.43294	-77.10502	06:13
Jul	2	0.45171	0.43316	-77.1048	05:45
Jul	9	0.4519	0.43335	-77.1047	05:18
Jul	16	0.45212	0.43357	-77.10464	04:50
Jul	23	0.4523	0.43375	-77.10467	04:23
Jul	30	0.45251	0.43396	-77.10479	03:55
Ago	6	0.45267	0.43412	-77.10499	03:28
Ago	13	0.45286	0.43431	-77.10525	03:00
Ago	20	0.453	0.43445	-77.10555	02:32
Ago	27	0.45315	0.4346	-77.10598	02:05
Sep	3	0.45325	0.4347	-77.10642	01:37
Sep	10	0.45335	0.4348	-77.10694	01:10
Sep	17	0.45341	0.43486	-77.10743	00:42
Sep	24	0.45347	0.43492	-77.10804	00:14
Oct	1	0.45348	0.43493	-77.10861	23:47
Oct	8	0.45348	0.43493	-77.10923	23:19
Oct	15	0.45345	0.4349	-77.10975	22:52
Oct	22	0.4534	0.43485	-77.11038	22:24
Oct	29	0.45332	0.43477	-77.11089	21:56
Nov	5	0.45323	0.43468	-77.11143	21:29
Nov	12	0.45312	0.43457	-77.11181	21:01
Nov	19	0.45298	0.43443	-77.11227	20:34
Nov	26	0.45284	0.43429	-77.11255	20:06
Dic	3	0.45268	0.43413	-77.11285	19:38
Dic	10	0.45253	0.43398	-77.11294	19:11
Dic	17	0.45235	0.4338	-77.11309	18:43
Dic	24	0.45219	0.43364	-77.11304	18:16
Dic	31	0.452	0.43345	-77.11301	17:48

HIP 3419					
V		Sp			
2.04		K0III			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	0.74745	0.7289	-17.85149	18:01
Ene	8	0.74742	0.72887	-17.85162	17:33
Ene	15	0.74741	0.72886	-17.85162	17:06
Ene	22	0.74738	0.72883	-17.8517	16:38
Ene	29	0.74736	0.72881	-17.85165	16:10
Feb	5	0.74734	0.72879	-17.85165	15:43
Feb	12	0.74733	0.72878	-17.8515	15:15
Feb	19	0.7473	0.72875	-17.85145	14:48
Feb	26	0.7473	0.72875	-17.85124	14:20
Mar	5	0.74728	0.72873	-17.85109	13:52
Mar	12	0.74728	0.72873	-17.8508	13:25
Mar	19	0.74727	0.72872	-17.85061	12:57
Mar	26	0.74729	0.72874	-17.85025	12:30
Abr	2	0.74729	0.72874	-17.84996	12:02
Abr	9	0.74731	0.72876	-17.84954	11:34
Abr	16	0.74732	0.72877	-17.84922	11:07
Abr	23	0.74736	0.72881	-17.84875	10:39
Abr	30	0.74739	0.72884	-17.84835	10:12
May	7	0.74743	0.72888	-17.84784	09:44
May	14	0.74747	0.72892	-17.84743	09:16
May	21	0.74752	0.72897	-17.84691	08:49
May	28	0.74757	0.72902	-17.84646	08:21
Jun	4	0.74763	0.72908	-17.84595	07:54
Jun	11	0.74769	0.72914	-17.84552	07:26
Jun	18	0.74775	0.7292	-17.84504	06:58
Jun	25	0.74782	0.72927	-17.84462	06:31
Jul	2	0.74788	0.72933	-17.84419	06:03
Jul	9	0.74795	0.7294	-17.84384	05:36
Jul	16	0.74801	0.72946	-17.84348	05:08
Jul	23	0.74807	0.72952	-17.84316	04:40
Jul	30	0.74813	0.72958	-17.8429	04:13
Ago	6	0.74819	0.72964	-17.8427	03:45
Ago	13	0.74824	0.72969	-17.84253	03:18
Ago	20	0.7483	0.72975	-17.84238	02:50
Ago	27	0.74834	0.72979	-17.84233	02:22
Sep	3	0.74838	0.72983	-17.84231	01:55
Sep	10	0.74841	0.72986	-17.84235	01:27
Sep	17	0.74845	0.7299	-17.84237	01:00
Sep	24	0.74846	0.72991	-17.84252	00:32
Oct	1	0.74849	0.72994	-17.84265	00:04
Oct	8	0.74849	0.72994	-17.84286	23:37
Oct	15	0.74851	0.72996	-17.84301	23:09
Oct	22	0.74851	0.72996	-17.84329	22:42
Oct	29	0.74851	0.72996	-17.8435	22:14
Nov	5	0.7485	0.72995	-17.8438	21:46
Nov	12	0.74851	0.72996	-17.84398	21:19
Nov	19	0.74848	0.72993	-17.8443	20:51
Nov	26	0.74848	0.72993	-17.8445	20:24
Dic	3	0.74845	0.7299	-17.84478	19:56
Dic	10	0.74845	0.7299	-17.84491	19:28
Dic	17	0.74842	0.72987	-17.84516	19:01
Dic	24	0.7484	0.72985	-17.84528	18:33
Dic	31	0.74837	0.72982	-17.84547	18:06

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 3909					
V		Sp			
5.17		F7IV-V			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	0.85637	0.83782	-10.51108	18:07
Ene	8	0.85634	0.83779	-10.51122	17:40
Ene	15	0.85633	0.83778	-10.51125	17:12
Ene	22	0.8563	0.83775	-10.51137	16:44
Ene	29	0.85628	0.83773	-10.51137	16:17
Feb	5	0.85625	0.8377	-10.51142	15:49
Feb	12	0.85625	0.8377	-10.51134	15:22
Feb	19	0.85622	0.83767	-10.51135	14:54
Feb	26	0.85621	0.83766	-10.51123	14:26
Mar	5	0.8562	0.83765	-10.51116	13:59
Mar	12	0.8562	0.83765	-10.51095	13:31
Mar	19	0.85619	0.83764	-10.51084	13:04
Mar	26	0.8562	0.83765	-10.51058	12:36
Abr	2	0.8562	0.83765	-10.51037	12:08
Abr	9	0.85622	0.83767	-10.51003	11:41
Abr	16	0.85623	0.83768	-10.50979	11:13
Abr	23	0.85627	0.83772	-10.5094	10:46
Abr	30	0.85629	0.83774	-10.50907	10:18
May	7	0.85634	0.83779	-10.50863	09:51
May	14	0.85637	0.83782	-10.50828	09:23
May	21	0.85643	0.83788	-10.50781	08:55
May	28	0.85647	0.83792	-10.5074	08:28
Jun	4	0.85653	0.83798	-10.50692	08:00
Jun	11	0.85659	0.83804	-10.50652	07:33
Jun	18	0.85665	0.8381	-10.50605	07:05
Jun	25	0.85671	0.83816	-10.50564	06:37
Jul	2	0.85678	0.83823	-10.50521	06:10
Jul	9	0.85684	0.83829	-10.50484	05:42
Jul	16	0.8569	0.83835	-10.50446	05:15
Jul	23	0.85697	0.83842	-10.50412	04:47
Jul	30	0.85702	0.83847	-10.50381	04:19
Ago	6	0.85708	0.83853	-10.50356	03:52
Ago	13	0.85713	0.83858	-10.50333	03:24
Ago	20	0.85718	0.83863	-10.50313	02:57
Ago	27	0.85722	0.83867	-10.50301	02:29
Sep	3	0.85727	0.83872	-10.50291	02:01
Sep	10	0.8573	0.83875	-10.50287	01:34
Sep	17	0.85733	0.83878	-10.50282	01:06
Sep	24	0.85735	0.8388	-10.50289	00:39
Oct	1	0.85738	0.83883	-10.50294	00:11
Oct	8	0.85738	0.83883	-10.50307	23:43
Oct	15	0.85741	0.83886	-10.50313	23:16
Oct	22	0.8574	0.83885	-10.50334	22:48
Oct	29	0.85741	0.83886	-10.50349	22:21
Nov	5	0.8574	0.83885	-10.50371	21:53
Nov	12	0.85741	0.83886	-10.50384	21:25
Nov	19	0.85739	0.83884	-10.5041	20:58
Nov	26	0.85738	0.83883	-10.50426	20:30
Dic	3	0.85736	0.83881	-10.50451	20:03
Dic	10	0.85736	0.83881	-10.50461	19:35
Dic	17	0.85733	0.83878	-10.50485	19:07
Dic	24	0.85732	0.83877	-10.50497	18:40
Dic	31	0.85729	0.83874	-10.50516	18:12

HIP 5364					
V		Sp			
3.46		K2III			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	1.16421	1.14566	-10.05105	18:26
Ene	8	1.16419	1.14564	-10.0512	17:58
Ene	15	1.16417	1.14562	-10.05125	17:31
Ene	22	1.16414	1.14559	-10.05138	17:03
Ene	29	1.16413	1.14558	-10.05139	16:35
Feb	5	1.1641	1.14555	-10.05145	16:08
Feb	12	1.16409	1.14554	-10.05138	15:40
Feb	19	1.16406	1.14551	-10.0514	15:13
Feb	26	1.16405	1.1455	-10.05129	14:45
Mar	5	1.16403	1.14548	-10.05123	14:17
Mar	12	1.16403	1.14548	-10.05103	13:50
Mar	19	1.16401	1.14546	-10.05093	13:22
Mar	26	1.16402	1.14547	-10.05067	12:55
Abr	2	1.16402	1.14547	-10.05048	12:27
Abr	9	1.16404	1.14549	-10.05015	11:59
Abr	16	1.16405	1.1455	-10.04992	11:32
Abr	23	1.16408	1.14553	-10.04953	11:04
Abr	30	1.1641	1.14555	-10.04921	10:37
May	7	1.16414	1.14559	-10.04877	10:09
May	14	1.16417	1.14562	-10.04843	09:41
May	21	1.16422	1.14567	-10.04796	09:14
May	28	1.16427	1.14572	-10.04756	08:46
Jun	4	1.16432	1.14577	-10.04708	08:19
Jun	11	1.16438	1.14583	-10.04668	07:51
Jun	18	1.16444	1.14589	-10.0462	07:23
Jun	25	1.1645	1.14595	-10.04579	06:56
Jul	2	1.16456	1.14601	-10.04534	06:28
Jul	9	1.16463	1.14608	-10.04498	06:01
Jul	16	1.16469	1.14614	-10.04458	05:33
Jul	23	1.16475	1.1462	-10.04423	05:05
Jul	30	1.16481	1.14626	-10.04391	04:38
Ago	6	1.16487	1.14632	-10.04365	04:10
Ago	13	1.16492	1.14637	-10.04341	03:43
Ago	20	1.16498	1.14643	-10.0432	03:15
Ago	27	1.16502	1.14647	-10.04306	02:47
Sep	3	1.16507	1.14652	-10.04296	02:20
Sep	10	1.1651	1.14655	-10.0429	01:52
Sep	17	1.16514	1.14659	-10.04285	01:25
Sep	24	1.16516	1.14661	-10.04291	00:57
Oct	1	1.16519	1.14664	-10.04295	00:29
Oct	8	1.1652	1.14665	-10.04307	00:02
Oct	15	1.16523	1.14668	-10.04314	23:34
Oct	22	1.16523	1.14668	-10.04335	23:07
Oct	29	1.16524	1.14669	-10.0435	22:39
Nov	5	1.16523	1.14668	-10.04372	22:11
Nov	12	1.16524	1.14669	-10.04385	21:44
Nov	19	1.16523	1.14668	-10.04412	21:16
Nov	26	1.16523	1.14668	-10.0443	20:49
Dic	3	1.16521	1.14666	-10.04455	20:21
Dic	10	1.1652	1.14665	-10.04467	19:53
Dic	17	1.16518	1.14663	-10.04492	19:26
Dic	24	1.16517	1.14662	-10.04504	18:58
Dic	31	1.16514	1.14659	-10.04524	18:31

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 6537					
V		Sp			
3.6		K0III			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	1.42134	1.40279	-8.05525	18:41
Ene	8	1.42131	1.40276	-8.05541	18:14
Ene	15	1.4213	1.40275	-8.05547	17:46
Ene	22	1.42126	1.40271	-8.05561	17:18
Ene	29	1.42125	1.4027	-8.05564	16:51
Feb	5	1.42122	1.40267	-8.05572	16:23
Feb	12	1.4212	1.40265	-8.05567	15:56
Feb	19	1.42117	1.40262	-8.05571	15:28
Feb	26	1.42116	1.40261	-8.05562	15:00
Mar	5	1.42114	1.40259	-8.05559	14:33
Mar	12	1.42114	1.40259	-8.05541	14:05
Mar	19	1.42112	1.40257	-8.05534	13:38
Mar	26	1.42112	1.40257	-8.05511	13:10
Abr	2	1.42112	1.40257	-8.05495	12:42
Abr	9	1.42114	1.40259	-8.05464	12:15
Abr	16	1.42114	1.40259	-8.05444	11:47
Abr	23	1.42117	1.40262	-8.05408	11:20
Abr	30	1.42119	1.40264	-8.05378	10:52
May	7	1.42122	1.40267	-8.05337	10:24
May	14	1.42125	1.4027	-8.05304	09:57
May	21	1.4213	1.40275	-8.05259	09:29
May	28	1.42134	1.40279	-8.05221	09:02
Jun	4	1.4214	1.40285	-8.05173	08:34
Jun	11	1.42145	1.4029	-8.05135	08:06
Jun	18	1.42151	1.40296	-8.05088	07:39
Jun	25	1.42157	1.40302	-8.05047	07:11
Jul	2	1.42163	1.40308	-8.05002	06:44
Jul	9	1.42169	1.40314	-8.04965	06:16
Jul	16	1.42176	1.40321	-8.04924	05:48
Jul	23	1.42182	1.40327	-8.04889	05:21
Jul	30	1.42188	1.40333	-8.04856	04:53
Ago	6	1.42194	1.40339	-8.04829	04:26
Ago	13	1.42199	1.40344	-8.04802	03:58
Ago	20	1.42205	1.4035	-8.0478	03:30
Ago	27	1.4221	1.40355	-8.04764	03:03
Sep	3	1.42214	1.40359	-8.04752	02:35
Sep	10	1.42218	1.40363	-8.04744	02:08
Sep	17	1.42222	1.40367	-8.04736	01:40
Sep	24	1.42225	1.4037	-8.04739	01:13
Oct	1	1.42228	1.40373	-8.04742	00:45
Oct	8	1.42229	1.40374	-8.04752	00:17
Oct	15	1.42232	1.40377	-8.04757	23:50
Oct	22	1.42232	1.40377	-8.04776	23:22
Oct	29	1.42234	1.40379	-8.04789	22:55
Nov	5	1.42234	1.40379	-8.0481	22:27
Nov	12	1.42235	1.4038	-8.04823	21:59
Nov	19	1.42234	1.40379	-8.04848	21:32
Nov	26	1.42234	1.40379	-8.04865	21:04
Dic	3	1.42232	1.40377	-8.0489	20:37
Dic	10	1.42232	1.40377	-8.04902	20:09
Dic	17	1.42229	1.40374	-8.04927	19:41
Dic	24	1.42228	1.40373	-8.0494	19:14
Dic	31	1.42226	1.40371	-8.04961	18:46

HIP 7588					
V		Sp			
0.45		B3Vp			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	1.64443	1.62588	-57.11435	18:55
Ene	8	1.64437	1.62582	-57.11446	18:27
Ene	15	1.64432	1.62577	-57.11443	17:59
Ene	22	1.64425	1.6257	-57.11442	17:32
Ene	29	1.64419	1.62564	-57.11426	17:04
Feb	5	1.64413	1.62558	-57.11408	16:37
Feb	12	1.64407	1.62552	-57.11374	16:09
Feb	19	1.64401	1.62546	-57.11345	15:41
Feb	26	1.64397	1.62542	-57.113	15:14
Mar	5	1.64392	1.62537	-57.11257	14:46
Mar	12	1.64389	1.62534	-57.11198	14:19
Mar	19	1.64384	1.62529	-57.11148	13:51
Mar	26	1.64383	1.62528	-57.11082	13:23
Abr	2	1.6438	1.62525	-57.11022	12:56
Abr	9	1.64381	1.62526	-57.10948	12:28
Abr	16	1.6438	1.62525	-57.10885	12:01
Abr	23	1.64382	1.62527	-57.10809	11:33
Abr	30	1.64383	1.62528	-57.10742	11:05
May	7	1.64387	1.62532	-57.10665	10:38
May	14	1.6439	1.62535	-57.10601	10:10
May	21	1.64396	1.62541	-57.10527	09:43
May	28	1.64401	1.62546	-57.10464	09:15
Jun	4	1.64408	1.62553	-57.10396	08:47
Jun	11	1.64415	1.6256	-57.10343	08:20
Jun	18	1.64423	1.62568	-57.10284	07:52
Jun	25	1.64431	1.62576	-57.10237	07:25
Jul	2	1.6444	1.62585	-57.1019	06:57
Jul	9	1.64449	1.62594	-57.10157	06:29
Jul	16	1.64459	1.62604	-57.10124	06:02
Jul	23	1.64468	1.62613	-57.10102	05:34
Jul	30	1.64477	1.62622	-57.10086	05:07
Ago	6	1.64486	1.62631	-57.10081	04:39
Ago	13	1.64495	1.6264	-57.1008	04:11
Ago	20	1.64503	1.62648	-57.10088	03:44
Ago	27	1.64511	1.62656	-57.10105	03:16
Sep	3	1.64518	1.62663	-57.1013	02:49
Sep	10	1.64525	1.6267	-57.1016	02:21
Sep	17	1.6453	1.62675	-57.10194	01:53
Sep	24	1.64535	1.6268	-57.10239	01:26
Oct	1	1.64539	1.62684	-57.10286	00:58
Oct	8	1.64542	1.62687	-57.10339	00:31
Oct	15	1.64544	1.62689	-57.10388	00:03
Oct	22	1.64545	1.6269	-57.10449	23:36
Oct	29	1.64545	1.6269	-57.10504	23:08
Nov	5	1.64544	1.62689	-57.10564	22:40
Nov	12	1.64543	1.62688	-57.10612	22:13
Nov	19	1.6454	1.62685	-57.10671	21:45
Nov	26	1.64537	1.62682	-57.10716	21:18
Dic	3	1.64532	1.62677	-57.10764	20:50
Dic	10	1.64529	1.62674	-57.10796	20:22
Dic	17	1.64523	1.62668	-57.10835	19:55
Dic	24	1.64518	1.62663	-57.10856	19:27
Dic	31	1.64512	1.62657	-57.1088	18:59

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 7884					
V		Sp			
4.45		K3III			
m	d	$\alpha$ h	$\alpha_c$ h	$\delta$ °	Hp h
Ene	1	1.71236	1.69381	5.61438	18:59
Ene	8	1.71233	1.69378	5.61425	18:31
Ene	15	1.71232	1.69377	5.61418	18:03
Ene	22	1.71229	1.69374	5.61402	17:36
Ene	29	1.71227	1.69372	5.61395	17:08
Feb	5	1.71224	1.69369	5.61381	16:41
Feb	12	1.71223	1.69368	5.61378	16:13
Feb	19	1.71219	1.69364	5.61365	15:45
Feb	26	1.71218	1.69363	5.61363	15:18
Mar	5	1.71216	1.69361	5.61354	14:50
Mar	12	1.71215	1.6936	5.61357	14:23
Mar	19	1.71213	1.69358	5.61351	13:55
Mar	26	1.71213	1.69358	5.61358	13:27
Abr	2	1.71213	1.69358	5.61358	13:00
Abr	9	1.71214	1.69359	5.61372	12:32
Abr	16	1.71214	1.69359	5.61374	12:05
Abr	23	1.71216	1.69361	5.61395	11:37
Abr	30	1.71218	1.69363	5.61409	11:09
May	7	1.71222	1.69367	5.61436	10:42
May	14	1.71225	1.6937	5.61454	10:14
May	21	1.71229	1.69374	5.61486	09:47
May	28	1.71233	1.69378	5.61512	09:19
Jun	4	1.71239	1.69384	5.61549	08:51
Jun	11	1.71244	1.69389	5.61578	08:24
Jun	18	1.7125	1.69395	5.61618	07:56
Jun	25	1.71256	1.69401	5.61652	07:29
Jul	2	1.71262	1.69407	5.61693	07:01
Jul	9	1.71268	1.69413	5.61727	06:34
Jul	16	1.71274	1.69419	5.61768	06:06
Jul	23	1.71281	1.69426	5.61804	05:38
Jul	30	1.71287	1.69432	5.61841	05:11
Ago	6	1.71293	1.69438	5.61873	04:43
Ago	13	1.71298	1.69443	5.61906	04:16
Ago	20	1.71304	1.69449	5.61937	03:48
Ago	27	1.71309	1.69454	5.61963	03:20
Sep	3	1.71314	1.69459	5.61986	02:53
Sep	10	1.71318	1.69463	5.62007	02:25
Sep	17	1.71323	1.69468	5.62028	01:58
Sep	24	1.71325	1.6947	5.62039	01:30
Oct	1	1.71329	1.69474	5.62051	01:02
Oct	8	1.71331	1.69476	5.62058	00:35
Oct	15	1.71334	1.69479	5.62068	00:07
Oct	22	1.71335	1.6948	5.62065	23:40
Oct	29	1.71337	1.69482	5.62067	23:12
Nov	5	1.71337	1.69482	5.62061	22:44
Nov	12	1.71339	1.69484	5.62063	22:17
Nov	19	1.71338	1.69483	5.62051	21:49
Nov	26	1.71338	1.69483	5.62046	21:22
Dic	3	1.71337	1.69482	5.62032	20:54
Dic	10	1.71337	1.69482	5.6203	20:26
Dic	17	1.71335	1.6948	5.62013	19:59
Dic	24	1.71334	1.69479	5.62006	19:31
Dic	31	1.71332	1.69477	5.61989	19:04

HIP 8102					
V		Sp			
3.49		G8V			
m	d	$\alpha$ h	$\alpha_c$ h	$\delta$ °	Hp h
Ene	1	1.75399	1.73544	-15.80752	19:01
Ene	8	1.75396	1.73541	-15.80768	18:34
Ene	15	1.75394	1.73539	-15.80775	18:06
Ene	22	1.75391	1.73536	-15.80787	17:38
Ene	29	1.75389	1.73534	-15.80788	17:11
Feb	5	1.75386	1.73531	-15.80792	16:43
Feb	12	1.75384	1.73529	-15.80783	16:16
Feb	19	1.7538	1.73525	-15.80781	15:48
Feb	26	1.75379	1.73524	-15.80766	15:20
Mar	5	1.75376	1.73521	-15.80755	14:53
Mar	12	1.75375	1.7352	-15.8073	14:25
Mar	19	1.75373	1.73518	-15.80715	13:58
Mar	26	1.75373	1.73518	-15.80683	13:30
Abr	2	1.75372	1.73517	-15.80658	13:02
Abr	9	1.75373	1.73518	-15.80619	12:35
Abr	16	1.75373	1.73518	-15.80589	12:07
Abr	23	1.75375	1.7352	-15.80545	11:40
Abr	30	1.75377	1.73522	-15.80507	11:12
May	7	1.7538	1.73525	-15.80457	10:44
May	14	1.75383	1.73528	-15.80418	10:17
May	21	1.75387	1.73532	-15.80365	09:49
May	28	1.75391	1.73536	-15.80321	09:22
Jun	4	1.75396	1.73541	-15.80267	08:54
Jun	11	1.75401	1.73546	-15.80224	08:26
Jun	18	1.75407	1.73552	-15.80172	07:59
Jun	25	1.75413	1.73558	-15.80129	07:31
Jul	2	1.75419	1.73564	-15.80081	07:04
Jul	9	1.75425	1.7357	-15.80043	06:36
Jul	16	1.75432	1.73577	-15.80001	06:08
Jul	23	1.75438	1.73583	-15.79967	05:41
Jul	30	1.75444	1.73589	-15.79934	05:13
Ago	6	1.7545	1.73595	-15.79909	04:46
Ago	13	1.75456	1.73601	-15.79885	04:18
Ago	20	1.75461	1.73606	-15.79867	03:50
Ago	27	1.75466	1.73611	-15.79856	03:23
Sep	3	1.75471	1.73616	-15.79849	02:55
Sep	10	1.75475	1.7362	-15.79847	02:28
Sep	17	1.7548	1.73625	-15.79847	02:00
Sep	24	1.75482	1.73627	-15.79858	01:32
Oct	1	1.75485	1.7363	-15.79869	01:05
Oct	8	1.75487	1.73632	-15.79887	00:37
Oct	15	1.7549	1.73635	-15.79902	00:10
Oct	22	1.75491	1.73636	-15.79929	23:42
Oct	29	1.75493	1.73638	-15.79952	23:14
Nov	5	1.75493	1.73638	-15.79981	22:47
Nov	12	1.75494	1.73639	-15.80002	22:19
Nov	19	1.75493	1.73638	-15.80036	21:52
Nov	26	1.75493	1.73638	-15.8006	21:24
Dic	3	1.75491	1.73636	-15.80091	20:56
Dic	10	1.75491	1.73636	-15.80109	20:29
Dic	17	1.75489	1.73634	-15.80139	20:01
Dic	24	1.75487	1.73632	-15.80156	19:34
Dic	31	1.75485	1.7363	-15.8018	19:06

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 10320					
V		Sp			
5.27		A0V			
m	d	$\alpha$ h	$\alpha_c$ h	$\delta$ °	Hp h
Ene	1	2.23373	2.21518	-30.60928	19:30
Ene	8	2.2337	2.21515	-30.60949	19:02
Ene	15	2.23368	2.21513	-30.6096	18:35
Ene	22	2.23364	2.21509	-30.60974	18:07
Ene	29	2.23361	2.21506	-30.60976	17:40
Feb	5	2.23357	2.21502	-30.60978	17:12
Feb	12	2.23355	2.215	-30.60965	16:44
Feb	19	2.2335	2.21495	-30.60959	16:17
Feb	26	2.23348	2.21493	-30.60937	15:49
Mar	5	2.23344	2.21489	-30.60918	15:22
Mar	12	2.23343	2.21488	-30.60884	14:54
Mar	19	2.2334	2.21485	-30.60857	14:26
Mar	26	2.23339	2.21484	-30.60815	13:59
Abr	2	2.23337	2.21482	-30.60778	13:31
Abr	9	2.23337	2.21482	-30.60726	13:04
Abr	16	2.23336	2.21481	-30.60685	12:36
Abr	23	2.23337	2.21482	-30.60628	12:08
Abr	30	2.23338	2.21483	-30.60578	11:41
May	7	2.23341	2.21486	-30.60516	11:13
May	14	2.23342	2.21487	-30.60465	10:46
May	21	2.23346	2.21491	-30.60401	10:18
May	28	2.2335	2.21495	-30.60347	09:50
Jun	4	2.23355	2.215	-30.60284	09:23
Jun	11	2.23359	2.21504	-30.60233	08:55
Jun	18	2.23365	2.2151	-30.60173	08:28
Jun	25	2.23371	2.21516	-30.60124	08:00
Jul	2	2.23377	2.21522	-30.60071	07:32
Jul	9	2.23383	2.21528	-30.60031	07:05
Jul	16	2.2339	2.21535	-30.59986	06:37
Jul	23	2.23397	2.21542	-30.59952	06:10
Jul	30	2.23404	2.21549	-30.5992	05:42
Ago	6	2.2341	2.21555	-30.59899	05:14
Ago	13	2.23416	2.21561	-30.59878	04:47
Ago	20	2.23423	2.21568	-30.59866	04:19
Ago	27	2.23429	2.21574	-30.59861	03:52
Sep	3	2.23434	2.21579	-30.59864	03:24
Sep	10	2.23439	2.21584	-30.59871	02:56
Sep	17	2.23444	2.21589	-30.59883	02:29
Sep	24	2.23448	2.21593	-30.59905	02:01
Oct	1	2.23452	2.21597	-30.59931	01:34
Oct	8	2.23455	2.216	-30.59962	01:06
Oct	15	2.23458	2.21603	-30.59992	00:38
Oct	22	2.2346	2.21605	-30.60034	00:11
Oct	29	2.23462	2.21607	-30.60074	23:43
Nov	5	2.23462	2.21607	-30.60118	23:16
Nov	12	2.23464	2.21609	-30.60155	22:48
Nov	19	2.23463	2.21608	-30.60204	22:20
Nov	26	2.23463	2.21608	-30.60243	21:53
Dic	3	2.23462	2.21607	-30.60288	21:25
Dic	10	2.23461	2.21606	-30.60318	20:58
Dic	17	2.23459	2.21604	-30.60359	20:30
Dic	24	2.23457	2.21602	-30.60386	20:02
Dic	31	2.23454	2.21599	-30.60417	19:35

HIP 10670					
V		Sp			
4.03		A1Vnn			
m	d	$\alpha$ h	$\alpha_c$ h	$\delta$ °	Hp h
Ene	1	2.3136	2.29505	33.96542	19:35
Ene	8	2.31357	2.29502	33.96543	19:07
Ene	15	2.31356	2.29501	33.96547	18:40
Ene	22	2.31352	2.29497	33.96539	18:12
Ene	29	2.31349	2.29494	33.96534	17:44
Feb	5	2.31345	2.2949	33.96519	17:17
Feb	12	2.31343	2.29488	33.9651	16:49
Feb	19	2.31339	2.29484	33.96487	16:22
Feb	26	2.31336	2.29481	33.96471	15:54
Mar	5	2.31333	2.29478	33.96445	15:26
Mar	12	2.31331	2.29476	33.96427	14:59
Mar	19	2.31328	2.29473	33.96397	14:31
Mar	26	2.31327	2.29472	33.96377	14:04
Abr	2	2.31326	2.29471	33.96348	13:36
Abr	9	2.31326	2.29471	33.96331	13:08
Abr	16	2.31326	2.29471	33.96303	12:41
Abr	23	2.31328	2.29473	33.96289	12:13
Abr	30	2.31329	2.29474	33.96267	11:46
May	7	2.31332	2.29477	33.9626	11:18
May	14	2.31335	2.2948	33.96244	10:50
May	21	2.3134	2.29485	33.96243	10:23
May	28	2.31345	2.2949	33.96236	09:55
Jun	4	2.3135	2.29495	33.96243	09:28
Jun	11	2.31356	2.29501	33.96244	09:00
Jun	18	2.31362	2.29507	33.96259	08:32
Jun	25	2.31369	2.29514	33.9627	08:05
Jul	2	2.31376	2.29521	33.96292	07:37
Jul	9	2.31383	2.29528	33.9631	07:10
Jul	16	2.3139	2.29535	33.96339	06:42
Jul	23	2.31398	2.29543	33.96365	06:14
Jul	30	2.31405	2.2955	33.96398	05:47
Ago	6	2.31412	2.29557	33.96428	05:19
Ago	13	2.31418	2.29563	33.96466	04:52
Ago	20	2.31426	2.29571	33.96502	04:24
Ago	27	2.31432	2.29577	33.9654	03:56
Sep	3	2.31438	2.29583	33.96576	03:29
Sep	10	2.31443	2.29588	33.96615	03:01
Sep	17	2.31449	2.29594	33.96655	02:34
Sep	24	2.31453	2.29598	33.96691	02:06
Oct	1	2.31458	2.29603	33.96728	01:38
Oct	8	2.31461	2.29606	33.96764	01:11
Oct	15	2.31466	2.29611	33.96802	00:43
Oct	22	2.31468	2.29613	33.96832	00:16
Oct	29	2.31471	2.29616	33.96865	23:48
Nov	5	2.31472	2.29617	33.96893	23:20
Nov	12	2.31475	2.2962	33.96926	22:53
Nov	19	2.31475	2.2962	33.96946	22:25
Nov	26	2.31476	2.29621	33.96972	21:58
Dic	3	2.31475	2.2962	33.96988	21:30
Dic	10	2.31476	2.29621	33.97013	21:02
Dic	17	2.31474	2.29619	33.97021	20:35
Dic	24	2.31474	2.29619	33.97036	20:07
Dic	31	2.31471	2.29616	33.97037	19:40

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 15510					
V		Sp			
4.26		G8V			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	3.3492	3.33065	-42.977	20:37
Ene	8	3.34917	3.33062	-42.97733	20:09
Ene	15	3.34914	3.33059	-42.97758	19:42
Ene	22	3.34909	3.33054	-42.97782	19:14
Ene	29	3.34905	3.3305	-42.97796	18:46
Feb	5	3.349	3.33045	-42.97805	18:19
Feb	12	3.34896	3.33041	-42.97802	17:51
Feb	19	3.34891	3.33036	-42.97801	17:24
Feb	26	3.34887	3.33032	-42.97785	16:56
Mar	5	3.34881	3.33026	-42.97769	16:28
Mar	12	3.34878	3.33023	-42.97738	16:01
Mar	19	3.34873	3.33018	-42.97712	15:33
Mar	26	3.3487	3.33015	-42.9767	15:06
Abr	2	3.34866	3.33011	-42.97632	14:38
Abr	9	3.34864	3.33009	-42.97578	14:10
Abr	16	3.34861	3.33006	-42.97532	13:43
Abr	23	3.34861	3.33006	-42.97471	13:15
Abr	30	3.3486	3.33005	-42.97417	12:48
May	7	3.3486	3.33005	-42.97348	12:20
May	14	3.34861	3.33006	-42.97291	11:52
May	21	3.34863	3.33008	-42.9722	11:25
May	28	3.34865	3.3301	-42.9716	10:57
Jun	4	3.34869	3.33014	-42.97087	10:30
Jun	11	3.34873	3.33018	-42.97029	10:02
Jun	18	3.34878	3.33023	-42.9696	09:34
Jun	25	3.34883	3.33028	-42.96904	09:07
Jul	2	3.34889	3.33034	-42.96841	08:39
Jul	9	3.34895	3.3304	-42.96793	08:12
Jul	16	3.34902	3.33047	-42.96738	07:44
Jul	23	3.34908	3.33053	-42.96699	07:16
Jul	30	3.34916	3.33061	-42.96657	06:49
Ago	6	3.34923	3.33068	-42.96631	06:21
Ago	13	3.3493	3.33075	-42.96603	05:54
Ago	20	3.34938	3.33083	-42.96588	05:26
Ago	27	3.34945	3.3309	-42.96577	04:59
Sep	3	3.34952	3.33097	-42.96579	04:31
Sep	10	3.34958	3.33103	-42.96584	04:03
Sep	17	3.34965	3.3311	-42.96598	03:36
Sep	24	3.34971	3.33116	-42.9662	03:08
Oct	1	3.34976	3.33121	-42.96651	02:41
Oct	8	3.34981	3.33126	-42.96685	02:13
Oct	15	3.34986	3.33131	-42.96724	01:45
Oct	22	3.34989	3.33134	-42.96772	01:18
Oct	29	3.34993	3.33138	-42.96822	00:50
Nov	5	3.34995	3.3314	-42.96876	00:23
Nov	12	3.34998	3.33143	-42.96927	23:55
Nov	19	3.34998	3.33143	-42.96988	23:27
Nov	26	3.34999	3.33144	-42.97042	23:00
Dic	3	3.34999	3.33144	-42.971	22:32
Dic	10	3.34999	3.33144	-42.97146	22:05
Dic	17	3.34997	3.33142	-42.97201	21:37
Dic	24	3.34996	3.33141	-42.97243	21:09
Dic	31	3.34992	3.33137	-42.97288	20:42

HIP 17378					
V		Sp			
3.52		K0IV			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	3.7411	3.72255	-9.67948	21:00
Ene	8	3.74109	3.72254	-9.6797	20:33
Ene	15	3.74108	3.72253	-9.6799	20:05
Ene	22	3.74105	3.7225	-9.6801	19:38
Ene	29	3.74103	3.72248	-9.68024	19:10
Feb	5	3.741	3.72245	-9.68038	18:42
Feb	12	3.74098	3.72243	-9.68043	18:15
Feb	19	3.74094	3.72239	-9.68051	17:47
Feb	26	3.74091	3.72236	-9.68051	17:20
Mar	5	3.74088	3.72233	-9.68052	16:52
Mar	12	3.74085	3.7223	-9.68041	16:24
Mar	19	3.74082	3.72227	-9.68037	15:57
Mar	26	3.7408	3.72225	-9.68021	15:29
Abr	2	3.74077	3.72222	-9.68009	15:02
Abr	9	3.74076	3.72221	-9.67983	14:34
Abr	16	3.74074	3.72219	-9.67966	14:06
Abr	23	3.74074	3.72219	-9.67935	13:39
Abr	30	3.74073	3.72218	-9.67911	13:11
May	7	3.74074	3.72219	-9.67872	12:44
May	14	3.74074	3.72219	-9.67844	12:16
May	21	3.74077	3.72222	-9.67801	11:48
May	28	3.74079	3.72224	-9.67767	11:21
Jun	4	3.74082	3.72227	-9.67719	10:53
Jun	11	3.74085	3.7223	-9.67683	10:26
Jun	18	3.74089	3.72234	-9.67634	09:58
Jun	25	3.74094	3.72239	-9.67597	09:30
Jul	2	3.74098	3.72243	-9.67548	09:03
Jul	9	3.74103	3.72248	-9.67513	08:35
Jul	16	3.74109	3.72254	-9.67467	08:08
Jul	23	3.74115	3.7226	-9.67433	07:40
Jul	30	3.74121	3.72266	-9.67393	07:12
Ago	6	3.74127	3.72272	-9.67366	06:45
Ago	13	3.74132	3.72277	-9.67333	06:17
Ago	20	3.74139	3.72284	-9.67312	05:50
Ago	27	3.74144	3.72289	-9.67289	05:22
Sep	3	3.7415	3.72295	-9.67278	04:54
Sep	10	3.74155	3.723	-9.67264	04:27
Sep	17	3.74161	3.72306	-9.6726	03:59
Sep	24	3.74166	3.72311	-9.6726	03:32
Oct	1	3.74171	3.72316	-9.67267	03:04
Oct	8	3.74175	3.7232	-9.67275	02:36
Oct	15	3.7418	3.72325	-9.67288	02:09
Oct	22	3.74183	3.72328	-9.67308	01:41
Oct	29	3.74187	3.72332	-9.6733	01:14
Nov	5	3.7419	3.72335	-9.67355	00:46
Nov	12	3.74194	3.72339	-9.67379	00:18
Nov	19	3.74195	3.7234	-9.67412	23:51
Nov	26	3.74197	3.72342	-9.6744	23:23
Dic	3	3.74198	3.72343	-9.67473	22:56
Dic	10	3.742	3.72345	-9.67498	22:28
Dic	17	3.74199	3.72344	-9.67533	22:01
Dic	24	3.742	3.72345	-9.67558	21:33
Dic	31	3.74199	3.72344	-9.67589	21:05

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 23693					
V		Sp			
4.71		F7V			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	5.09976	5.08121	-57.43908	22:22
Ene	8	5.09973	5.08118	-57.43963	21:54
Ene	15	5.09969	5.08114	-57.44016	21:27
Ene	22	5.09964	5.08109	-57.44063	20:59
Ene	29	5.09958	5.08103	-57.44105	20:31
Feb	5	5.09952	5.08097	-57.44139	20:04
Feb	12	5.09945	5.0809	-57.44164	19:36
Feb	19	5.09937	5.08082	-57.44185	19:09
Feb	26	5.0993	5.08075	-57.44197	18:41
Mar	5	5.09922	5.08067	-57.44204	18:13
Mar	12	5.09914	5.08059	-57.44197	17:46
Mar	19	5.09905	5.0805	-57.4419	17:18
Mar	26	5.09898	5.08043	-57.44171	16:51
Abr	2	5.0989	5.08035	-57.4415	16:23
Abr	9	5.09883	5.08028	-57.44114	15:55
Abr	16	5.09877	5.08022	-57.44082	15:28
Abr	23	5.09871	5.08016	-57.44035	15:00
Abr	30	5.09866	5.08011	-57.43992	14:33
May	7	5.09862	5.08007	-57.43932	14:05
May	14	5.09858	5.08003	-57.43881	13:37
May	21	5.09856	5.08001	-57.43815	13:10
May	28	5.09854	5.07999	-57.43757	12:42
Jun	4	5.09854	5.07999	-57.43684	12:15
Jun	11	5.09855	5.08	-57.43623	11:47
Jun	18	5.09856	5.08001	-57.43549	11:19
Jun	25	5.09859	5.08004	-57.43488	10:52
Jul	2	5.09862	5.08007	-57.43415	10:24
Jul	9	5.09866	5.08011	-57.43357	09:57
Jul	16	5.09872	5.08017	-57.4329	09:29
Jul	23	5.09878	5.08023	-57.43239	09:01
Jul	30	5.09884	5.08029	-57.4318	08:34
Ago	6	5.09891	5.08036	-57.4314	08:06
Ago	13	5.09899	5.08044	-57.43093	07:39
Ago	20	5.09907	5.08052	-57.43065	07:11
Ago	27	5.09916	5.08061	-57.43034	06:44
Sep	3	5.09924	5.08069	-57.43022	06:16
Sep	10	5.09933	5.08078	-57.43008	05:48
Sep	17	5.09942	5.08087	-57.4301	05:21
Sep	24	5.09951	5.08096	-57.43016	04:53
Oct	1	5.09959	5.08104	-57.43037	04:26
Oct	8	5.09967	5.08112	-57.4306	03:58
Oct	15	5.09975	5.0812	-57.43094	03:30
Oct	22	5.09982	5.08127	-57.43135	03:03
Oct	29	5.09989	5.08134	-57.43186	02:35
Nov	5	5.09995	5.0814	-57.43238	02:08
Nov	12	5.1	5.08145	-57.43297	01:40
Nov	19	5.10004	5.08149	-57.43361	01:12
Nov	26	5.10007	5.08152	-57.43428	00:45
Dic	3	5.10009	5.08154	-57.43496	00:17
Dic	10	5.10011	5.08156	-57.43561	23:50
Dic	17	5.10011	5.08156	-57.43632	23:22
Dic	24	5.1001	5.08155	-57.43696	22:54
Dic	31	5.10008	5.08153	-57.43761	22:27

HIP 24436					
V		Sp			
0.18		B8Ia			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	5.26272	5.24417	-8.17297	22:32
Ene	8	5.26271	5.24416	-8.17325	22:04
Ene	15	5.26272	5.24417	-8.17354	21:36
Ene	22	5.2627	5.24415	-8.17379	21:09
Ene	29	5.26269	5.24414	-8.17403	20:41
Feb	5	5.26267	5.24412	-8.17422	20:14
Feb	12	5.26265	5.2441	-8.17437	19:46
Feb	19	5.26261	5.24406	-8.17451	19:18
Feb	26	5.26259	5.24404	-8.17461	18:51
Mar	5	5.26255	5.244	-8.17468	18:23
Mar	12	5.26252	5.24397	-8.17467	17:56
Mar	19	5.26248	5.24393	-8.1747	17:28
Mar	26	5.26246	5.24391	-8.17463	17:00
Abr	2	5.26242	5.24387	-8.17459	16:33
Abr	9	5.2624	5.24385	-8.17443	16:05
Abr	16	5.26236	5.24381	-8.17433	15:38
Abr	23	5.26235	5.2438	-8.17411	15:10
Abr	30	5.26233	5.24378	-8.17395	14:42
May	7	5.26232	5.24377	-8.17365	14:15
May	14	5.26231	5.24376	-8.17344	13:47
May	21	5.26232	5.24377	-8.1731	13:20
May	28	5.26232	5.24377	-8.17285	12:52
Jun	4	5.26234	5.24379	-8.17244	12:24
Jun	11	5.26235	5.2438	-8.17215	11:57
Jun	18	5.26238	5.24383	-8.17173	11:29
Jun	25	5.26241	5.24386	-8.17142	11:02
Jul	2	5.26244	5.24389	-8.17097	10:34
Jul	9	5.26248	5.24393	-8.17066	10:06
Jul	16	5.26252	5.24397	-8.17023	09:39
Jul	23	5.26257	5.24402	-8.16994	09:11
Jul	30	5.26262	5.24407	-8.16955	08:44
Ago	6	5.26267	5.24412	-8.1693	08:16
Ago	13	5.26272	5.24417	-8.16896	07:49
Ago	20	5.26278	5.24423	-8.16877	07:21
Ago	27	5.26283	5.24428	-8.16852	06:53
Sep	3	5.26289	5.24434	-8.16841	06:26
Sep	10	5.26295	5.2444	-8.16825	05:58
Sep	17	5.26301	5.24446	-8.16822	05:31
Sep	24	5.26306	5.24451	-8.16818	05:03
Oct	1	5.26312	5.24457	-8.16825	04:35
Oct	8	5.26317	5.24462	-8.16831	04:08
Oct	15	5.26324	5.24469	-8.16846	03:40
Oct	22	5.26328	5.24473	-8.16864	03:13
Oct	29	5.26333	5.24478	-8.16889	02:45
Nov	5	5.26337	5.24482	-8.16913	02:17
Nov	12	5.26343	5.24488	-8.16942	01:50
Nov	19	5.26346	5.24491	-8.16975	01:22
Nov	26	5.2635	5.24495	-8.17009	00:55
Dic	3	5.26353	5.24498	-8.17045	00:27
Dic	10	5.26356	5.24501	-8.17077	23:59
Dic	17	5.26358	5.24503	-8.17116	23:32
Dic	24	5.2636	5.24505	-8.17149	23:04
Dic	31	5.2636	5.24505	-8.17184	22:37

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 27288					
V		Sp			
3.55		A2Vann			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	5.80189	5.78334	-14.81277	23:04
Ene	8	5.80189	5.78334	-14.81313	22:36
Ene	15	5.8019	5.78335	-14.81352	22:09
Ene	22	5.80188	5.78333	-14.81384	21:41
Ene	29	5.80188	5.78333	-14.81417	21:14
Feb	5	5.80185	5.7833	-14.81443	20:46
Feb	12	5.80184	5.78329	-14.81465	20:18
Feb	19	5.8018	5.78325	-14.81484	19:51
Feb	26	5.80178	5.78323	-14.815	19:23
Mar	5	5.80174	5.78319	-14.81511	18:56
Mar	12	5.80171	5.78316	-14.81514	18:28
Mar	19	5.80166	5.78311	-14.81518	18:00
Mar	26	5.80164	5.78309	-14.81515	17:33
Abr	2	5.8016	5.78305	-14.81511	17:05
Abr	9	5.80157	5.78302	-14.81496	16:38
Abr	16	5.80153	5.78298	-14.81485	16:10
Abr	23	5.80151	5.78296	-14.81463	15:42
Abr	30	5.80149	5.78294	-14.81445	15:15
May	7	5.80147	5.78292	-14.81413	14:47
May	14	5.80146	5.78291	-14.81389	14:20
May	21	5.80145	5.7829	-14.81352	13:52
May	28	5.80145	5.7829	-14.81323	13:24
Jun	4	5.80146	5.78291	-14.81279	12:57
Jun	11	5.80147	5.78292	-14.81246	12:29
Jun	18	5.80149	5.78294	-14.812	12:02
Jun	25	5.80151	5.78296	-14.81164	11:34
Jul	2	5.80154	5.78299	-14.81115	11:06
Jul	9	5.80157	5.78302	-14.8108	10:39
Jul	16	5.8016	5.78305	-14.81033	10:11
Jul	23	5.80165	5.7831	-14.80999	09:44
Jul	30	5.80169	5.78314	-14.80956	09:16
Ago	6	5.80174	5.78319	-14.80927	08:48
Ago	13	5.80179	5.78324	-14.80889	08:21
Ago	20	5.80184	5.78329	-14.80868	07:53
Ago	27	5.80189	5.78334	-14.80839	07:26
Sep	3	5.80195	5.7834	-14.80827	06:58
Sep	10	5.80201	5.78346	-14.80808	06:30
Sep	17	5.80207	5.78352	-14.80806	06:03
Sep	24	5.80212	5.78357	-14.80801	05:35
Oct	1	5.80219	5.78364	-14.8081	05:08
Oct	8	5.80224	5.78369	-14.80816	04:40
Oct	15	5.8023	5.78375	-14.80835	04:13
Oct	22	5.80235	5.7838	-14.80855	03:45
Oct	29	5.80241	5.78386	-14.80884	03:17
Nov	5	5.80245	5.7839	-14.80914	02:50
Nov	12	5.80251	5.78396	-14.80949	02:22
Nov	19	5.80255	5.784	-14.80988	01:55
Nov	26	5.80259	5.78404	-14.8103	01:27
Dic	3	5.80262	5.78407	-14.81073	00:59
Dic	10	5.80267	5.78412	-14.81115	00:32
Dic	17	5.80268	5.78413	-14.81162	00:04
Dic	24	5.80271	5.78416	-14.81204	23:37
Dic	31	5.80272	5.78417	-14.81248	23:09

HIP 27654					
V		Sp			
3.76		G8III/IV			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	5.8737	5.85515	-20.8771	23:08
Ene	8	5.8737	5.85515	-20.87752	22:41
Ene	15	5.87371	5.85516	-20.87797	22:13
Ene	22	5.87369	5.85514	-20.87835	21:46
Ene	29	5.87369	5.85514	-20.87873	21:18
Feb	5	5.87366	5.85511	-20.87904	20:50
Feb	12	5.87364	5.85509	-20.87931	20:23
Feb	19	5.87361	5.85506	-20.87953	19:55
Feb	26	5.87358	5.85503	-20.87972	19:28
Mar	5	5.87354	5.85499	-20.87985	19:00
Mar	12	5.87351	5.85496	-20.87991	18:32
Mar	19	5.87346	5.85491	-20.87996	18:05
Mar	26	5.87343	5.85488	-20.87993	17:37
Abr	2	5.87339	5.85484	-20.87989	17:10
Abr	9	5.87336	5.85481	-20.87973	16:42
Abr	16	5.87332	5.85477	-20.87961	16:14
Abr	23	5.8733	5.85475	-20.87937	15:47
Abr	30	5.87327	5.85472	-20.87916	15:19
May	7	5.87325	5.8547	-20.87882	14:52
May	14	5.87323	5.85468	-20.87854	14:24
May	21	5.87323	5.85468	-20.87814	13:56
May	28	5.87322	5.85467	-20.87778	13:29
Jun	4	5.87323	5.85468	-20.87732	13:01
Jun	11	5.87324	5.85469	-20.87695	12:34
Jun	18	5.87325	5.8547	-20.87643	12:06
Jun	25	5.87327	5.85472	-20.87604	11:38
Jul	2	5.8733	5.85475	-20.8755	11:11
Jul	9	5.87333	5.85478	-20.8751	10:43
Jul	16	5.87337	5.85482	-20.87458	10:16
Jul	23	5.87341	5.85486	-20.87421	09:48
Jul	30	5.87345	5.8549	-20.87373	09:20
Ago	6	5.8735	5.85495	-20.87341	08:53
Ago	13	5.87355	5.855	-20.873	08:25
Ago	20	5.8736	5.85505	-20.87276	07:58
Ago	27	5.87365	5.8551	-20.87245	07:30
Sep	3	5.87371	5.85516	-20.87231	07:02
Sep	10	5.87377	5.85522	-20.87211	06:35
Sep	17	5.87383	5.85528	-20.87208	06:07
Sep	24	5.87389	5.85534	-20.87203	05:40
Oct	1	5.87395	5.8554	-20.87213	05:12
Oct	8	5.874	5.85545	-20.87221	04:44
Oct	15	5.87407	5.85552	-20.87241	04:17
Oct	22	5.87412	5.85557	-20.87264	03:49
Oct	29	5.87418	5.85563	-20.87297	03:22
Nov	5	5.87422	5.85567	-20.8733	02:54
Nov	12	5.87428	5.85573	-20.8737	02:26
Nov	19	5.87432	5.85577	-20.87414	01:59
Nov	26	5.87437	5.85582	-20.87462	01:31
Dic	3	5.8744	5.85585	-20.8751	01:04
Dic	10	5.87444	5.85589	-20.87558	00:36
Dic	17	5.87446	5.85591	-20.87611	00:08
Dic	24	5.87448	5.85593	-20.8766	23:41
Dic	31	5.87449	5.85594	-20.8771	23:13

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 28103					
V		Sp			
3.71		1V			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	5.95947	5.94092	-14.16321	23:13
Ene	8	5.95947	5.94092	-14.16357	22:46
Ene	15	5.95948	5.94093	-14.16397	22:18
Ene	22	5.95947	5.94092	-14.16429	21:51
Ene	29	5.95947	5.94092	-14.16463	21:23
Feb	5	5.95944	5.94089	-14.16488	20:55
Feb	12	5.95943	5.94088	-14.16512	20:28
Feb	19	5.95939	5.94084	-14.16531	20:00
Feb	26	5.95937	5.94082	-14.16547	19:33
Mar	5	5.95933	5.94078	-14.16559	19:05
Mar	12	5.95931	5.94076	-14.16564	18:37
Mar	19	5.95926	5.94071	-14.16568	18:10
Mar	26	5.95923	5.94068	-14.16566	17:42
Abr	2	5.95919	5.94064	-14.16563	17:15
Abr	9	5.95917	5.94062	-14.16549	16:47
Abr	16	5.95913	5.94058	-14.16539	16:19
Abr	23	5.95911	5.94056	-14.16519	15:52
Abr	30	5.95908	5.94053	-14.16502	15:24
May	7	5.95907	5.94052	-14.16472	14:57
May	14	5.95905	5.9405	-14.16449	14:29
May	21	5.95905	5.9405	-14.16413	14:01
May	28	5.95904	5.94049	-14.16385	13:34
Jun	4	5.95905	5.9405	-14.16343	13:06
Jun	11	5.95905	5.9405	-14.16311	12:39
Jun	18	5.95907	5.94052	-14.16265	12:11
Jun	25	5.95909	5.94054	-14.16231	11:43
Jul	2	5.95912	5.94057	-14.16184	11:16
Jul	9	5.95915	5.9406	-14.16149	10:48
Jul	16	5.95918	5.94063	-14.16102	10:21
Jul	23	5.95922	5.94067	-14.1607	09:53
Jul	30	5.95927	5.94072	-14.16027	09:26
Ago	6	5.95931	5.94076	-14.15998	08:58
Ago	13	5.95936	5.94081	-14.15961	08:30
Ago	20	5.95942	5.94087	-14.1594	08:03
Ago	27	5.95947	5.94092	-14.15911	07:35
Sep	3	5.95952	5.94097	-14.15899	07:08
Sep	10	5.95958	5.94103	-14.1588	06:40
Sep	17	5.95964	5.94109	-14.15877	06:12
Sep	24	5.95969	5.94114	-14.15872	05:45
Oct	1	5.95976	5.94121	-14.1588	05:17
Oct	8	5.95981	5.94126	-14.15886	04:50
Oct	15	5.95987	5.94132	-14.15905	04:22
Oct	22	5.95992	5.94137	-14.15924	03:54
Oct	29	5.95998	5.94143	-14.15953	03:27
Nov	5	5.96003	5.94148	-14.15981	02:59
Nov	12	5.96009	5.94154	-14.16017	02:32
Nov	19	5.96012	5.94157	-14.16055	02:04
Nov	26	5.96017	5.94162	-14.16097	01:36
Dic	3	5.9602	5.94165	-14.16139	01:09
Dic	10	5.96025	5.9417	-14.16182	00:41
Dic	17	5.96027	5.94172	-14.16228	00:14
Dic	24	5.9603	5.94175	-14.1627	23:46
Dic	31	5.9603	5.94175	-14.16314	23:18

HIP 29271					
V		Sp			
5.08		G5V			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	6.15967	6.14112	-74.75897	23:25
Ene	8	6.15962	6.14107	-74.75961	22:58
Ene	15	6.15954	6.14099	-74.76028	22:30
Ene	22	6.15945	6.1409	-74.76086	22:03
Ene	29	6.15934	6.14079	-74.76144	21:35
Feb	5	6.15922	6.14067	-74.76193	21:07
Feb	12	6.15907	6.14052	-74.76237	20:40
Feb	19	6.15892	6.14037	-74.76274	20:12
Feb	26	6.15875	6.1402	-74.76306	19:45
Mar	5	6.15858	6.14003	-74.76333	19:17
Mar	12	6.1584	6.13985	-74.76344	18:49
Mar	19	6.15822	6.13967	-74.76354	18:22
Mar	26	6.15804	6.13949	-74.76355	17:54
Abr	2	6.15786	6.13931	-74.76352	17:27
Abr	9	6.15768	6.13913	-74.76335	16:59
Abr	16	6.15751	6.13896	-74.76318	16:31
Abr	23	6.15735	6.1388	-74.76289	16:04
Abr	30	6.1572	6.13865	-74.7626	15:36
May	7	6.15705	6.1385	-74.76216	15:09
May	14	6.15693	6.13838	-74.76176	14:41
May	21	6.15682	6.13827	-74.76122	14:13
May	28	6.15673	6.13818	-74.76074	13:46
Jun	4	6.15665	6.1381	-74.76009	13:18
Jun	11	6.15659	6.13804	-74.75954	12:51
Jun	18	6.15655	6.138	-74.75886	12:23
Jun	25	6.15653	6.13798	-74.75827	11:55
Jul	2	6.15653	6.13798	-74.75755	11:28
Jul	9	6.15655	6.138	-74.75696	11:00
Jul	16	6.15659	6.13804	-74.75626	10:33
Jul	23	6.15664	6.13809	-74.75571	10:05
Jul	30	6.15672	6.13817	-74.75505	09:37
Ago	6	6.15681	6.13826	-74.75457	09:10
Ago	13	6.15692	6.13837	-74.75401	08:42
Ago	20	6.15704	6.13849	-74.75363	08:15
Ago	27	6.15718	6.13863	-74.7532	07:47
Sep	3	6.15732	6.13877	-74.75295	07:19
Sep	10	6.15748	6.13893	-74.75267	06:52
Sep	17	6.15764	6.13909	-74.75258	06:24
Sep	24	6.1578	6.13925	-74.75248	05:57
Oct	1	6.15797	6.13942	-74.75256	05:29
Oct	8	6.15813	6.13958	-74.75265	05:01
Oct	15	6.15829	6.13974	-74.75289	04:34
Oct	22	6.15845	6.1399	-74.75317	04:06
Oct	29	6.15859	6.14004	-74.75358	03:39
Nov	5	6.15872	6.14017	-74.75401	03:11
Nov	12	6.15883	6.14028	-74.75455	02:44
Nov	19	6.15894	6.14039	-74.75513	02:16
Nov	26	6.15902	6.14047	-74.75577	01:48
Dic	3	6.15909	6.14054	-74.75644	01:21
Dic	10	6.15912	6.14057	-74.75712	00:53
Dic	17	6.15915	6.1406	-74.75785	00:26
Dic	24	6.15914	6.14059	-74.75855	23:58
Dic	31	6.15912	6.14057	-74.75927	23:30

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 30438					
V		Sp			
-0.62		FOIb			
m	d	$\alpha$ h	$\alpha_c$ h	$\delta$ °	Hp h
Ene	1	6.40907	6.39052	-52.70836	23:40
Ene	8	6.40906	6.39051	-52.709	23:13
Ene	15	6.40906	6.39051	-52.70967	22:45
Ene	22	6.40903	6.39048	-52.71026	22:18
Ene	29	6.40901	6.39046	-52.71086	21:50
Feb	5	6.40896	6.39041	-52.71136	21:22
Feb	12	6.40892	6.39037	-52.71182	20:55
Feb	19	6.40887	6.39032	-52.71221	20:27
Feb	26	6.40881	6.39026	-52.71257	20:00
Mar	5	6.40874	6.39019	-52.71283	19:32
Mar	12	6.40868	6.39013	-52.71301	19:04
Mar	19	6.40861	6.39006	-52.71315	18:37
Mar	26	6.40854	6.38999	-52.7132	18:09
Abr	2	6.40847	6.38992	-52.7132	17:42
Abr	9	6.4084	6.38985	-52.71307	17:14
Abr	16	6.40833	6.38978	-52.71294	16:46
Abr	23	6.40828	6.38973	-52.71269	16:19
Abr	30	6.40822	6.38967	-52.71245	15:51
May	7	6.40817	6.38962	-52.71204	15:24
May	14	6.40812	6.38957	-52.71168	14:56
May	21	6.40808	6.38953	-52.71118	14:28
May	28	6.40805	6.3895	-52.71073	14:01
Jun	4	6.40803	6.38948	-52.71012	13:33
Jun	11	6.40802	6.38947	-52.7096	13:06
Jun	18	6.40801	6.38946	-52.70894	12:38
Jun	25	6.40801	6.38946	-52.70838	12:10
Jul	2	6.40802	6.38947	-52.70768	11:43
Jul	9	6.40804	6.38949	-52.70711	11:15
Jul	16	6.40807	6.38952	-52.70642	10:48
Jul	23	6.40811	6.38956	-52.70587	10:20
Jul	30	6.40815	6.3896	-52.70522	09:52
Ago	6	6.4082	6.38965	-52.70474	09:25
Ago	13	6.40825	6.3897	-52.70417	08:57
Ago	20	6.40831	6.38976	-52.70378	08:30
Ago	27	6.40838	6.38983	-52.70333	08:02
Sep	3	6.40845	6.3899	-52.70306	07:34
Sep	10	6.40852	6.38997	-52.70276	07:07
Sep	17	6.4086	6.39005	-52.70265	06:39
Sep	24	6.40868	6.39013	-52.70252	06:12
Oct	1	6.40876	6.39021	-52.70258	05:44
Oct	8	6.40884	6.39029	-52.70263	05:17
Oct	15	6.40892	6.39037	-52.70284	04:49
Oct	22	6.409	6.39045	-52.70309	04:21
Oct	29	6.40908	6.39053	-52.70347	03:54
Nov	5	6.40915	6.3906	-52.70387	03:26
Nov	12	6.40922	6.39067	-52.70438	02:59
Nov	19	6.40928	6.39073	-52.70493	02:31
Nov	26	6.40933	6.39078	-52.70556	02:03
Dic	3	6.40938	6.39083	-52.7062	01:36
Dic	10	6.40942	6.39087	-52.70687	01:08
Dic	17	6.40945	6.3909	-52.70758	00:41
Dic	24	6.40947	6.39092	-52.70828	00:13
Dic	31	6.40948	6.39093	-52.70899	23:45

HIP 32349					
V		Sp			
-1.44		A0m...			
m	d	$\alpha$ h	$\alpha_c$ h	$\delta$ °	Hp h
Ene	1	6.77123	6.75268	-16.75028	00:02
Ene	8	6.77124	6.75269	-16.7507	23:35
Ene	15	6.77126	6.75271	-16.75118	23:07
Ene	22	6.77125	6.7527	-16.75157	22:39
Ene	29	6.77125	6.7527	-16.75199	22:12
Feb	5	6.77124	6.75269	-16.75231	21:44
Feb	12	6.77123	6.75268	-16.75263	21:17
Feb	19	6.7712	6.75265	-16.75288	20:49
Feb	26	6.77118	6.75263	-16.75312	20:21
Mar	5	6.77114	6.75259	-16.7533	19:54
Mar	12	6.77112	6.75257	-16.75342	19:26
Mar	19	6.77107	6.75252	-16.75351	18:59
Mar	26	6.77104	6.75249	-16.75356	18:31
Abr	2	6.771	6.75245	-16.75358	18:03
Abr	9	6.77097	6.75242	-16.7535	17:36
Abr	16	6.77093	6.75238	-16.75344	17:08
Abr	23	6.77091	6.75236	-16.7533	16:41
Abr	30	6.77088	6.75233	-16.75317	16:13
May	7	6.77086	6.75231	-16.75291	15:45
May	14	6.77083	6.75228	-16.75271	15:18
May	21	6.77082	6.75227	-16.75274	14:50
May	28	6.77081	6.75226	-16.75215	14:23
Jun	4	6.77081	6.75226	-16.75176	13:55
Jun	11	6.77081	6.75226	-16.75146	13:27
Jun	18	6.77081	6.75226	-16.75103	13:00
Jun	25	6.77083	6.75228	-16.75071	12:32
Jul	2	6.77084	6.75229	-16.75025	12:05
Jul	9	6.77086	6.75231	-16.74991	11:37
Jul	16	6.77089	6.75234	-16.74945	11:09
Jul	23	6.77092	6.75237	-16.74914	10:42
Jul	30	6.77096	6.75241	-16.7487	10:14
Ago	6	6.771	6.75245	-16.74841	09:47
Ago	13	6.77104	6.75249	-16.74803	09:19
Ago	20	6.77109	6.75254	-16.74782	08:51
Ago	27	6.77113	6.75258	-16.74751	08:24
Sep	3	6.77119	6.75264	-16.74738	07:56
Sep	10	6.77124	6.75269	-16.74718	07:29
Sep	17	6.7713	6.75275	-16.74715	07:01
Sep	24	6.77135	6.7528	-16.74707	06:33
Oct	1	6.77141	6.75286	-16.74715	06:06
Oct	8	6.77147	6.75292	-16.7472	05:38
Oct	15	6.77153	6.75298	-16.7474	05:11
Oct	22	6.77158	6.75303	-16.74758	04:43
Oct	29	6.77165	6.7531	-16.74789	04:15
Nov	5	6.7717	6.75315	-16.74818	03:48
Nov	12	6.77176	6.75321	-16.74857	03:20
Nov	19	6.77181	6.75326	-16.74897	02:53
Nov	26	6.77186	6.75331	-16.74944	02:25
Dic	3	6.7719	6.75335	-16.74989	01:58
Dic	10	6.77195	6.7534	-16.75038	01:30
Dic	17	6.77198	6.75343	-16.75088	01:02
Dic	24	6.77202	6.75347	-16.75138	00:35
Dic	31	6.77203	6.75348	-16.75187	00:07

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 34834					
V		Sp			
4.49		FOIV			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	7.22173	7.20318	-46.79952	00:29
Ene	8	7.22174	7.20319	-46.80016	00:02
Ene	15	7.22176	7.20321	-46.80088	23:34
Ene	22	7.22175	7.2032	-46.80149	23:06
Ene	29	7.22174	7.20319	-46.80215	22:39
Feb	5	7.22172	7.20317	-46.8027	22:11
Feb	12	7.22169	7.20314	-46.80326	21:44
Feb	19	7.22165	7.2031	-46.80372	21:16
Feb	26	7.22162	7.20307	-46.80417	20:48
Mar	5	7.22157	7.20302	-46.80453	20:21
Mar	12	7.22152	7.20297	-46.80482	19:53
Mar	19	7.22146	7.20291	-46.80506	19:26
Mar	26	7.22141	7.20286	-46.80523	18:58
Abr	2	7.22135	7.2028	-46.80535	18:30
Abr	9	7.22129	7.20274	-46.80535	18:03
Abr	16	7.22123	7.20268	-46.80533	17:35
Abr	23	7.22118	7.20263	-46.80522	17:08
Abr	30	7.22112	7.20257	-46.80508	16:40
May	7	7.22108	7.20253	-46.80481	16:12
May	14	7.22103	7.20248	-46.80455	15:45
May	21	7.221	7.20245	-46.80417	15:17
May	28	7.22096	7.20241	-46.80382	14:50
Jun	4	7.22094	7.20239	-46.80332	14:22
Jun	11	7.22092	7.20237	-46.80288	13:54
Jun	18	7.22091	7.20236	-46.80231	13:27
Jun	25	7.2209	7.20235	-46.80181	12:59
Jul	2	7.2209	7.20235	-46.80117	12:32
Jul	9	7.22091	7.20236	-46.80064	12:04
Jul	16	7.22092	7.20237	-46.79999	11:36
Jul	23	7.22095	7.2024	-46.79947	11:09
Jul	30	7.22097	7.20242	-46.79883	10:41
Ago	6	7.22101	7.20246	-46.79833	10:14
Ago	13	7.22105	7.2025	-46.79775	09:46
Ago	20	7.2211	7.20255	-46.79734	09:18
Ago	27	7.22115	7.2026	-46.79684	08:51
Sep	3	7.22121	7.20266	-46.79653	08:23
Sep	10	7.22126	7.20271	-46.79616	07:56
Sep	17	7.22134	7.20279	-46.79598	07:28
Sep	24	7.2214	7.20285	-46.79577	07:00
Oct	1	7.22147	7.20292	-46.79575	06:33
Oct	8	7.22154	7.20299	-46.7957	06:05
Oct	15	7.22162	7.20307	-46.79585	05:38
Oct	22	7.22169	7.20314	-46.79599	05:10
Oct	29	7.22177	7.20322	-46.79629	04:42
Nov	5	7.22184	7.20329	-46.7966	04:15
Nov	12	7.22192	7.20337	-46.79705	03:47
Nov	19	7.22198	7.20343	-46.79752	03:20
Nov	26	7.22205	7.2035	-46.79809	02:52
Dic	3	7.2221	7.20355	-46.79867	02:25
Dic	10	7.22215	7.2036	-46.79932	01:57
Dic	17	7.22219	7.20364	-46.8	01:29
Dic	24	7.22223	7.20368	-46.80069	01:02
Dic	31	7.22225	7.2037	-46.80139	00:34

HIP 36795					
V		Sp			
4.44		F6V			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	7.58578	7.56723	-22.34927	00:51
Ene	8	7.5858	7.56725	-22.34977	00:23
Ene	15	7.58582	7.56727	-22.35034	23:56
Ene	22	7.58583	7.56728	-22.3508	23:28
Ene	29	7.58584	7.56729	-22.35132	23:01
Feb	5	7.58583	7.56728	-22.35173	22:33
Feb	12	7.58583	7.56728	-22.35216	22:05
Feb	19	7.58581	7.56726	-22.35249	21:38
Feb	26	7.58579	7.56724	-22.35284	21:10
Mar	5	7.58576	7.56721	-22.3531	20:43
Mar	12	7.58574	7.56719	-22.35333	20:15
Mar	19	7.5857	7.56715	-22.35349	19:47
Mar	26	7.58567	7.56712	-22.35363	19:20
Abr	2	7.58563	7.56708	-22.35372	18:52
Abr	9	7.5856	7.56705	-22.35373	18:25
Abr	16	7.58555	7.567	-22.35372	17:57
Abr	23	7.58552	7.56697	-22.35364	17:29
Abr	30	7.58549	7.56694	-22.35356	17:02
May	7	7.58546	7.56691	-22.35336	16:34
May	14	7.58543	7.56688	-22.35319	16:07
May	21	7.58541	7.56686	-22.35292	15:39
May	28	7.58539	7.56684	-22.35268	15:11
Jun	4	7.58538	7.56683	-22.35232	14:44
Jun	11	7.58537	7.56682	-22.35201	14:16
Jun	18	7.58537	7.56682	-22.3516	13:49
Jun	25	7.58537	7.56682	-22.35126	13:21
Jul	2	7.58538	7.56683	-22.35079	12:53
Jul	9	7.58539	7.56684	-22.35042	12:26
Jul	16	7.5854	7.56685	-22.34994	11:58
Jul	23	7.58543	7.56688	-22.34959	11:31
Jul	30	7.58545	7.5669	-22.34911	11:03
Ago	6	7.58548	7.56693	-22.34877	10:35
Ago	13	7.58551	7.56696	-22.34834	10:08
Ago	20	7.58555	7.567	-22.34807	09:40
Ago	27	7.58559	7.56704	-22.3477	09:13
Sep	3	7.58564	7.56709	-22.3475	08:45
Sep	10	7.58568	7.56713	-22.34723	08:18
Sep	17	7.58574	7.56719	-22.34714	07:50
Sep	24	7.58579	7.56724	-22.34699	07:22
Oct	1	7.58585	7.5673	-22.34702	06:55
Oct	8	7.58591	7.56736	-22.347	06:27
Oct	15	7.58598	7.56743	-22.34716	06:00
Oct	22	7.58603	7.56748	-22.34729	05:32
Oct	29	7.5861	7.56755	-22.34757	05:04
Nov	5	7.58615	7.5676	-22.34783	04:37
Nov	12	7.58622	7.56767	-22.34823	04:09
Nov	19	7.58628	7.56773	-22.34861	03:42
Nov	26	7.58634	7.56779	-22.34909	03:14
Dic	3	7.58639	7.56784	-22.34956	02:46
Dic	10	7.58645	7.5679	-22.3501	02:19
Dic	17	7.58648	7.56793	-22.35063	01:51
Dic	24	7.58653	7.56798	-22.35119	01:24
Dic	31	7.58656	7.56801	-22.35174	00:56

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 44382					
V		Sp			
4.0		Am			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	9.04777	9.02922	-66.49169	02:19
Ene	8	9.04783	9.02928	-66.49235	01:51
Ene	15	9.04788	9.02933	-66.49316	01:24
Ene	22	9.04791	9.02936	-66.49386	00:56
Ene	29	9.04793	9.02938	-66.49468	00:28
Feb	5	9.04793	9.02938	-66.4954	00:01
Feb	12	9.04792	9.02937	-66.49619	23:33
Feb	19	9.04789	9.02934	-66.49686	23:06
Feb	26	9.04786	9.02931	-66.4976	22:38
Mar	5	9.04781	9.02926	-66.49822	22:10
Mar	12	9.04775	9.0292	-66.49886	21:43
Mar	19	9.04768	9.02913	-66.49938	21:15
Mar	26	9.0476	9.02905	-66.49991	20:48
Abr	2	9.04752	9.02897	-66.50034	20:20
Abr	9	9.04742	9.02887	-66.50073	19:52
Abr	16	9.04733	9.02878	-66.50102	19:25
Abr	23	9.04723	9.02868	-66.50127	18:57
Abr	30	9.04714	9.02859	-66.50145	18:30
May	7	9.04704	9.02849	-66.50152	18:02
May	14	9.04694	9.02839	-66.50155	17:34
May	21	9.04684	9.02829	-66.50149	17:07
May	28	9.04676	9.02821	-66.50139	16:39
Jun	4	9.04667	9.02812	-66.50117	16:12
Jun	11	9.04659	9.02804	-66.50092	15:44
Jun	18	9.04651	9.02796	-66.50057	15:16
Jun	25	9.04645	9.0279	-66.50023	14:49
Jul	2	9.04639	9.02784	-66.49975	14:21
Jul	9	9.04635	9.0278	-66.4993	13:54
Jul	16	9.0463	9.02775	-66.49873	13:26
Jul	23	9.04628	9.02773	-66.49823	12:58
Jul	30	9.04626	9.02771	-66.49759	12:31
Ago	6	9.04626	9.02771	-66.49704	12:03
Ago	13	9.04626	9.02771	-66.49639	11:36
Ago	20	9.04629	9.02774	-66.49587	11:08
Ago	27	9.04631	9.02776	-66.49522	10:40
Sep	3	9.04637	9.02782	-66.49472	10:13
Sep	10	9.04641	9.02786	-66.49415	09:45
Sep	17	9.04649	9.02794	-66.49376	09:18
Sep	24	9.04656	9.02801	-66.49328	08:50
Oct	1	9.04666	9.02811	-66.49299	08:22
Oct	8	9.04675	9.0282	-66.49266	07:55
Oct	15	9.04686	9.02831	-66.49254	07:27
Oct	22	9.04697	9.02842	-66.49238	07:00
Oct	29	9.04709	9.02854	-66.49241	06:32
Nov	5	9.04721	9.02866	-66.49244	06:04
Nov	12	9.04734	9.02879	-66.49267	05:37
Nov	19	9.04745	9.0289	-66.49288	05:09
Nov	26	9.04758	9.02903	-66.49327	04:42
Dic	3	9.04769	9.02914	-66.49366	04:14
Dic	10	9.04779	9.02924	-66.49421	03:46
Dic	17	9.04789	9.02934	-66.49475	03:19
Dic	24	9.04798	9.02943	-66.4954	02:51
Dic	31	9.04806	9.02951	-66.49605	02:24

HIP 45238					
V		Sp			
1.67		A2IV			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	9.22495	9.2064	-69.8156	02:29
Ene	8	9.22501	9.20646	-69.81626	02:02
Ene	15	9.22508	9.20653	-69.81706	01:34
Ene	22	9.22511	9.20656	-69.81775	01:07
Ene	29	9.22514	9.20659	-69.81857	00:39
Feb	5	9.22514	9.20659	-69.8193	00:11
Feb	12	9.22514	9.20659	-69.8201	23:44
Feb	19	9.22511	9.20656	-69.82079	23:16
Feb	26	9.22507	9.20652	-69.82155	22:49
Mar	5	9.22502	9.20647	-69.8222	22:21
Mar	12	9.22495	9.2064	-69.82286	21:53
Mar	19	9.22487	9.20632	-69.82341	21:26
Mar	26	9.22478	9.20623	-69.82398	20:58
Abr	2	9.22469	9.20614	-69.82444	20:31
Abr	9	9.22458	9.20603	-69.82487	20:03
Abr	16	9.22448	9.20593	-69.82519	19:35
Abr	23	9.22436	9.20581	-69.82549	19:08
Abr	30	9.22425	9.2057	-69.8257	18:40
May	7	9.22413	9.20558	-69.82582	18:13
May	14	9.22402	9.20547	-69.82588	17:45
May	21	9.2239	9.20535	-69.82587	17:17
May	28	9.2238	9.20525	-69.82581	16:50
Jun	4	9.22369	9.20514	-69.82562	16:22
Jun	11	9.2236	9.20505	-69.8254	15:55
Jun	18	9.2235	9.20495	-69.82509	15:27
Jun	25	9.22342	9.20487	-69.82478	14:59
Jul	2	9.22334	9.20479	-69.82432	14:32
Jul	9	9.22329	9.20474	-69.82388	14:04
Jul	16	9.22323	9.20468	-69.82334	13:37
Jul	23	9.22319	9.20464	-69.82285	13:09
Jul	30	9.22316	9.20461	-69.82222	12:41
Ago	6	9.22315	9.2046	-69.82167	12:14
Ago	13	9.22314	9.20459	-69.82102	11:46
Ago	20	9.22317	9.20462	-69.82049	11:19
Ago	27	9.22319	9.20464	-69.81983	10:51
Sep	3	9.22324	9.20469	-69.81931	10:23
Sep	10	9.22329	9.20474	-69.81873	09:56
Sep	17	9.22337	9.20482	-69.81831	09:28
Sep	24	9.22345	9.2049	-69.8178	09:01
Oct	1	9.22355	9.205	-69.81748	08:33
Oct	8	9.22366	9.20511	-69.81712	08:05
Oct	15	9.22378	9.20523	-69.81697	07:38
Oct	22	9.2239	9.20535	-69.81676	07:10
Oct	29	9.22404	9.20549	-69.81676	06:43
Nov	5	9.22417	9.20562	-69.81675	06:15
Nov	12	9.22431	9.20576	-69.81694	05:47
Nov	19	9.22445	9.2059	-69.81711	05:20
Nov	26	9.22459	9.20604	-69.81746	04:52
Dic	3	9.22471	9.20616	-69.81781	04:25
Dic	10	9.22484	9.20629	-69.81833	03:57
Dic	17	9.22495	9.2064	-69.81884	03:29
Dic	24	9.22505	9.2065	-69.81948	03:02
Dic	31	9.22514	9.20659	-69.82011	02:34

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 50954					
V		Sp			
3.99		F2IV			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	10.41502	10.39647	-74.15365	03:41
Ene	8	10.41514	10.39659	-74.1542	03:13
Ene	15	10.41526	10.39671	-74.15492	02:46
Ene	22	10.41535	10.3968	-74.15555	02:18
Ene	29	10.41543	10.39688	-74.15633	01:50
Feb	5	10.41549	10.39694	-74.15704	01:23
Feb	12	10.41553	10.39698	-74.15787	00:55
Feb	19	10.41555	10.397	-74.15858	00:28
Feb	26	10.41555	10.397	-74.15941	00:00
Mar	5	10.41553	10.39698	-74.16013	23:32
Mar	12	10.4155	10.39695	-74.16092	23:05
Mar	19	10.41545	10.3969	-74.16157	22:37
Mar	26	10.41538	10.39683	-74.16229	22:10
Abr	2	10.41531	10.39676	-74.1629	21:42
Abr	9	10.41521	10.39666	-74.16352	21:14
Abr	16	10.41511	10.39656	-74.16401	20:47
Abr	23	10.41499	10.39644	-74.16451	20:19
Abr	30	10.41488	10.39633	-74.16492	19:52
May	7	10.41474	10.39619	-74.16527	19:24
May	14	10.41462	10.39607	-74.16552	18:56
May	21	10.41447	10.39592	-74.16574	18:29
May	28	10.41435	10.3958	-74.16587	18:01
Jun	4	10.4142	10.39565	-74.16592	17:34
Jun	11	10.41407	10.39552	-74.16589	17:06
Jun	18	10.41393	10.39538	-74.16579	16:38
Jun	25	10.41382	10.39527	-74.16565	16:11
Jul	2	10.41368	10.39513	-74.16538	15:43
Jul	9	10.41358	10.39503	-74.16509	15:16
Jul	16	10.41347	10.39492	-74.1647	14:48
Jul	23	10.41339	10.39484	-74.16432	14:20
Jul	30	10.4133	10.39475	-74.16381	13:53
Ago	6	10.41325	10.3947	-74.16332	13:25
Ago	13	10.41319	10.39464	-74.16274	12:58
Ago	20	10.41317	10.39462	-74.16222	12:30
Ago	27	10.41315	10.3946	-74.16158	12:02
Sep	3	10.41317	10.39462	-74.16103	11:35
Sep	10	10.41318	10.39463	-74.1604	11:07
Sep	17	10.41324	10.39469	-74.15991	10:40
Sep	24	10.41329	10.39474	-74.1593	10:12
Oct	1	10.41339	10.39484	-74.15885	09:44
Oct	8	10.41348	10.39493	-74.15836	09:17
Oct	15	10.41361	10.39506	-74.15805	08:49
Oct	22	10.41373	10.39518	-74.15767	08:22
Oct	29	10.41389	10.39534	-74.15748	07:54
Nov	5	10.41404	10.39549	-74.15727	07:26
Nov	12	10.41421	10.39566	-74.15727	06:59
Nov	19	10.41438	10.39583	-74.15723	06:31
Nov	26	10.41456	10.39601	-74.15739	06:04
Dic	3	10.41473	10.39618	-74.15755	05:36
Dic	10	10.4149	10.39635	-74.15791	05:08
Dic	17	10.41507	10.39652	-74.15823	04:41
Dic	24	10.41523	10.39668	-74.15872	04:13
Dic	31	10.41538	10.39683	-74.15921	03:46

HIP 51814					
V		Sp			
5.16		F1V			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	10.61315	10.5946	56.94937	03:53
Ene	8	10.61324	10.59469	56.94946	03:25
Ene	15	10.61334	10.59479	56.94951	02:58
Ene	22	10.61341	10.59486	56.94975	02:30
Ene	29	10.61349	10.59494	56.94994	02:02
Feb	5	10.61354	10.59499	56.95029	01:35
Feb	12	10.6136	10.59505	56.95059	01:07
Feb	19	10.61363	10.59508	56.95104	00:40
Feb	26	10.61367	10.59512	56.95142	00:12
Mar	5	10.61367	10.59512	56.95192	23:44
Mar	12	10.61369	10.59514	56.95234	23:17
Mar	19	10.61367	10.59512	56.95286	22:49
Mar	26	10.61366	10.59511	56.95327	22:22
Abr	2	10.61363	10.59508	56.95375	21:54
Abr	9	10.61361	10.59506	56.95413	21:26
Abr	16	10.61355	10.595	56.95456	20:59
Abr	23	10.61352	10.59497	56.95487	20:31
Abr	30	10.61346	10.59491	56.95518	20:04
May	7	10.61343	10.59488	56.9554	19:36
May	14	10.61336	10.59481	56.95561	19:08
May	21	10.61332	10.59477	56.95573	18:41
May	28	10.61326	10.59471	56.95579	18:13
Jun	4	10.61322	10.59467	56.9558	17:46
Jun	11	10.61316	10.59461	56.95575	17:18
Jun	18	10.61312	10.59457	56.95563	16:50
Jun	25	10.61307	10.59452	56.95544	16:23
Jul	2	10.61304	10.59449	56.95523	15:55
Jul	9	10.613	10.59445	56.95493	15:28
Jul	16	10.61298	10.59443	56.95461	15:00
Jul	23	10.61296	10.59441	56.95419	14:32
Jul	30	10.61294	10.59439	56.9538	14:05
Ago	6	10.61293	10.59438	56.95331	13:37
Ago	13	10.61293	10.59438	56.95285	13:10
Ago	20	10.61294	10.59439	56.95226	12:42
Ago	27	10.61295	10.5944	56.95175	12:14
Sep	3	10.61297	10.59442	56.95113	11:47
Sep	10	10.61299	10.59444	56.95058	11:19
Sep	17	10.61303	10.59448	56.94991	10:52
Sep	24	10.61307	10.59452	56.94936	10:24
Oct	1	10.61312	10.59457	56.9487	09:56
Oct	8	10.61317	10.59462	56.94814	09:29
Oct	15	10.61325	10.5947	56.94747	09:01
Oct	22	10.61331	10.59476	56.94696	08:34
Oct	29	10.6134	10.59485	56.94636	08:06
Nov	5	10.61348	10.59493	56.94589	07:38
Nov	12	10.61358	10.59503	56.94534	07:11
Nov	19	10.61367	10.59512	56.94496	06:43
Nov	26	10.61378	10.59523	56.94453	06:16
Dic	3	10.61387	10.59532	56.94426	05:48
Dic	10	10.61399	10.59544	56.94393	05:20
Dic	17	10.61408	10.59553	56.94378	04:53
Dic	24	10.6142	10.59565	56.94362	04:25
Dic	31	10.61429	10.59574	56.94361	03:58

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 53910					
V		Sp			
2.34		A1V			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	11.05607	11.03752	56.24375	04:19
Ene	8	11.05616	11.03761	56.24377	03:52
Ene	15	11.05627	11.03772	56.24375	03:24
Ene	22	11.05634	11.03779	56.24393	02:56
Ene	29	11.05642	11.03787	56.24407	02:29
Feb	5	11.05649	11.03794	56.24438	02:01
Feb	12	11.05655	11.038	56.24464	01:34
Feb	19	11.05659	11.03804	56.24507	01:06
Feb	26	11.05663	11.03808	56.24542	00:39
Mar	5	11.05665	11.0381	56.24591	00:11
Mar	12	11.05667	11.03812	56.24632	23:43
Mar	19	11.05666	11.03811	56.24685	23:16
Mar	26	11.05666	11.03811	56.24728	22:48
Abr	2	11.05664	11.03809	56.24778	22:21
Abr	9	11.05663	11.03808	56.24819	21:53
Abr	16	11.05658	11.03803	56.24866	21:25
Abr	23	11.05655	11.038	56.24901	20:58
Abr	30	11.0565	11.03795	56.24937	20:30
May	7	11.05647	11.03792	56.24964	20:03
May	14	11.05641	11.03786	56.24992	19:35
May	21	11.05637	11.03782	56.25008	19:07
May	28	11.05631	11.03776	56.25021	18:40
Jun	4	11.05627	11.03772	56.25027	18:12
Jun	11	11.05621	11.03766	56.25029	17:45
Jun	18	11.05617	11.03762	56.25022	17:17
Jun	25	11.05612	11.03757	56.25009	16:49
Jul	2	11.05608	11.03753	56.24992	16:22
Jul	9	11.05604	11.03749	56.24968	15:54
Jul	16	11.05601	11.03746	56.2494	15:27
Jul	23	11.05598	11.03743	56.24903	14:59
Jul	30	11.05596	11.03741	56.24866	14:31
Ago	6	11.05594	11.03739	56.24821	14:04
Ago	13	11.05593	11.03738	56.24776	13:36
Ago	20	11.05593	11.03738	56.2472	13:09
Ago	27	11.05593	11.03738	56.24669	12:41
Sep	3	11.05593	11.03738	56.24609	12:13
Sep	10	11.05595	11.0374	56.24553	11:46
Sep	17	11.05598	11.03743	56.24485	11:18
Sep	24	11.056	11.03745	56.24428	10:51
Oct	1	11.05604	11.03749	56.2436	10:23
Oct	8	11.05609	11.03754	56.24302	09:55
Oct	15	11.05615	11.0376	56.24231	09:28
Oct	22	11.05621	11.03766	56.24176	09:00
Oct	29	11.05628	11.03773	56.24111	08:33
Nov	5	11.05636	11.03781	56.2406	08:05
Nov	12	11.05645	11.0379	56.23998	07:37
Nov	19	11.05653	11.03798	56.23955	07:10
Nov	26	11.05664	11.03809	56.23905	06:42
Dic	3	11.05673	11.03818	56.23872	06:15
Dic	10	11.05684	11.03829	56.23831	05:47
Dic	17	11.05693	11.03838	56.2381	05:19
Dic	24	11.05705	11.0385	56.23787	04:52
Dic	31	11.05714	11.03859	56.2378	04:24

HIP 54872					
V		Sp			
2.56		A4V			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	11.25745	11.2389	20.38448	04:31
Ene	8	11.25751	11.23896	20.38423	04:04
Ene	15	11.25758	11.23903	20.38391	03:36
Ene	22	11.25763	11.23908	20.38376	03:09
Ene	29	11.25769	11.23914	20.38355	02:41
Feb	5	11.25773	11.23918	20.38348	02:13
Feb	12	11.25778	11.23923	20.38336	01:46
Feb	19	11.25781	11.23926	20.38341	01:18
Feb	26	11.25784	11.23929	20.38339	00:51
Mar	5	11.25785	11.2393	20.3835	00:23
Mar	12	11.25788	11.23933	20.38356	23:55
Mar	19	11.25788	11.23933	20.38375	23:28
Mar	26	11.25789	11.23934	20.38386	23:00
Abr	2	11.25788	11.23933	20.38408	22:33
Abr	9	11.25788	11.23933	20.38423	22:05
Abr	16	11.25786	11.23931	20.38448	21:37
Abr	23	11.25785	11.2393	20.38464	21:10
Abr	30	11.25783	11.23928	20.38486	20:42
May	7	11.25782	11.23927	20.38503	20:15
May	14	11.25779	11.23924	20.38525	19:47
May	21	11.25778	11.23923	20.38539	19:19
May	28	11.25775	11.2392	20.38554	18:52
Jun	4	11.25773	11.23918	20.38566	18:24
Jun	11	11.25771	11.23916	20.38579	17:57
Jun	18	11.25769	11.23914	20.38586	17:29
Jun	25	11.25767	11.23912	20.38591	17:01
Jul	2	11.25766	11.23911	20.38596	16:34
Jul	9	11.25764	11.23909	20.38596	16:06
Jul	16	11.25763	11.23908	20.38595	15:39
Jul	23	11.25761	11.23906	20.38588	15:11
Jul	30	11.2576	11.23905	20.38583	14:43
Ago	6	11.2576	11.23905	20.38571	14:16
Ago	13	11.25759	11.23904	20.38561	13:48
Ago	20	11.2576	11.23905	20.3854	13:21
Ago	27	11.2576	11.23905	20.38526	12:53
Sep	3	11.2576	11.23905	20.38501	12:25
Sep	10	11.25761	11.23906	20.3848	11:58
Sep	17	11.25763	11.23908	20.38446	11:30
Sep	24	11.25765	11.2391	20.38421	11:03
Oct	1	11.25768	11.23913	20.38383	10:35
Oct	8	11.2577	11.23915	20.38351	10:07
Oct	15	11.25775	11.2392	20.38306	09:40
Oct	22	11.25778	11.23923	20.38271	09:12
Oct	29	11.25783	11.23928	20.38224	08:45
Nov	5	11.25788	11.23933	20.38185	08:17
Nov	12	11.25795	11.2394	20.38133	07:49
Nov	19	11.258	11.23945	20.38093	07:22
Nov	26	11.25807	11.23952	20.38043	06:54
Dic	3	11.25813	11.23958	20.38004	06:27
Dic	10	11.25821	11.23966	20.37954	05:59
Dic	17	11.25827	11.23972	20.37918	05:31
Dic	24	11.25835	11.2398	20.37876	05:04
Dic	31	11.25841	11.23986	20.37846	04:36

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 58001					
V		Sp			
2.41		A0V SB			
m	d	$\alpha$ h	$\alpha_c$ h	$\delta$ °	Hp h
Ene	1	11.91926	11.90071	53.55091	05:11
Ene	8	11.91935	11.9008	53.55079	04:43
Ene	15	11.91945	11.9009	53.55064	04:16
Ene	22	11.91953	11.90098	53.55069	03:48
Ene	29	11.91962	11.90107	53.55071	03:21
Feb	5	11.91969	11.90114	53.55091	02:53
Feb	12	11.91977	11.90122	53.55106	02:25
Feb	19	11.91981	11.90126	53.55141	01:58
Feb	26	11.91987	11.90132	53.5517	01:30
Mar	5	11.9199	11.90135	53.55213	01:03
Mar	12	11.91994	11.90139	53.5525	00:35
Mar	19	11.91995	11.9014	53.55302	00:08
Mar	26	11.91997	11.90142	53.55345	23:40
Abr	2	11.91996	11.90141	53.55398	23:12
Abr	9	11.91996	11.90141	53.55441	22:45
Abr	16	11.91993	11.90138	53.55494	22:17
Abr	23	11.91992	11.90137	53.55534	21:50
Abr	30	11.91988	11.90133	53.55579	21:22
May	7	11.91986	11.90131	53.55614	20:54
May	14	11.91981	11.90126	53.55653	20:27
May	21	11.91978	11.90123	53.55678	19:59
May	28	11.91973	11.90118	53.55704	19:32
Jun	4	11.91969	11.90114	53.5572	19:04
Jun	11	11.91964	11.90109	53.55735	18:36
Jun	18	11.9196	11.90105	53.55739	18:09
Jun	25	11.91955	11.901	53.5574	17:41
Jul	2	11.91951	11.90096	53.55733	17:14
Jul	9	11.91946	11.90091	53.55722	16:46
Jul	16	11.91943	11.90088	53.55703	16:18
Jul	23	11.91939	11.90084	53.55677	15:51
Jul	30	11.91936	11.90081	53.55649	15:23
Ago	6	11.91932	11.90077	53.55613	14:56
Ago	13	11.9193	11.90075	53.55574	14:28
Ago	20	11.91928	11.90073	53.55526	14:00
Ago	27	11.91926	11.90071	53.5548	13:33
Sep	3	11.91925	11.9007	53.55424	13:05
Sep	10	11.91925	11.9007	53.55371	12:38
Sep	17	11.91926	11.90071	53.55305	12:10
Sep	24	11.91927	11.90072	53.55248	11:42
Oct	1	11.91929	11.90074	53.5518	11:15
Oct	8	11.91931	11.90076	53.55119	10:47
Oct	15	11.91935	11.9008	53.55045	10:20
Oct	22	11.91939	11.90084	53.54985	09:52
Oct	29	11.91944	11.90089	53.54915	09:24
Nov	5	11.9195	11.90095	53.54855	08:57
Nov	12	11.91958	11.90103	53.54785	08:29
Nov	19	11.91964	11.90109	53.54732	08:02
Nov	26	11.91973	11.90118	53.54672	07:34
Dic	3	11.91981	11.90126	53.54626	07:06
Dic	10	11.91991	11.90136	53.54573	06:39
Dic	17	11.92	11.90145	53.54539	06:11
Dic	24	11.9201	11.90155	53.54502	05:44
Dic	31	11.92019	11.90164	53.54482	05:16

HIP 58803					
V		Sp			
5.15		F6V			
m	d	$\alpha$ h	$\alpha_c$ h	$\delta$ °	Hp h
Ene	1	12.08264	12.06409	-42.5705	05:21
Ene	8	12.08271	12.06416	-42.57092	04:53
Ene	15	12.0828	12.06425	-42.57149	04:26
Ene	22	12.08286	12.06431	-42.57196	03:58
Ene	29	12.08294	12.06439	-42.57258	03:30
Feb	5	12.08299	12.06444	-42.57313	03:03
Feb	12	12.08306	12.06451	-42.57379	02:35
Feb	19	12.08309	12.06454	-42.57433	02:08
Feb	26	12.08314	12.06459	-42.57499	01:40
Mar	5	12.08317	12.06462	-42.57555	01:13
Mar	12	12.0832	12.06465	-42.57619	00:45
Mar	19	12.08321	12.06466	-42.57669	00:17
Mar	26	12.08324	12.06469	-42.57729	23:50
Abr	2	12.08324	12.06469	-42.57776	23:22
Abr	9	12.08324	12.06469	-42.5783	22:55
Abr	16	12.08323	12.06468	-42.57868	22:27
Abr	23	12.08323	12.06468	-42.57914	21:59
Abr	30	12.08322	12.06467	-42.57947	21:32
May	7	12.0832	12.06465	-42.57983	21:04
May	14	12.08318	12.06463	-42.58005	20:37
May	21	12.08316	12.06461	-42.58032	20:09
May	28	12.08313	12.06458	-42.58048	19:41
Jun	4	12.0831	12.06455	-42.58062	19:14
Jun	11	12.08307	12.06452	-42.58066	18:46
Jun	18	12.08304	12.06449	-42.5807	18:19
Jun	25	12.08302	12.06447	-42.58067	17:51
Jul	2	12.08298	12.06443	-42.58058	17:23
Jul	9	12.08295	12.0644	-42.58043	16:56
Jul	16	12.08291	12.06436	-42.58026	16:28
Jul	23	12.08289	12.06434	-42.58004	16:01
Jul	30	12.08286	12.06431	-42.57976	15:33
Ago	6	12.08283	12.06428	-42.57945	15:05
Ago	13	12.0828	12.06425	-42.57911	14:38
Ago	20	12.08279	12.06424	-42.57878	14:10
Ago	27	12.08277	12.06422	-42.57836	13:43
Sep	3	12.08277	12.06422	-42.57798	13:15
Sep	10	12.08275	12.0642	-42.57756	12:47
Sep	17	12.08277	12.06422	-42.57722	12:20
Sep	24	12.08277	12.06422	-42.57678	11:52
Oct	1	12.08279	12.06424	-42.57645	11:25
Oct	8	12.08281	12.06426	-42.57609	10:57
Oct	15	12.08285	12.0643	-42.57586	10:29
Oct	22	12.08288	12.06433	-42.57555	10:02
Oct	29	12.08293	12.06438	-42.5754	09:34
Nov	5	12.08298	12.06443	-42.57522	09:07
Nov	12	12.08305	12.0645	-42.57523	08:39
Nov	19	12.08311	12.06456	-42.57516	08:11
Nov	26	12.08319	12.06464	-42.57527	07:44
Dic	3	12.08326	12.06471	-42.57536	07:16
Dic	10	12.08335	12.0648	-42.57565	06:49
Dic	17	12.08343	12.06488	-42.57586	06:21
Dic	24	12.08352	12.06497	-42.57624	05:53
Dic	31	12.08359	12.06504	-42.57659	05:26

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 58948					
V		Sp			
4.12		G8III			
m	d	$\alpha$ h	$\alpha_c$ h	$\delta$ °	Hp h
Ene	1	12.10811	12.08956	8.59288	05:22
Ene	8	12.10817	12.08962	8.59252	04:55
Ene	15	12.10825	12.0897	8.59209	04:27
Ene	22	12.1083	12.08975	8.59182	04:00
Ene	29	12.10836	12.08981	8.59147	03:32
Feb	5	12.10841	12.08986	8.59126	03:04
Feb	12	12.10846	12.08991	8.59098	02:37
Feb	19	12.10849	12.08994	8.59088	02:09
Feb	26	12.10854	12.08999	8.5907	01:42
Mar	5	12.10856	12.09001	8.59066	01:14
Mar	12	12.10859	12.09004	8.59056	00:46
Mar	19	12.1086	12.09005	8.59062	00:19
Mar	26	12.10862	12.09007	8.5906	23:51
Abr	2	12.10863	12.09008	8.5907	23:24
Abr	9	12.10864	12.09009	8.59074	22:56
Abr	16	12.10863	12.09008	8.5909	22:28
Abr	23	12.10863	12.09008	8.59098	22:01
Abr	30	12.10862	12.09007	8.59115	21:33
May	7	12.10861	12.09006	8.59125	21:06
May	14	12.10859	12.09004	8.59145	20:38
May	21	12.10859	12.09004	8.59156	20:10
May	28	12.10857	12.09002	8.59173	19:43
Jun	4	12.10855	12.09	8.59185	19:15
Jun	11	12.10853	12.08998	8.59201	18:48
Jun	18	12.10852	12.08997	8.59211	18:20
Jun	25	12.1085	12.08995	8.59223	17:52
Jul	2	12.10848	12.08993	8.59233	17:25
Jul	9	12.10846	12.08991	8.59243	16:57
Jul	16	12.10844	12.08989	8.5925	16:30
Jul	23	12.10843	12.08988	8.59254	16:02
Jul	30	12.10841	12.08986	8.59259	15:34
Ago	6	12.1084	12.08985	8.5926	15:07
Ago	13	12.10839	12.08984	8.5926	14:39
Ago	20	12.10838	12.08983	8.59254	14:12
Ago	27	12.10837	12.08982	8.59252	13:44
Sep	3	12.10837	12.08982	8.59242	13:16
Sep	10	12.10837	12.08982	8.59233	12:49
Sep	17	12.10838	12.08983	8.59215	12:21
Sep	24	12.10838	12.08983	8.59203	11:54
Oct	1	12.1084	12.08985	8.59178	11:26
Oct	8	12.10841	12.08986	8.59158	10:58
Oct	15	12.10845	12.0899	8.59124	10:31
Oct	22	12.10847	12.08992	8.59099	10:03
Oct	29	12.10851	12.08996	8.59061	09:36
Nov	5	12.10855	12.09	8.59029	09:08
Nov	12	12.10861	12.09006	8.58983	08:40
Nov	19	12.10865	12.0901	8.58948	08:13
Nov	26	12.10871	12.09016	8.589	07:45
Dic	3	12.10877	12.09022	8.58861	07:18
Dic	10	12.10884	12.09029	8.58809	06:50
Dic	17	12.1089	12.09035	8.5877	06:23
Dic	24	12.10898	12.09043	8.58722	05:55
Dic	31	12.10903	12.09048	8.58684	05:27

HIP 59774					
V		Sp			
3.32		A3Vvar			
m	d	$\alpha$ h	$\alpha_c$ h	$\delta$ °	Hp h
Ene	1	12.27785	12.2593	56.88859	05:33
Ene	8	12.27795	12.2594	56.88843	05:05
Ene	15	12.27806	12.25951	56.88826	04:37
Ene	22	12.27815	12.2596	56.88828	04:10
Ene	29	12.27825	12.2597	56.88829	03:42
Feb	5	12.27833	12.25978	56.88846	03:15
Feb	12	12.27841	12.25986	56.88861	02:47
Feb	19	12.27847	12.25992	56.88895	02:19
Feb	26	12.27853	12.25998	56.88924	01:52
Mar	5	12.27857	12.26002	56.88968	01:24
Mar	12	12.27862	12.26007	56.89006	00:57
Mar	19	12.27864	12.26009	56.8906	00:29
Mar	26	12.27866	12.26011	56.89105	00:01
Abr	2	12.27866	12.26011	56.8916	23:34
Abr	9	12.27867	12.26012	56.89207	23:06
Abr	16	12.27864	12.26009	56.89263	22:39
Abr	23	12.27863	12.26008	56.89307	22:11
Abr	30	12.2786	12.26005	56.89357	21:43
May	7	12.27857	12.26002	56.89396	21:16
May	14	12.27852	12.25997	56.89439	20:48
May	21	12.27849	12.25994	56.89469	20:21
May	28	12.27843	12.25988	56.895	19:53
Jun	4	12.27839	12.25984	56.89519	19:25
Jun	11	12.27833	12.25978	56.89539	18:58
Jun	18	12.27829	12.25974	56.89546	18:30
Jun	25	12.27823	12.25968	56.89551	18:03
Jul	2	12.27819	12.25964	56.89547	17:35
Jul	9	12.27813	12.25958	56.89539	17:07
Jul	16	12.27809	12.25954	56.89522	16:40
Jul	23	12.27804	12.25949	56.89499	16:12
Jul	30	12.278	12.25945	56.89471	15:45
Ago	6	12.27795	12.2594	56.89437	15:17
Ago	13	12.27792	12.25937	56.89398	14:49
Ago	20	12.27789	12.25934	56.89351	14:22
Ago	27	12.27786	12.25931	56.89304	13:54
Sep	3	12.27784	12.25929	56.89248	13:27
Sep	10	12.27783	12.25928	56.89193	12:59
Sep	17	12.27783	12.25928	56.89127	12:31
Sep	24	12.27783	12.25928	56.89067	12:04
Oct	1	12.27784	12.25929	56.88997	11:36
Oct	8	12.27786	12.25931	56.88933	11:09
Oct	15	12.27789	12.25934	56.88857	10:41
Oct	22	12.27792	12.25937	56.88793	10:13
Oct	29	12.27797	12.25942	56.8872	09:46
Nov	5	12.27802	12.25947	56.88656	09:18
Nov	12	12.2781	12.25955	56.88583	08:51
Nov	19	12.27816	12.25961	56.88526	08:23
Nov	26	12.27825	12.2597	56.88462	07:55
Dic	3	12.27833	12.25978	56.88412	07:28
Dic	10	12.27843	12.25988	56.88355	07:00
Dic	17	12.27852	12.25997	56.88318	06:33
Dic	24	12.27863	12.26008	56.88277	06:05
Dic	31	12.27872	12.26017	56.88253	05:38

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 60718					
V		Sp			
0.77		B0.5IV			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	12.46653	12.44798	-63.23273	05:44
Ene	8	12.46664	12.44809	-63.23306	05:16
Ene	15	12.46677	12.44822	-63.23354	04:49
Ene	22	12.46686	12.44831	-63.23396	04:21
Ene	29	12.46698	12.44843	-63.23455	03:54
Feb	5	12.46706	12.44851	-63.23509	03:26
Feb	12	12.46716	12.44861	-63.23578	02:58
Feb	19	12.46722	12.44867	-63.23637	02:31
Feb	26	12.4673	12.44875	-63.2371	02:03
Mar	5	12.46735	12.4488	-63.23775	01:36
Mar	12	12.4674	12.44885	-63.23851	01:08
Mar	19	12.46743	12.44888	-63.23914	00:40
Mar	26	12.46746	12.44891	-63.23988	00:13
Abr	2	12.46747	12.44892	-63.24052	23:45
Abr	9	12.46748	12.44893	-63.24123	23:18
Abr	16	12.46747	12.44892	-63.24179	22:50
Abr	23	12.46746	12.44891	-63.24244	22:22
Abr	30	12.46744	12.44889	-63.24296	21:55
May	7	12.46741	12.44886	-63.24352	21:27
May	14	12.46738	12.44883	-63.24392	21:00
May	21	12.46734	12.44879	-63.24438	20:32
May	28	12.46729	12.44874	-63.24471	20:04
Jun	4	12.46724	12.44869	-63.24503	19:37
Jun	11	12.46718	12.44863	-63.24522	19:09
Jun	18	12.46712	12.44857	-63.24542	18:42
Jun	25	12.46706	12.44851	-63.24551	18:14
Jul	2	12.46699	12.44844	-63.24555	17:46
Jul	9	12.46693	12.44838	-63.24549	17:19
Jul	16	12.46685	12.4483	-63.2454	16:51
Jul	23	12.46668	12.44825	-63.24524	16:24
Jul	30	12.46672	12.44817	-63.245	15:56
Ago	6	12.46667	12.44812	-63.2447	15:28
Ago	13	12.46666	12.44805	-63.24435	15:01
Ago	20	12.46657	12.44802	-63.24399	14:33
Ago	27	12.46651	12.44796	-63.24352	14:06
Sep	3	12.46649	12.44794	-63.24306	13:38
Sep	10	12.46645	12.4479	-63.24254	13:10
Sep	17	12.46645	12.4479	-63.24208	12:43
Sep	24	12.46644	12.44789	-63.24151	12:15
Oct	1	12.46646	12.44791	-63.24102	11:48
Oct	8	12.46647	12.44792	-63.24049	11:20
Oct	15	12.46652	12.44797	-63.24008	10:52
Oct	22	12.46655	12.448	-63.23957	10:25
Oct	29	12.46662	12.44807	-63.23921	09:57
Nov	5	12.46668	12.44813	-63.23883	09:30
Nov	12	12.46678	12.44823	-63.23863	09:02
Nov	19	12.46687	12.44832	-63.23836	08:34
Nov	26	12.46698	12.44843	-63.23826	08:07
Dic	3	12.46708	12.44853	-63.23816	07:39
Dic	10	12.46721	12.44866	-63.23827	07:12
Dic	17	12.46732	12.44877	-63.23831	06:44
Dic	24	12.46745	12.4489	-63.23854	06:16
Dic	31	12.46756	12.44901	-63.23876	05:49

HIP 61084					
V		Sp			
1.59		M4III			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	12.54258	12.52403	-57.24861	05:48
Ene	8	12.54268	12.52413	-57.24895	05:21
Ene	15	12.54279	12.52424	-57.24944	04:53
Ene	22	12.54287	12.52432	-57.24986	04:26
Ene	29	12.54297	12.52442	-57.25044	03:58
Feb	5	12.54305	12.5245	-57.25098	03:30
Feb	12	12.54313	12.52458	-57.25165	03:03
Feb	19	12.54319	12.52464	-57.25222	02:35
Feb	26	12.54326	12.52471	-57.25293	02:08
Mar	5	12.5433	12.52475	-57.25355	01:40
Mar	12	12.54335	12.5248	-57.25428	01:13
Mar	19	12.54338	12.52483	-57.25487	00:45
Mar	26	12.54341	12.52486	-57.25558	00:17
Abr	2	12.54342	12.52487	-57.25618	23:50
Abr	9	12.54343	12.52488	-57.25685	23:22
Abr	16	12.54343	12.52488	-57.25737	22:55
Abr	23	12.54343	12.52488	-57.25797	22:27
Abr	30	12.54341	12.52486	-57.25846	21:59
May	7	12.54339	12.52484	-57.25897	21:32
May	14	12.54337	12.52482	-57.25934	21:04
May	21	12.54334	12.52479	-57.25976	20:37
May	28	12.54331	12.52476	-57.26006	20:09
Jun	4	12.54326	12.52471	-57.26035	19:41
Jun	11	12.54322	12.52467	-57.26052	19:14
Jun	18	12.54317	12.52462	-57.26069	18:46
Jun	25	12.54313	12.52458	-57.26077	18:19
Jul	2	12.54307	12.52452	-57.26079	17:51
Jul	9	12.54303	12.52448	-57.26073	17:23
Jul	16	12.54297	12.52442	-57.26063	16:56
Jul	23	12.54293	12.52438	-57.26047	16:28
Jul	30	12.54287	12.52432	-57.26024	16:01
Ago	6	12.54283	12.52428	-57.25995	15:33
Ago	13	12.54277	12.52422	-57.25962	15:05
Ago	20	12.54275	12.5242	-57.25927	14:38
Ago	27	12.5427	12.52415	-57.25883	14:10
Sep	3	12.54268	12.52413	-57.25839	13:43
Sep	10	12.54265	12.5241	-57.25791	13:15
Sep	17	12.54265	12.5241	-57.25748	12:47
Sep	24	12.54264	12.52409	-57.25695	12:20
Oct	1	12.54266	12.52411	-57.2565	11:52
Oct	8	12.54267	12.52412	-57.25601	11:25
Oct	15	12.54271	12.52416	-57.25564	10:57
Oct	22	12.54274	12.52419	-57.25518	10:29
Oct	29	12.5428	12.52425	-57.25486	10:02
Nov	5	12.54285	12.5243	-57.25452	09:34
Nov	12	12.54294	12.52439	-57.25436	09:07
Nov	19	12.54301	12.52446	-57.25412	08:39
Nov	26	12.5431	12.52455	-57.25407	08:11
Dic	3	12.54319	12.52464	-57.254	07:44
Dic	10	12.5433	12.52475	-57.25413	07:16
Dic	17	12.5434	12.52485	-57.2542	06:49
Dic	24	12.54351	12.52496	-57.25446	06:21
Dic	31	12.54361	12.52506	-57.25469	05:53

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 62896					
V		Sp			
4.25		A4IV			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	12.91368	12.89513	-40.31152	06:11
Ene	8	12.91375	12.8952	-40.31186	05:43
Ene	15	12.91385	12.8953	-40.31233	05:16
Ene	22	12.91391	12.89536	-40.31272	04:48
Ene	29	12.91399	12.89544	-40.31325	04:20
Feb	5	12.91405	12.8955	-40.31372	03:53
Feb	12	12.91413	12.89558	-40.31431	03:25
Feb	19	12.91418	12.89563	-40.31478	02:58
Feb	26	12.91424	12.89569	-40.31538	02:30
Mar	5	12.91428	12.89573	-40.31588	02:02
Mar	12	12.91432	12.89577	-40.31647	01:35
Mar	19	12.91435	12.8958	-40.31693	01:07
Mar	26	12.91438	12.89583	-40.31749	00:40
Abr	2	12.9144	12.89585	-40.31794	00:12
Abr	9	12.91442	12.89587	-40.31846	23:44
Abr	16	12.91442	12.89587	-40.31883	23:17
Abr	23	12.91443	12.89588	-40.31929	22:49
Abr	30	12.91443	12.89588	-40.31962	22:22
May	7	12.91443	12.89588	-40.32001	21:54
May	14	12.91442	12.89587	-40.32025	21:26
May	21	12.91441	12.89586	-40.32056	20:59
May	28	12.91439	12.89584	-40.32075	20:31
Jun	4	12.91438	12.89583	-40.32096	20:04
Jun	11	12.91435	12.8958	-40.32105	19:36
Jun	18	12.91433	12.89578	-40.32117	19:08
Jun	25	12.9143	12.89575	-40.32119	18:41
Jul	2	12.91427	12.89572	-40.3212	18:13
Jul	9	12.91424	12.89569	-40.32112	17:46
Jul	16	12.91421	12.89566	-40.32104	17:18
Jul	23	12.91419	12.89564	-40.3209	16:50
Jul	30	12.91415	12.8956	-40.32071	16:23
Ago	6	12.91412	12.89557	-40.32048	15:55
Ago	13	12.91409	12.89554	-40.32023	15:28
Ago	20	12.91407	12.89552	-40.31996	15:00
Ago	27	12.91404	12.89549	-40.31962	14:32
Sep	3	12.91403	12.89548	-40.31929	14:05
Sep	10	12.914	12.89545	-40.31894	13:37
Sep	17	12.91401	12.89546	-40.31863	13:10
Sep	24	12.91399	12.89544	-40.31824	12:42
Oct	1	12.914	12.89545	-40.31792	12:14
Oct	8	12.91401	12.89546	-40.31758	11:47
Oct	15	12.91404	12.89549	-40.31734	11:19
Oct	22	12.91406	12.89551	-40.31703	10:52
Oct	29	12.9141	12.89555	-40.31684	10:24
Nov	5	12.91413	12.89558	-40.31663	09:56
Nov	12	12.9142	12.89565	-40.31658	09:29
Nov	19	12.91425	12.8957	-40.31646	09:01
Nov	26	12.91432	12.89577	-40.3165	08:34
Dic	3	12.91438	12.89583	-40.31652	08:06
Dic	10	12.91447	12.89592	-40.31672	07:38
Dic	17	12.91454	12.89599	-40.31685	07:11
Dic	24	12.91462	12.89607	-40.31715	06:43
Dic	31	12.9147	12.89615	-40.3174	06:16

HIP 63608					
V		Sp			
2.85		G8IIIvar			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	13.05701	13.03846	10.82314	06:19
Ene	8	13.05707	13.03852	10.82274	05:52
Ene	15	13.05714	13.03859	10.8223	05:24
Ene	22	13.0572	13.03865	10.822	04:57
Ene	29	13.05727	13.03872	10.82165	04:29
Feb	5	13.05732	13.03877	10.82142	04:01
Feb	12	13.05739	13.03884	10.82114	03:34
Feb	19	13.05743	13.03888	10.82103	03:06
Feb	26	13.05748	13.03893	10.82086	02:39
Mar	5	13.05751	13.03896	10.82083	02:11
Mar	12	13.05756	13.03901	10.82074	01:43
Mar	19	13.05758	13.03903	10.82082	01:16
Mar	26	13.05761	13.03906	10.82082	00:48
Abr	2	13.05762	13.03907	10.82096	00:21
Abr	9	13.05764	13.03909	10.82103	23:53
Abr	16	13.05764	13.03909	10.82124	23:25
Abr	23	13.05766	13.03911	10.82135	22:58
Abr	30	13.05765	13.0391	10.82158	22:30
May	7	13.05766	13.03911	10.82172	22:03
May	14	13.05765	13.0391	10.82197	21:35
May	21	13.05764	13.03909	10.82212	21:07
May	28	13.05763	13.03908	10.82235	20:40
Jun	4	13.05762	13.03907	10.8225	20:12
Jun	11	13.0576	13.03905	10.82272	19:45
Jun	18	13.05759	13.03904	10.82284	19:17
Jun	25	13.05757	13.03902	10.82301	18:49
Jul	2	13.05756	13.03901	10.82312	18:22
Jul	9	13.05753	13.03898	10.82326	17:54
Jul	16	13.05752	13.03897	10.82333	17:27
Jul	23	13.0575	13.03895	10.8234	16:59
Jul	30	13.05747	13.03892	10.82344	16:31
Ago	6	13.05745	13.0389	10.82347	16:04
Ago	13	13.05743	13.03888	10.82346	15:36
Ago	20	13.05742	13.03887	10.82341	15:09
Ago	27	13.0574	13.03885	10.82336	14:41
Sep	3	13.05739	13.03884	10.82326	14:13
Sep	10	13.05738	13.03883	10.82315	13:46
Sep	17	13.05738	13.03883	10.82295	13:18
Sep	24	13.05737	13.03882	10.8228	12:51
Oct	1	13.05737	13.03882	10.82256	12:23
Oct	8	13.05738	13.03883	10.82233	11:55
Oct	15	13.0574	13.03885	10.82198	11:28
Oct	22	13.05741	13.03886	10.8217	11:00
Oct	29	13.05744	13.03889	10.82131	10:33
Nov	5	13.05747	13.03892	10.82096	10:05
Nov	12	13.05752	13.03897	10.82048	09:37
Nov	19	13.05755	13.039	10.82011	09:10
Nov	26	13.05761	13.03906	10.81961	08:42
Dic	3	13.05765	13.0391	10.8192	08:15
Dic	10	13.05773	13.03918	10.81865	07:47
Dic	17	13.05778	13.03923	10.81825	07:19
Dic	24	13.05785	13.0393	10.81774	06:52
Dic	31	13.05791	13.03936	10.81735	06:24

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 64394					
V		Sp			
4.23		G0V			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	13.21732	13.19877	27.74822	06:29
Ene	8	13.21738	13.19883	27.74785	06:01
Ene	15	13.21746	13.19891	27.74745	05:34
Ene	22	13.21752	13.19897	27.74721	05:06
Ene	29	13.2176	13.19905	27.74694	04:39
Feb	5	13.21765	13.1991	27.74682	04:11
Feb	12	13.21772	13.19917	27.74666	03:43
Feb	19	13.21777	13.19922	27.74669	03:16
Feb	26	13.21783	13.19928	27.74667	02:48
Mar	5	13.21786	13.19931	27.74681	02:21
Mar	12	13.21791	13.19936	27.7469	01:53
Mar	19	13.21793	13.19938	27.74717	01:25
Mar	26	13.21797	13.19942	27.74736	00:58
Abr	2	13.21798	13.19943	27.74769	00:30
Abr	9	13.218	13.19945	27.74794	00:03
Abr	16	13.21801	13.19946	27.74833	23:35
Abr	23	13.21802	13.19947	27.74863	23:07
Abr	30	13.21801	13.19946	27.74902	22:40
May	7	13.21802	13.19947	27.74932	22:12
May	14	13.218	13.19945	27.74972	21:45
May	21	13.218	13.19945	27.75	21:17
May	28	13.21798	13.19943	27.75034	20:49
Jun	4	13.21797	13.19942	27.75059	20:22
Jun	11	13.21794	13.19939	27.75089	19:54
Jun	18	13.21793	13.19938	27.75107	19:27
Jun	25	13.2179	13.19935	27.75128	18:59
Jul	2	13.21788	13.19933	27.7514	18:31
Jul	9	13.21785	13.1993	27.75154	18:04
Jul	16	13.21783	13.19928	27.75158	17:36
Jul	23	13.2178	13.19925	27.75161	17:09
Jul	30	13.21778	13.19923	27.75159	16:41
Ago	6	13.21775	13.1992	27.75154	16:13
Ago	13	13.21772	13.19917	27.75142	15:46
Ago	20	13.2177	13.19915	27.75125	15:18
Ago	27	13.21768	13.19913	27.75107	14:51
Sep	3	13.21766	13.19911	27.75083	14:23
Sep	10	13.21765	13.1991	27.75056	13:55
Sep	17	13.21764	13.19909	27.7502	13:28
Sep	24	13.21763	13.19908	27.74988	13:00
Oct	1	13.21763	13.19908	27.74946	12:33
Oct	8	13.21763	13.19908	27.74905	12:05
Oct	15	13.21765	13.1991	27.74853	11:37
Oct	22	13.21766	13.19911	27.74808	11:10
Oct	29	13.21769	13.19914	27.74753	10:42
Nov	5	13.21771	13.19916	27.74702	10:15
Nov	12	13.21776	13.19921	27.7464	09:47
Nov	19	13.21779	13.19924	27.74589	09:19
Nov	26	13.21785	13.1993	27.74529	08:52
Dic	3	13.21789	13.19934	27.74478	08:24
Dic	10	13.21797	13.19942	27.74416	07:57
Dic	17	13.21802	13.19947	27.7437	07:29
Dic	24	13.2181	13.19955	27.74315	07:01
Dic	31	13.21816	13.19961	27.74276	06:34

HIP 66249					
V		Sp			
3.38		A3V			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	13.59939	13.58084	-0.72414	06:52
Ene	8	13.59945	13.5809	-0.72453	06:24
Ene	15	13.59953	13.58098	-0.72498	05:57
Ene	22	13.59959	13.58104	-0.72532	05:29
Ene	29	13.59966	13.58111	-0.72572	05:01
Feb	5	13.59971	13.58116	-0.72602	04:34
Feb	12	13.59978	13.58123	-0.72638	04:06
Feb	19	13.59982	13.58127	-0.72659	03:39
Feb	26	13.59988	13.58133	-0.72686	03:11
Mar	5	13.59992	13.58137	-0.72701	02:44
Mar	12	13.59996	13.58141	-0.72722	02:16
Mar	19	13.59999	13.58144	-0.72726	01:48
Mar	26	13.60003	13.58148	-0.72738	01:21
Abr	2	13.60005	13.5815	-0.72737	00:53
Abr	9	13.60008	13.58153	-0.72744	00:26
Abr	16	13.60008	13.58153	-0.72735	23:58
Abr	23	13.60011	13.58156	-0.72736	23:30
Abr	30	13.60011	13.58156	-0.72724	23:03
May	7	13.60012	13.58157	-0.72721	22:35
May	14	13.60012	13.58157	-0.72705	22:08
May	21	13.60012	13.58157	-0.72699	21:40
May	28	13.60011	13.58156	-0.72683	21:12
Jun	4	13.60011	13.58156	-0.72675	20:45
Jun	11	13.6001	13.58155	-0.72657	20:17
Jun	18	13.60009	13.58154	-0.72649	19:50
Jun	25	13.60007	13.58152	-0.72633	19:22
Jul	2	13.60006	13.58151	-0.72624	18:54
Jul	9	13.60004	13.58149	-0.72609	18:27
Jul	16	13.60002	13.58147	-0.72601	17:59
Jul	23	13.6	13.58145	-0.7259	17:32
Jul	30	13.59998	13.58143	-0.72582	17:04
Ago	6	13.59996	13.58141	-0.72572	16:36
Ago	13	13.59993	13.58138	-0.72567	16:09
Ago	20	13.59992	13.58137	-0.72563	15:41
Ago	27	13.59989	13.58134	-0.72558	15:14
Sep	3	13.59988	13.58133	-0.72556	14:46
Sep	10	13.59986	13.58131	-0.72557	14:18
Sep	17	13.59986	13.58131	-0.72563	13:51
Sep	24	13.59984	13.58129	-0.72566	13:23
Oct	1	13.59984	13.58129	-0.72575	12:56
Oct	8	13.59984	13.58129	-0.72585	12:28
Oct	15	13.59986	13.58131	-0.72604	12:00
Oct	22	13.59986	13.58131	-0.72618	11:33
Oct	29	13.59989	13.58134	-0.72643	11:05
Nov	5	13.59991	13.58136	-0.72665	10:38
Nov	12	13.59995	13.5814	-0.727	10:10
Nov	19	13.59998	13.58143	-0.72726	09:42
Nov	26	13.60003	13.58148	-0.72764	09:15
Dic	3	13.60008	13.58153	-0.72797	08:47
Dic	10	13.60014	13.58159	-0.72843	08:20
Dic	17	13.60019	13.58164	-0.72878	07:52
Dic	24	13.60026	13.58171	-0.72924	07:24
Dic	31	13.60032	13.58177	-0.72961	06:57

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 67494					
V		Sp			
4.96		K0III			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	13.85374	13.83519	-18.25754	07:07
Ene	8	13.8538	13.83525	-18.25788	06:40
Ene	15	13.85388	13.83533	-18.25829	06:12
Ene	22	13.85394	13.83539	-18.25863	05:44
Ene	29	13.85402	13.83547	-18.25905	05:17
Feb	5	13.85407	13.83552	-18.2594	04:49
Feb	12	13.85414	13.83559	-18.25983	04:22
Feb	19	13.85419	13.83564	-18.26013	03:54
Feb	26	13.85425	13.8357	-18.26052	03:26
Mar	5	13.8543	13.83575	-18.26081	02:59
Mar	12	13.85435	13.8358	-18.26118	02:31
Mar	19	13.85438	13.83583	-18.26139	02:04
Mar	26	13.85442	13.83587	-18.2617	01:36
Abr	2	13.85445	13.8359	-18.26188	01:08
Abr	9	13.85448	13.83593	-18.26215	00:41
Abr	16	13.85449	13.83594	-18.26226	00:13
Abr	23	13.85452	13.83597	-18.26247	23:46
Abr	30	13.85453	13.83598	-18.26256	23:18
May	7	13.85454	13.83599	-18.26272	22:50
May	14	13.85454	13.83599	-18.26274	22:23
May	21	13.85455	13.836	-18.26286	21:55
May	28	13.85455	13.836	-18.26287	21:28
Jun	4	13.85455	13.836	-18.26294	21:00
Jun	11	13.85453	13.83598	-18.26289	20:32
Jun	18	13.85453	13.83598	-18.26293	20:05
Jun	25	13.85451	13.83596	-18.26287	19:37
Jul	2	13.8545	13.83595	-18.26285	19:10
Jul	9	13.85448	13.83593	-18.26275	18:42
Jul	16	13.85446	13.83591	-18.26271	18:14
Jul	23	13.85444	13.83589	-18.2626	17:47
Jul	30	13.85441	13.83586	-18.26251	17:19
Ago	6	13.85439	13.83584	-18.26236	16:52
Ago	13	13.85436	13.83581	-18.26226	16:24
Ago	20	13.85435	13.8358	-18.26213	15:56
Ago	27	13.85432	13.83577	-18.26198	15:29
Sep	3	13.8543	13.83575	-18.26183	15:01
Sep	10	13.85428	13.83573	-18.2617	14:34
Sep	17	13.85427	13.83572	-18.2616	14:06
Sep	24	13.85425	13.8357	-18.26145	13:38
Oct	1	13.85425	13.8357	-18.26135	13:11
Oct	8	13.85425	13.8357	-18.26126	12:43
Oct	15	13.85426	13.83571	-18.26125	12:16
Oct	22	13.85427	13.83572	-18.26118	11:48
Oct	29	13.85429	13.83574	-18.2612	11:20
Nov	5	13.85431	13.83576	-18.2612	10:53
Nov	12	13.85435	13.8358	-18.26133	10:25
Nov	19	13.85438	13.83583	-18.26139	09:58
Nov	26	13.85444	13.83589	-18.26158	09:30
Dic	3	13.85448	13.83593	-18.26173	09:02
Dic	10	13.85455	13.836	-18.26204	08:35
Dic	17	13.8546	13.83605	-18.26224	08:07
Dic	24	13.85467	13.83612	-18.26259	07:40
Dic	31	13.85473	13.83618	-18.26287	07:12

HIP 68895					
V		Sp			
3.25		K2III			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	14.1298	14.11125	-26.80091	07:24
Ene	8	14.12987	14.11132	-26.80119	06:56
Ene	15	14.12995	14.1114	-26.80156	06:29
Ene	22	14.13001	14.11146	-26.80186	06:01
Ene	29	14.13009	14.11154	-26.80226	05:33
Feb	5	14.13015	14.1116	-26.8026	05:06
Feb	12	14.13023	14.11168	-26.80304	04:38
Feb	19	14.13028	14.11173	-26.80336	04:11
Feb	26	14.13035	14.1118	-26.80378	03:43
Mar	5	14.1304	14.11185	-26.80411	03:15
Mar	12	14.13046	14.11191	-26.80453	02:48
Mar	19	14.13049	14.11194	-26.80481	02:20
Mar	26	14.13054	14.11199	-26.80519	01:53
Abr	2	14.13057	14.11202	-26.80545	01:25
Abr	9	14.13061	14.11206	-26.80581	00:57
Abr	16	14.13063	14.11208	-26.80601	00:30
Abr	23	14.13066	14.11211	-26.80631	00:02
Abr	30	14.13067	14.11212	-26.80649	23:35
May	7	14.13069	14.11214	-26.80675	23:07
May	14	14.13069	14.11214	-26.80687	22:39
May	21	14.1307	14.11215	-26.80708	22:12
May	28	14.1307	14.11215	-26.80717	21:44
Jun	4	14.1307	14.11215	-26.80733	21:17
Jun	11	14.13069	14.11214	-26.80736	20:49
Jun	18	14.13069	14.11214	-26.80747	20:21
Jun	25	14.13068	14.11213	-26.80747	19:54
Jul	2	14.13066	14.11211	-26.80752	19:26
Jul	9	14.13064	14.11209	-26.80747	18:59
Jul	16	14.13062	14.11207	-26.80747	18:31
Jul	23	14.1306	14.11205	-26.80738	18:03
Jul	30	14.13057	14.11202	-26.80732	17:36
Ago	6	14.13054	14.11199	-26.80718	17:08
Ago	13	14.13051	14.11196	-26.80707	16:41
Ago	20	14.13049	14.11194	-26.80692	16:13
Ago	27	14.13046	14.11191	-26.80675	15:45
Sep	3	14.13044	14.11189	-26.80656	15:18
Sep	10	14.13041	14.11186	-26.80639	14:50
Sep	17	14.1304	14.11185	-26.80622	14:23
Sep	24	14.13038	14.11183	-26.806	13:55
Oct	1	14.13038	14.11183	-26.80582	13:27
Oct	8	14.13036	14.11181	-26.80564	13:00
Oct	15	14.13038	14.11183	-26.80553	12:32
Oct	22	14.13038	14.11183	-26.80536	12:05
Oct	29	14.1304	14.11185	-26.80527	11:37
Nov	5	14.13042	14.11187	-26.80517	11:09
Nov	12	14.13046	14.11191	-26.80519	10:42
Nov	19	14.13049	14.11194	-26.80514	10:14
Nov	26	14.13054	14.11199	-26.80522	09:47
Dic	3	14.13059	14.11204	-26.80527	09:19
Dic	10	14.13066	14.11211	-26.80547	08:51
Dic	17	14.13071	14.11216	-26.80558	08:24
Dic	24	14.13078	14.11223	-26.80585	07:56
Dic	31	14.13085	14.1123	-26.80605	07:29

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 68933					
V		Sp			
2.06		K0IIIb			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	14.13577	14.11722	-36.49022	07:24
Ene	8	14.13584	14.11729	-36.49045	06:56
Ene	15	14.13593	14.11738	-36.49078	06:29
Ene	22	14.13599	14.11744	-36.49106	06:01
Ene	29	14.13608	14.11753	-36.49144	05:34
Feb	5	14.13615	14.1176	-36.4918	05:06
Feb	12	14.13623	14.11768	-36.49225	04:38
Feb	19	14.13628	14.11773	-36.49261	04:11
Feb	26	14.13636	14.11781	-36.49307	03:43
Mar	5	14.13641	14.11786	-36.49346	03:16
Mar	12	14.13647	14.11792	-36.49395	02:48
Mar	19	14.13651	14.11796	-36.49431	02:21
Mar	26	14.13656	14.11801	-36.49477	01:53
Abr	2	14.1366	14.11805	-36.49513	01:25
Abr	9	14.13664	14.11809	-36.49559	00:58
Abr	16	14.13666	14.11811	-36.49589	00:30
Abr	23	14.13669	14.11814	-36.4963	00:03
Abr	30	14.13671	14.11816	-36.49659	23:35
May	7	14.13672	14.11817	-36.49697	23:07
May	14	14.13673	14.11818	-36.49719	22:40
May	21	14.13674	14.11819	-36.49751	22:12
May	28	14.13674	14.11819	-36.4977	21:45
Jun	4	14.13673	14.11818	-36.49796	21:17
Jun	11	14.13672	14.11817	-36.49808	20:49
Jun	18	14.13671	14.11816	-36.49827	20:22
Jun	25	14.1367	14.11815	-36.49834	19:54
Jul	2	14.13668	14.11813	-36.49846	19:27
Jul	9	14.13665	14.1181	-36.49845	18:59
Jul	16	14.13663	14.11808	-36.49849	18:31
Jul	23	14.1366	14.11805	-36.49844	18:04
Jul	30	14.13657	14.11802	-36.49838	17:36
Ago	6	14.13654	14.11799	-36.49825	17:09
Ago	13	14.1365	14.11795	-36.49814	16:41
Ago	20	14.13648	14.11793	-36.49797	16:13
Ago	27	14.13644	14.11789	-36.49776	15:46
Sep	3	14.13642	14.11787	-36.49753	15:18
Sep	10	14.13639	14.11784	-36.49729	14:51
Sep	17	14.13637	14.11782	-36.49706	14:23
Sep	24	14.13635	14.1178	-36.49677	13:55
Oct	1	14.13634	14.11779	-36.4965	13:28
Oct	8	14.13633	14.11778	-36.49623	13:00
Oct	15	14.13634	14.11779	-36.49601	12:33
Oct	22	14.13634	14.11779	-36.49573	12:05
Oct	29	14.13637	14.11782	-36.49554	11:37
Nov	5	14.13638	14.11783	-36.49533	11:10
Nov	12	14.13643	14.11788	-36.49524	10:42
Nov	19	14.13646	14.11791	-36.49508	10:15
Nov	26	14.13652	14.11797	-36.49505	09:47
Dic	3	14.13657	14.11802	-36.495	09:19
Dic	10	14.13664	14.11809	-36.49511	08:52
Dic	17	14.1367	14.11815	-36.49514	08:24
Dic	24	14.13678	14.11823	-36.49533	07:57
Dic	31	14.13685	14.1183	-36.49547	07:29

HIP 69763					
V		Sp			
5.72		B1.5III			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	14.3102	14.29165	-66.69948	07:35
Ene	8	14.31032	14.29177	-66.69951	07:07
Ene	15	14.31048	14.29193	-66.69967	06:39
Ene	22	14.3106	14.29205	-66.69981	06:12
Ene	29	14.31076	14.29221	-66.70008	05:44
Feb	5	14.31088	14.29233	-66.70037	05:17
Feb	12	14.31103	14.29248	-66.70079	04:49
Feb	19	14.31114	14.29259	-66.70115	04:21
Feb	26	14.31127	14.29272	-66.70166	03:54
Mar	5	14.31137	14.29282	-66.70213	03:26
Mar	12	14.31149	14.29294	-66.70273	02:59
Mar	19	14.31157	14.29302	-66.70324	02:31
Mar	26	14.31167	14.29312	-66.70388	02:03
Abr	2	14.31173	14.29318	-66.70444	01:36
Abr	9	14.31181	14.29326	-66.70512	01:08
Abr	16	14.31185	14.2933	-66.70567	00:41
Abr	23	14.3119	14.29335	-66.70634	00:13
Abr	30	14.31193	14.29338	-66.7069	23:45
May	7	14.31196	14.29341	-66.70756	23:18
May	14	14.31196	14.29341	-66.70806	22:50
May	21	14.31197	14.29342	-66.70866	22:23
May	28	14.31196	14.29341	-66.70914	21:55
Jun	4	14.31194	14.29339	-66.70967	21:27
Jun	11	14.31191	14.29336	-66.71004	21:00
Jun	18	14.31187	14.29332	-66.71049	20:32
Jun	25	14.31183	14.29328	-66.71079	20:05
Jul	2	14.31177	14.29322	-66.71111	19:37
Jul	9	14.31171	14.29316	-66.71129	19:09
Jul	16	14.31163	14.29308	-66.71149	18:42
Jul	23	14.31157	14.29302	-66.71156	18:14
Jul	30	14.31148	14.29293	-66.71161	17:47
Ago	6	14.31141	14.29286	-66.71154	17:19
Ago	13	14.31131	14.29276	-66.71147	16:51
Ago	20	14.31125	14.2927	-66.7113	16:24
Ago	27	14.31116	14.29261	-66.71107	15:56
Sep	3	14.31109	14.29254	-66.71076	15:29
Sep	10	14.31101	14.29246	-66.71043	15:01
Sep	17	14.31097	14.29242	-66.71006	14:33
Sep	24	14.3109	14.29235	-66.7096	14:06
Oct	1	14.31088	14.29233	-66.70914	13:38
Oct	8	14.31084	14.29229	-66.70865	13:11
Oct	15	14.31085	14.2923	-66.70819	12:43
Oct	22	14.31084	14.29229	-66.70764	12:15
Oct	29	14.31087	14.29232	-66.70716	11:48
Nov	5	14.31089	14.29234	-66.70665	11:20
Nov	12	14.31096	14.29241	-66.70626	10:53
Nov	19	14.31101	14.29246	-66.70579	10:25
Nov	26	14.3111	14.29255	-66.70545	09:57
Dic	3	14.31118	14.29263	-66.70509	09:30
Dic	10	14.31131	14.29276	-66.70491	09:02
Dic	17	14.31141	14.29286	-66.70465	08:35
Dic	24	14.31155	14.293	-66.70457	08:07
Dic	31	14.31167	14.29312	-66.70448	07:39

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 71683					
V		Sp			
-0.01		G2V			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	14.68813	14.66958	-60.93447	07:57
Ene	8	14.68823	14.66968	-60.9345	07:30
Ene	15	14.68836	14.66981	-60.93463	07:02
Ene	22	14.68846	14.66991	-60.93475	06:34
Ene	29	14.68859	14.67004	-60.93499	06:07
Feb	5	14.6887	14.67015	-60.93525	05:39
Feb	12	14.68882	14.67027	-60.93563	05:12
Feb	19	14.68891	14.67036	-60.93595	04:44
Feb	26	14.68903	14.67048	-60.93641	04:16
Mar	5	14.68911	14.67056	-60.93683	03:49
Mar	12	14.68921	14.67066	-60.93737	03:21
Mar	19	14.68928	14.67073	-60.93782	02:54
Mar	26	14.68937	14.67082	-60.9384	02:26
Abr	2	14.68943	14.67088	-60.9389	01:58
Abr	9	14.68949	14.67094	-60.93951	01:31
Abr	16	14.68953	14.67098	-60.94	01:03
Abr	23	14.68958	14.67103	-60.9406	00:36
Abr	30	14.68961	14.67106	-60.9411	00:08
May	7	14.68964	14.67109	-60.9417	23:41
May	14	14.68965	14.6711	-60.94214	23:13
May	21	14.68966	14.67111	-60.94269	22:45
May	28	14.68966	14.67111	-60.94311	22:18
Jun	4	14.68965	14.6711	-60.94361	21:50
Jun	11	14.68963	14.67108	-60.94394	21:23
Jun	18	14.68961	14.67106	-60.94435	20:55
Jun	25	14.68958	14.67103	-60.94462	20:27
Jul	2	14.68953	14.67098	-60.94493	20:00
Jul	9	14.68949	14.67094	-60.94509	19:32
Jul	16	14.68943	14.67088	-60.94529	19:05
Jul	23	14.68938	14.67083	-60.94536	18:37
Jul	30	14.68931	14.67076	-60.94543	18:09
Ago	6	14.68925	14.6707	-60.94537	17:42
Ago	13	14.68918	14.67063	-60.94532	17:14
Ago	20	14.68912	14.67057	-60.94517	16:47
Ago	27	14.68905	14.6705	-60.94498	16:19
Sep	3	14.68899	14.67044	-60.9447	15:51
Sep	10	14.68892	14.67037	-60.94442	15:24
Sep	17	14.68889	14.67034	-60.94408	14:56
Sep	24	14.68883	14.67028	-60.94368	14:28
Oct	1	14.6888	14.67025	-60.94326	14:01
Oct	8	14.68876	14.67021	-60.94282	13:33
Oct	15	14.68877	14.67022	-60.9424	13:06
Oct	22	14.68875	14.6702	-60.9419	12:38
Oct	29	14.68877	14.67022	-60.94145	12:11
Nov	5	14.68878	14.67023	-60.941	11:43
Nov	12	14.68884	14.67029	-60.94063	11:15
Nov	19	14.68887	14.67032	-60.94019	10:48
Nov	26	14.68894	14.67039	-60.93988	10:20
Dic	3	14.68901	14.67046	-60.93955	09:53
Dic	10	14.68911	14.67056	-60.93937	09:25
Dic	17	14.68919	14.67064	-60.93913	08:57
Dic	24	14.6893	14.67075	-60.93905	08:30
Dic	31	14.6894	14.67085	-60.93895	08:02

HIP 71957					
V		Sp			
3.87		F2III			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	14.73947	14.72092	-5.76708	08:00
Ene	8	14.73953	14.72098	-5.76745	07:33
Ene	15	14.7396	14.72105	-5.76785	07:05
Ene	22	14.73966	14.72111	-5.76818	06:37
Ene	29	14.73973	14.72118	-5.76855	06:10
Feb	5	14.73979	14.72124	-5.76885	05:42
Feb	12	14.73986	14.72131	-5.7692	05:15
Feb	19	14.73991	14.72136	-5.76943	04:47
Feb	26	14.73998	14.72143	-5.76971	04:20
Mar	5	14.74003	14.72148	-5.76988	03:52
Mar	12	14.74008	14.72153	-5.77011	03:24
Mar	19	14.74012	14.72157	-5.77019	02:57
Mar	26	14.74017	14.72162	-5.77034	02:29
Abr	2	14.74021	14.72166	-5.77037	02:02
Abr	9	14.74025	14.7217	-5.77047	01:34
Abr	16	14.74027	14.72172	-5.77041	01:06
Abr	23	14.7403	14.72175	-5.77046	00:39
Abr	30	14.74032	14.72177	-5.77037	00:11
May	7	14.74035	14.7218	-5.77038	23:44
May	14	14.74035	14.7218	-5.77024	23:16
May	21	14.74037	14.72182	-5.77022	22:48
May	28	14.74038	14.72183	-5.77007	22:21
Jun	4	14.74038	14.72183	-5.77003	21:53
Jun	11	14.74038	14.72183	-5.76986	21:26
Jun	18	14.74038	14.72183	-5.76981	20:58
Jun	25	14.74037	14.72182	-5.76965	20:30
Jul	2	14.74036	14.72181	-5.76959	20:03
Jul	9	14.74035	14.7218	-5.76943	19:35
Jul	16	14.74033	14.72178	-5.76938	19:08
Jul	23	14.74031	14.72176	-5.76925	18:40
Jul	30	14.74029	14.72174	-5.76918	18:12
Ago	6	14.74027	14.72172	-5.76906	17:45
Ago	13	14.74024	14.72169	-5.76902	17:17
Ago	20	14.74022	14.72167	-5.76893	16:50
Ago	27	14.74019	14.72164	-5.76888	16:22
Sep	3	14.74017	14.72162	-5.76882	15:54
Sep	10	14.74014	14.72159	-5.76881	15:27
Sep	17	14.74013	14.72158	-5.7688	14:59
Sep	24	14.7401	14.72155	-5.76879	14:32
Oct	1	14.74009	14.72154	-5.76881	14:04
Oct	8	14.74008	14.72153	-5.76887	13:36
Oct	15	14.74008	14.72153	-5.76897	13:09
Oct	22	14.74007	14.72152	-5.76904	12:41
Oct	29	14.74009	14.72154	-5.76918	12:14
Nov	5	14.74009	14.72154	-5.76933	11:46
Nov	12	14.74013	14.72158	-5.76958	11:18
Nov	19	14.74014	14.72159	-5.76976	10:51
Nov	26	14.74018	14.72163	-5.77005	10:23
Dic	3	14.74022	14.72167	-5.7703	09:56
Dic	10	14.74028	14.72173	-5.77068	09:28
Dic	17	14.74032	14.72177	-5.77095	09:00
Dic	24	14.74038	14.72183	-5.77135	08:33
Dic	31	14.74043	14.72188	-5.77166	08:05

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 73714					
V		Sp			
3.25		M3/M4III			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	15.09202	15.07347	-25.37874	08:21
Ene	8	15.09208	15.07353	-25.37896	07:54
Ene	15	15.09216	15.07361	-25.37923	07:26
Ene	22	15.09222	15.07367	-25.37946	06:59
Ene	29	15.0923	15.07375	-25.37976	06:31
Feb	5	15.09236	15.07381	-25.38003	06:03
Feb	12	15.09244	15.07389	-25.38037	05:36
Feb	19	15.0925	15.07395	-25.38062	05:08
Feb	26	15.09257	15.07402	-25.38095	04:41
Mar	5	15.09263	15.07408	-25.3812	04:13
Mar	12	15.0927	15.07415	-25.38154	03:45
Mar	19	15.09274	15.07419	-25.38175	03:18
Mar	26	15.0928	15.07425	-25.38204	02:50
Abr	2	15.09284	15.07429	-25.38224	02:23
Abr	9	15.09289	15.07434	-25.38253	01:55
Abr	16	15.09292	15.07437	-25.38267	01:28
Abr	23	15.09296	15.07441	-25.38292	01:00
Abr	30	15.09299	15.07444	-25.38304	00:32
May	7	15.09302	15.07447	-25.38327	00:05
May	14	15.09303	15.07448	-25.38335	23:37
May	21	15.09306	15.07451	-25.38354	23:10
May	28	15.09307	15.07452	-25.3836	22:42
Jun	4	15.09308	15.07453	-25.38377	22:14
Jun	11	15.09308	15.07453	-25.38379	21:47
Jun	18	15.09308	15.07453	-25.38391	21:19
Jun	25	15.09308	15.07453	-25.38392	20:52
Jul	2	15.09307	15.07452	-25.38401	20:24
Jul	9	15.09306	15.07451	-25.38397	19:56
Jul	16	15.09304	15.07449	-25.38402	19:29
Jul	23	15.09302	15.07447	-25.38397	19:01
Jul	30	15.093	15.07445	-25.38397	18:34
Ago	6	15.09297	15.07442	-25.38387	18:06
Ago	13	15.09294	15.07439	-25.38384	17:38
Ago	20	15.09292	15.07437	-25.38373	17:11
Ago	27	15.09288	15.07433	-25.38364	16:43
Sep	3	15.09286	15.07431	-25.3835	16:16
Sep	10	15.09282	15.07427	-25.38339	15:48
Sep	17	15.09281	15.07426	-25.38326	15:20
Sep	24	15.09277	15.07422	-25.38311	14:53
Oct	1	15.09276	15.07421	-25.38295	14:25
Oct	8	15.09274	15.07419	-25.38282	13:58
Oct	15	15.09274	15.07419	-25.38271	13:30
Oct	22	15.09273	15.07418	-25.38257	13:02
Oct	29	15.09274	15.07419	-25.38248	12:35
Nov	5	15.09274	15.07419	-25.38239	12:07
Nov	12	15.09278	15.07423	-25.38239	11:40
Nov	19	15.09279	15.07424	-25.38231	11:12
Nov	26	15.09283	15.07428	-25.38234	10:44
Dic	3	15.09287	15.07432	-25.38235	10:17
Dic	10	15.09293	15.07438	-25.38249	09:49
Dic	17	15.09297	15.07442	-25.38255	09:22
Dic	24	15.09304	15.07449	-25.38274	08:54
Dic	31	15.09309	15.07454	-25.38287	08:26

HIP 74824					
V		Sp			
4.07		A3V			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	15.32422	15.30567	-58.89059	08:35
Ene	8	15.32431	15.30576	-58.89052	08:08
Ene	15	15.32443	15.30588	-58.89054	07:40
Ene	22	15.32453	15.30598	-58.89057	07:13
Ene	29	15.32465	15.3061	-58.89069	06:45
Feb	5	15.32475	15.3062	-58.89084	06:17
Feb	12	15.32488	15.30633	-58.89109	05:50
Feb	19	15.32498	15.30643	-58.89131	05:22
Feb	26	15.3251	15.30655	-58.89165	04:55
Mar	5	15.32519	15.30664	-58.89196	04:27
Mar	12	15.3253	15.30675	-58.8924	03:59
Mar	19	15.32538	15.30683	-58.89275	03:32
Mar	26	15.32547	15.30692	-58.89323	03:04
Abr	2	15.32555	15.307	-58.89365	02:37
Abr	9	15.32563	15.30708	-58.89418	02:09
Abr	16	15.32569	15.30714	-58.89461	01:41
Abr	23	15.32575	15.3072	-58.89515	01:14
Abr	30	15.3258	15.30725	-58.8956	00:46
May	7	15.32585	15.3073	-58.89617	00:19
May	14	15.32588	15.30733	-58.89659	23:51
May	21	15.32591	15.30736	-58.89713	23:23
May	28	15.32593	15.30738	-58.89754	22:56
Jun	4	15.32594	15.30739	-58.89805	22:28
Jun	11	15.32594	15.30739	-58.89841	22:01
Jun	18	15.32594	15.30739	-58.89886	21:33
Jun	25	15.32593	15.30738	-58.89917	21:06
Jul	2	15.3259	15.30735	-58.89954	20:38
Jul	9	15.32587	15.30732	-58.89976	20:10
Jul	16	15.32583	15.30728	-58.90005	19:43
Jul	23	15.32579	15.30724	-58.90019	19:15
Jul	30	15.32574	15.30719	-58.90036	18:47
Ago	6	15.32569	15.30714	-58.90038	18:20
Ago	13	15.32562	15.30707	-58.90044	17:52
Ago	20	15.32557	15.30702	-58.90038	17:25
Ago	27	15.3255	15.30695	-58.9003	16:57
Sep	3	15.32545	15.3069	-58.90011	16:29
Sep	10	15.32538	15.30683	-58.89993	16:02
Sep	17	15.32534	15.30679	-58.89967	15:34
Sep	24	15.32527	15.30672	-58.89936	15:07
Oct	1	15.32524	15.30669	-58.899	14:39
Oct	8	15.3252	15.30665	-58.89863	14:11
Oct	15	15.32519	15.30664	-58.89825	13:44
Oct	22	15.32516	15.30661	-58.8978	13:16
Oct	29	15.32516	15.30661	-58.89738	12:49
Nov	5	15.32516	15.30661	-58.89694	12:21
Nov	12	15.3252	15.30665	-58.89656	11:53
Nov	19	15.32522	15.30667	-58.89612	11:26
Nov	26	15.32528	15.30673	-58.89577	10:58
Dic	3	15.32532	15.30677	-58.8954	10:31
Dic	10	15.32541	15.30686	-58.89517	10:03
Dic	17	15.32548	15.30693	-58.89486	09:36
Dic	24	15.32558	15.30703	-58.8947	09:08
Dic	31	15.32566	15.30711	-58.89452	08:40

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 75458					
V		Sp			
3.29		K2III			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	15.42449	15.40594	58.87342	08:41
Ene	8	15.42457	15.40602	58.87283	08:14
Ene	15	15.42466	15.40611	58.8723	07:46
Ene	22	15.42475	15.4062	58.87187	07:19
Ene	29	15.42485	15.4063	58.87149	06:51
Feb	5	15.42494	15.40639	58.87123	06:23
Feb	12	15.42504	15.40649	58.87101	05:56
Feb	19	15.42514	15.40659	58.87095	05:28
Feb	26	15.42523	15.40668	58.87091	05:01
Mar	5	15.42532	15.40677	58.87103	04:33
Mar	12	15.42541	15.40686	58.87116	04:05
Mar	19	15.42549	15.40694	58.87147	03:38
Mar	26	15.42557	15.40702	58.87176	03:10
Abr	2	15.42563	15.40708	58.87221	02:43
Abr	9	15.42569	15.40714	58.87262	02:15
Abr	16	15.42573	15.40718	58.87319	01:47
Abr	23	15.42578	15.40723	58.87369	01:20
Abr	30	15.4258	15.40725	58.87432	00:52
May	7	15.42583	15.40728	58.87486	00:25
May	14	15.42584	15.40729	58.87553	23:57
May	21	15.42585	15.4073	58.87607	23:29
May	28	15.42583	15.40728	58.87672	23:02
Jun	4	15.42582	15.40727	58.87722	22:34
Jun	11	15.4258	15.40725	58.87782	22:07
Jun	18	15.42577	15.40722	58.87826	21:39
Jun	25	15.42573	15.40718	58.87877	21:11
Jul	2	15.42569	15.40714	58.87911	20:44
Jul	9	15.42563	15.40708	58.87952	20:16
Jul	16	15.42558	15.40703	58.87975	19:49
Jul	23	15.42551	15.40696	58.88002	19:21
Jul	30	15.42545	15.4069	58.88013	18:53
Ago	6	15.42537	15.40682	58.88026	18:26
Ago	13	15.4253	15.40675	58.88024	17:58
Ago	20	15.42523	15.40668	58.88022	17:31
Ago	27	15.42515	15.4066	58.88008	17:03
Sep	3	15.42508	15.40653	58.87991	16:35
Sep	10	15.42501	15.40646	58.87963	16:08
Sep	17	15.42494	15.40639	58.87931	15:40
Sep	24	15.42487	15.40632	58.87892	15:13
Oct	1	15.42481	15.40626	58.87848	14:45
Oct	8	15.42476	15.40621	58.87797	14:17
Oct	15	15.42471	15.40616	58.87739	13:50
Oct	22	15.42467	15.40612	58.87681	13:22
Oct	29	15.42464	15.40609	58.87615	12:55
Nov	5	15.42463	15.40608	58.87548	12:27
Nov	12	15.42462	15.40607	58.87473	11:59
Nov	19	15.42462	15.40607	58.87404	11:32
Nov	26	15.42464	15.40609	58.87327	11:04
Dic	3	15.42467	15.40612	58.87256	10:37
Dic	10	15.42471	15.40616	58.87177	10:09
Dic	17	15.42475	15.4062	58.8711	09:41
Dic	24	15.42482	15.40627	58.87038	09:14
Dic	31	15.42488	15.40633	58.86979	08:46

HIP 76440					
V		Sp			
4.11		K0III			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	15.64975	15.6312	-66.39669	08:55
Ene	8	15.64986	15.63131	-66.39653	08:27
Ene	15	15.65001	15.63146	-66.39644	08:00
Ene	22	15.65013	15.63158	-66.39637	07:32
Ene	29	15.65028	15.63173	-66.39639	07:05
Feb	5	15.65041	15.63186	-66.39646	06:37
Feb	12	15.65057	15.63202	-66.39663	06:09
Feb	19	15.65069	15.63214	-66.39679	05:42
Feb	26	15.65084	15.63229	-66.39706	05:14
Mar	5	15.65096	15.63241	-66.39732	04:47
Mar	12	15.65111	15.63256	-66.39771	04:19
Mar	19	15.65121	15.63266	-66.39804	03:51
Mar	26	15.65134	15.63279	-66.3985	03:24
Abr	2	15.65144	15.63289	-66.3989	02:56
Abr	9	15.65155	15.633	-66.39944	02:29
Abr	16	15.65163	15.63308	-66.39988	02:01
Abr	23	15.65173	15.63318	-66.40045	01:33
Abr	30	15.65179	15.63324	-66.40092	01:06
May	7	15.65186	15.63331	-66.40153	00:38
May	14	15.65191	15.63336	-66.402	00:11
May	21	15.65195	15.6334	-66.40259	23:43
May	28	15.65198	15.63343	-66.40307	23:15
Jun	4	15.652	15.63345	-66.40364	22:48
Jun	11	15.652	15.63345	-66.40407	22:20
Jun	18	15.652	15.63345	-66.4046	21:53
Jun	25	15.65199	15.63344	-66.40498	21:25
Jul	2	15.65196	15.63341	-66.40544	20:57
Jul	9	15.65192	15.63337	-66.40574	20:30
Jul	16	15.65187	15.63332	-66.4061	20:02
Jul	23	15.65182	15.63327	-66.40632	19:35
Jul	30	15.65175	15.6332	-66.40656	19:07
Ago	6	15.65168	15.63313	-66.40666	18:39
Ago	13	15.65159	15.63304	-66.40678	18:12
Ago	20	15.65153	15.63298	-66.40677	17:44
Ago	27	15.65143	15.63288	-66.40675	17:17
Sep	3	15.65136	15.63281	-66.4066	16:49
Sep	10	15.65126	15.63271	-66.40646	16:21
Sep	17	15.6512	15.63265	-66.40622	15:54
Sep	24	15.65111	15.63256	-66.40593	15:26
Oct	1	15.65106	15.63251	-66.40557	14:59
Oct	8	15.65099	15.63244	-66.4052	14:31
Oct	15	15.65097	15.63242	-66.40479	14:03
Oct	22	15.65092	15.63237	-66.40432	13:36
Oct	29	15.65092	15.63237	-66.40384	13:08
Nov	5	15.6509	15.63235	-66.40335	12:41
Nov	12	15.65094	15.63239	-66.40291	12:13
Nov	19	15.65095	15.6324	-66.40239	11:45
Nov	26	15.65101	15.63246	-66.40195	11:18
Dic	3	15.65106	15.63251	-66.4015	10:50
Dic	10	15.65116	15.63261	-66.40116	10:23
Dic	17	15.65123	15.63268	-66.40075	09:55
Dic	24	15.65135	15.6328	-66.40049	09:27
Dic	31	15.65145	15.6329	-66.4002	09:00

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 77622					
V		Sp			
3.71		A2m			
m	d	$\alpha$ h	$\alpha_c$ h	$\delta$ °	Hp h
Ene	1	15.86746	15.84891	4.40138	09:08
Ene	8	15.86751	15.84896	4.40097	08:40
Ene	15	15.86758	15.84903	4.40057	08:13
Ene	22	15.86763	15.84908	4.40021	07:45
Ene	29	15.8677	15.84915	4.39986	07:18
Feb	5	15.86775	15.8492	4.39955	06:50
Feb	12	15.86782	15.84927	4.39925	06:22
Feb	19	15.86787	15.84932	4.39904	05:55
Feb	26	15.86794	15.84939	4.39883	05:27
Mar	5	15.86799	15.84944	4.39872	05:00
Mar	12	15.86806	15.84951	4.39857	04:32
Mar	19	15.8681	15.84955	4.39857	04:04
Mar	26	15.86816	15.84961	4.39853	03:37
Abr	2	15.8682	15.84965	4.39862	03:09
Abr	9	15.86826	15.84971	4.39865	02:42
Abr	16	15.86829	15.84974	4.39883	02:14
Abr	23	15.86833	15.84978	4.39893	01:46
Abr	30	15.86836	15.84981	4.39916	01:19
May	7	15.8684	15.84985	4.3993	00:51
May	14	15.86842	15.84987	4.39959	00:24
May	21	15.86845	15.8499	4.39976	23:56
May	28	15.86846	15.84991	4.40006	23:28
Jun	4	15.86848	15.84993	4.40023	23:01
Jun	11	15.86848	15.84993	4.40054	22:33
Jun	18	15.86849	15.84994	4.40071	22:06
Jun	25	15.86849	15.84994	4.401	21:38
Jul	2	15.86849	15.84994	4.40115	21:10
Jul	9	15.86848	15.84993	4.40141	20:43
Jul	16	15.86847	15.84992	4.40153	20:15
Jul	23	15.86846	15.84991	4.40175	19:48
Jul	30	15.86843	15.84988	4.40184	19:20
Ago	6	15.86841	15.84986	4.40201	18:52
Ago	13	15.86839	15.84984	4.40206	18:25
Ago	20	15.86836	15.84981	4.40217	17:57
Ago	27	15.86833	15.84978	4.4022	17:30
Sep	3	15.8683	15.84975	4.40225	17:02
Sep	10	15.86827	15.84972	4.40222	16:34
Sep	17	15.86825	15.8497	4.4022	16:07
Sep	24	15.86821	15.84966	4.40214	15:39
Oct	1	15.86819	15.84964	4.40206	15:12
Oct	8	15.86817	15.84962	4.40193	14:44
Oct	15	15.86816	15.84961	4.40177	14:16
Oct	22	15.86814	15.84959	4.4016	13:49
Oct	29	15.86814	15.84959	4.40139	13:21
Nov	5	15.86813	15.84958	4.40114	12:54
Nov	12	15.86815	15.8496	4.40084	12:26
Nov	19	15.86815	15.8496	4.40057	11:58
Nov	26	15.86818	15.84963	4.40021	11:31
Dic	3	15.8682	15.84965	4.39988	11:03
Dic	10	15.86824	15.84969	4.39945	10:36
Dic	17	15.86827	15.84972	4.39911	10:08
Dic	24	15.86833	15.84978	4.39867	09:40
Dic	31	15.86837	15.84982	4.39831	09:13

HIP 81724					
V		Sp			
4.91		G8II/III			
m	d	$\alpha$ h	$\alpha_c$ h	$\delta$ °	Hp h
Ene	1	16.71666	16.69811	-17.79026	09:59
Ene	8	16.71671	16.69816	-17.79045	09:31
Ene	15	16.71678	16.69823	-17.79062	09:04
Ene	22	16.71682	16.69827	-17.7908	08:36
Ene	29	16.71689	16.69834	-17.79098	08:09
Feb	5	16.71695	16.6984	-17.79116	07:41
Feb	12	16.71703	16.69848	-17.79135	07:13
Feb	19	16.71708	16.69853	-17.7915	06:46
Feb	26	16.71715	16.6986	-17.79167	06:18
Mar	5	16.71721	16.69866	-17.79179	05:51
Mar	12	16.71728	16.69873	-17.79195	05:23
Mar	19	16.71733	16.69878	-17.79202	04:55
Mar	26	16.7174	16.69885	-17.79214	04:28
Abr	2	16.71745	16.6989	-17.79217	04:00
Abr	9	16.71752	16.69897	-17.79228	03:33
Abr	16	16.71756	16.69901	-17.79226	03:05
Abr	23	16.71762	16.69907	-17.79233	02:37
Abr	30	16.71766	16.69911	-17.79228	02:10
May	7	16.71771	16.69916	-17.79234	01:42
May	14	16.71774	16.69919	-17.79227	01:15
May	21	16.71778	16.69923	-17.79231	00:47
May	28	16.71781	16.69926	-17.79223	00:19
Jun	4	16.71784	16.69929	-17.79227	23:52
Jun	11	16.71786	16.69931	-17.79218	23:24
Jun	18	16.71788	16.69933	-17.79221	22:57
Jun	25	16.71789	16.69934	-17.79212	22:29
Jul	2	16.7179	16.69935	-17.79216	22:01
Jul	9	16.7179	16.69935	-17.79207	21:34
Jul	16	16.71789	16.69934	-17.7921	21:06
Jul	23	16.71789	16.69934	-17.79202	20:39
Jul	30	16.71787	16.69932	-17.79205	20:11
Ago	6	16.71785	16.6993	-17.79196	19:43
Ago	13	16.71783	16.69928	-17.79199	19:16
Ago	20	16.71781	16.69926	-17.79191	18:48
Ago	27	16.71778	16.69923	-17.79192	18:21
Sep	3	16.71775	16.6992	-17.79184	17:53
Sep	10	16.71771	16.69916	-17.79184	17:25
Sep	17	16.71769	16.69914	-17.79177	16:58
Sep	24	16.71765	16.6991	-17.79175	16:30
Oct	1	16.71763	16.69908	-17.79168	16:03
Oct	8	16.71759	16.69904	-17.79167	15:35
Oct	15	16.71758	16.69903	-17.79163	15:07
Oct	22	16.71755	16.699	-17.7916	14:40
Oct	29	16.71755	16.699	-17.79157	14:12
Nov	5	16.71753	16.69898	-17.79158	13:45
Nov	12	16.71754	16.69899	-17.7916	13:17
Nov	19	16.71754	16.69899	-17.79161	12:49
Nov	26	16.71756	16.69901	-17.79166	12:22
Dic	3	16.71757	16.69902	-17.79169	11:54
Dic	10	16.71761	16.69906	-17.79182	11:27
Dic	17	16.71764	16.69909	-17.7919	10:59
Dic	24	16.71768	16.69913	-17.79205	10:31
Dic	31	16.71772	16.69917	-17.79216	10:04

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 81833					
V		Sp			
3.48		G8III-IV			
m	d	$\alpha$ h	$\alpha_c$ h	$\delta$ °	Hp h
Ene	1	16.72885	16.7103	38.87167	10:00
Ene	8	16.72889	16.71034	38.87102	09:32
Ene	15	16.72895	16.7104	38.87044	09:04
Ene	22	16.729	16.71045	38.8699	08:37
Ene	29	16.72907	16.71052	38.86942	08:09
Feb	5	16.72913	16.71058	38.86899	07:42
Feb	12	16.7292	16.71065	38.86862	07:14
Feb	19	16.72927	16.71072	38.86837	06:46
Feb	26	16.72934	16.71079	38.86815	06:19
Mar	5	16.72941	16.71086	38.86806	05:51
Mar	12	16.72948	16.71093	38.868	05:24
Mar	19	16.72954	16.71099	38.86809	04:56
Mar	26	16.72961	16.71106	38.86819	04:28
Abr	2	16.72966	16.71111	38.86844	04:01
Abr	9	16.72973	16.71118	38.86867	03:33
Abr	16	16.72977	16.71122	38.86907	03:06
Abr	23	16.72983	16.71128	38.86943	02:38
Abr	30	16.72987	16.71132	38.86993	02:11
May	7	16.72991	16.71136	38.87036	01:43
May	14	16.72994	16.71139	38.87094	01:15
May	21	16.72998	16.71143	38.87143	00:48
May	28	16.73	16.71145	38.87205	00:20
Jun	4	16.73002	16.71147	38.87254	23:53
Jun	11	16.73002	16.71147	38.87315	23:25
Jun	18	16.73003	16.71148	38.87363	22:57
Jun	25	16.73003	16.71148	38.87422	22:30
Jul	2	16.73002	16.71147	38.87465	22:02
Jul	9	16.73001	16.71146	38.87516	21:35
Jul	16	16.72999	16.71144	38.87552	21:07
Jul	23	16.72997	16.71142	38.87596	20:39
Jul	30	16.72993	16.71138	38.87623	20:12
Ago	6	16.7299	16.71135	38.87656	19:44
Ago	13	16.72986	16.71131	38.87672	19:17
Ago	20	16.72982	16.71127	38.87694	18:49
Ago	27	16.72977	16.71122	38.877	18:21
Sep	3	16.72973	16.71118	38.87709	17:54
Sep	10	16.72968	16.71113	38.87703	17:26
Sep	17	16.72963	16.71108	38.87698	16:59
Sep	24	16.72958	16.71103	38.87682	16:31
Oct	1	16.72954	16.71099	38.87665	16:03
Oct	8	16.72949	16.71094	38.87636	15:36
Oct	15	16.72946	16.71091	38.87605	15:08
Oct	22	16.72942	16.71087	38.87567	14:41
Oct	29	16.7294	16.71085	38.87525	14:13
Nov	5	16.72937	16.71082	38.87476	13:45
Nov	12	16.72936	16.71081	38.87422	13:18
Nov	19	16.72935	16.7108	38.87367	12:50
Nov	26	16.72935	16.7108	38.87306	12:23
Dic	3	16.72936	16.71081	38.87244	11:55
Dic	10	16.72938	16.71083	38.87176	11:27
Dic	17	16.7294	16.71085	38.87115	11:00
Dic	24	16.72944	16.71089	38.87046	10:32
Dic	31	16.72947	16.71092	38.86985	10:05

HIP 82396					
V		Sp			
2.29		K2IIIb			
m	d	$\alpha$ h	$\alpha_c$ h	$\delta$ °	Hp h
Ene	1	16.86267	16.84412	-34.33747	10:08
Ene	8	16.86272	16.84417	-34.33747	09:40
Ene	15	16.8628	16.84425	-34.33747	09:12
Ene	22	16.86285	16.8443	-34.33749	08:45
Ene	29	16.86293	16.84438	-34.33753	08:17
Feb	5	16.86299	16.84444	-34.3376	07:50
Feb	12	16.86308	16.84453	-34.33769	07:22
Feb	19	16.86314	16.84459	-34.33777	06:55
Feb	26	16.86322	16.84467	-34.33789	06:27
Mar	5	16.86329	16.84474	-34.33799	05:59
Mar	12	16.86337	16.84482	-34.33815	05:32
Mar	19	16.86343	16.84488	-34.33825	05:04
Mar	26	16.86351	16.84496	-34.33841	04:37
Abr	2	16.86357	16.84502	-34.33851	04:09
Abr	9	16.86364	16.84509	-34.33871	03:41
Abr	16	16.86369	16.84514	-34.33881	03:14
Abr	23	16.86376	16.84521	-34.339	02:46
Abr	30	16.86381	16.84526	-34.3391	02:19
May	7	16.86387	16.84532	-34.33932	01:51
May	14	16.86391	16.84536	-34.33941	01:23
May	21	16.86395	16.8454	-34.33962	00:56
May	28	16.86399	16.84544	-34.33972	00:28
Jun	4	16.86403	16.84548	-34.33995	00:01
Jun	11	16.86405	16.8455	-34.34005	23:33
Jun	18	16.86407	16.84552	-34.34027	23:05
Jun	25	16.86409	16.84554	-34.34036	22:38
Jul	2	16.8641	16.84555	-34.34057	22:10
Jul	9	16.8641	16.84555	-34.34065	21:43
Jul	16	16.86409	16.84554	-34.34084	21:15
Jul	23	16.86409	16.84554	-34.3409	20:47
Jul	30	16.86407	16.84552	-34.34106	20:20
Ago	6	16.86405	16.8455	-34.34109	19:52
Ago	13	16.86402	16.84547	-34.34121	19:25
Ago	20	16.864	16.84545	-34.34121	18:57
Ago	27	16.86396	16.84541	-34.34127	18:29
Sep	3	16.86393	16.84538	-34.34122	18:02
Sep	10	16.86388	16.84533	-34.34123	17:34
Sep	17	16.86386	16.84531	-34.34115	17:07
Sep	24	16.86381	16.84526	-34.34109	16:39
Oct	1	16.86378	16.84523	-34.34096	16:11
Oct	8	16.86374	16.84519	-34.34087	15:44
Oct	15	16.86373	16.84518	-34.34073	15:16
Oct	22	16.86369	16.84514	-34.34058	14:49
Oct	29	16.86368	16.84513	-34.3404	14:21
Nov	5	16.86366	16.84511	-34.34025	13:53
Nov	12	16.86367	16.84512	-34.3401	13:26
Nov	19	16.86367	16.84512	-34.33992	12:58
Nov	26	16.86369	16.84514	-34.33977	12:31
Dic	3	16.8637	16.84515	-34.33963	12:03
Dic	10	16.86374	16.84519	-34.33954	11:35
Dic	17	16.86377	16.84522	-34.3394	11:08
Dic	24	16.86382	16.84527	-34.33934	10:40
Dic	31	16.86386	16.84531	-34.33925	10:13

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 86796					
V		Sp			
5.12		G5V			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	17.76826	17.74971	-51.84601	11:02
Ene	8	17.76831	17.74976	-51.84576	10:34
Ene	15	17.76839	17.74984	-51.84547	10:07
Ene	22	17.76845	17.7499	-51.84525	09:39
Ene	29	17.76854	17.74999	-51.84502	09:12
Feb	5	17.76861	17.75006	-51.84485	08:44
Feb	12	17.76872	17.75017	-51.84471	08:16
Feb	19	17.76879	17.75024	-51.84459	07:49
Feb	26	17.76889	17.75034	-51.84445	07:21
Mar	5	17.76898	17.75043	-51.84444	06:54
Mar	12	17.76909	17.75054	-51.84445	06:26
Mar	19	17.76917	17.75062	-51.84444	05:58
Mar	26	17.76927	17.75072	-51.84449	05:31
Abr	2	17.76936	17.75081	-51.84454	05:03
Abr	9	17.76946	17.75091	-51.84468	04:36
Abr	16	17.76953	17.75098	-51.84477	04:08
Abr	23	17.76963	17.75108	-51.84496	03:41
Abr	30	17.76971	17.75116	-51.8451	03:13
May	7	17.76979	17.75124	-51.84537	02:45
May	14	17.76986	17.75131	-51.84555	02:18
May	21	17.76993	17.75138	-51.84585	01:50
May	28	17.76999	17.75144	-51.84606	01:23
Jun	4	17.77005	17.7515	-51.84642	00:55
Jun	11	17.77009	17.75154	-51.84667	00:27
Jun	18	17.77013	17.75158	-51.84704	00:00
Jun	25	17.77017	17.75162	-51.8473	23:32
Jul	2	17.77019	17.75164	-51.84769	23:05
Jul	9	17.7702	17.75165	-51.84795	22:37
Jul	16	17.77021	17.75166	-51.84833	22:09
Jul	23	17.77021	17.75166	-51.84857	21:42
Jul	30	17.77019	17.75164	-51.84892	21:14
Ago	6	17.77017	17.75162	-51.84913	20:47
Ago	13	17.77014	17.75159	-51.84943	20:19
Ago	20	17.77012	17.75157	-51.84957	19:51
Ago	27	17.77007	17.75152	-51.84979	19:24
Sep	3	17.77003	17.75148	-51.84987	18:56
Sep	10	17.76997	17.75142	-51.85001	18:29
Sep	17	17.76993	17.75138	-51.85	18:01
Sep	24	17.76986	17.75131	-51.85003	17:33
Oct	1	17.76982	17.75127	-51.84993	17:06
Oct	8	17.76976	17.75121	-51.84987	16:38
Oct	15	17.76973	17.75118	-51.8497	16:11
Oct	22	17.76967	17.75112	-51.84952	15:43
Oct	29	17.76964	17.75109	-51.84927	15:15
Nov	5	17.7696	17.75105	-51.84903	14:48
Nov	12	17.7696	17.75105	-51.84873	14:20
Nov	19	17.76957	17.75102	-51.84841	13:53
Nov	26	17.76958	17.75103	-51.84807	13:25
Dic	3	17.76958	17.75103	-51.84773	12:57
Dic	10	17.76962	17.75107	-51.84741	12:30
Dic	17	17.76963	17.75108	-51.84704	12:02
Dic	24	17.76968	17.75113	-51.84672	11:35
Dic	31	17.76972	17.75117	-51.84639	11:07

HIP 91262					
V		Sp			
0.03		AOVvar			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	18.62925	18.6107	38.80559	11:54
Ene	8	18.62927	18.61072	38.80494	11:26
Ene	15	18.6293	18.61075	38.80437	10:58
Ene	22	18.62933	18.61078	38.80375	10:31
Ene	29	18.62937	18.61082	38.80322	10:03
Feb	5	18.62942	18.61087	38.80267	09:36
Feb	12	18.62947	18.61092	38.80222	09:08
Feb	19	18.62952	18.61097	38.80179	08:40
Feb	26	18.62958	18.61103	38.80146	08:13
Mar	5	18.62964	18.61109	38.80119	07:45
Mar	12	18.62971	18.61116	38.80098	07:18
Mar	19	18.62977	18.61122	38.80088	06:50
Mar	26	18.62984	18.61129	38.80084	06:23
Abr	2	18.62991	18.61136	38.80091	05:55
Abr	9	18.62998	18.61143	38.80101	05:27
Abr	16	18.63004	18.61149	38.80125	05:00
Abr	23	18.63011	18.61156	38.80151	04:32
Abr	30	18.63017	18.61162	38.8019	04:05
May	7	18.63023	18.61168	38.80227	03:37
May	14	18.63028	18.61173	38.80277	03:09
May	21	18.63034	18.61179	38.80324	02:42
May	28	18.63038	18.61183	38.80384	02:14
Jun	4	18.63043	18.61188	38.80436	01:47
Jun	11	18.63046	18.61191	38.80501	01:19
Jun	18	18.63049	18.61194	38.80556	00:51
Jun	25	18.63052	18.61197	38.80623	00:24
Jul	2	18.63053	18.61198	38.80677	23:56
Jul	9	18.63054	18.61199	38.80742	23:29
Jul	16	18.63055	18.612	38.80793	23:01
Jul	23	18.63054	18.61199	38.80855	22:33
Jul	30	18.63053	18.61198	38.809	22:06
Ago	6	18.63051	18.61196	38.80954	21:38
Ago	13	18.63049	18.61194	38.80991	21:11
Ago	20	18.63046	18.61191	38.81037	20:43
Ago	27	18.63042	18.61187	38.81065	20:15
Sep	3	18.63039	18.61184	38.81099	19:48
Sep	10	18.63034	18.61179	38.81115	19:20
Sep	17	18.6303	18.61175	38.81138	18:53
Sep	24	18.63025	18.6117	38.81145	18:25
Oct	1	18.6302	18.61165	38.81154	17:57
Oct	8	18.63015	18.6116	38.81147	17:30
Oct	15	18.6301	18.61155	38.81144	17:02
Oct	22	18.63005	18.6115	38.81126	16:35
Oct	29	18.63001	18.61146	38.81108	16:07
Nov	5	18.62997	18.61142	38.81078	15:39
Nov	12	18.62994	18.61139	38.81048	15:12
Nov	19	18.6299	18.61135	38.81008	14:44
Nov	26	18.62989	18.61134	38.80966	14:17
Dic	3	18.62986	18.61131	38.80916	13:49
Dic	10	18.62986	18.61131	38.80863	13:21
Dic	17	18.62985	18.6113	38.80808	12:54
Dic	24	18.62986	18.61131	38.80749	12:26
Dic	31	18.62987	18.61132	38.8069	11:59

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 92262					
V		Sp			
6.86		F6V			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	18.8266	18.80805	-14.68197	12:05
Ene	8	18.82662	18.80807	-14.6821	11:38
Ene	15	18.82666	18.80811	-14.68216	11:10
Ene	22	18.82669	18.80814	-14.68227	10:43
Ene	29	18.82674	18.80819	-14.68232	10:15
Feb	5	18.82678	18.80823	-14.68241	09:48
Feb	12	18.82684	18.80829	-14.68245	09:20
Feb	19	18.82688	18.80833	-14.6825	08:52
Feb	26	18.82694	18.80839	-14.68251	08:25
Mar	5	18.82699	18.80844	-14.68251	07:57
Mar	12	18.82706	18.80851	-14.6825	07:30
Mar	19	18.82711	18.80856	-14.68245	07:02
Mar	26	18.82718	18.80863	-14.68239	06:34
Abr	2	18.82723	18.80868	-14.68228	06:07
Abr	9	18.8273	18.80875	-14.68221	05:39
Abr	16	18.82736	18.80881	-14.68206	05:12
Abr	23	18.82743	18.80888	-14.68194	04:44
Abr	30	18.82748	18.80893	-14.68175	04:16
May	7	18.82755	18.809	-14.68163	03:49
May	14	18.8276	18.80905	-14.68142	03:21
May	21	18.82766	18.80911	-14.68129	02:54
May	28	18.82771	18.80916	-14.68106	02:26
Jun	4	18.82776	18.80921	-14.68095	01:58
Jun	11	18.8278	18.80925	-14.68074	01:31
Jun	18	18.82784	18.80929	-14.68065	01:03
Jun	25	18.82787	18.80932	-14.68044	00:36
Jul	2	18.8279	18.80935	-14.68038	00:08
Jul	9	18.82792	18.80937	-14.68021	23:40
Jul	16	18.82794	18.80939	-14.68018	23:13
Jul	23	18.82796	18.80941	-14.68003	22:45
Jul	30	18.82796	18.80941	-14.68004	22:18
Ago	6	18.82796	18.80941	-14.67993	21:50
Ago	13	18.82795	18.8094	-14.67996	21:22
Ago	20	18.82794	18.80939	-14.67987	20:55
Ago	27	18.82792	18.80937	-14.67991	20:27
Sep	3	18.8279	18.80935	-14.67986	20:00
Sep	10	18.82787	18.80932	-14.67992	19:32
Sep	17	18.82785	18.8093	-14.67988	19:04
Sep	24	18.82781	18.80926	-14.67994	18:37
Oct	1	18.82779	18.80924	-14.67992	18:09
Oct	8	18.82775	18.8092	-14.67999	17:42
Oct	15	18.82773	18.80918	-14.67997	17:14
Oct	22	18.82769	18.80914	-14.68004	16:46
Oct	29	18.82767	18.80912	-14.68004	16:19
Nov	5	18.82763	18.80908	-14.68011	15:51
Nov	12	18.82763	18.80908	-14.68012	15:24
Nov	19	18.8276	18.80905	-14.68018	14:56
Nov	26	18.8276	18.80905	-14.68022	14:28
Dic	3	18.82759	18.80904	-14.68029	14:01
Dic	10	18.82761	18.80906	-14.68034	13:33
Dic	17	18.8276	18.80905	-14.68041	13:06
Dic	24	18.82763	18.80908	-14.68048	12:38
Dic	31	18.82764	18.80909	-14.68054	12:10

HIP 97649					
V		Sp			
0.76		A7IV-V			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	19.86633	19.84778	8.93378	13:08
Ene	8	19.86634	19.84779	8.93341	12:40
Ene	15	19.86636	19.84781	8.93315	12:13
Ene	22	19.86638	19.84783	8.9328	11:45
Ene	29	19.86641	19.84786	8.93254	11:17
Feb	5	19.86644	19.84789	8.93223	10:50
Feb	12	19.86648	19.84793	8.93201	10:22
Feb	19	19.86651	19.84796	8.93176	09:55
Feb	26	19.86656	19.84801	8.93161	09:27
Mar	5	19.8666	19.84805	8.93145	09:00
Mar	12	19.86666	19.84811	8.93137	08:32
Mar	19	19.86667	19.84815	8.93131	08:04
Mar	26	19.86676	19.84821	8.93134	07:37
Abr	2	19.86681	19.84826	8.9314	07:09
Abr	9	19.86688	19.84833	8.93151	06:42
Abr	16	19.86693	19.84838	8.93167	06:14
Abr	23	19.86699	19.84844	8.93188	05:46
Abr	30	19.86705	19.8485	8.93216	05:19
May	7	19.86711	19.84856	8.93243	04:51
May	14	19.86717	19.84862	8.93278	04:24
May	21	19.86723	19.84868	8.93311	03:56
May	28	19.86728	19.84873	8.93354	03:28
Jun	4	19.86734	19.84879	8.93389	03:01
Jun	11	19.86738	19.84883	8.93434	02:33
Jun	18	19.86743	19.84888	8.93472	02:06
Jun	25	19.86747	19.84892	8.93519	01:38
Jul	2	19.86751	19.84896	8.93555	01:10
Jul	9	19.86754	19.84899	8.936	00:43
Jul	16	19.86756	19.84901	8.93633	00:15
Jul	23	19.86758	19.84903	8.93677	23:48
Jul	30	19.86759	19.84904	8.93706	23:20
Ago	6	19.8676	19.84905	8.93743	22:52
Ago	13	19.8676	19.84905	8.93766	22:25
Ago	20	19.8676	19.84905	8.938	21:57
Ago	27	19.86758	19.84903	8.93817	21:30
Sep	3	19.86757	19.84902	8.93843	21:02
Sep	10	19.86755	19.849	8.93854	20:34
Sep	17	19.86753	19.84898	8.93874	20:07
Sep	24	19.86749	19.84894	8.93879	19:39
Oct	1	19.86747	19.84892	8.93891	19:12
Oct	8	19.86743	19.84888	8.93888	18:44
Oct	15	19.86741	19.84886	8.93894	18:16
Oct	22	19.86737	19.84882	8.93886	17:49
Oct	29	19.86735	19.8488	8.93884	17:21
Nov	5	19.86731	19.84876	8.93869	16:54
Nov	12	19.8673	19.84875	8.9386	16:26
Nov	19	19.86726	19.84871	8.93841	15:58
Nov	26	19.86725	19.8487	8.93824	15:31
Dic	3	19.86723	19.84868	8.93799	15:03
Dic	10	19.86723	19.84868	8.93778	14:36
Dic	17	19.86722	19.84867	8.9375	14:08
Dic	24	19.86723	19.84868	8.93722	13:40
Dic	31	19.86723	19.84868	8.93691	13:13

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 99240					
V		Sp			
3.55		G5IV-Vvar			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	20.18522	20.16667	-66.11937	13:27
Ene	8	20.18522	20.16667	-66.1189	12:59
Ene	15	20.18526	20.16671	-66.11831	12:32
Ene	22	20.18529	20.16674	-66.11782	12:04
Ene	29	20.18535	20.1668	-66.11722	11:37
Feb	5	20.1854	20.16685	-66.11671	11:09
Feb	12	20.18549	20.16694	-66.11613	10:41
Feb	19	20.18555	20.167	-66.11565	10:14
Feb	26	20.18566	20.16711	-66.11511	09:46
Mar	5	20.18575	20.1672	-66.11466	09:19
Mar	12	20.18588	20.16733	-66.1142	08:51
Mar	19	20.18597	20.16742	-66.11381	08:23
Mar	26	20.18611	20.16756	-66.11341	07:56
Abr	2	20.18622	20.16767	-66.11308	07:28
Abr	9	20.18637	20.16782	-66.1128	07:01
Abr	16	20.18648	20.16793	-66.11256	06:33
Abr	23	20.18663	20.16808	-66.11237	06:06
Abr	30	20.18676	20.16821	-66.11221	05:38
May	7	20.18691	20.16836	-66.11216	05:10
May	14	20.18703	20.16848	-66.11211	04:43
May	21	20.18717	20.16862	-66.11216	04:15
May	28	20.18729	20.16874	-66.1122	03:48
Jun	4	20.18742	20.16887	-66.11238	03:20
Jun	11	20.18752	20.16897	-66.11254	02:52
Jun	18	20.18764	20.16909	-66.11281	02:25
Jun	25	20.18773	20.16918	-66.11304	01:57
Jul	2	20.18783	20.16928	-66.11342	01:30
Jul	9	20.18789	20.16934	-66.11375	01:02
Jul	16	20.18796	20.16941	-66.1142	00:34
Jul	23	20.18801	20.16946	-66.11456	00:07
Jul	30	20.18804	20.16949	-66.11507	23:39
Ago	6	20.18806	20.16951	-66.11547	23:12
Ago	13	20.18806	20.16951	-66.11599	22:44
Ago	20	20.18806	20.16951	-66.11638	22:16
Ago	27	20.18803	20.16948	-66.11689	21:49
Sep	3	20.188	20.16945	-66.11726	21:21
Sep	10	20.18795	20.1694	-66.11772	20:54
Sep	17	20.1879	20.16935	-66.11801	20:26
Sep	24	20.18782	20.16927	-66.11839	19:58
Oct	1	20.18775	20.1692	-66.1186	19:31
Oct	8	20.18767	20.16912	-66.11886	19:03
Oct	15	20.1876	20.16905	-66.11894	18:36
Oct	22	20.1875	20.16895	-66.11907	18:08
Oct	29	20.18742	20.16887	-66.11904	17:40
Nov	5	20.18733	20.16878	-66.11902	17:13
Nov	12	20.18727	20.16872	-66.11885	16:45
Nov	19	20.18719	20.16864	-66.11869	16:18
Nov	26	20.18714	20.16859	-66.1184	15:50
Dic	3	20.18707	20.16852	-66.11812	15:22
Dic	10	20.18705	20.1685	-66.11772	14:55
Dic	17	20.187	20.16845	-66.11732	14:27
Dic	24	20.187	20.16845	-66.11684	14:00
Dic	31	20.18698	20.16843	-66.11636	13:32

HIP 102485					
V		Sp			
4.13		F5V			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	20.79255	20.774	-25.18285	14:03
Ene	8	20.79254	20.77399	-25.18281	13:36
Ene	15	20.79257	20.77402	-25.18265	13:08
Ene	22	20.79257	20.77402	-25.18259	12:41
Ene	29	20.7926	20.77405	-25.18242	12:13
Feb	5	20.79262	20.77407	-25.1823	11:45
Feb	12	20.79266	20.77411	-25.18208	11:18
Feb	19	20.79268	20.77413	-25.18194	10:50
Feb	26	20.79273	20.77418	-25.1817	10:23
Mar	5	20.79276	20.77421	-25.18151	09:55
Mar	12	20.79282	20.77427	-25.18125	09:27
Mar	19	20.79285	20.7743	-25.18104	09:00
Mar	26	20.79292	20.77437	-25.18075	08:32
Abr	2	20.79297	20.77442	-25.18049	08:05
Abr	9	20.79304	20.77449	-25.18021	07:37
Abr	16	20.79309	20.77454	-25.17994	07:10
Abr	23	20.79316	20.77461	-25.17964	06:42
Abr	30	20.79322	20.77467	-25.17935	06:14
May	7	20.7933	20.77475	-25.17908	05:47
May	14	20.79335	20.7748	-25.17881	05:19
May	21	20.79343	20.77488	-25.17856	04:52
May	28	20.79349	20.77494	-25.17828	04:24
Jun	4	20.79356	20.77501	-25.17809	03:56
Jun	11	20.79362	20.77507	-25.17787	03:29
Jun	18	20.79368	20.77513	-25.17773	03:01
Jun	25	20.79374	20.77519	-25.17753	02:34
Jul	2	20.79379	20.77524	-25.17746	02:06
Jul	9	20.79384	20.77529	-25.17734	01:38
Jul	16	20.79388	20.77533	-25.17733	01:11
Jul	23	20.79392	20.77537	-25.17724	00:43
Jul	30	20.79394	20.77539	-25.1773	00:16
Ago	6	20.79396	20.77541	-25.17729	23:48
Ago	13	20.79398	20.77543	-25.1774	23:20
Ago	20	20.79399	20.77544	-25.17741	22:53
Ago	27	20.79399	20.77544	-25.17758	22:25
Sep	3	20.79398	20.77543	-25.17764	21:58
Sep	10	20.79397	20.77542	-25.17783	21:30
Sep	17	20.79396	20.77541	-25.17789	21:02
Sep	24	20.79393	20.77538	-25.17809	20:35
Oct	1	20.79391	20.77536	-25.17818	20:07
Oct	8	20.79388	20.77533	-25.17837	19:40
Oct	15	20.79386	20.77531	-25.17843	19:12
Oct	22	20.79382	20.77527	-25.1786	18:44
Oct	29	20.79379	20.77524	-25.17865	18:17
Nov	5	20.79376	20.77521	-25.17878	17:49
Nov	12	20.79374	20.77519	-25.17879	17:22
Nov	19	20.7937	20.77515	-25.17888	16:54
Nov	26	20.79369	20.77514	-25.17887	16:26
Dic	3	20.79366	20.77511	-25.17891	15:59
Dic	10	20.79366	20.77511	-25.17886	15:31
Dic	17	20.79363	20.77508	-25.17885	15:04
Dic	24	20.79364	20.77509	-25.17878	14:36
Dic	31	20.79363	20.77508	-25.17873	14:08

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 105199					
V		Sp			
2.45		A7IV-V			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	21.3187	21.30015	62.69369	14:35
Ene	8	21.31865	21.3001	62.69313	14:07
Ene	15	21.31862	21.30007	62.69265	13:40
Ene	22	21.31859	21.30004	62.69201	13:12
Ene	29	21.31858	21.30003	62.69145	12:45
Feb	5	21.31857	21.30002	62.69078	12:17
Feb	12	21.31859	21.30004	62.69021	11:49
Feb	19	21.3186	21.30005	62.68955	11:22
Feb	26	21.31863	21.30008	62.689	10:54
Mar	5	21.31867	21.30012	62.68841	10:27
Mar	12	21.31873	21.30018	62.68794	09:59
Mar	19	21.31879	21.30024	62.68745	09:31
Mar	26	21.31887	21.30032	62.68709	09:04
Abr	2	21.31895	21.3004	62.68676	08:36
Abr	9	21.31904	21.30049	62.68654	08:09
Abr	16	21.31913	21.30058	62.68637	07:41
Abr	23	21.31923	21.30068	62.68632	07:13
Abr	30	21.31933	21.30078	62.68634	06:46
May	7	21.31944	21.30089	62.68644	06:18
May	14	21.31954	21.30099	62.68662	05:51
May	21	21.31965	21.3011	62.68688	05:23
May	28	21.31975	21.3012	62.68724	04:56
Jun	4	21.31985	21.3013	62.68764	04:28
Jun	11	21.31994	21.30139	62.68813	04:00
Jun	18	21.32002	21.30147	62.68864	03:33
Jun	25	21.32011	21.30156	62.68926	03:05
Jul	2	21.32017	21.30162	62.68985	02:38
Jul	9	21.32024	21.30169	62.69054	02:10
Jul	16	21.32028	21.30173	62.69119	01:42
Jul	23	21.32033	21.30178	62.69196	01:15
Jul	30	21.32035	21.3018	62.69262	00:47
Ago	6	21.32037	21.30182	62.69339	00:20
Ago	13	21.32037	21.30182	62.69405	23:52
Ago	20	21.32038	21.30183	62.69483	23:24
Ago	27	21.32035	21.3018	62.69546	22:57
Sep	3	21.32033	21.30178	62.69617	22:29
Sep	10	21.32029	21.30174	62.69674	22:02
Sep	17	21.32025	21.3017	62.6974	21:34
Sep	24	21.32019	21.30164	62.69789	21:06
Oct	1	21.32013	21.30158	62.69843	20:39
Oct	8	21.32006	21.30151	62.69881	20:11
Oct	15	21.31999	21.30144	62.69926	19:44
Oct	22	21.31991	21.30136	62.69952	19:16
Oct	29	21.31983	21.30128	62.69981	18:48
Nov	5	21.31974	21.30119	62.69992	18:21
Nov	12	21.31966	21.30111	62.70008	17:53
Nov	19	21.31958	21.30103	62.70005	17:26
Nov	26	21.3195	21.30095	62.70002	16:58
Dic	3	21.31942	21.30087	62.69983	16:30
Dic	10	21.31935	21.3008	62.69967	16:03
Dic	17	21.31928	21.30073	62.69934	15:35
Dic	24	21.31921	21.30066	62.699	15:08
Dic	31	21.31916	21.30061	62.69854	14:40

HIP 105858					
V		Sp			
4.21		F6V			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	21.47423	21.45568	-65.25633	14:44
Ene	8	21.4742	21.45565	-65.25591	14:17
Ene	15	21.4742	21.45565	-65.25533	13:49
Ene	22	21.47418	21.45563	-65.25485	13:22
Ene	29	21.4742	21.45565	-65.25422	12:54
Feb	5	21.47421	21.45566	-65.25366	12:26
Feb	12	21.47426	21.45571	-65.253	11:59
Feb	19	21.47429	21.45574	-65.25243	11:31
Feb	26	21.47435	21.4558	-65.25177	11:04
Mar	5	21.4744	21.45585	-65.25118	10:36
Mar	12	21.47449	21.45594	-65.25055	10:08
Mar	19	21.47455	21.456	-65.25	09:41
Mar	26	21.47466	21.45611	-65.24941	09:13
Abr	2	21.47474	21.45619	-65.24889	08:46
Abr	9	21.47486	21.45631	-65.24838	08:18
Abr	16	21.47496	21.45641	-65.24794	07:50
Abr	23	21.47509	21.45654	-65.24751	07:23
Abr	30	21.4752	21.45665	-65.24713	06:55
May	7	21.47534	21.45679	-65.24682	06:28
May	14	21.47545	21.4569	-65.24657	06:00
May	21	21.47559	21.45704	-65.24637	05:32
May	28	21.47571	21.45716	-65.2462	05:05
Jun	4	21.47585	21.4573	-65.24615	04:37
Jun	11	21.47595	21.4574	-65.24612	04:10
Jun	18	21.47608	21.45753	-65.24618	03:42
Jun	25	21.47619	21.45764	-65.24624	03:15
Jul	2	21.4763	21.45775	-65.24645	02:47
Jul	9	21.47639	21.45784	-65.24664	02:19
Jul	16	21.47648	21.45793	-65.24695	01:52
Jul	23	21.47656	21.45801	-65.24722	01:24
Jul	30	21.47662	21.45807	-65.24764	00:57
Ago	6	21.47667	21.45812	-65.24801	00:29
Ago	13	21.47671	21.45816	-65.24849	00:01
Ago	20	21.47673	21.45818	-65.24887	23:34
Ago	27	21.47674	21.45819	-65.24941	23:06
Sep	3	21.47673	21.45818	-65.24983	22:39
Sep	10	21.47671	21.45816	-65.25035	22:11
Sep	17	21.47669	21.45814	-65.25073	21:43
Sep	24	21.47664	21.45809	-65.25123	21:16
Oct	1	21.47659	21.45804	-65.25157	20:48
Oct	8	21.47652	21.45797	-65.25198	20:21
Oct	15	21.47647	21.45792	-65.25222	19:53
Oct	22	21.47638	21.45783	-65.25253	19:25
Oct	29	21.47631	21.45776	-65.25267	18:58
Nov	5	21.47622	21.45767	-65.25284	18:30
Nov	12	21.47615	21.4576	-65.25283	18:03
Nov	19	21.47606	21.45751	-65.25286	17:35
Nov	26	21.47599	21.45744	-65.25273	17:07
Dic	3	21.47591	21.45736	-65.2526	16:40
Dic	10	21.47587	21.45732	-65.25232	16:12
Dic	17	21.4758	21.45725	-65.25206	15:45
Dic	24	21.47576	21.45721	-65.25167	15:17
Dic	31	21.47571	21.45716	-65.25128	14:49

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 108870					
V		Sp			
4.69		K5V			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	22.08733	22.06878	-56.68688	15:21
Ene	8	22.08731	22.06876	-56.68659	14:54
Ene	15	22.0873	22.06875	-56.68613	14:26
Ene	22	22.08729	22.06874	-56.68576	13:58
Ene	29	22.08729	22.06874	-56.68523	13:31
Feb	5	22.08729	22.06874	-56.68477	13:03
Feb	12	22.08732	22.06877	-56.68419	12:36
Feb	19	22.08733	22.06878	-56.68369	12:08
Feb	26	22.08737	22.06882	-56.68308	11:40
Mar	5	22.0874	22.06885	-56.68254	11:13
Mar	12	22.08747	22.06892	-56.68192	10:45
Mar	19	22.08751	22.06896	-56.68139	10:18
Mar	26	22.08758	22.06903	-56.68079	09:50
Abr	2	22.08764	22.06909	-56.68026	09:22
Abr	9	22.08773	22.06918	-56.6797	08:55
Abr	16	22.08779	22.06924	-56.67923	08:27
Abr	23	22.08789	22.06934	-56.67873	08:00
Abr	30	22.08797	22.06942	-56.6783	07:32
May	7	22.08808	22.06953	-56.67789	07:04
May	14	22.08817	22.06962	-56.67756	06:37
May	21	22.08828	22.06973	-56.67725	06:09
May	28	22.08838	22.06983	-56.67698	05:42
Jun	4	22.08849	22.06994	-56.6768	05:14
Jun	11	22.08858	22.07003	-56.67667	04:46
Jun	18	22.08869	22.07014	-56.6766	04:19
Jun	25	22.08878	22.07023	-56.67655	03:51
Jul	2	22.08888	22.07033	-56.67663	03:24
Jul	9	22.08896	22.07041	-56.67671	02:56
Jul	16	22.08905	22.0705	-56.6769	02:28
Jul	23	22.08912	22.07057	-56.67707	02:01
Jul	30	22.08918	22.07063	-56.67739	01:33
Ago	6	22.08923	22.07068	-56.67767	01:06
Ago	13	22.08928	22.07073	-56.67807	00:38
Ago	20	22.08932	22.07077	-56.6784	00:11
Ago	27	22.08934	22.07079	-56.67888	23:43
Sep	3	22.08935	22.0708	-56.67928	23:15
Sep	10	22.08935	22.0708	-56.67977	22:48
Sep	17	22.08935	22.0708	-56.68015	22:20
Sep	24	22.08932	22.07077	-56.68066	21:53
Oct	1	22.0893	22.07075	-56.68104	21:25
Oct	8	22.08926	22.07071	-56.6815	20:57
Oct	15	22.08923	22.07068	-56.68179	20:30
Oct	22	22.08918	22.07063	-56.68219	20:02
Oct	29	22.08913	22.07058	-56.68242	19:35
Nov	5	22.08907	22.07052	-56.6827	19:07
Nov	12	22.08903	22.07048	-56.68279	18:39
Nov	19	22.08896	22.07041	-56.68296	18:12
Nov	26	22.08892	22.07037	-56.68295	17:44
Dic	3	22.08886	22.07031	-56.68297	17:17
Dic	10	22.08883	22.07028	-56.68281	16:49
Dic	17	22.08877	22.07022	-56.6827	16:21
Dic	24	22.08875	22.0702	-56.68245	15:54
Dic	31	22.0887	22.07015	-56.6822	15:26

HIP 111449					
V		Sp			
5.21		F7V			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	22.60081	22.58226	-20.58243	15:52
Ene	8	22.60079	22.58224	-20.58246	15:24
Ene	15	22.60079	22.58224	-20.58236	14:57
Ene	22	22.60078	22.58223	-20.58235	14:29
Ene	29	22.60078	22.58223	-20.5822	14:02
Feb	5	22.60077	22.58222	-20.58213	13:34
Feb	12	22.60079	22.58224	-20.58192	13:06
Feb	19	22.60079	22.58224	-20.58181	12:39
Feb	26	22.60081	22.58226	-20.58155	12:11
Mar	5	22.60082	22.58227	-20.58135	11:44
Mar	12	22.60085	22.5823	-20.58104	11:16
Mar	19	22.60087	22.58232	-20.58081	10:48
Mar	26	22.60091	22.58236	-20.58045	10:21
Abr	2	22.60094	22.58239	-20.58014	09:53
Abr	9	22.60099	22.58244	-20.57975	09:26
Abr	16	22.60103	22.58248	-20.57942	08:58
Abr	23	22.60109	22.58254	-20.579	08:30
Abr	30	22.60114	22.58259	-20.57861	08:03
May	7	22.6012	22.58265	-20.57819	07:35
May	14	22.60125	22.5827	-20.57782	07:08
May	21	22.60133	22.58278	-20.5774	06:40
May	28	22.60139	22.58284	-20.577	06:12
Jun	4	22.60146	22.58291	-20.57663	05:45
Jun	11	22.60152	22.58297	-20.57628	05:17
Jun	18	22.60159	22.58304	-20.57594	04:50
Jun	25	22.60165	22.5831	-20.57561	04:22
Jul	2	22.60172	22.58317	-20.57535	03:54
Jul	9	22.60177	22.58322	-20.57509	03:27
Jul	16	22.60183	22.58328	-20.5749	02:59
Jul	23	22.60188	22.58333	-20.57469	02:32
Jul	30	22.60193	22.58338	-20.5746	02:04
Ago	6	22.60197	22.58342	-20.57448	01:36
Ago	13	22.602	22.58345	-20.57447	01:09
Ago	20	22.60204	22.58349	-20.5744	00:41
Ago	27	22.60206	22.58351	-20.57448	00:14
Sep	3	22.60207	22.58352	-20.5745	23:46
Sep	10	22.60208	22.58353	-20.57464	23:18
Sep	17	22.60209	22.58354	-20.57469	22:51
Sep	24	22.60208	22.58353	-20.57489	22:23
Oct	1	22.60208	22.58353	-20.57501	21:56
Oct	8	22.60206	22.58351	-20.57523	21:28
Oct	15	22.60206	22.58351	-20.57533	21:00
Oct	22	22.60203	22.58348	-20.57558	20:33
Oct	29	22.60201	22.58346	-20.57572	20:05
Nov	5	22.60198	22.58343	-20.57594	19:38
Nov	12	22.60197	22.58342	-20.57603	19:10
Nov	19	22.60194	22.58339	-20.57624	18:42
Nov	26	22.60192	22.58337	-20.57633	18:15
Dic	3	22.60189	22.58334	-20.57649	17:47
Dic	10	22.60188	22.58333	-20.57652	17:20
Dic	17	22.60185	22.5833	-20.57663	16:52
Dic	24	22.60184	22.58329	-20.57664	16:25
Dic	31	22.60181	22.58326	-20.5767	15:57

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 112440					
V		Sp			
3.97		G8II-III			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	22.79538	22.77683	23.69873	16:04
Ene	8	22.79536	22.77681	23.69842	15:36
Ene	15	22.79535	22.7768	23.69821	15:08
Ene	22	22.79533	22.77678	23.69784	14:41
Ene	29	22.79532	22.77677	23.69758	14:13
Feb	5	22.79531	22.77676	23.6972	13:46
Feb	12	22.79532	22.77677	23.69694	13:18
Feb	19	22.79531	22.77676	23.69656	12:50
Feb	26	22.79533	22.77678	23.69631	12:23
Mar	5	22.79533	22.77678	23.69599	11:55
Mar	12	22.79536	22.77681	23.69579	11:28
Mar	19	22.79537	22.77682	23.69552	11:00
Mar	26	22.79541	22.77686	23.69539	10:32
Abr	2	22.79544	22.77689	23.69523	10:05
Abr	9	22.79548	22.77693	23.6952	09:37
Abr	16	22.79552	22.77697	23.69514	09:10
Abr	23	22.79558	22.77703	23.69521	08:42
Abr	30	22.79563	22.77708	23.69529	08:14
May	7	22.79569	22.77714	23.69546	07:47
May	14	22.79575	22.7772	23.69564	07:19
May	21	22.79581	22.77726	23.69592	06:52
May	28	22.79588	22.77733	23.69623	06:24
Jun	4	22.79595	22.7774	23.69659	05:56
Jun	11	22.79601	22.77746	23.69697	05:29
Jun	18	22.79608	22.77753	23.6974	05:01
Jun	25	22.79614	22.77759	23.69787	04:34
Jul	2	22.7962	22.77765	23.69834	04:06
Jul	9	22.79626	22.77771	23.69885	03:39
Jul	16	22.79631	22.77776	23.69934	03:11
Jul	23	22.79637	22.77782	23.69989	02:43
Jul	30	22.79641	22.77786	23.70038	02:16
Ago	6	22.79645	22.7779	23.70091	01:48
Ago	13	22.79648	22.77793	23.70138	01:21
Ago	20	22.79652	22.77797	23.70192	00:53
Ago	27	22.79653	22.77798	23.70233	00:25
Sep	3	22.79655	22.778	23.70281	23:58
Sep	10	22.79655	22.778	23.70318	23:30
Sep	17	22.79657	22.77802	23.70363	23:03
Sep	24	22.79656	22.77801	23.70392	22:35
Oct	1	22.79656	22.77801	23.70428	22:07
Oct	8	22.79654	22.77799	23.70451	21:40
Oct	15	22.79654	22.77799	23.70483	21:12
Oct	22	22.79651	22.77796	23.70496	20:45
Oct	29	22.7965	22.77795	23.70517	20:17
Nov	5	22.79647	22.77792	23.70523	19:49
Nov	12	22.79645	22.7779	23.70538	19:22
Nov	19	22.79642	22.77787	23.70535	18:54
Nov	26	22.7964	22.77785	23.70537	18:27
Dic	3	22.79637	22.77782	23.70526	17:59
Dic	10	22.79635	22.7778	23.70523	17:31
Dic	17	22.79632	22.77777	23.70504	17:04
Dic	24	22.7963	22.77775	23.7049	16:36
Dic	31	22.79627	22.77772	23.70463	16:09

HIP 112623					
V		Sp			
3.49		A3V			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	22.83411	22.81556	-51.18969	16:06
Ene	8	22.83407	22.81552	-51.1895	15:38
Ene	15	22.83406	22.81551	-51.18914	15:11
Ene	22	22.83403	22.81548	-51.18886	14:43
Ene	29	22.83402	22.81547	-51.18841	14:16
Feb	5	22.834	22.81545	-51.18801	13:48
Feb	12	22.83401	22.81546	-51.18747	13:20
Feb	19	22.83401	22.81546	-51.18703	12:53
Feb	26	22.83403	22.81548	-51.18643	12:25
Mar	5	22.83403	22.81548	-51.18591	11:58
Mar	12	22.83407	22.81552	-51.18528	11:30
Mar	19	22.83409	22.81554	-51.18475	11:02
Mar	26	22.83414	22.81559	-51.18411	10:35
Abr	2	22.83417	22.81562	-51.18354	10:07
Abr	9	22.83424	22.81569	-51.18291	09:40
Abr	16	22.83428	22.81573	-51.18238	09:12
Abr	23	22.83436	22.81581	-51.18179	08:44
Abr	30	22.83442	22.81587	-51.18127	08:17
May	7	22.83451	22.81596	-51.18074	07:49
May	14	22.83458	22.81603	-51.1803	07:22
May	21	22.83467	22.81612	-51.17985	06:54
May	28	22.83475	22.8162	-51.17946	06:26
Jun	4	22.83485	22.8163	-51.17912	05:59
Jun	11	22.83493	22.81638	-51.17885	05:31
Jun	18	22.83503	22.81648	-51.17862	05:04
Jun	25	22.83511	22.81656	-51.17843	04:36
Jul	2	22.8352	22.81665	-51.17834	04:08
Jul	9	22.83528	22.81673	-51.17829	03:41
Jul	16	22.83536	22.81681	-51.17832	03:13
Jul	23	22.83543	22.81688	-51.17836	02:46
Jul	30	22.8355	22.81695	-51.17854	02:18
Ago	6	22.83555	22.817	-51.17871	01:50
Ago	13	22.8356	22.81705	-51.17899	01:23
Ago	20	22.83565	22.8171	-51.17923	00:55
Ago	27	22.83568	22.81713	-51.17962	00:28
Sep	3	22.8357	22.81715	-51.17995	00:00
Sep	10	22.83572	22.81717	-51.18039	23:33
Sep	17	22.83573	22.81718	-51.18074	23:05
Sep	24	22.83572	22.81717	-51.18123	22:37
Oct	1	22.83571	22.81716	-51.18162	22:10
Oct	8	22.83568	22.81713	-51.18208	21:42
Oct	15	22.83567	22.81712	-51.18241	21:15
Oct	22	22.83563	22.81708	-51.18286	20:47
Oct	29	22.83559	22.81704	-51.18315	20:19
Nov	5	22.83555	22.817	-51.18351	19:52
Nov	12	22.83552	22.81697	-51.18369	19:24
Nov	19	22.83546	22.81691	-51.18395	18:57
Nov	26	22.83542	22.81687	-51.18405	18:29
Dic	3	22.83536	22.81681	-51.18418	18:01
Dic	10	22.83533	22.81678	-51.18413	17:34
Dic	17	22.83528	22.81673	-51.18414	17:06
Dic	24	22.83525	22.8167	-51.18399	16:39
Dic	31	22.8352	22.81665	-51.18386	16:11

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 112724					
V		Sp			
3.5		K0III			Hp
m	d	$\alpha$ h	$\alpha_c$ h	$\delta$ °	h
Ene	1	22.84218	22.82363	66.33616	16:06
Ene	8	22.84209	22.82354	66.33581	15:39
Ene	15	22.84203	22.82348	66.33552	15:11
Ene	22	22.84195	22.8234	66.33503	14:44
Ene	29	22.84191	22.82336	66.33461	14:16
Feb	5	22.84186	22.82331	66.33403	13:48
Feb	12	22.84183	22.82328	66.33353	13:21
Feb	19	22.8418	22.82325	66.33289	12:53
Feb	26	22.8418	22.82325	66.33235	12:26
Mar	5	22.8418	22.82325	66.33172	11:58
Mar	12	22.84182	22.82327	66.33119	11:30
Mar	19	22.84185	22.8233	66.33059	11:03
Mar	26	22.8419	22.82335	66.33012	10:35
Abr	2	22.84196	22.82341	66.32962	10:08
Abr	9	22.84203	22.82348	66.32925	09:40
Abr	16	22.84211	22.82356	66.32886	09:12
Abr	23	22.84221	22.82366	66.32861	08:45
Abr	30	22.84231	22.82376	66.32839	08:17
May	7	22.84242	22.82387	66.32829	07:50
May	14	22.84253	22.82398	66.32822	07:22
May	21	22.84265	22.8241	66.32827	06:54
May	28	22.84277	22.82422	66.32839	06:27
Jun	4	22.84289	22.82434	66.32859	05:59
Jun	11	22.84301	22.82446	66.32886	05:32
Jun	18	22.84312	22.82457	66.3292	05:04
Jun	25	22.84325	22.8247	66.32963	04:37
Jul	2	22.84335	22.8248	66.33009	04:09
Jul	9	22.84345	22.8249	66.33063	03:41
Jul	16	22.84354	22.82499	66.33119	03:14
Jul	23	22.84363	22.82508	66.33184	02:46
Jul	30	22.84369	22.82514	66.33247	02:19
Ago	6	22.84376	22.82521	66.33318	01:51
Ago	13	22.8438	22.82525	66.33386	01:23
Ago	20	22.84385	22.8253	66.33463	00:56
Ago	27	22.84387	22.82532	66.33531	00:28
Sep	3	22.84389	22.82534	66.33608	00:01
Sep	10	22.84388	22.82533	66.33675	23:33
Sep	17	22.84389	22.82534	66.33753	23:05
Sep	24	22.84386	22.82531	66.33815	22:38
Oct	1	22.84384	22.82529	66.33885	22:10
Oct	8	22.84379	22.82524	66.33942	21:43
Oct	15	22.84375	22.8252	66.34007	21:15
Oct	22	22.84368	22.82513	66.34054	20:47
Oct	29	22.84362	22.82507	66.34106	20:20
Nov	5	22.84354	22.82499	66.34141	19:52
Nov	12	22.84348	22.82493	66.34184	19:25
Nov	19	22.84339	22.82484	66.34206	18:57
Nov	26	22.84331	22.82476	66.3423	18:29
Dic	3	22.84321	22.82466	66.34236	18:02
Dic	10	22.84313	22.82458	66.34248	17:34
Dic	17	22.84304	22.82449	66.34239	17:07
Dic	24	22.84295	22.8244	66.3423	16:39
Dic	31	22.84287	22.82432	66.34205	16:11

HIP 112748					
V		Sp			
3.51		M2III			Hp
m	d	$\alpha$ h	$\alpha_c$ h	$\delta$ °	h
Ene	1	22.85329	22.83474	24.73521	16:07
Ene	8	22.85326	22.83471	24.7349	15:39
Ene	15	22.85326	22.83471	24.73469	15:12
Ene	22	22.85323	22.83468	24.73432	14:44
Ene	29	22.85323	22.83468	24.73405	14:17
Feb	5	22.85322	22.83467	24.73367	13:49
Feb	12	22.85322	22.83467	24.7334	13:22
Feb	19	22.85322	22.83467	24.73301	12:54
Feb	26	22.85323	22.83468	24.73275	12:26
Mar	5	22.85323	22.83468	24.73242	11:59
Mar	12	22.85326	22.83471	24.73221	11:31
Mar	19	22.85327	22.83472	24.73192	11:04
Mar	26	22.85331	22.83476	24.73179	10:36
Abr	2	22.85334	22.83479	24.73162	10:08
Abr	9	22.85338	22.83483	24.73157	09:41
Abr	16	22.85342	22.83487	24.7315	09:13
Abr	23	22.85348	22.83493	24.73156	08:46
Abr	30	22.85353	22.83498	24.73162	08:18
May	7	22.85359	22.83504	24.73179	07:50
May	14	22.85364	22.83509	24.73196	07:23
May	21	22.85371	22.83516	24.73223	06:55
May	28	22.85378	22.83523	24.73253	06:28
Jun	4	22.85385	22.8353	24.73288	06:00
Jun	11	22.85391	22.83536	24.73326	05:32
Jun	18	22.85398	22.83543	24.73369	05:05
Jun	25	22.85404	22.83549	24.73416	04:37
Jul	2	22.8541	22.83555	24.73463	04:10
Jul	9	22.85416	22.83561	24.73513	03:42
Jul	16	22.85422	22.83567	24.73563	03:14
Jul	23	22.85427	22.83572	24.73619	02:47
Jul	30	22.85431	22.83576	24.73668	02:19
Ago	6	22.85435	22.8358	24.73721	01:52
Ago	13	22.85439	22.83584	24.73769	01:24
Ago	20	22.85442	22.83587	24.73824	00:56
Ago	27	22.85444	22.83589	24.73866	00:29
Sep	3	22.85446	22.83591	24.73915	00:01
Sep	10	22.85446	22.83591	24.73953	23:34
Sep	17	22.85448	22.83593	24.73999	23:06
Sep	24	22.85447	22.83592	24.7403	22:38
Oct	1	22.85447	22.83592	24.74067	22:11
Oct	8	22.85445	22.8359	24.74091	21:43
Oct	15	22.85445	22.8359	24.74124	21:16
Oct	22	22.85442	22.83587	24.74139	20:48
Oct	29	22.85441	22.83586	24.7416	20:20
Nov	5	22.85438	22.83583	24.74167	19:53
Nov	12	22.85437	22.83582	24.74183	19:25
Nov	19	22.85433	22.83578	24.74181	18:58
Nov	26	22.85431	22.83576	24.74184	18:30
Dic	3	22.85428	22.83573	24.74174	18:02
Dic	10	22.85426	22.83571	24.74172	17:35
Dic	17	22.85423	22.83568	24.74153	17:07
Dic	24	22.85421	22.83566	24.74139	16:40
Dic	31	22.85418	22.83563	24.74113	16:12

# Posiciones aparentes de estrellas brillantes, 2025

(a las 0<sup>h</sup> del meridiano 90° W.G.)

HIP 115102					
V		Sp			
4.41		K1III			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	23.33609	23.31754	-32.39924	16:36
Ene	8	23.33606	23.31751	-32.39923	16:08
Ene	15	23.33605	23.3175	-32.39905	15:41
Ene	22	23.33603	23.31748	-32.39897	15:13
Ene	29	23.33602	23.31747	-32.39872	14:46
Feb	5	23.336	23.31745	-32.39854	14:18
Feb	12	23.33601	23.31746	-32.3982	13:50
Feb	19	23.336	23.31745	-32.39796	13:23
Feb	26	23.33601	23.31746	-32.39756	12:55
Mar	5	23.33601	23.31746	-32.39723	12:28
Mar	12	23.33603	23.31748	-32.39676	12:00
Mar	19	23.33604	23.31749	-32.3964	11:32
Mar	26	23.33607	23.31752	-32.39589	11:05
Abr	2	23.33609	23.31754	-32.39545	10:37
Abr	9	23.33614	23.31759	-32.39492	10:10
Abr	16	23.33617	23.31762	-32.39448	09:42
Abr	23	23.33622	23.31767	-32.39393	09:15
Abr	30	23.33627	23.31772	-32.39345	08:47
May	7	23.33633	23.31778	-32.39293	08:19
May	14	23.33638	23.31783	-32.39248	07:52
May	21	23.33646	23.31791	-32.39198	07:24
May	28	23.33652	23.31797	-32.39153	06:57
Jun	4	23.33659	23.31804	-32.3911	06:29
Jun	11	23.33666	23.31811	-32.39073	06:01
Jun	18	23.33673	23.31818	-32.39036	05:34
Jun	25	23.3368	23.31825	-32.39003	05:06
Jul	2	23.33688	23.31833	-32.38977	04:39
Jul	9	23.33694	23.31839	-32.38955	04:11
Jul	16	23.33701	23.31846	-32.38939	03:43
Jul	23	23.33707	23.31852	-32.38924	03:16
Jul	30	23.33713	23.31858	-32.3892	02:48
Ago	6	23.33718	23.31863	-32.38917	02:21
Ago	13	23.33722	23.31867	-32.38923	01:53
Ago	20	23.33727	23.31872	-32.38926	01:25
Ago	27	23.3373	23.31875	-32.38944	00:58
Sep	3	23.33732	23.31877	-32.38959	00:30
Sep	10	23.33734	23.31879	-32.38984	00:03
Sep	17	23.33736	23.31881	-32.39002	23:35
Sep	24	23.33736	23.31881	-32.39035	23:07
Oct	1	23.33736	23.31881	-32.3906	22:40
Oct	8	23.33735	23.3188	-32.39095	22:12
Oct	15	23.33735	23.3188	-32.39118	21:45
Oct	22	23.33733	23.31878	-32.39155	21:17
Oct	29	23.33732	23.31877	-32.39181	20:49
Nov	5	23.33729	23.31874	-32.39214	20:22
Nov	12	23.33727	23.31872	-32.39232	19:54
Nov	19	23.33724	23.31869	-32.39262	19:27
Nov	26	23.33722	23.31867	-32.39278	18:59
Dic	3	23.33718	23.31863	-32.39299	18:31
Dic	10	23.33716	23.31861	-32.39304	18:04
Dic	17	23.33713	23.31858	-32.39317	17:36
Dic	24	23.33711	23.31856	-32.39317	17:09
Dic	31	23.33707	23.31852	-32.39321	16:41

HIP 115623					
V		Sp			
4.42		F8IV			
m	d	$\alpha$	$\alpha_c$	$\delta$	Hp
		h	h	°	h
Ene	1	23.44366	23.42511	23.54347	16:43
Ene	8	23.44363	23.42508	23.54322	16:15
Ene	15	23.44362	23.42507	23.54305	15:47
Ene	22	23.44359	23.42504	23.54273	15:20
Ene	29	23.44359	23.42504	23.54251	14:52
Feb	5	23.44357	23.42502	23.54217	14:25
Feb	12	23.44357	23.42502	23.54194	13:57
Feb	19	23.44355	23.425	23.54159	13:29
Feb	26	23.44356	23.42501	23.54135	13:02
Mar	5	23.44356	23.42501	23.54104	12:34
Mar	12	23.44358	23.42503	23.54086	12:07
Mar	19	23.44358	23.42503	23.54058	11:39
Mar	26	23.44361	23.42506	23.54045	11:11
Abr	2	23.44363	23.42508	23.54028	10:44
Abr	9	23.44367	23.42512	23.54023	10:16
Abr	16	23.4437	23.42515	23.54013	09:49
Abr	23	23.44375	23.4252	23.54018	09:21
Abr	30	23.4438	23.42525	23.54022	08:53
May	7	23.44386	23.42531	23.54037	08:26
May	14	23.44391	23.42536	23.5405	07:58
May	21	23.44397	23.42542	23.54075	07:31
May	28	23.44404	23.42549	23.54101	07:03
Jun	4	23.4441	23.42555	23.54134	06:35
Jun	11	23.44417	23.42562	23.54167	06:08
Jun	18	23.44424	23.42569	23.54208	05:40
Jun	25	23.4443	23.42575	23.54251	05:13
Jul	2	23.44437	23.42582	23.54295	04:45
Jul	9	23.44443	23.42588	23.54342	04:17
Jul	16	23.44449	23.42594	23.5439	03:50
Jul	23	23.44455	23.426	23.54442	03:22
Jul	30	23.4446	23.42605	23.54489	02:55
Ago	6	23.44464	23.42609	23.5454	02:27
Ago	13	23.44468	23.42613	23.54587	01:59
Ago	20	23.44473	23.42618	23.54639	01:32
Ago	27	23.44475	23.4262	23.54681	01:04
Sep	3	23.44478	23.42623	23.54728	00:37
Sep	10	23.44479	23.42624	23.54766	00:09
Sep	17	23.44481	23.42626	23.54811	23:41
Sep	24	23.44481	23.42626	23.54842	23:14
Oct	1	23.44482	23.42627	23.54878	22:46
Oct	8	23.44481	23.42626	23.54904	22:19
Oct	15	23.44482	23.42627	23.54937	21:51
Oct	22	23.4448	23.42625	23.54953	21:23
Oct	29	23.44479	23.42624	23.54976	20:56
Nov	5	23.44476	23.42621	23.54985	20:28
Nov	12	23.44476	23.42621	23.55004	20:01
Nov	19	23.44473	23.42618	23.55004	19:33
Nov	26	23.44471	23.42616	23.55011	19:05
Dic	3	23.44468	23.42613	23.55004	18:38
Dic	10	23.44467	23.42612	23.55006	18:10
Dic	17	23.44463	23.42608	23.54991	17:43
Dic	24	23.44462	23.42607	23.54982	17:15
Dic	31	23.44459	23.42604	23.5496	16:47

# Posiciones aparentes de estrella Polar, 2025

(a las 0h del meridiano 90° W.G.)

11767

(V = 1,97 Sp = Ib-IIV SB)

		$\alpha$	$\alpha_c$	$\delta$	Hp			$\alpha$	$\alpha_c$	$\delta$	Hp
m	d	h	h	o	h	m	d	h	h	o	h
Ene	1	3.08519	3.06664	89.37395	20:21	Feb	19	3.06071	3.04216	89.37541	17:03
Ene	2	3.08479	3.06624	89.37404	20:17	Feb	20	3.06023	3.04168	89.37538	16:59
Ene	3	3.08434	3.06579	89.37412	20:13	Feb	21	3.05977	3.04122	89.37536	16:55
Ene	4	3.08386	3.06531	89.37419	20:09	Feb	22	3.05932	3.04077	89.37534	16:51
Ene	5	3.08336	3.06481	89.37426	20:05	Feb	23	3.05886	3.04031	89.37533	16:47
Ene	6	3.08288	3.06433	89.37431	20:01	Feb	24	3.05838	3.03983	89.37532	16:43
Ene	7	3.08243	3.06388	89.37436	19:57	Feb	25	3.05787	3.03932	89.37531	16:39
Ene	8	3.08203	3.06348	89.37441	19:53	Feb	26	3.05732	3.03877	89.37530	16:35
Ene	9	3.08166	3.06311	89.37445	19:49	Feb	27	3.05673	3.03818	89.37528	16:31
Ene	10	3.08132	3.06277	89.37450	19:45	Feb	28	3.05613	3.03758	89.37526	16:27
Ene	11	3.08098	3.06243	89.37456	19:41	Mar	1	3.05554	3.03699	89.37523	16:23
Ene	12	3.08063	3.06208	89.37462	19:37	Mar	2	3.05498	3.03643	89.37518	16:19
Ene	13	3.08023	3.06168	89.37468	19:33	Mar	3	3.05448	3.03593	89.37513	16:15
Ene	14	3.07979	3.06124	89.37475	19:29	Mar	4	3.05403	3.03548	89.37508	16:11
Ene	15	3.07930	3.06075	89.37481	19:25	Mar	5	3.05363	3.03508	89.37504	16:07
Ene	16	3.07877	3.06022	89.37487	19:21	Mar	6	3.05326	3.03471	89.37499	16:03
Ene	17	3.07822	3.05967	89.37492	19:17	Mar	7	3.05289	3.03434	89.37495	15:59
Ene	18	3.07766	3.05911	89.37497	19:13	Mar	8	3.05249	3.03394	89.37492	15:55
Ene	19	3.07710	3.05855	89.37500	19:09	Mar	9	3.05207	3.03352	89.37489	15:51
Ene	20	3.07656	3.05801	89.37503	19:05	Mar	10	3.05160	3.03305	89.37486	15:47
Ene	21	3.07604	3.05749	89.37506	19:01	Mar	11	3.05111	3.03256	89.37483	15:43
Ene	22	3.07555	3.05700	89.37509	18:57	Mar	12	3.05060	3.03205	89.37479	15:39
Ene	23	3.07509	3.05654	89.37511	18:54	Mar	13	3.05008	3.03153	89.37474	15:35
Ene	24	3.07464	3.05609	89.37514	18:50	Mar	14	3.04957	3.03102	89.37468	15:31
Ene	25	3.07420	3.05565	89.37517	18:46	Mar	15	3.04908	3.03053	89.37462	15:27
Ene	26	3.07376	3.05521	89.37520	18:42	Mar	16	3.04862	3.03007	89.37456	15:24
Ene	27	3.07330	3.05475	89.37524	18:38	Mar	17	3.04820	3.02965	89.37449	15:20
Ene	28	3.07281	3.05426	89.37528	18:34	Mar	18	3.04782	3.02927	89.37442	15:16
Ene	29	3.07227	3.05372	89.37532	18:30	Mar	19	3.04747	3.02892	89.37436	15:12
Ene	30	3.07169	3.05314	89.37536	18:26	Mar	20	3.04714	3.02859	89.37429	15:08
Ene	31	3.07108	3.05253	89.37539	18:22	Mar	21	3.04683	3.02828	89.37423	15:04
Feb	1	3.07045	3.05190	89.37541	18:18	Mar	22	3.04652	3.02797	89.37417	15:00
Feb	2	3.06984	3.05129	89.37542	18:14	Mar	23	3.04620	3.02765	89.37412	14:56
Feb	3	3.06926	3.05071	89.37543	18:10	Mar	24	3.04586	3.02731	89.37407	14:52
Feb	4	3.06872	3.05017	89.37543	18:06	Mar	25	3.04549	3.02694	89.37402	14:48
Feb	5	3.06824	3.04969	89.37542	18:02	Mar	26	3.04509	3.02654	89.37397	14:44
Feb	6	3.06779	3.04924	89.37543	17:54	Mar	27	3.04468	3.02613	89.37391	14:40
Feb	7	3.06735	3.04880	89.37543	17:50	Mar	28	3.04426	3.02571	89.37384	14:36
Feb	8	3.06690	3.04835	89.37544	17:46	Mar	29	3.04386	3.02531	89.37376	14:32
Feb	9	3.06642	3.04787	89.37546	17:42	Mar	30	3.04353	3.02498	89.37368	14:28
Feb	10	3.06591	3.04736	89.37547	17:38	Mar	31	3.04326	3.02471	89.37359	14:24
Feb	11	3.06536	3.04681	89.37549	17:34	Abr	1	3.04305	3.02450	89.37351	14:20
Feb	12	3.06476	3.04621	89.37550	17:30	Abr	2	3.04288	3.02433	89.37343	14:16
Feb	13	3.06415	3.04560	89.37551	17:26	Abr	3	3.04272	3.02417	89.37335	14:12
Feb	14	3.06353	3.04498	89.37550	17:22	Abr	4	3.04255	3.02400	89.37329	14:08
Feb	15	3.06291	3.04436	89.37549	17:18	Abr	5	3.04235	3.02380	89.37323	14:05
Feb	16	3.06232	3.04377	89.37548	17:14	Abr	6	3.04211	3.02356	89.37316	14:01
Feb	17	3.06175	3.04320	89.37546	17:10	Abr	7	3.04185	3.02330	89.37310	13:57
Feb	18	3.06121	3.04266	89.37543	17:07	Abr	8	3.04156	3.02301	89.37303	13:53

# Posiciones aparentes de estrella Polar, 2025

(a las 0h del meridiano 90° W.G.)

11767

(V = 1,97 Sp = Ib-IIV SB)

		$\alpha$		$\delta$	Hp			$\alpha$		$\delta$	Hp
m	d	h	h	o	h	m	d	h	h	o	h
Abr	9	3.04127	3.02272	89.37296	13:49	May	27	3.04297	3.02442	89.36898	10:40
Abr	10	3.04099	3.02244	89.37288	13:45	May	28	3.04336	3.02481	89.36891	10:36
Abr	11	3.04073	3.02218	89.37279	13:41	May	29	3.04373	3.02518	89.36885	10:32
Abr	12	3.04050	3.02195	89.37270	13:37	May	30	3.04407	3.02552	89.36879	10:28
Abr	13	3.04031	3.02176	89.37261	13:33	May	31	3.04436	3.02581	89.36874	10:25
Abr	14	3.04016	3.02161	89.37251	13:29	Jun	1	3.04463	3.02608	89.36868	10:21
Abr	15	3.04005	3.02150	89.37242	13:25	Jun	2	3.04487	3.02632	89.36862	10:17
Abr	16	3.03996	3.02141	89.37233	13:21	Jun	3	3.04511	3.02656	89.36855	10:13
Abr	17	3.03990	3.02135	89.37225	13:17	Jun	4	3.04537	3.02682	89.36848	10:09
Abr	18	3.03984	3.02129	89.37217	13:13	Jun	5	3.04565	3.02710	89.36841	10:05
Abr	19	3.03978	3.02123	89.37209	13:09	Jun	6	3.04597	3.02742	89.36833	10:01
Abr	20	3.03970	3.02115	89.37202	13:05	Jun	7	3.04633	3.02778	89.36825	09:57
Abr	21	3.03960	3.02105	89.37195	13:01	Jun	8	3.04672	3.02817	89.36818	09:53
Abr	22	3.03947	3.02092	89.37188	12:58	Jun	9	3.04714	3.02859	89.36810	09:49
Abr	23	3.03933	3.02078	89.37180	12:54	Jun	10	3.04758	3.02903	89.36804	09:45
Abr	24	3.03917	3.02062	89.37172	12:50	Jun	11	3.04804	3.02949	89.36798	09:42
Abr	25	3.03904	3.02049	89.37164	12:46	Jun	12	3.04849	3.02994	89.36792	09:38
Abr	26	3.03894	3.02039	89.37154	12:42	Jun	13	3.04892	3.03037	89.36788	09:34
Abr	27	3.03891	3.02036	89.37144	12:38	Jun	14	3.04934	3.03079	89.36783	09:30
Abr	28	3.03895	3.02040	89.37134	12:34	Jun	15	3.04972	3.03117	89.36779	09:26
Abr	29	3.03905	3.02050	89.37124	12:30	Jun	16	3.05008	3.03153	89.36775	09:22
Abr	30	3.03917	3.02062	89.37116	12:26	Jun	17	3.05043	3.03188	89.36770	09:18
May	1	3.03929	3.02074	89.37108	12:22	Jun	18	3.05077	3.03222	89.36765	09:14
May	2	3.03938	3.02083	89.37101	12:18	Jun	19	3.05114	3.03259	89.36759	09:10
May	3	3.03944	3.02089	89.37094	12:14	Jun	20	3.05155	3.03300	89.36752	09:06
May	4	3.03946	3.02091	89.37087	12:10	Jun	21	3.05201	3.03346	89.36746	09:02
May	5	3.03945	3.02090	89.37079	12:06	Jun	22	3.05253	3.03398	89.36740	08:59
May	6	3.03944	3.02089	89.37072	12:03	Jun	23	3.05310	3.03455	89.36734	08:55
May	7	3.03943	3.02088	89.37063	11:59	Jun	24	3.05368	3.03513	89.36730	08:51
May	8	3.03945	3.02090	89.37054	11:55	Jun	25	3.05426	3.03571	89.36726	08:47
May	9	3.03949	3.02094	89.37045	11:51	Jun	26	3.05481	3.03626	89.36723	08:43
May	10	3.03957	3.02102	89.37035	11:47	Jun	27	3.05532	3.03677	89.36721	08:39
May	11	3.03969	3.02114	89.37026	11:43	Jun	28	3.05578	3.03723	89.36718	08:35
May	12	3.03984	3.02129	89.37016	11:39	Jun	29	3.05621	3.03766	89.36715	08:31
May	13	3.04003	3.02148	89.37007	11:35	Jun	30	3.05664	3.03809	89.36712	08:27
May	14	3.04024	3.02169	89.36999	11:31	Jul	1	3.05707	3.03852	89.36708	08:23
May	15	3.04046	3.02191	89.36991	11:27	Jul	2	3.05752	3.03897	89.36704	08:20
May	16	3.04068	3.02213	89.36983	11:23	Jul	3	3.05800	3.03945	89.36699	08:16
May	17	3.04088	3.02233	89.36976	11:19	Jul	4	3.05851	3.03996	89.36695	08:12
May	18	3.04106	3.02251	89.36970	11:15	Jul	5	3.05906	3.04051	89.36691	08:08
May	19	3.04121	3.02266	89.36963	11:12	Jul	6	3.05964	3.04109	89.36687	08:04
May	20	3.04134	3.02279	89.36956	11:08	Jul	7	3.06023	3.04168	89.36683	08:00
May	21	3.04147	3.02292	89.36949	11:04	Jul	8	3.06084	3.04229	89.36680	07:56
May	22	3.04160	3.02305	89.36941	11:00	Jul	9	3.06145	3.04290	89.36678	07:52
May	23	3.04176	3.02321	89.36933	10:56	Jul	10	3.06204	3.04349	89.36676	07:48
May	24	3.04197	3.02342	89.36924	10:52	Jul	11	3.06261	3.04406	89.36675	07:44
May	25	3.04225	3.02370	89.36914	10:48	Jul	12	3.06315	3.04460	89.36675	07:41
May	26	3.04259	3.02404	89.36906	10:44	Jul	13	3.06365	3.04510	89.36674	07:37

# Posiciones aparentes de estrella Polar, 2025

(a las 0h del meridiano 90° W.G.)

11767

(V = 1,97 Sp = Ib-IIV SB)

		$\alpha$		$\delta$	Hp			$\alpha$		$\delta$	Hp
m	d	h	h	o	h	m	d	h	h	o	h
Jul	14	3.06413	3.04558	89.36673	07:33	Ago	31	3.09266	3.07411	89.36742	04:26
Jul	15	3.06461	3.04606	89.36671	07:29	Sep	1	3.09330	3.07475	89.36747	04:22
Jul	16	3.06510	3.04655	89.36669	07:25	Sep	2	3.09393	3.07538	89.36752	04:18
Jul	17	3.06562	3.04707	89.36666	07:21	Sep	3	3.09453	3.07598	89.36758	04:14
Jul	18	3.06619	3.04764	89.36664	07:17	Sep	4	3.09511	3.07656	89.36765	04:10
Jul	19	3.06681	3.04826	89.36661	07:13	Sep	5	3.09564	3.07709	89.36771	04:06
Jul	20	3.06748	3.04893	89.36659	07:09	Sep	6	3.09613	3.07758	89.36778	04:02
Jul	21	3.06817	3.04962	89.36657	07:05	Sep	7	3.09660	3.07805	89.36784	03:58
Jul	22	3.06886	3.05031	89.36657	07:02	Sep	8	3.09707	3.07852	89.36790	03:55
Jul	23	3.06952	3.05097	89.36658	06:58	Sep	9	3.09755	3.07900	89.36795	03:51
Jul	24	3.07014	3.05159	89.36659	06:54	Sep	10	3.09806	3.07951	89.36799	03:47
Jul	25	3.07072	3.05217	89.36660	06:50	Sep	11	3.09863	3.08008	89.36804	03:43
Jul	26	3.07126	3.05271	89.36661	06:46	Sep	12	3.09924	3.08069	89.36809	03:39
Jul	27	3.07178	3.05323	89.36662	06:42	Sep	13	3.09988	3.08133	89.36814	03:35
Jul	28	3.07229	3.05374	89.36662	06:38	Sep	14	3.10051	3.08196	89.36821	03:31
Jul	29	3.07282	3.05427	89.36662	06:34	Sep	15	3.10113	3.08258	89.36828	03:27
Jul	30	3.07337	3.05482	89.36661	06:30	Sep	16	3.10170	3.08315	89.36836	03:23
Jul	31	3.07395	3.05540	89.36660	06:26	Sep	17	3.10223	3.08368	89.36844	03:19
Ago	1	3.07456	3.05601	89.36660	06:23	Sep	18	3.10271	3.08416	89.36852	03:16
Ago	2	3.07520	3.05665	89.36659	06:19	Sep	19	3.10316	3.08461	89.36860	03:12
Ago	3	3.07586	3.05731	89.36659	06:15	Sep	20	3.10358	3.08503	89.36868	03:08
Ago	4	3.07653	3.05798	89.36660	06:11	Sep	21	3.10400	3.08545	89.36875	03:04
Ago	5	3.07720	3.05865	89.36662	06:07	Sep	22	3.10443	3.08588	89.36881	03:00
Ago	6	3.07786	3.05931	89.36664	06:03	Sep	23	3.10488	3.08633	89.36888	02:56
Ago	7	3.07849	3.05994	89.36666	05:59	Sep	24	3.10535	3.08680	89.36894	02:52
Ago	8	3.07909	3.06054	89.36669	05:55	Sep	25	3.10585	3.08730	89.36900	02:48
Ago	9	3.07965	3.06110	89.36673	05:51	Sep	26	3.10637	3.08782	89.36907	02:44
Ago	10	3.08018	3.06163	89.36676	05:48	Sep	27	3.10690	3.08835	89.36914	02:40
Ago	11	3.08070	3.06215	89.36678	05:44	Sep	28	3.10742	3.08887	89.36921	02:36
Ago	12	3.08122	3.06267	89.36680	05:40	Sep	29	3.10794	3.08939	89.36930	02:33
Ago	13	3.08176	3.06321	89.36681	05:36	Sep	30	3.10843	3.08988	89.36939	02:29
Ago	14	3.08235	3.06380	89.36682	05:32	Oct	1	3.10889	3.09034	89.36948	02:25
Ago	15	3.08299	3.06444	89.36683	05:28	Oct	2	3.10931	3.09076	89.36957	02:21
Ago	16	3.08367	3.06512	89.36685	05:24	Oct	3	3.10970	3.09115	89.36967	02:17
Ago	17	3.08437	3.06582	89.36687	05:20	Oct	4	3.11004	3.09149	89.36976	02:13
Ago	18	3.08508	3.06653	89.36690	05:16	Oct	5	3.11037	3.09182	89.36985	02:09
Ago	19	3.08576	3.06721	89.36694	05:12	Oct	6	3.11070	3.09215	89.36993	02:05
Ago	20	3.08640	3.06785	89.36699	05:09	Oct	7	3.11106	3.09251	89.37000	02:01
Ago	21	3.08700	3.06845	89.36704	05:05	Oct	8	3.11147	3.09292	89.37007	01:57
Ago	22	3.08755	3.06900	89.36709	05:01	Oct	9	3.11192	3.09337	89.37015	01:53
Ago	23	3.08808	3.06953	89.36713	04:57	Oct	10	3.11241	3.09386	89.37023	01:50
Ago	24	3.08859	3.07004	89.36718	04:53	Oct	11	3.11290	3.09435	89.37031	01:46
Ago	25	3.08910	3.07055	89.36721	04:49	Oct	12	3.11338	3.09483	89.37041	01:42
Ago	26	3.08963	3.07108	89.36724	04:45	Oct	13	3.11381	3.09526	89.37051	01:38
Ago	27	3.09019	3.07164	89.36727	04:41	Oct	14	3.11419	3.09564	89.37062	01:34
Ago	28	3.09077	3.07222	89.36730	04:37	Oct	15	3.11452	3.09597	89.37073	01:30
Ago	29	3.09138	3.07283	89.36734	04:33	Oct	16	3.11481	3.09626	89.37083	01:26
Ago	30	3.09202	3.07347	89.36737	04:30	Oct	17	3.11507	3.09652	89.37093	01:22

# Posiciones aparentes de estrella Polar, 2025

(a las 0h del meridiano 90° W.G.)

**11767**

(V = 1,97 Sp = Ib-IIV SB)

		$\alpha$		$\alpha_c$	$\delta$	Hp			$\alpha$		$\alpha_c$	$\delta$	Hp
m	d	h	h	h	o	h	m	d	h	h	h	o	h
Oct	18	3.11531	3.09676	89.37102	01:18		Dic	5	3.12082	3.10227	89.37577	22:10	
Oct	19	3.11557	3.09702	89.37111	01:14		Dic	6	3.12081	3.10226	89.37588	22:06	
Oct	20	3.11583	3.09728	89.37120	01:10		Dic	7	3.12074	3.10219	89.37599	22:02	
Oct	21	3.11612	3.09757	89.37128	01:07		Dic	8	3.12061	3.10206	89.37610	21:58	
Oct	22	3.11643	3.09788	89.37136	01:03		Dic	9	3.12042	3.10187	89.37621	21:54	
Oct	23	3.11676	3.09821	89.37145	00:59		Dic	10	3.12019	3.10164	89.37631	21:50	
Oct	24	3.11709	3.09854	89.37154	00:55		Dic	11	3.11993	3.10138	89.37641	21:46	
Oct	25	3.11743	3.09888	89.37164	00:51		Dic	12	3.11967	3.10112	89.37650	21:42	
Oct	26	3.11776	3.09921	89.37174	00:47		Dic	13	3.11942	3.10087	89.37658	21:38	
Oct	27	3.11806	3.09951	89.37184	00:43		Dic	14	3.11918	3.10063	89.37666	21:34	
Oct	28	3.11833	3.09978	89.37195	00:39		Dic	15	3.11896	3.10041	89.37674	21:30	
Oct	29	3.11856	3.10001	89.37206	00:35		Dic	16	3.11877	3.10022	89.37681	21:26	
Oct	30	3.11875	3.10020	89.37217	00:31		Dic	17	3.11858	3.10003	89.37689	21:23	
Oct	31	3.11890	3.10035	89.37228	00:27		Dic	18	3.11840	3.09985	89.37697	21:19	
Nov	1	3.11903	3.10048	89.37239	00:23		Dic	19	3.11822	3.09967	89.37706	21:15	
Nov	2	3.11915	3.10060	89.37249	00:20		Dic	20	3.11801	3.09946	89.37715	21:11	
Nov	3	3.11928	3.10073	89.37258	00:16		Dic	21	3.11778	3.09923	89.37724	21:07	
Nov	4	3.11944	3.10089	89.37267	00:12		Dic	22	3.11750	3.09895	89.37734	21:03	
Nov	5	3.11965	3.10110	89.37275	00:08		Dic	23	3.11719	3.09864	89.37743	20:59	
Nov	6	3.11991	3.10136	89.37284	00:04		Dic	24	3.11684	3.09829	89.37752	20:55	
Nov	7	3.12019	3.10164	89.37294	00:00		Dic	25	3.11645	3.09790	89.37761	20:51	
Nov	8	3.12046	3.10191	89.37305	23:56		Dic	26	3.11605	3.09750	89.37769	20:47	
Nov	9	3.12069	3.10214	89.37316	23:52		Dic	27	3.11565	3.09710	89.37776	20:43	
Nov	10	3.12087	3.10232	89.37328	23:48		Dic	28	3.11526	3.09671	89.37782	20:39	
Nov	11	3.12098	3.10243	89.37340	23:44		Dic	29	3.11491	3.09636	89.37788	20:35	
Nov	12	3.12104	3.10249	89.37351	23:40		Dic	30	3.11460	3.09605	89.37794	20:31	
Nov	13	3.12107	3.10252	89.37362	23:36		Dic	31	3.11433	3.09578	89.37800	20:27	
Nov	14	3.12108	3.10253	89.37373	23:32								
Nov	15	3.12109	3.10254	89.37382	23:29								
Nov	16	3.12111	3.10256	89.37392	23:25								
Nov	17	3.12115	3.10260	89.37401	23:21								
Nov	18	3.12121	3.10266	89.37410	23:17								
Nov	19	3.12129	3.10274	89.37419	23:13								
Nov	20	3.12137	3.10282	89.37428	23:09								
Nov	21	3.12146	3.10291	89.37438	23:05								
Nov	22	3.12154	3.10299	89.37448	23:01								
Nov	23	3.12159	3.10304	89.37459	22:57								
Nov	24	3.12162	3.10307	89.37470	22:53								
Nov	25	3.12160	3.10305	89.37481	22:49								
Nov	26	3.12154	3.10299	89.37493	22:45								
Nov	27	3.12145	3.10290	89.37504	22:41								
Nov	28	3.12132	3.10277	89.37514	22:37								
Nov	29	3.12117	3.10262	89.37524	22:33								
Nov	30	3.12103	3.10248	89.37534	22:30								
Dic	1	3.12092	3.10237	89.37542	22:26								
Dic	2	3.12084	3.10229	89.37550	22:22								
Dic	3	3.12081	3.10226	89.37559	22:18								
Dic	4	3.12081	3.10226	89.37568	22:14								





# Constelaciones, 2025

## 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	Lebrelas 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

# Constelaciones, 2025

## Nombres y significados

Nominativo	Genitivo	Abreviatura	Significado
Lynx	Lyncis	Lyn	Lince
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	Caballote 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
Serpens	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



# Objetos Messier, 2025

M	NGC	$\alpha$ h m s			$\delta$ ° ' "			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

# Objetos Messier, 2025

M	NGC	$\alpha$			$\delta$			const	v	tipo	descripción
		h	m	s	°	'	"				
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
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 oscura 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

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## Objetos Messier, 2025

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M	NGC	$\alpha$ h m s			$\delta$ ° ' "			const	v	tipo	descripción
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 ric



# Lluvias de estrellas, 2025

## Lluvias de estrellas observables a simple vista

Nombre	inicia		máximo		termina		$\alpha$		$\delta$		Cometa asociado
	m	d	m	d	m	d	h	m	o	'	
Cuadrántidas	Dic	28	Ene	3	Ene	12	15	18	+49	41	
$\gamma$ Úrsidas Menores	Ene	10	Ene	18	Ene	22	15	12	+67		
$\alpha$ Centáuridas	Ene	31	Feb	8	Feb	20	14	04	-59	56	
Líridas de abril	Abr	14	Abr	22	Abr	30	18	4	+34		C/Thatcher (1861 G1)
$\pi$ Púpidas	Abr	15	Abr	23	Abr	28	7	20	-45		26P/Grigg-Skjellerup
$\eta$ Acuáridas	Abr	19	May	6	May	28	22	32	-01		1P/Halley
$\eta$ Líridas	May	3	May	10	May	14			+43		
Daytime Arietids	May	14	Jun	7	Jun	24	2	52	+24		
Boótidas de junio	Jun	22	Jun	27	Jul	2	14	56	+48		7P/Pons-Winnecke
Pégasidas de julio	Jul	4	Jul	10	Jul	14	23	08	+11		
$\gamma$ Dracónidas de julio	Jul	25	Jul	28	Jul	31	18	40	+51		
$\delta$ Acuáridas del sur	Jul	12	Jul	31	Ago	23	22	40	-16		
$\alpha$ Capricornidas	Jul	3	Jul	31	Ago	15	20	28	-10		
$\eta$ Eridánidas	Jul	31	Ago	7	Ago	19	2	44	-11		C/1852 K1 (Chacornac)
Perseidas	Jul	17	Ago	12	Ago	24	3	12	+58		
$\kappa$ Cignidas	Ago	3	Ago	16	Ago	28	19	4	+59		
Aurígidas	Ago	28	Sep	1	Sep	5	6	4	+39		
$\epsilon$ Perseidas de septiembre	Sep	5	Sep	9	Sep	21	3	12	+40		
Sextántidas diurnas	Sep	9	Sep	27	Oct	9	10	24	-2		
Camelopardálidas de octubre	Oct	5	Oct	5	Oct	6	10	56	+79		
Dracónidas	Oct	6	Oct	8	Oct	10	17	28	+54		21P/Giacobini-Zinner
$\delta$ Aurígidas	Oct	10	Oct	11	Oct	18	5	36	+44		
$\epsilon$ Gemínidas	Oct	14	Oct	18	Oct	27	6	48	+27		C/Ikeya (1964 N1)
Oriónidas	Oct	2	Oct	21	Nov	7	6	20	+16		
León Menoridas	Oct	19	Oct	24	Oct	27	10	48	+37		C/1739 K1 (Zanotti)
Tauridas del sur	Sep	20	Nov	5	Nov	20	3	28	+15		2P/Encke
Tauridas del norte	Oct	20	Nov	12	Dic	10	3	52	+22		2P/Encke
Leónidas	Nov	6	Nov	17	Nov	30	10	8	+22		55P/Tempel-Tuttle
$\alpha$ Monocerotidas	Nov	15	Nov	21	Nov	25	7	48	+1		C/1917 F1 (Mellish)
Orionidas de noviembre	Nov	13	Nov	28	Dic	6	6	4	+16		
Fénicidas	Dic	1	Dic	1	Dic	5	0	32	-27		D/Blanpain (1819 W1)
Pupidas-Vélicas	Dic	1	Dic	7	Dic	15	8	23	-45		
Monocerotidas	Dic	5	Dic	9	Dic	20	6	40	+8		C/1917 F1 (Mellish)
$\sigma$ Hídridas	Dic	3	Dic	9	Dic	20	8	20	+2		
Gemínidas	Dic	4	Dic	14	Dic	20	7	28	+33		3200 Phaethon
Coma Berenícidas	Dic	5	Dic	16	Feb	4	10	32	+30		

## Eventos planetarios, 2025

Mes	Día	Hora	Cuerpo Celeste	Evento
Ene	04	07:22	Tierra	Perihelio
Ene	06	17:56	Luna	Cuarto Creciente
Ene	13	16:26	Luna	Luna Llena
Ene	15	20:38	Marte	Oposición
Ene	21	14:30	Luna	Cuarto Menguante
Ene	29	06:35	Luna	Luna Nueva
Ene	31	18:00	Mínima separación 12.87° entre Venus y Luna (Nor- te)	Mínima separación
Feb	05	02:02	Luna	Cuarto Creciente
Feb	09	06:08	Mercurio	Oposición
Feb	12	07:53	Luna	Luna Llena
Feb	20	11:32	Luna	Cuarto Menguante
Feb	27	18:44	Luna	Luna Nueva
Feb	28	18:00	Mercurio	Elongación Máxima (15.64°)
Mar	06	10:31	Luna	Cuarto Creciente
Mar	12	04:28	Saturno	Conjunción
Mar	14	00:54	Luna	Luna Llena
Mar	14	00:58	Luna	Total
Mar	19	17:25	Neptuno	Conjunción
Mar	20	03:01	Sol	Equinoccio de Primavera
Mar	22	05:29	Luna	Cuarto Menguante
Mar	22	19:07	Venus	Conjunción
Mar	24	13:48	Mercurio	Conjunción
Mar	29	04:48	Sol	Eclipse Solar Parcial
Mar	29	04:57	Luna	Luna Nueva
Mar	31	18:00	Mínima separación 5.75° entre Mercurio y Venus (Sur)	Mínima separación
Abr	04	20:14	Luna	Cuarto Creciente
Abr	12	18:22	Luna	Luna Llena
Abr	20	19:35	Luna	Cuarto Menguante
Abr	27	13:31	Luna	Luna Nueva
Abr	30	18:00	Mercurio	Elongación Máxima (25.52°)
May	04	07:51	Luna	Cuarto Creciente
May	12	10:55	Luna	Luna Llena
May	17	17:32	Urano	Conjunción
May	20	05:58	Luna	Cuarto Menguante
May	26	21:02	Luna	Luna Nueva
May	29	22:12	Mercurio	Oposición
May	31	18:00	Venus	Elongación Máxima (45.88°)
Jun	02	21:40	Luna	Cuarto Creciente
Jun	11	01:43	Luna	Luna Llena
Jun	18	13:19	Luna	Cuarto Menguante
Jun	20	20:42	Sol	Solsticio de Verano
Jun	24	09:17	Júpiter	Conjunción
Jun	25	04:31	Luna	Luna Nueva
Jun	30	18:00	Mercurio	Elongación Máxima (25.68°)
Jul	02	13:30	Luna	Cuarto Creciente
Jul	03	14:11	Tierra	Afelio
Jul	10	14:36	Luna	Luna Llena
Jul	17	18:37	Luna	Cuarto Menguante

## Eventos planetarios, 2025

Mes	Día	Hora	Cuerpo Celeste	Evento
Jul	24	13:11	Luna	Luna Nueva
Jul	31	17:41	Mercurio	Conjunción
Jul	31	18:00	Mínima separación 10.84° entre Venus y Júpiter (Sur)	Mínima separación
Ago	01	06:41	Luna	Cuarto Creciente
Ago	09	01:55	Luna	Luna Llena
Ago	15	23:12	Luna	Cuarto Menguante
Ago	23	00:06	Luna	Luna Nueva
Ago	31	00:25	Luna	Cuarto Creciente
Sep	07	12:08	Luna	Luna Llena
Sep	07	12:11	Luna	Total
Sep	13	04:51	Mercurio	Oposición
Sep	14	04:32	Luna	Cuarto Menguante
Sep	20	23:45	Saturno	Oposición
Sep	21	13:43	Sol	Eclipse Solar Parcial
Sep	21	13:54	Luna	Luna Nueva
Sep	22	12:19	Sol	Equinoccio de Otoño
Sep	23	06:53	Neptuno	Oposición
Sep	29	17:53	Luna	Cuarto Creciente
Sep	30	18:00	Saturno	Elongación Máxima (169.38°)
Oct	06	21:47	Luna	Luna Llena
Oct	13	12:12	Luna	Cuarto Menguante
Oct	21	06:25	Luna	Luna Nueva
Oct	29	10:20	Luna	Cuarto Creciente
Oct	31	18:00	Mercurio	Elongación Máxima (23.77°)
Nov	05	07:19	Luna	Luna Llena
Nov	11	23:28	Luna	Cuarto Menguante
Nov	20	00:47	Luna	Luna Nueva
Nov	20	03:23	Mercurio	Conjunción
Nov	21	06:25	Urano	Oposición
Nov	28	00:58	Luna	Cuarto Creciente
Nov	30	18:00	Mínima separación 19.15° entre Venus y Marte (Norte)	Mínima separación
Dic	04	17:14	Luna	Luna Llena
Dic	11	14:51	Luna	Cuarto Menguante
Dic	19	19:43	Luna	Luna Nueva
Dic	21	09:03	Sol	Solsticio de Invierno
Dic	27	13:09	Luna	Cuarto Creciente

# Pasos cenitales del sol, 2025

Para algunas poblaciones de la República Mexicana

Población	mes	día	$\phi = \delta$		Paso cenital	
			h	m	h	m
<b>Aguascalientes</b>						
Calvillo	may	30	14	41	12	48
Aguascalientes	may	31	20	44	12	46
Puertecitos	may	31	09	46	12	46
Aguascalientes	jul	12	15	27	12	54
Puertecitos	jul	12	02	20	12	54
Calvillo	jul	13	21	33	12	56
<b>Baja California Sur</b>						
San José del Cabo	jun	11	18	53	13	18
San José del Cabo	jul	01	16	09	13	22
<b>Campeche</b>						
Isla del Carmen	may	14	03	27	12	03
Escárcega	may	14	23	34	11	59
Champotón	may	17	04	58	11	59
Dzibalchen	may	17	16	02	11	55
Iturbide	may	18	05	07	11	54
Lerma	may	19	06	19	12	00
Campeche	may	19	10	40	11	58
Bolonchenticul	may	20	04	54	11	55
Becal	may	22	09	05	11	56
Becal	jul	21	04	35	12	06
Bolonchenticul	jul	23	09	09	12	05
Lerma	jul	24	07	55	12	10
Campeche	jul	24	03	31	12	08
Iturbide	jul	25	09	18	12	04
Champotón	jul	26	09	38	12	09
Dzibalchen	jul	26	22	29	12	05
Isla del Carmen	jul	29	11	45	12	13
Escárcega	jul	29	15	40	12	09
<b>Chiapas</b>						
Cacahuatón	may	01	18	50	12	05
Jaltenango	may	04	18	03	12	07
Las Margaritas	may	05	07	04	12	04
Comitán	may	05	01	36	12	05
Chiapa de Corzo	may	06	16	33	12	08
Ocosingo	may	07	09	52	12	04
Pichucalco	may	09	15	32	12	08
Catazajá	may	10	11	42	12	04
Catazajá	ago	02	04	17	12	14
Pichucalco	ago	03	00	39	12	18
Ocosingo	ago	05	06	50	12	14
Chiapa de Corzo	ago	06	00	21	12	17
Las Margaritas	ago	07	10	12	12	13
Comitán	ago	07	15	44	12	14
Jaltenango	ago	09	23	38	12	16
Cacahuatón	ago	12	23	42	12	13
Puerto Madero	ago	13	21	27	12	14
Suchiate	ago	13	23	56	12	13
<b>Ciudad de México</b>						
Tlalpan	may	16	15	14	12	33
Chapultepec	may	17	11	03	12	33

Población	mes	día	$\phi = \delta$		Paso cenital	
			h	m	h	m
Ciudad Universitaria	may	17	02	03	12	33
Iztapalapa	may	17	05	11	12	32
México	may	17	11	45	12	32
Tacubaya	may	17	09	45	12	33
Azcapotzalco	may	18	19	05	12	33
Chapultepec	jul	26	03	30	12	43
Ciudad Universitaria	jul	26	12	35	12	43
Iztapalapa	jul	26	09	25	12	42
México	jul	26	02	48	12	43
Tacubaya	jul	26	04	49	12	43
Azcapotzalco	jul	26	19	25	12	43
Tlalpan	jul	27	23	28	12	43
<b>Colima</b>						
Manzanillo	may	16	21	05	12	53
Colima	may	16	16	55	12	51
Manzanillo	jul	27	17	47	13	03
Colima	jul	27	21	46	13	01
<b>Estado de México</b>						
San Antonio del Rosario	may	13	03	34	12	37
Ixtapan de la Sal	may	15	22	55	12	35
Tenancingo	may	15	11	54	12	34
Popocatepetl	may	15	17	47	12	30
Amecameca	may	16	04	43	12	31
Ozumba de Alzate	may	16	19	07	12	31
Tlalmanalco	may	16	13	27	12	31
Chalco	may	17	19	14	12	32
Naucalpan	may	17	17	55	12	33
Huexotla	may	18	18	21	12	31
Naucalpan	may	18	18	00	12	33
Texcoco	may	18	22	02	12	31
Tlalnepantla de Baz	may	18	00	41	12	33
Atlacomulco	may	19	05	50	12	32
Otumba	may	19	18	24	12	31
Tecámac	may	19	19	05	12	32
Atlacomulco	jul	24	08	24	12	42
Texcoco	jul	25	16	27	12	42
Tlalnepantla de Baz	jul	25	13	46	12	43
Otumba	jul	25	19	55	12	41
Tecámac	jul	25	19	14	12	42
Huexotla	jul	26	20	09	12	42
Amecameca	jul	27	10	05	12	41
Tlalmanalco	jul	27	01	16	12	41
Chalco	jul	27	19	27	12	42
Ixtapan de la Sal	jul	28	16	07	12	45
Tenancingo	jul	28	03	02	12	44

# Pasos cenitales del sol, 2025

Para algunas poblaciones de la República Mexicana

Población	mes	día	$\phi = \delta$		Paso cenital		Población	mes	día	$\phi = \delta$		Paso cenital	
			h	m	h	m				h	m		
Ozumba de Alzate	jul	28	19	46	12	41	Huichapan	jul	21	12	52	12	45
Popocatepetl	jul	28	21	06	12	41	Nopala	jul	22	03	59	12	45
San Antonio del Rosario	jul	30	11	50	12	47	Real del Monte	jul	22	17	19	12	41
<b>Guanajuato</b>							Tulancingo	jul	23	23	37	12	39
Abasolo	may	22	10	07	12	42	Pachuca	jul	23	19	17	12	41
Celaya	may	23	19	45	12	40	Tezontepec	jul	24	23	32	12	41
Irapuato	may	23	14	03	12	42	Apan	jul	25	18	36	12	40
Salamanca	may	23	00	46	12	41	<b>Jalisco</b>						
Guanajuato	may	25	11	21	12	42	Cihuatlán	may	16	16	26	12	54
San Miguel de Allende	may	25	21	26	12	39	Tecalitlán	may	17	17	18	12	49
Dolores Hidalgo	may	26	06	13	12	40	Cocula	may	22	03	41	12	51
León	may	26	01	10	12	43	Puerto Vallarta	may	23	06	37	12	57
Xichu	may	27	02	33	12	37	Guadalajara	may	24	18	29	12	50
Xichu	jul	16	10	16	12	46	Lagos de Moreno	may	27	10	37	12	44
Dolores Hidalgo	jul	17	06	44	12	49	Colotlán	jun	01	12	51	12	51
León	jul	17	11	50	12	52	Colotlán	jul	11	23	06	12	58
Guanajuato	jul	18	01	45	12	51	Lagos de Moreno	jul	16	02	08	12	53
San Miguel de Allende	jul	18	15	46	12	49	Puerto Vallarta	jul	20	06	53	13	07
Celaya	jul	20	17	50	12	49	Guadalajara	jul	20	18	55	12	59
Irapuato	jul	20	23	23	12	51	Cocula	jul	21	10	00	13	01
Salamanca	jul	20	12	46	12	51	Tecalitlán	jul	26	21	13	12	59
Abasolo	jul	21	03	32	12	52	Cihuatlán	jul	27	22	16	13	04
<b>Guerrero</b>							<b>Michoacán</b>						
Acapulco	may	07	06	00	12	36	Tacámbaro	may	16	15	41	12	42
San-Marcos	may	07	00	11	12	34	Uruapan	may	17	11	20	12	44
Chilpancingo	may	10	19	29	12	34	Janitzio	may	18	04	33	12	43
Petatlán	may	10	18	14	12	41	Pátzcuaro	may	18	00	49	12	42
Zihuatanejo	may	10	03	52	12	42	Cotija	may	19	06	54	12	47
Coyuca de Catalán	may	13	20	17	12	39	Morelia	may	19	18	55	12	41
Teloloapan	may	13	00	19	12	35	Zacapu	may	19	07	50	12	43
Taxco	may	14	18	39	12	34	Maravatio	may	19	15	59	12	38
Teloloapan	jul	30	15	07	12	45	Cotija	jul	24	07	19	12	57
Taxco	jul	30	20	38	12	44	Zacapu	jul	24	06	22	12	53
Coyuca de Catalán	jul	31	19	12	12	49	Maravatio	jul	24	22	10	12	48
Zihuatanejo	ago	02	12	11	12	52	Janitzio	jul	25	09	52	12	53
Chilpancingo	ago	03	20	39	12	44	Pátzcuaro	jul	25	13	38	12	53
Petatlán	ago	03	21	54	12	51	Morelia	jul	25	19	23	12	51
Acapulco	ago	05	10	45	12	45	Uruapan	jul	26	03	14	12	54
San-Marcos	ago	05	16	38	12	43	Tacámbaro	jul	27	23	02	12	52
<b>Hidalgo</b>							<b>Morelos</b>						
Apan	may	19	19	42	12	30	Cuatla	may	15	19	44	12	32
Tezontepec	may	19	14	38	12	31	Cuernavaca	may	15	06	52	12	33
Tulancingo	may	20	14	22	12	30	Oaxtepec	may	15	05	23	12	32
Nopala	may	21	09	51	12	35	Huitzilac	may	16	18	25	12	33
Pachuca	may	21	18	39	12	31	Cuernavaca	jul	28	08	07	12	43
Real del Monte	may	21	20	37	12	31	Oaxtepec	jul	28	09	36	12	42
Huichapan	may	22	00	51	12	35	Huitzilac	jul	28	20	27	12	43
Pisaflores	may	26	11	33	12	33	Cuatla	jul	29	19	20	12	42
Pisaflores	jul	17	01	22	12	42	<b>Nayarit</b>						
							Ixtlán del Río	may	25	13	39	12	54
							San Blas	may	28	14	11	12	58
							Tepic	may	28	09	58	12	56

# Pasos cenitales del sol, 2025

Para algunas poblaciones de la República Mexicana

Población	mes	día	$\phi = \delta$		Paso cenital		Población	mes	día	$\phi = \delta$		Paso cenital	
			h	m	h	m				h	m		
Mezcaltitan	may	31	00	23	12	59	Huejotzingo	may	16	08	00	12	29
Acaponeta	jun	04	14	07	12	59	Puebla de Zaragoza	may	16	19	53	12	29
Acaponeta	jul	08	21	27	13	06	Tlaltenango	may	16	09	12	12	29
Mezcaltitan	jul	12	11	47	13	07	Tonantzintla	may	16	18	58	12	29
San Blas	jul	15	22	23	13	07	San Martín Texmelucan	may	17	21	10	12	30
Tepic	jul	15	02	37	13	05	Huauchinango	may	21	01	32	12	28
Ixtlán del Río	jul	18	23	25	13	03	Huauchinango	jul	22	12	22	12	38
<b>Oaxaca</b>							San Martín Texmelucan	jul	26	17	30	12	40
Huatulco	may	03	14	28	12	22	Cholula	jul	27	16	48	12	39
Puerto Ángel	may	03	00	21	12	22	Cuatlancingo	jul	27	14	10	12	39
Salina Cruz	may	04	17	58	12	17	Huejotzingo	jul	27	06	46	12	40
Miahuatlán	may	05	08	33	12	23	Tlaltenango	jul	27	05	34	12	39
Salina Cruz	may	05	18	00	12	17	Atlixco	jul	28	08	44	12	40
Tehuantepec	may	05	08	28	12	17	Tecali de Herrera	jul	28	09	43	12	42
Juchitán de Zaragoza	may	05	16	55	12	16	Popocatépetl	jul	28	21	06	12	41
Guichicovi	may	07	15	56	12	17	Puebla de Zaragoza	jul	28	18	59	12	39
Villa de Etla	may	08	12	18	12	23	Tonantzintla	jul	28	19	54	12	39
Oaxaca de Juárez	may	08	23	29	12	23	Izúcar de Matamoros	jul	29	15	56	12	40
Putla	may	08	20	10	12	28	Tepexi de Rodríguez	jul	30	18	08	12	38
Tlaxiaco	may	08	17	40	12	27	Chila de la Asunción	ago	01	05	09	12	37
Guelatao de Juárez	may	09	22	33	12	22	<b>Querétaro</b>						
Valle Nacional	may	10	07	06	12	21	San Juan del Río	may	22	02	50	12	36
Ocotepc	may	11	18	10	12	21	Querétaro	may	23	03	49	12	38
Huautla	may	12	01	33	12	23	Cadereyta	may	23	16	41	12	36
Huautla	jul	31	14	05	12	33	Jalpan de Serra	may	26	15	02	12	34
Valle Nacional	ago	02	08	55	12	31	Arroyo Seco	may	28	15	19	12	36
Ocotepc	ago	02	21	46	12	31	Arroyo Seco	jul	15	21	14	12	44
Guelatao de Juárez	ago	03	17	48	12	32	Jalpan de Serra	jul	17	21	52	12	44
Villa de Etla	ago	04	04	08	12	33	Querétaro	jul	20	09	42	12	47
Oaxaca de Juárez	ago	04	17	06	12	32	Cadereyta	jul	20	20	44	12	45
Tlaxiaco	ago	04	22	44	12	36	San Juan del Río	jul	21	10	52	12	46
Guichicovi	ago	05	00	43	12	26	<b>Quintana Roo</b>						
Putla	ago	05	20	26	12	37	Xcalak	may	12	10	34	11	47
Miahuatlán	ago	07	08	42	12	32	Chetumal	may	13	12	41	11	49
Tehuantepec	ago	07	08	47	12	26	Santa Cruz Chico	may	15	08	49	11	48
Juchitán de Zaragoza	ago	07	00	14	12	25	Carrillo Puerto	may	18	05	15	11	48
Huatulco	ago	09	03	16	12	30	Cozumel	may	23	18	55	11	44
Puerto Ángel	ago	09	17	32	12	31	Kantunilkín	may	26	22	59	11	47
<b>Puebla</b>							Cabo Catoche	may	29	00	19	11	45
Chila de la Asunción	may	11	10	37	12	27	Cabo Catoche	jul	14	12	10	11	54
Izúcar de Matamoros	may	14	23	18	12	30	Kantunilkín	jul	17	14	02	11	56
Tepexi de Rodríguez	may	14	21	08	12	28	Cozumel	jul	21	18	40	11	54
Atlixco	may	15	06	14	12	30	Carrillo Puerto	jul	25	09	10	11	58
Tecali de Herrera	may	15	05	16	12	32	Santa Cruz Chico	jul	28	06	08	11	59
Popocatépetl	may	15	17	47	12	30							
Cholula	may	16	22	03	12	29							
Cuatlancingo	may	16	00	40	12	29							

# Pasos cenitales del sol, 2025

Para algunas poblaciones de la República Mexicana

Población	mes	día	$\phi = \delta$		Paso cenital		Población	mes	día	$\phi = \delta$		Paso cenital	
			h	m	h	m				h	m		
Chetumal	jul	30	02	39	11	59	Rizo	may	16	21	14	12	20
Xcalak	jul	31	04	59	11	57	Veracruz	may	16	12	28	12	20
<b>San Luis Potosí</b>							Xalapa	may	18	23	20	12	24
Tamazunchale	may	27	21	49	12	32	Martínez de la Torre	may	20	12	04	12	24
Rio Verde	may	31	04	48	12	37	Actopan	may	21	12	08	12	24
San Luis Potosí	jun	02	19	53	12	42	Coatzintla	may	22	14	18	12	26
Arista	jun	06	00	57	12	42	Papantla	may	22	09	45	12	25
Arista	jul	06	10	27	12	48	Tehuacán	may	24	20	25	12	27
San Luis Potosí	jul	10	16	01	12	49	Tuxpan	may	25	02	45	12	26
Rio Verde	jul	12	07	21	12	45	Chicontepec	may	25	05	28	12	29
Tamazunchale	jul	16	15	02	12	41	Ixcatepec	may	26	17	59	12	29
<b>Sinaloa</b>							Ixcatepec	may	27	18	00	12	29
Mazatlán	jun	13	22	05	13	05	Tantoyuca	may	27	10	06	12	30
Mazatlán	jun	29	12	48	13	09	Tantoyuca	jul	16	02	40	12	39
<b>Tabasco</b>							Tuxpan	jul	18	10	25	12	35
Tapijulapa	may	09	11	31	12	07	Chicontepec	jul	18	07	41	12	38
Astapa	may	10	16	20	12	08	Tehuacán	jul	19	16	58	12	36
Tierra Colorada	may	11	08	57	12	06	Coatzintla	jul	21	23	19	12	36
Villahermosa	may	11	11	54	12	08	Papantla	jul	21	03	54	12	35
Comalcalco	may	12	14	22	12	09	Actopan	jul	22	01	40	12	34
Ignacio Allende	may	13	02	06	12	07	Martínez de la Torre	jul	23	01	56	12	34
Ignacio Allende	jul	30	13	19	12	17	Xalapa	jul	25	15	08	12	34
Comalcalco	jul	31	01	09	12	19	Huatusco	jul	27	07	35	12	34
Tierra Colorada	ago	01	06	50	12	16	Rizo	jul	27	17	37	12	30
Villahermosa	ago	01	03	51	12	18	Veracruz	jul	27	02	16	12	31
Astapa	ago	02	23	37	12	18	Córdoba	jul	28	10	24	12	34
Tapijulapa	ago	03	04	42	12	17	Orizaba	jul	28	14	51	12	34
<b>Tamaulipas</b>							Pico de Orizaba	jul	28	19	51	12	35
Ocampo	may	24	11	47	12	34	Tamarindo	jul	29	00	20	12	32
Jaumave	jun	18	09	04	12	38	Tlacotalpan	jul	29	14	59	12	29
Jaumave	jun	24	00	59	12	40	Alvarado	jul	29	22	54	12	29
Ocampo	jul	19	01	29	12	43	Tierra Blanca	jul	30	06	56	12	31
<b>Tlaxcala</b>							Tehuipango	jul	30	00	01	12	34
Cuauhutotouatlán	may	16	03	53	12	29	Coatzacoalcos	jul	31	12	24	12	24
Huamantla	may	17	00	32	12	28	Minatitlán	ago	01	04	36	12	24
Tlaxcala	may	17	00	52	12	29	Playa Vicente	ago	02	18	19	12	29
Huamantla	jul	26	14	06	12	38	<b>Yucatán</b>						
Tlaxcala	jul	26	13	46	12	39	Becanchén	may	19	14	09	11	53
Cuauhutotouatlán	jul	27	10	55	12	39	Maxcanú	may	23	02	56	11	56
<b>Veracruz</b>							Celestún	may	24	14	08	11	58
Minatitlán	may	11	11	10	12	14	Mérida	may	25	06	33	11	55
Playa Vicente	may	11	21	34	12	19	Tizimín	may	26	03	06	11	49
Coatzacoalcos	may	12	03	13	12	13	Chabihau	may	27	10	57	11	53
Tierra Blanca	may	13	08	26	12	21	Progreso	may	27	02	35	11	55
Tehuipango	may	13	15	17	12	24	Telchac	may	27	08	48	11	54
Tamarindo	may	14	14	46	12	21	Chabihau	jul	16	01	48	12	02
Tlacotalpan	may	14	00	15	12	18	Progreso	jul	16	10	13	12	04
Alvarado	may	14	16	12	12	19	Telchac	jul	16	03	58	12	03
Córdoba	may	15	04	36	12	24	Tizimín	jul	17	09	53	11	58
Orizaba	may	15	00	11	12	24	Mérida	jul	18	06	35	12	04
Huatusco	may	16	07	11	12	24							
Pico de Orizaba	may	16	19	01	12	25							

# Pasos cenitales del sol, 2025

Para algunas poblaciones de la República Mexicana

Población	mes	día	$\phi = \delta$		Paso cenital		Población	mes	día	$\phi = \delta$		Paso cenital	
			h	m	h	m				h	m		
Celestún	jul	19	23	08	12	07	Calera	jun	09	08	05	12	50
Maxcanú	jul	20	10	35	12	06	Fresnillo	jun	12	12	57	12	51
Becanchén	jul	24	00	00	12	03	Fresnillo	jun	30	21	58	12	55
<b>Zacatecas</b>							Calera	jul	03	03	03	12	55
Nochistlán	may	27	11	43	12	48	Pánuco	jul	04	23	28	12	54
Juchipila	may	28	19	00	12	49	Observatorio Astro	jul	05	13	48	12	54
Villanueva	jun	03	10	24	12	49	Jerez	jul	06	10	08	12	56
Jerez	jun	06	01	17	12	50	Villanueva	jul	09	01	18	12	56
Observatorio Astro	jun	07	21	31	12	49	Juchipila	jul	15	17	41	12	58
Pánuco	jun	08	11	43	12	49	Nochistlán	jul	16	01	02	12	57

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# Fases de la Luna, 2025

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## Luna Nueva

Mes	Día	Hora	Minuto
ene	29	6	36
feb	28	18	45
mar	29	4	58
abr	27	13	31
may	27	21	02
jun	25	4	32
jul	24	13	11
ago	23	0	07
sep	21	13	54
oct	21	6	25
nov	20	0	47
dic	20	19	43

## Luna Llena

Mes	Día	Hora	Minuto
ene	13	16	27
feb	12	7	53
mar	14	0	55
abr	13	18	22
may	12	10	56
jun	11	1	44
jul	10	14	37
ago	09	1	55
sep	07	12	09
oct	07	21	48
nov	05	7	19
dic	04	17	14

## Cuarto Creciente

Mes	Día	Hora	Minuto
ene	06	17	56
feb	05	2	02
mar	06	10	32
abr	05	20	15
may	04	7	52
jun	03	21	41
jul	02	13	30
ago	01	6	41
ago	31	0	25
sep	29	17	54
oct	29	10	21
nov	28	0	59
dic	27	13	10

## Cuarto Menguante

Mes	Día	Hora	Minuto
ene	21	14	31
feb	20	11	33
mar	22	5	29
abr	21	19	36
may	20	5	59
jun	18	13	19
jul	18	18	38
ago	16	23	12
sep	14	4	33
oct	13	12	13
nov	12	23	28
dic	11	14	52

# Crepúsculos, salidas y puestas de Sol, 2025

Hora local

LATITUD 30°

							LATITUD 30°								
		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
Feb	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
	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
Mar	24	5 11	6 07	6 31	17 56	18 20	19 15	Sep	29	4 12	5 11	5 35	18 26	18 50	19 49
	2	5 05	6 01	6 25	18 00	18 24	19 19		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
Abr	26	4 36	5 33	5 56	18 15	18 39	19 36	Oct	28	4 32	5 28	5 52	17 49	18 13	19 08
	1	4 28	5 25	5 49	18 19	18 43	19 40		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
May	25	3 57	4 58	5 23	18 34	18 59	19 59	Nov	28	4 50	5 47	6 11	17 16	17 41	18 37
	1	3 50	4 52	5 17	18 38	19 03	20 05		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
Jun	25	3 28	4 35	5 02	18 53	19 19	20 26	Dic	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		3	5 15	6 14	6 40	17 00	17 26	18 25
	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	5 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	5 59	19 04	19 31	20 40		21	5 26	6 25	6 52	17 05	17 31	18 30
Ene	24	3 24	4 33	5 00	19 05	19 32	20 41	Ene	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		2	5 31	6 30	6 56	17 12	17 38	18 37

LATITUD 25°

							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
Ene	1	5 24	6 20	6 45	17 22	17 47	18 44	May	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		1	4 03	5 00	5 24	18 30	18 54	19 52
Feb	3	5 25	6 19	6 43	17 44	18 08	19 03	Jun	7	3 57	4 56	5 20	18 33	18 58	19 56
	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	Jul	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		6	3 47	4 50	5 16	18 54	19 19	20 22

# Crepúsculos, salidas y puestas de Sol, 2025

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
Ago	12	3 51	4 53	5 18	18 53	19 18	20 20	Nov	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
	5	4 07	5 05	5 30	18 42	19 06	20 05		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
Sep	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	
	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	
Oct	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	
	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
Feb	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	
	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	
Mar	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	
	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	18 11	18 33	19 24	18	4 08	5 06	5 30	18 42	19 06	20 04	
Abr	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	
	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, 2025

Hora local

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
Sep	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
	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
Oct	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
	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

LATITUD 15°

		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
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
May	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	
	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
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	

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# Eclipses 2025

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Hora del meridiano 90° W.G.

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En este año 2025 ocurrirán cuatro eclipses, dos de luna y dos de sol.

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## I Eclipse total de luna del 13 al 14 de marzo del 2025, se observará en la República Mexicana.

Este eclipse se observará, en su fase penumbral inicial, en las regiones del Pacífico. Su fase penumbral final se observará en Europa y África del este. El máximo del eclipse penumbral se observará en el Continente Americano y el Océano Pacífico, exceptuando la región oriental de Brasil y Groenlandia.

### *Circunstancias del eclipse*

Fase	m	d	h	m	s
Inicia el eclipse parcial penumbral	Mar	13	21	57	24
Inicial el eclipse umbral	Mar	13	23	9	33
Máximo del eclipse	Mar	14	0	58	41
Fin del eclipse umbral	Mar	14	2	47	48
Fin del eclipse parcial penumbral	Mar	14	4	0	1

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## II Eclipse parcial de sol el 29 de marzo de 2025, no se observará en la República Mexicana.

Este eclipse se observará al extremo noreste del continente americano, Groenlandia, oeste de Europa, oeste de Asia y en el extremo norte del Océano Atlántico.

### *Circunstancias del eclipse*

Fase	m	d	h	m	s
Inicia el eclipse parcial penumbral	Mar	29	2	50	34.9
Máximo del eclipse	Mar	29	4	47	18
Fin del eclipse parcial penumbral	Sep	29	6	43	36.2

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**III Eclipse total de luna el 7 de septiembre del 2025, no se observará en la República Mexicana.**

Este eclipse se observará, en su fase penumbral inicial, en las regiones de África. Su fase penumbral final se observará en el este de Australia y Japón. El máximo del eclipse penumbral se observará en el Continente Europa, Asia y parte de Australia.

*Circunstancias del eclipse*

Fase	m	d	h	m	s
Inicia el eclipse parcial penumbral	Sep	7	9	28	21
Inicial el eclipse umbral	Sep	7	10	27	2
Máximo del eclipse	Sep	7	12	11	43.1
Fin del eclipse umbral	Sep	7	13	56	26
Fin del eclipse parcial penumbral	Sep	7	14	55	0

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**IV Eclipse parcial de sol del 21 de septiembre del 2025, no se observará en la República Mexicana.**

Este eclipse se observará, en su fase penumbral inicial, en las regiones de Nueva Zelanda. Su fase penumbral final se observará en Nueva Zelanda y la Antártida. El máximo del eclipse penumbral se observará en Nueva Zelanda y la Antártida.

*Circunstancias del eclipse*

Fase	m	d	h	m	s
Inicia el eclipse parcial penumbral	Sep	21	11	29	31.8
Máximo del eclipse	Sep	21	13	41	43.6
Fin del eclipse parcial penumbral	Sep	21	15	53	33.3

# Poblaciones de la República Mexicana, 2025

## Coordenadas geográficas (INEGI-2020)

ESTADO Población	latitud			longitud			alt m	$\delta m$		$\Delta \delta m$ '/año
	°	'	"	°	'	"		°	'	
<b>Aguascalientes</b>										
Aguascalientes	21	52	43	102	18	4	1888	5	11	-7
Asientos	22	14	18	102	5	29	2164	5	6	-7
Calvillo	21	50	45	102	44	14	1702	5	20	-7
Jesús María	21	57	45	102	20	48	1907	5	12	-7
Puertecito	21	57	52	102	15	15	2052	5	10	-7
Rincón de Romos	22	13	49	102	19	22	1957	5	11	-7
<b>Baja California</b>										
Bailador Isla	31	56	56	116	5	12	0	10	54	-6
Cedros Isla	28	3	53	115	11	35	0	10	0	-6
Ensenada	31	51	10	116	38	9	2	11	0	-6
Granito Isla	29	33	0	113	32	0	0	9	51	-6
Guadalupe Isla	29	10	45	118	19	30	0	10	51	-5
Mejía Isla	29	33	8	113	35	18	0	9	52	-6
Mexicali	32	40	0	115	27	0	0	10	52	-6
Miramar isla	30	2	30	114	31	30	0	10	11	-6
Salsipuedes Isla	28	44	0	112	50	30	0	9	32	-6
San Benito Isla	28	18	8	115	36	12	0	10	8	-6
San Felipe	31	1	36	114	49	46	0	10	25	-6
San Jerónimo Isla	29	47	20	115	48	14	0	10	54	-6
San Pedro Mártir	31	2	39	115	27	49	2800	10	35	-6
San Quintín	30	22	16	115	59	10	0	10	35	-6
<b>Baja California Sur</b>										
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
Danazante 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	133	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	121	98	7	54	-6
Tortugas Isla	27	26	59	111	52	59	0	8	59	-5
<b>Campeche</b>										
Becal	20	26	34	90	1	36	12	0	-32	-8
Bolonchenticul	20	26	21	89	44	53	14	0	-39	-8
Calkini	20	22	21	90	3	3	52	0	-31	-8
Campeche	19	50	47	90	32	14	5	0	-11	-8

# Poblaciones de la República Mexicana, 2025

## Coordenadas geográficas (INEGI-2020)

ESTADO Población	latitud			longitud			alt m	$\delta m$		$\Delta\delta m$ '/año
	°	'	''	°	'	''		°	'	
Carmen	18	38	22	91	50	16	3	0	39	-8
Carmen Isla	18	38	44	91	50	16	3	0	39	-8
Champoton	19	21	4	90	43	0	27	0	-2	-8
Dzibalchen	19	27	41	89	43	55	100	0	-36	-8
Escárcega	18	36	25	90	43	55	75	0	-4	-8
Hontun	19	34	49	90	11	12	50	0	-21	-8
Holpechen	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
Paliizada	19	6	13	92	4	42	46	0	44	-8
Pital	18	33	3	91	7	41	20	0	17	-8
Río Desenpeño	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
<b>Coahuila</b>										
Acuña	29	19	33	100	55	51	200	4	49	-7
Allende	28	20	36	100	51	6	374	4	44	-7
Cuatro Ciénegas	26	58	19	102	4	9	742	5	14	-7
Jimenez	29	4	21	100	40	21	290	4	41	-7
Laguna de Jaco	27	57	28	103	57	6	1350	6	6	-7
Monclova	26	54	14	101	25	8	586	4	57	-7
Muzquiz	27	52	51	101	30	56	504	5	2	-7
Parras	25	27	0	102	10	0	1683	5	13	-7
Piedras Negras	28	42	25	100	31	2	220	4	35	-7
Sabinas	27	50	34	101	7	23	340	4	51	-7
Saltillo	25	26	37	100	59	22	1529	4	43	-7
San Pedro de Colonias	25	45	24	102	59	1	1103	5	34	-7
Sierra Mojada	27	17	8	103	42	7	1256	5	57	-7
Torreón	25	32	18	103	27	55	1140	5	45	-7
Unión	28	14	0	100	44	30	0	4	41	-7
Viesca	25	20	46	102	48	19	1093	5	29	-7
Zaragoza	28	30	36	100	52	8	540	4	45	-7
<b>Colima</b>										
Colima	19	14	29	103	43	47	508	5	38	-7
Madrid	19	4	57	103	52	38	120	5	41	-7
Manzanillo	19	3	15	104	19	46	3	6	50	-6
Socorro Isla	18	42	57	110	56	53	0	7	32	-5
Tecomán	18	54	31	103	52	38	80	5	41	-7
<b>Chiapas</b>										
Acapetahua	15	16	20	92	41	19	23	1	23	-8
Arista	15	56	8	93	48	41	0	1	51	-8
Cacahuantón	14	59	31	92	9	46	630	1	9	-8
Catazaja	17	43	56	92	1	57	7	0	46	-7
Cintalapa	16	41	58	93	43	24	545	1	43	-8
Comitán	16	15	12	92	7	41	1530	0	59	-8
Chiapa de Corzo	16	42	28	93	1	5	415	1	23	-8
Escuintla	15	18	53	92	39	58	110	1	21	-8

# Poblaciones de la República Mexicana, 2025

## Coordenadas geográficas (INEGI-2020)

ESTADO Población	latitud			longitud			alt m	$\delta m$		$\Delta\delta m$ '/año
	°	'	''	°	'	''		°	'	
Huixtla	15	7	41	92	28	34	28	1	17	-8
Jaltenango	15	52	12	92	43	35	667	1	19	-8
Juárez	17	39	8	93	9	47	152	1	21	-7
La Grandeza	15	30	46	92	13	38	1950	1	7	-8
Las Margaritas	15	32	35	93	5	46	1512	1	32	-8
Mapastepec	15	25	52	92	25	59	35	1	18	-8
Mazatán	14	51	43	92	25	59	35	1	18	-8
Ocosingo	16	54	38	92	5	45	908	0	53	-7
Ocozacoautla	16	45	55	93	22	37	864	1	33	-8
Pichucalco	17	31	46	93	7	24	100	1	21	-7
Pueblo Nuevo	15	12	37	92	35	7	28	1	20	-8
Puerto Madero	14	42	59	93	25	37	2	1	47	-8
San Bartolomé	16	19	29	92	33	36	804	1	11	-8
Suchiate	14	40	23	92	9	12	22	1	11	-8
Tonalá	16	5	14	93	45	21	55	1	48	-8
Tuxtla Gutiérrez	16	45	20	93	6	46	528	1	25	-8
Villa Flores	16	14	8	93	16	3	610	1	33	-8
Yajalon	17	10	57	92	20	24	849	0	59	-7
<b>Chihuahua</b>										
Ahumada	30	37	18	106	31	12	1181	7	22	-7
Camargo	27	41	49	105	10	9	1653	6	34	-7
Ciénaga de Ortiz	28	8	15	106	12	11	1300	7	0	-7
Ciudad Guerrero	28	32	57	107	29	27	2000	7	31	-7
Ciudad Jiménez	27	7	52	104	55	29	1381	6	25	-7
Ciudad Juárez	31	44	19	106	29	15	1144	7	28	-7
Coyame	29	27	42	105	5	44	1062	6	41	-7
Cuchillo Parado	29	26	34	104	52	58	0	6	36	-7
Cusihuirachi	28	14	25	106	50	13	1985	7	15	-7
Chihuahua	28	38	12	106	4	42	1430	7	0	-7
Chinipas	27	23	24	108	32	22	1640	7	45	-7
Galeana	30	6	52	107	37	51	1431	7	44	-7
Guadalupe	31	23	27	106	6	13	1113	7	17	-7
Guadalupe y Calvo	26	6	6	106	58	2	0	7	5	-7
Guerrero	28	32	57	107	29	18	2000	7	31	-7
Meoqui	28	16	36	105	29	16	1155	6	44	-7
Namiquipa	29	15	5	107	24	34	1828	7	33	-7
Ocampo	28	10	59	108	22	27	1732	7	47	-7
Ojinaga	29	33	53	104	25	23	841	6	25	-7
Parral Hidalgo del	26	56	4	105	39	58	1661	6	41	-7
Placer de Guadalupe	29	9	41	105	22	57	0	6	46	-7
San Buenaventura	29	50	47	107	29	10	1574	7	39	-7
San Ignacio	27	10	21	106	19	28	970	6	57	-7
Santa Bárbara	26	48	13	105	49	1	1969	6	44	-7
Santa Isabel	28	20	34	106	22	1	1630	7	5	-7
Satevo	27	57	17	106	6	32	1368	6	57	-7
Temosachic	28	57	12	107	49	50	1900	7	41	-7
Valle de Zaragoza	27	27	40	105	48	35	0	6	47	-7

# Poblaciones de la República Mexicana, 2025

## Coordenadas geográficas (INEGI-2020)

ESTADO Población	latitud			longitud			alt m	$\delta m$		$\Delta \delta m$ '/año
	°	'	''	°	'	''		°	'	
Valle del Rosario	27	19	5	106	17	41	1480	6	57	-7
<b>Ciudad de México</b>										
Álamo	19	23	55	99	8	30	2246	3	57	-8
Azcapotzalco	19	28	48	99	11	7	2277	3	58	-8
Ciudad Universitaria	19	20	1	99	10	54	2280	3	58	-8
Coyoacán	19	20	54	99	9	45	2278	3	58	-8
Cuajimalpa	19	21	33	99	18	1	2783	4	1	-8
Chapultepec	19	25	11	99	10	52	2310	3	58	-8
Churubusco	19	21	17	99	8	56	2260	3	58	-8
Guadalupe Hidalgo	19	29	9	99	6	56	2260	3	57	-8
Iztacalco	19	23	22	99	7	16	2261	3	57	-8
Iztapalapa	19	23	55	99	8	30	2246	3	57	-8
La Piedad	19	24	3	99	9	20	2253	3	58	-8
México	19	25	59	99	7	58	2233	3	57	-8
Mixcoac	19	22	37	99	10	55	2246	3	58	-8
Mixquic	19	13	28	99	57	52	2260	3	53	-8
Nativitas	19	23	12	99	8	48	2246	3	57	-8
San Jerónimo	19	19	33	99	13	20	2394	3	59	-8
San Simón	19	22	36	99	8	39	2246	3	58	-8
Tacubaya	19	24	10	99	11	40	2298	3	59	-8
Tlahuac	19	17	16	99	0	16	2264	3	58	-8
Tlalpan	19	20	41	99	9	57	2246	3	58	-8
Villa Obregón	19	20	41	99	11	21	2340	3	59	-8
Xochimilco	19	15	44	99	6	7	2274	3	57	-8
<b>Durango</b>										
Ciudad Lerdo	25	32	14	103	31	28	1135	5	46	-7
Cuencame	24	52	18	103	38	6	1889	5	47	-7
Durango	24	1	31	104	40	11	1889	6	7	-7
Gómez Palacio	25	34	18	103	30	17	1195	5	46	-7
Guanacevi	25	55	59	105	57	31	2230	6	43	-7
Inde	25	54	45	105	10	16	2049	6	26	-7
Llano Grande	23	52	2	105	12	17	2406	6	18	-7
Mezquital	23	28	57	104	22	18	1468	5	59	-7
Nazas	25	13	40	104	6	53	1264	5	59	-7
Nombre de Dios	23	51	4	104	15	25	1855	5	58	-7
Pueblo Nuevo	23	22	35	105	22	18	1982	6	20	-7
San Juan de Guadalupe	24	37	0	102	45	8	1520	5	26	-7
San Juan del Río	24	46	45	104	23	22	1737	6	4	-7
Santa María del Oro	25	56	53	105	19	56	1871	6	29	-7
Santa María Ocotlán	22	54	44	104	36	10	365	6	3	-7
Santiago Papasquiaro	25	2	47	105	25	30	1716	6	28	-7
Tamazula	24	58	11	106	58	13	240	6	59	-7
Tayoltita	24	6	27	105	55	230	500	6	34	-7
Tepehuanes	25	21	19	105	47	9	1967	6	37	-7
Tizonazo	25	58	4	105	15	33	1981	6	28	-7
Topia	25	12	19	106	34	34	1851	6	52	-7

# Poblaciones de la República Mexicana, 2025

## Coordenadas geográficas (INEGI-2020)

ESTADO Población	latitud			longitud			alt m	$\delta m$		$\Delta\delta m$ '/año
	°	'	''	°	'	''		°	'	
Tlahualilo	26	6	31	103	26	21	1132	5	46	-7
<b>Guerrero</b>										
Acapulco	16	50	21	99	55	1	82	4	21	-8
Acayahualco	18	13	30	99	28	52	790	4	8	-8
Coahuayutla	18	18	52	101	48	37	358	5	0	-7
Coatepec	18	20	22	99	42	56	1260	4	13	-8
Coyuca de Catalán	18	20	2	100	39	0	210	4	35	-8
Chaucingo	18	18	7	99	6	53	810	3	59	-8
Chilpancingo	17	33	10	99	30	3	1360	4	10	-8
Huamuxtitlán	17	48	37	99	34	2	1125	4	11	-8
Iguala	18	21	1	99	32	24	731	4	9	-8
La Unión	17	58	52	101	48	49	174	5	0	-7
Mayanalan	18	10	29	99	26	1	0	4	7	-8
Mezcala	17	56	13	99	36	6	420	4	12	-8
Pericotepec	17	57	40	100	13	0	770	4	26	-8
Petatlán	17	32	8	101	17	0	0	4	50	-7
Placeres de Oro	18	14	31	100	53	57	0	4	40	-8
San Jerónimo	17	5	55	100	28	26	0	4	33	-8
San Luis de la Loma	17	15	42	100	53	48	0	4	42	-8
San Marcos	16	47	31	99	20	41	210	4	9	-8
Santa Fe Tepetlapa	18	33	5	99	25	19	1090	4	6	-8
Taxco	18	33	16	99	36	20	1755	4	10	-8
Teloloapan	18	22	6	99	52	31	1620	4	17	-8
Tonalapa del Río	18	20	38	99	41	6	750	4	13	-8
Tepantitlancoa	18	0	26	100	17	6	820	4	27	-8
Tepecoacuilco	18	17	10	99	27	55	1012	4	8	-8
Tetela del Río	17	59	7	100	4	50	350	4	22	-8
Tlaczotitlán	17	53	29	99	7	51	560	4	1	-8
Tlapehuala	18	41	21	100	31	18	235	4	32	-8
Zihuatanejo	17	38	14	9101	33	48	0	4	55	-7
Zirandaro	18	29	4	100	58	0	193	4	41	-8
<b>Guanajuato</b>										
Abasolo	20	26	59	100	31	48	1760	4	29	-8
Acámbaro	20	2	1	100	43	24	1947	4	34	-8
Apaseo	20	32	37	100	41	7	1767	4	34	-8
Apaseo El Alto	20	27	25	100	37	13	1853	4	31	-8
Atargea	21	16	5	99	43	5	1258	4	9	-8
C. González	21	28	44	101	12	52	2140	4	45	-8
Celaya	20	31	24	100	48	55	1808	4	36	-8
Cerano	20	6	41	101	23	26	0	4	49	-8
Comonfort	20	43	51	100	45	51	1795	4	35	-8
Coroneo	20	11	42	100	21	59	1998	4	26	-8
Cortázar	20	28	59	100	52	58	1800	4	38	-8
Cubilete E.	29	0	25	101	22	30	2480	4	49	-8
Cueramaro	20	37	36	101	10	23	1785	4	56	-8
Dolores Hidalgo	21	9	32	100	56	0	1987	4	39	-8
Guanajuato	21	1	1	101	15	20	2050	4	46	-8

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## Coordenadas geográficas (INEGI-2020)

ESTADO Población	latitud			longitud			alt m	$\delta m$		$\Delta \delta m$ '/año
	°	'	''	°	'	''		°	'	
Huanimaro	20	22	1	101	29	45	2459	4	52	-8
Ibarra	21	28	53	101	32	23	2110	4	53	-8
Irapuato	20	40	28	101	20	51	1795	4	48	-8
Iturbide	21	0	3	100	23	4	0	4	26	-8
Jaral del Progreso	20	22	11	101	13	45	1743	4	26	-8
Jerecuaro	20	9	3	100	30	43	0	4	29	-8
León	21	7	22	101	41	0	1885	4	56	-8
Manuel Doblado	20	43	49	101	57	14	1795	5	2	-8
Mora	21	8	47	100	19	0	2128	4	24	-8
Moroleón	20	7	54	101	11	36	1772	4	45	-8
Pénjamo	20	25	44	101	43	22	1700	4	57	-8
Pueblo Nuevo	20	31	35	101	22	18	1714	4	49	-8
Purísima de Bustos	21	1	48	101	52	36	1780	5	0	-8
Romita	20	52	14	101	31	7	1792	4	52	-8
Salamanca	20	34	22	101	11	39	1721	4	25	-8
Salvatierra	20	12	56	100	53	46	1749	4	38	-8
San Diego de la Unión	21	27	56	100	52	25	2080	4	37	-8
San Francisco del Rincón	21	1	2	101	51	36	1721	5	0	-8
San Juan de los Llanos	21	16	47	101	19	4	0	4	48	-8
San José	20	56	13	100	58	32	2002	4	40	-8
San Luis de la Paz	21	17	57	100	30	52	2020	4	28	-8
San Miguel de Allende	20	54	52	100	44	47	1870	4	34	-8
Santa Catarina	21	8	27	100	14	10	1845	4	22	-8
Santa Cruz Galeana	20	38	35	100	59	50	0	4	40	-8
Santaigo Maravatio	20	10	28	100	59	38	1790	4	40	-8
Silao	20	56	24	101	25	59	1780	4	50	-8
Tarandacua	20	1	14	100	32	3	1920	4	30	-8
Tarimoro	20	17	39	100	45	20	1790	4	35	-8
Tierra Blanca	21	6	9	100	4	44	1760	4	18	-8
Uriangato	20	8	46	100	8	10	1800	4	20	-8
Valle de Santiago	20	23	21	100	11	21	1760	4	45	-8
Victoria	21	12	13	100	13	9	1760	4	21	-8
Villa Ocampo	21	38	52	101	28	50	2420	4	51	-8
Villagrán	20	29	40	100	59	52	1790	4	40	-8
Xichu	21	18	0	100	3	37	1334	4	17	-8
Yuriria	20	12	51	100	8	19	1882	4	20	-8
<b>Hidalgo</b>										
Acayuca	20	1	48	98	50	30	2570	3	49	-8
Actopan	20	16	12	98	50	30	2069	2	58	-8
Ahuehuevo	21	1	43	98	54	24	2500	3	49	-8
Altajayucan	20	24	40	99	20	59	1898	4	1	-8
Apan	19	39	35	98	24	10	2493	3	38	-8
Atotonilco Grande	20	17	6	98	40	13	2138	3	44	-8
Bonanza	20	43	12	99	14	36	0	3	58	-8
Chapantongo	20	17	16	99	24	50	2145	4	2	-8
Chapulhuacan	21	9	29	98	54	22	150	3	48	-8
Chicautla	20	19	54	99	13	49	1884	3	58	-8

# Poblaciones de la República Mexicana, 2025

## Coordenadas geográficas (INEGI-2020)

ESTADO Población	latitud			longitud			alt m	$\delta m$		$\Delta\delta m$ '/año
	°	'	''	°	'	''		°	'	
Epazoyuca	20	1	33	98	37	26	2461	3	43	-8
Huasca	20	12	12	98	34	42	0	3	42	-8
Huautla	21	2	3	98	16	54	0	3	32	-8
Huejutla	20	1	48	98	24	58	249	3	36	-8
Huichapan	20	22	37	99	38	58	2102	4	8	-8
Ixmiquilpan	20	29	4	99	13	5	1745	3	57	-8
Metxtitlán	20	35	45	98	45	30	1353	3	45	-8
Mexquititlán	20	32	0	98	38	27	1421	3	43	-8
Nopala	20	15	19	98	38	52	2437	3	43	-8
Orizatlán	21	10	35	98	36	40	0	3	41	-8
Pachuca	20	7	44	98	43	54	2426	3	46	-8
Pisa Flores	21	11	44	99	0	15	0	3	51	-8
Real del Monte	20	8	23	98	40	21	2679	3	44	-8
San Agustín Tlaxiaca	20	7	5	98	53	6	2372	3	50	-8
San Gabriel	19	52	44	98	36	58	0	3	43	-8
San Juanico	19	54	14	98	40	17	0	3	45	-8
San Pablo	20	38	38	98	55	21	0	3	50	-8
Santa Mónica	19	58	55	98	37	16	0	3	43	-8
Singuilucan	20	1	52	98	19	59	2714	3	36	-8
Tasquillo	20	33	7	99	18	21	1720	3	59	-8
Tepetitlán	20	11	14	99	22	59	2000	4	2	-8
Tezontepec	19	52	44	98	49	10	2326	3	48	-8
Tianguiestenco	20	44	0	98	37	34	1687	3	42	-8
Tulancingo	20	4	58	98	22	8	2222	3	36	-8
Tlaxcoapan	20	5	40	99	13	29	2100	3	58	-8
Yolotepec	20	23	36	99	4	31	0	3	454	-8
Zempoala	19	54	54	98	40	2	2532	3	44	-8
Zimapán	20	44	20	99	22	58	1813	4	1	-8
<b>Jalisco</b>										
Ameca	20	32	47	104	2	46	1235	5	46	-7
Atoyac	20	0	40	103	31	12	1350	5	35	-7
Autlán de Navarro	19	46	13	104	22	4	688	5	51	-7
Bolaños	21	46	31	103	46	58	910	5	43	-7
Cabo Corriente	20	24	42	105	40	50	81	6	17	-7
Carranza	19	44	46	103	46	18	0	5	40	-7
Cihuatlán	19	14	8	104	33	36	0	5	54	-7
Ciudad Guzmán	19	42	13	103	27	53	1507	5	33	-7
Cocula	20	23	55	103	49	27	1432	5	41	-7
Colotlán	22	6	51	103	16	8	0	5	32	-7
Encarnación de Díaz	21	31	37	102	14	6	1814	5	9	-7
Guachinango	20	34	38	104	22	59	1285	5	53	-7
Guadalajara	20	42	32	103	23	9	1567	5	33	-7
Guerrero	21	59	4	103	35	52	1785	5	39	-7
Hostotipaquillo	21	3	46	104	4	21	1079	5	47	-7
Huejuquilla	22	37	42	103	53	58	1480	5	47	-7
La Barca	20	16	37	102	32	53	1517	5	15	-7
La Rosa	19	45	7	103	10	2	0	5	28	-7

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ESTADO Población	latitud			longitud			alt m	$\delta m$		$\Delta\delta m$ '/año
	°	'	''	°	'	''		°	'	
Lagos de Moreno	21	21	20	101	55	24	1942	5	2	-8
Ojuelos	21	52	5	101	35	20	2254	4	54	-8
Puerto Vallarta	20	36	56	105	14	42	5	6	10	-7
San Miguel del Alto	21	1	52	102	24	12	2385	5	12	-7
San Pedro Analco	21	14	54	103	57	57	0	5	46	-7
Talpa de Allende	20	23	41	104	49	52	1039	6	1	-7
Tapatitlán	20	48	48	102	45	41	1764	5	20	-7
Tecatitlán	19	28	16	103	18	30	1036	5	30	-7
Tecomates	19	33	8	104	29	18	0	5	53	-7
Tecaltiche	21	26	11	102	34	32	2240	5	16	-7
Tequila	20	53	33	103	50	8	1215	5	42	-7
Unión de Tula	19	57	37	104	16	7	1385	5	50	-7
<b>México</b>										
Acambay	19	57	18	99	50	47	2552	4	14	-8
Amecameca	19	7	36	98	46	0	2468	3	49	-8
Amanalco de Becerra	19	15	34	100	1	26	2511	4	19	-8
Atacomulco	19	48	7	98	52	48	2526	3	50	-8
Ayotla	19	18	55	98	56	8	2251	3	52	-8
Chalco	19	15	53	98	54	12	2280	3	52	-8
Chapa de Mota	19	47	24	99	31	23	3070	4	6	-8
Chicoloapan	19	25	3	98	54	11	2235	3	51	-8
Chimalhuacán	19	25	45	98	56	57	2255	3	53	-8
Coatlichan	19	27	4	98	52	34	0	3	51	-8
Ecatzingo de Hidalgo	18	57	2	98	45	29	2340	3	49	-8
Huexotla	19	28	50	98	52	25	0	3	51	-8
Huixquilucan	19	21	47	99	21	39	2750	4	3	-8
Ixtapan de la Sal	18	50	13	99	40	28	1900	4	11	-8
Ixtlahuaca	19	52	54	98	51	39	2640	3	49	-8
Jilotepec	19	57	13	99	31	45	2525	4	6	-8
Lerma	19	17	16	99	30	34	2599	4	6	-8
Los Reyes	19	21	27	98	52	42	0	3	51	-8
Naucalpan	19	28	36	99	13	45	2298	3	59	-8
Otumba	19	41	59	98	45	33	2349	3	47	-8
Ozumba	19	2	3	98	47	50	2500	3	50	-8
Progreso Industrial	19	37	37	99	20	32	2449	4	2	-8
Popocatepetl	19	1	17	98	37	34	5452	3	45	-8
Remedios	19	28	25	99	15	2	2383	4	0	-8
San Antonio del Rosario	18	24	4	100	18	43	335	4	27	-8
San Cristobal	19	24	24	99	19	40	2239	4	2	-8
San Pedro Azcapotzaltongo	19	37	38	99	18	54	2420	4	1	-8
San Pedro Atzompa	19	40	56	99	0	36	2243	3	54	-8
Sultepec	18	50	0	99	51	44	2336	4	16	-8
Tecámac	19	42	21	98	58	10	2300	3	52	-8
Temascalapa	19	49	37	98	54	11	2347	3	51	-8
Temascaltepec	19	2	24	100	2	47	1640	4	20	-8
Tenancingo	18	57	51	99	35	45	2022	4	9	-8
Teoloyucan	19	44	48	99	10	53	2280	3	58	-8

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## Coordenadas geográficas (INEGI-2020)

ESTADO Población	latitud			longitud			alt m	$\delta m$		$\Delta\delta m$ '/año
	°	'	''	°	'	''		°	'	
Texcoco	19	30	52	98	52	57	2278	3	51	-8
Tlalmanalco	19	12	36	98	48	27	2412	3	49	-8
Tlalnepantla	19	32	20	99	11	39	2278	3	58	-8
Toluca	19	17	33	99	39	38	2680	4	10	-8
<b>Michoacán</b>										
Aguililla	18	44	17	102	44	9	970	5	18	-7
Agostitlán	19	32	6	100	37	13	2500	4	32	-8
Apatzingan	19	4	54	102	15	31	682	5	9	-7
Apo	19	26	38	102	25	2	0	5	12	-7
Ario de Rosales	19	12	21	101	44	19	2050	4	57	-7
Buenavista	19	12	3	102	35	35	586	5	16	-7
Coahuayana	18	45	9	103	40	30	20	5	37	-7
Cotija	19	48	41	102	42	26	1751	5	18	-7
Hidalgo	19	41	19	100	33	23	2360	4	31	-8
Huajumbaro	19	40	52	100	44	29	2390	4	35	-8
Irimbo	19	41	54	100	28	58	2015	4	29	-8
Janitzio	19	34	27	101	39	11	2120	4	55	-8
Jiquilpan	19	59	31	102	43	16	1654	5	18	-7
La Huacana	18	57	36	101	48	39	550	4	59	-7
Los Reyes	19	35	23	102	28	57	1280	5	13	-7
Maravatio	19	53	33	100	26	43	2080	4	28	-8
Morelia	19	42	16	101	11	30	1941	4	45	-8
Ostula	18	29	50	103	28	19	229	5	33	-7
Panindicuario	19	59	7	102	45	40	1638	5	19	-7
Parácuaro	19	8	46	103	13	32	586	5	28	-7
Paracho	19	38	44	102	3	1	1567	5	4	-7
Pátzcuaro	19	32	24	101	37	0	2174	4	55	-8
Penjamillo	20	6	31	101	55	40	1645	5	1	-7
Piedad de Cavadas	20	20	44	102	1	32	1696	5	3	-7
Pueblo Viejo	19	46	16	101	34	3	2210	4	53	-8
Puruandiro	20	5	21	101	30	59	1994	4	52	-8
San Pedro Jacuaro	19	43	1	100	38	49	2004	4	33	-8
Senguio	19	44	11	100	21	31	2030	4	26	-8
Tacámbaro	19	13	52	101	27	34	1577	4	51	-8
Tequicheo	18	54	0	100	44	21	440	4	36	-8
Tapacaltepec	19	11	31	102	50	35	320	5	21	-7
Tumbiscatio	18	31	33	102	22	28	820	5	11	-7
Turicato	19	3	0	101	25	14	795	4	51	-8
Tuzantla	19	12	19	100	34	39	640	4	32	-8
Uruapan	19	24	56	102	3	46	1634	5	4	-7
Villa Madero	19	23	30	101	16	34	0	4	47	-8
Zacapu	19	49	11	101	47	34	1980	4	58	-8
Zamora	19	59	17	102	18	52	1567	5	10	-7
Zinapécuaro	19	53	5	100	40	32	1920	4	33	-8
Zitácuaro	19	25	51	100	21	50	1781	4	26	-8
<b>Morelos</b>										
Acapatzingo	18	54	11	99	13	17	1465	4	0	-8

# Poblaciones de la República Mexicana, 2025

## Coordenadas geográficas (INEGI-2020)

ESTADO Población	latitud			longitud			alt m	$\delta m$		$\Delta\delta m$ '/año
	°	'	''	°	'	''		°	'	
Acatlipa	18	49	30	99	13	42	1215	4	1	-8
Ahuacatlán	18	58	42	99	15	19	1955	4	1	-8
Atlatlahuacan	18	56	5	98	53	53	1656	3	52	-8
Coatetelco	18	43	55	99	19	48	1029	4	3	-8
Cuajomulco	19	2	2	99	12	17	2651	4	0	-8
Cuautla	18	48	20	98	57	13	1309	3	54	-8
Cuernavaca	18	48	20	98	57	13	1309	3	54	-8
Chapultepec	18	55	11	99	12	49	1492	4	0	-8
Huautla	18	26	24	99	1	44	1075	3	57	-8
Huitzilac	19	1	39	99	16	2	2540	4	1	-8
Itzamatitlán	18	53	58	99	1	30	1235	3	56	-8
Jojutla	18	36	39	99	10	52	890	4	0	-8
Oaxtepec	18	54	2	98	58	11	1385	3	54	-8
San Miguel	18	41	42	98	48	40	1403	3	51	-8
Tejalpa	18	53	43	99	9	57	1337	3	59	-8
Tepalcingo	18	35	34	98	50	43	1220	3	52	-8
Tetelcingo	18	51	55	98	55	47	1425	3	53	-8
Xiutepec	18	52	31	99	10	27	1355	3	59	-8
Xochitepec	18	47	4	99	13	50	1154	4	1	-8
Yautepec	18	52	38	99	3	46	1282	3	57	-8
Yecapixtla	18	52	56	98	51	55	1603	3	52	-8
<b>Nayarit</b>										
Acaponeta	22	29	21	105	21	41	30	6	17	-7
Amatlán de Jara	21	23	9	104	8	47	1150	5	50	-7
Huajimic	21	41	29	104	18	18	1170	5	53	-7
Ixtapan	21	18	16	105	9	44	0	6	10	-7
Ixtlán del Río	21	2	9	104	22	16	1042	5	53	-7
Jesus María	22	15	9	104	31	10	610	5	59	-7
Mezcaltitán	21	54	18	105	28	39	0	6	17	-7
Ruiz	21	57	29	105	8	35	24	6	11	-7
San Blas	21	32	27	105	17	16	2	6	13	-7
San Martín de Bolaños	21	29	42	104	1	35	0	5	47	-7
Tepic	21	30	47	104	53	42	915	6	5	-7
Tuxpan	21	54	10	104	8	6	39	5	50	-7
<b>Nuevo León</b>										
Agualeguas	26	18	38	99	33	3	207	4	4	-7
Arramberri	24	6	10	99	49	3	1076	4	11	-7
Cadereyta Jimenez	25	35	34	99	59	54	360	4	16	-7
Cerralvo	26	5	32	99	36	29	345	4	6	-7
China	25	42	30	99	13	55	163	3	55	-7
Doctor Arroyo	23	40	23	100	10	52	1766	4	20	-7
Galeana	24	49	41	100	3	53	1654	4	17	-7
García	25	48	49	100	35	21	697	4	33	-7
Lampazos de Naranjo	27	1	32	100	30	33	340	4	32	-7
Linares	24	51	39	99	34	5	684	4	4	-7
Los Aldamas	26	3	58	99	11	30	288	3	54	-7
Mier y Noriega	23	25	19	100	7	11	1681	4	18	-8

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ESTADO Población	latitud			longitud			alt m	$\delta m$		$\Delta\delta m$ '/año
	°	'	''	°	'	''		°	'	
Montemorelos	25	11	34	99	49	31	432	4	11	-7
Monterrey	25	40	11	100	18	26	538	4	25	-7
Parras	26	30	5	99	31	5	165	4	3	-7
Sabinas Hidalgo	26	29	59	100	10	9	313	4	22	-7
Salinas Victoria	25	57	34	100	18	0	464	4	25	-7
Santiago Huajuco	25	25	35	100	8	17	445	4	20	-7
Valecillo	26	39	41	99	58	2	274	4	16	-7
Villa Aldama	26	29	49	100	25	50	469	4	29	-7
Zaragoza	23	50	52	99	36	19	1377	4	5	-7
<b>Oaxaca</b>										
Ayutla	18	1	48	96	39	46	733	2	58	-8
Ayoquezco	16	41	13	96	50	2	0	3	8	-8
Ayotzintepec	17	40	38	96	8	17	64	2	46	-8
Coatzopan	18	2	56	96	45	31	1922	3	1	-8
Colotepec	15	53	33	96	56	28	0	3	15	-8
Cuicatlán	17	48	11	96	57	36	595	3	7	-8
Chacalapa	15	55	20	95	55	48	555	2	49	-8
Chacaltongo	17	1	57	97	34	24	2365	3	26	-8
Ecatepec	16	17	8	95	52	39	1690	2	45	-8
Ejutla de Crespo	16	33	48	96	43	44	1440	3	6	-8
Etla	17	12	17	96	47	49	1640	3	5	-8
Guichicovi	16	58	35	95	13	52	297	2	24	-8
Guelatao	17	19	15	96	29	34	1698	2	57	-8
Huajuapán de León	17	19	10	96	29	31	0	2	57	-8
Huamelulas Pedro	17	48	30	97	46	31	1680	3	28	-8
Huatulco	16	1	39	95	40	1	1030	2	41	-8
Huautla	15	49	44	96	19	11	325	2	59	-8
Jamiltepec	18	7	53	96	50	45	1714	3	3	-8
Juchitlán de Zaragoza	16	16	33	97	49	23	240	3	35	-8
Juguila	16	25	56	95	1	31	38	2	22	-8
Juxtlahuaca	16	14	6	97	17	45	1500	3	22	-8
Lachiguiri	17	20	11	98	0	56	1650	3	35	-8
Loxicha	16	23	9	97	20	8	1780	3	22	-8
Mazatlán	17	2	11	95	26	48	642	2	30	-8
Miahuatlán	16	20	1	96	35	44	1607	3	4	-8
Nejapa	16	36	50	95	58	48	1000	2	46	-8
Niltepec	16	33	47	94	36	48	110	2	10	-8
Nochixtlán	17	27	33	97	13	29	2200	3	15	-8
Oaxaca de Juárez	17	3	43	96	43	18	1550	3	4	-8
Ocotepéc	17	47	53	96	23	47	1636	2	52	-8
Ojitlán	18	3	42	96	23	31	0	2	51	-8
Pluma Hidalgo	15	54	50	96	25	30	1475	3	1	-8
Pochutla	15	44	21	96	27	57	163	3	3	-8
Puerto Ángel	15	39	24	96	29	35	20	3	5	-8
Putla	17	1	28	97	56	2	1248	3	35	-8
Quiéchapa	16	25	34	96	14	54	1900	2	54	-8
Quiotepec	17	54	8	96	59	0	845	3	7	-8

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ESTADO Población	latitud			longitud			alt m	$\delta m$		$\Delta\delta m$ '/año
	°	'	''	°	'	''		°	'	
Salina Cruz	16	9	37	95	12	11	70	2	28	-8
San Jerónimo Ixtepec	16	33	58	95	6	1	121	2	23	-8
San Miguel Peras	16	56	22	97	0	16	50	3	12	-8
San Vicente Coatlán	16	23	15	96	50	42	0	3	10	-8
Santa María del Mar	16	13	24	94	51	33	0	2	18	-8
Silacayoapan	17	30	14	98	8	38	1720	3	38	-8
Sola de Vega	16	31	1	96	58	22	1580	3	13	-8
Soyaltepec	18	12	12	96	28	57	0	2	53	-8
Suchixtepec	17	58	28	97	39	26	2842	3	24	-8
Tamazulapan	17	40	30	97	34	19	0	3	23	-8
Tecomavaca	17	57	34	97	1	5	660	3	8	-8
Tehuantepec	16	19	57	95	13	46	100	2	28	-8
Teotitlán del Camino	18	7	53	97	4	26	1067	3	9	-8
Teposcolula	17	30	45	97	29	16	2155	3	22	-8
Tequisistlán	16	24	21	95	36	2	1000	2	37	-8
Teutla	17	59	0	96	42	54	1338	3	0	-8
Tzoatlán	17	40	24	97	48	42	1500	3	29	-8
Tlaxiaco	17	15	59	97	40	58	1210	3	27	-8
Tlucula de Matamoros	16	57	19	96	28	43	1650	2	58	-8
Tololapan	16	40	4	96	18	12	0	2	55	-8
Tuxtepec	18	5	24	96	6	50	91	2	43	-8
Valle Nacional	17	40	43	96	17	59	65	2	50	-8
Villa Alta	17	20	41	96	9	8	1138	2	48	-8
Yacuane	17	14	25	97	27	3	0	3	22	-8
Yautepec	16	25	52	95	58	11	1100	2	47	-8
Yalalag	17	11	20	96	10	48	1186	2	49	-8
Zaniza	16	39	7	97	20	19	0	3	21	-8
Zimatlán	16	52	0	96	46	34	1609	3	6	-8
<b>Puebla</b>										
Acatepec	19	1	16	98	18	24	2174	3	37	-8
Acatlán de Osorio	18	12	6	98	3	6	1213	3	33	-8
Ahuatempan	18	24	47	98	0	58	1810	3	32	-8
Atezcal	18	23	51	97	43	28	1847	3	25	-8
Atlixco	18	54	32	98	26	27	1881	3	41	-8
Cacalotepec	19	0	3	98	17	28	2337	3	37	-8
Canoa	19	8	55	98	6	4	0	3	32	-8
Canal de Morelos	18	44	8	97	25	20	2337	3	16	-8
Coronanc	19	7	11	98	17	58	2230	3	37	-8
Coxcatlán	18	15	55	97	8	55	1217	3	10	-8
Oyotzingo	19	11	49	98	26	18	2322	3	40	-8
Cuautlancingo	19	5	16	98	16	14	2118	3	36	-8
Chachapa	19	2	47	98	5	35	2298	3	32	-8
Chiautla de Tapia	18	17	28	98	35	55	1025	3	47	-8
Chila Asunción	17	58	26	97	51	11	1676	3	29	-8
Cholula	19	3	45	98	18	15	2150	3	37	-8
Huauchinango	20	10	51	98	2	58	1472	3	28	-8
Huejotzingo	19	9	29	98	24	22	2291	3	40	-8

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## Coordenadas geográficas (INEGI-2020)

ESTADO Población	latitud			longitud			alt m	$\delta m$		$\Delta \delta m$ '/año
	°	'	''	°	'	''		°	'	
Hueyotlipan	19	5	6	98	12	32	2195	3	35	-8
Iztaccihuatl	19	11	11	98	38	38	5146	3	45	-8
Izúcar de Matamoros	18	36	6	98	27	42	1326	3	42	-8
La Malinche	19	13	48	98	1	47	4461	3	30	-8
Loreto	19	3	24	98	11	5	2221	3	34	-8
Molcaxac	18	44	9	97	54	8	1874	3	28	-8
Momoxpan	19	4	13	98	15	54	2159	3	36	-8
Moyotzingo	19	14	35	98	24	11	2271	3	39	-8
Nextetelco	19	7	13	98	20	21	0	3	38	-8
Nopalucan	19	12	59	97	49	10	2490	3	24	-8
Ocotlán	19	8	37	98	17	3	2243	3	37	-8
Ocoyucan	18	58	30	98	17	58	2152	3	37	-8
Pantepec	20	31	29	97	56	14	738	3	24	-8
Petlalzingo	18	4	59	97	55	12	1325	3	31	-8
Popocatepetl	19	1	17	98	37	34	5452	3	45	-8
Puebla de Zaragoza	19	2	30	98	11	48	2162	3	35	-8
Resurrección	19	6	4	98	7	36	2366	3	33	-8
San Andrés Chalchico	18	59	10	97	26	52	2540	3	15	-8
San Aparicio	19	1	24	98	12	18	2142	3	35	-8
San Baltazar	19	1	24	98	12	18	2142	3	35	-8
Sanctorum	19	5	51	98	15	8	0	3	36	-8
San Juan de los Llanos	19	27	54	97	41	3	2380	3	20	-8
San Martín Texmelucan	19	16	59	98	25	59	2278	3	40	-8
San Salvador el Seco	19	8	7	97	38	32	2450	3	20	-8
Santa María Chiamecatí	18	38	47	98	4	46	0	3	33	-8
Santa Rita Tlahuapan	19	19	56	98	35	9	2291	3	44	-8
Santiago Xalitzintla	19	4	36	98	30	53	0	3	43	-8
Tecali	18	53	58	97	57	59	2240	3	29	-8
Tecamachalco	18	52	57	97	43	49	2055	3	23	-8
Tehuacán	18	27	51	97	23	20	1676	3	16	-8
Temextatiloyan	19	5	22	98	12	46	2183	3	35	-8
Tepeaca	18	57	43	97	54	8	2257	3	27	-8
Tepeji Rodríguez	18	34	47	97	55	45	1746	3	29	-8
Tetela de Ocampo	19	49	15	97	48	10	1790	3	22	-8
Teziutlán	19	49	30	97	21	17	1990	3	10	-8
Tlacotepec	18	40	54	97	39	9	1977	3	22	-8
Tlaltenango	19	10	10	98	20	36	2246	3	38	-8
Tlancualpican	18	25	41	98	41	41	1100	3	49	-8
Tlaxcalanzingo	19	1	44	98	16	24	2173	3	37	-8
Tonantzintla	19	1	58	98	18	50	0	3	38	-8
Xalmimilulco	18	12	32	98	22	46	2248	3	42	-8
Xochimehuacan	19	5	23	98	11	51	0	3	35	-8
Xonacatepec	19	5	12	98	6	8	2209	3	32	-8
Zacapoxtla	19	52	49	97	35	2	2045	3	16	-8
Zacatlán de las Manzanas	19	56	7	97	57	27	2059	3	26	-8
Zapotitlán	18	19	56	97	28	23	2407	3	18	-8
Zautla	19	43	6	97	40	21	2020	3	19	-8

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ESTADO Población	latitud			longitud			alt m	$\delta m$		$\Delta \delta m$ '/año
	°	'	''	°	'	''		°	'	
Zinacatepec	18	19	57	97	14	41	1139	3	12	-8
<b>Qurétaro</b>										
Amealco	20	11	17	100	8	38	2075	4	20	-8
Arroyo Seco	21	32	54	99	41	13	1008	4	8	-8
Boyé	20	40	58	99	44	47	0	4	10	-8
Cadereyta	20	41	41	99	48	58	2077	4	12	-8
Ezequiel Montes	20	40	2	99	53	54	0	4	14	-8
Huimilpan	20	22	39	100	16	32	2307	4	23	-8
Jalpan	21	13	8	99	28	16	860	4	3	-8
Querétaro	20	35	36	100	23	11	0	4	26	-8
San Juan del Río	20	23	30	99	59	49	1978	4	17	-8
Tequisquiapan	20	31	26	99	53	42	1717	4	14	-8
Tolimán	20	54	35	99	55	45	1535	4	14	-8
<b>Quintana Roo</b>										
Ascensión	19	46	31	87	28	0	0	-2	0	-7
Cabo Catoche	21	36	25	87	6	21	157	-2	26	-7
Carrillo Puerto	19	34	50	88	2	38	30	-1	38	-7
Contoy	21	31	45	86	48	12	0	-2	36	-7
Cozumel	20	31	20	86	57	12	0	-2	24	-7
Chetumal	18	29	39	88	17	56	0	-1	22	-7
Filomeno Mata	19	52	8	88	23	47	0	-1	28	-7
Icaiche	18	4	17	89	10	7	183	0	-49	-7
Kantunil Kin	21	6	14	87	29	12	20	-2	9	-7
Leona Vicario	20	59	23	87	12	22	0	-2	18	-7
Polyuc	19	36	50	88	33	58	0	-1	21	-7
Put	19	39	8	89	24	46	0	0	-52	-7
Saban	20	2	12	88	32	16	0	-1	24	-7
Santa Cruz Chico	18	56	3	88	9	44	0	-1	30	-7
Tulum	20	12	34	87	25	34	150	-2	5	-7
Vigía Chico	19	46	27	87	35	2	0	-1	56	-7
Xkalak	18	13	32	87	50	50	0	-1	35	-7
Xkanha	19	6	13	89	20	5	0	0	-51	-7
<b>San Luis Potosí</b>										
Ahualco	22	23	56	101	9	58	1902	4	44	-8
Alaquines	22	7	41	99	35	27	1300	4	5	-8
Arista	22	38	46	100	51	2	1560	4	37	-8
Arriaga	21	54	44	101	22	58	2660	4	49	-8
Cárdenas	21	59	49	99	38	28	1201	4	6	-8
Catorce	23	41	34	100	53	23	2756	4	38	-7
Cerritos	22	25	55	100	16	51	1153	4	22	-8
Ciudad del Maíz	22	24	8	99	36	9	1239	4	5	-8
Charcas	23	7	47	101	6	37	2057	4	43	-8
Guadalcázar	22	37	1	100	23	56	1673	4	25	-8
Matehuala	23	38	41	100	38	26	1615	4	32	-8
Moctezuma	22	45	7	101	5	0	1777	4	42	-8
Pastora	22	8	2	100	3	25	920	4	17	-8
Ramos	22	49	59	101	55	3	2210	5	3	-7

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ESTADO Población	latitud			longitud			alt m	$\delta m$		$\Delta\delta m$ '/año
	°	'	''	°	'	''		°	'	
Río Verde	21	55	52	99	59	38	991	4	15	-8
Salinas del Peñón Blanco	22	37	44	101	43	0	2099	4	58	-8
San Luis Potosí	22	9	10	100	58	38	1877	4	40	-8
Santa Catarina	21	39	37	99	29	36	898	4	3	-8
Santa María del Río	21	48	4	100	44	9	1703	4	34	-8
Santo Domingo	23	19	35	101	44	6	1971	4	59	-7
Tamazunchale	21	16	0	98	47	18	206	3	45	-8
Tamuín	21	0	18	98	46	30	275	3	45	-8
Tancanhuitz	21	36	11	98	57	57	241	3	49	-8
Valles	21	59	4	99	0	58	95	3	50	-8
Vieja	22	2	29	99	25	16	0	4	1	-8
Villa de Reyes	21	48	19	100	56	0	1819	4	39	-8
Zaragozas José de	22	2	8	100	43	53	1925	4	34	-8
<b>Sinaloa</b>										
Altata	24	38	0	107	55	53	2	7	16	-7
Badiraguato	25	21	40	107	33	7	300	7	13	-7
Cosalá	24	24	38	106	41	44	300	6	51	-7
Culiacán	24	48	36	107	23	57	84	7	7	-7
El Fuerte	26	25	14	108	39	0	0	7	40	-7
La Laguna	26	34	58	108	27	25	600	7	38	-7
Mazatlán	23	11	55	106	25	20	3	6	40	-7
Mocorito	25	29	0	107	55	13	838	7	21	-7
Navolato	24	45	57	107	41	48	12	7	12	-7
Rosario	22	59	29	105	51	13	32	6	28	-7
San Blas	26	4	38	108	45	53	37	7	40	-7
San José de Gracia	26	8	38	107	53	38	750	7	24	-7
Santa María	25	33	56	109	10	26	46	7	45	-7
Sinaloa	25	49	26	108	13	29	55	7	28	-7
Soyatita	25	44	21	107	18	36	1200	7	10	-7
Topolobampo	25	36	1	109	2	52	3	7	42	-7
<b>Sonora</b>										
Agua Prieta	31	19	42	109	33	44	1050	8	35	-7
Aguiabampo	26	21	58	109	8	59	7	7	49	-7
Álamos	27	1	16	108	56	2	410	7	50	-7
Altar	30	42	46	111	44	12	0	9	12	-6
Antimonio	30	44	34	112	36	49	61	9	28	-6
Arizpe	30	20	9	110	10	22	870	8	39	-7
Bacanora	28	59	2	109	23	21	446	8	13	-7
Bacerac	30	21	41	108	49	25	937	8	12	-7
Baroyeca	27	38	32	109	29	33	0	8	5	-7
Buenavista	27	51	3	109	52	24	111	8	14	-7
Caborca	30	41	50	112	9	29	305	9	20	-6
Cananea	30	58	57	110	18	1	1489	8	47	-7
Carbo	29	41	0	110	57	29	464	8	49	-7
Carbón	29	41	0	110	57	29	464	8	49	-7
Cedros	27	45	39	109	17	26	475	8	2	-7
Ciudad Obregón	27	29	35	109	56	0	100	8	12	-7

# Poblaciones de la República Mexicana, 2025

## Coordenadas geográficas (INEGI-2020)

ESTADO Población	latitud			longitud			alt m	$\delta m$		$\Delta\delta m$ '/año
	°	'	''	°	'	''		°	'	
Conicarit	27	14	18	109	5	5	145	7	54	-7
Cucurpe	30	19	51	110	42	18	803	8	50	-7
Guaymas	27	55	28	110	53	31	0	8	33	-7
Hermosillo	29	4	29	110	57	36	237	8	44	-7
Huatabampo	26	49	36	109	38	46	20	8	2	-7
Imuris	30	46	38	110	51	58	826	8	57	-7
Libertad	29	54	12	112	45	7	0	9	23	-6
Macoyahui	27	19	36	108	54	28	201	7	52	-7
Magdalena	30	37	45	111	3	42	693	8	59	-7
Moctezuma	29	48	10	109	41	41	677	8	25	-7
Minas Nuevas	27	3	29	109	0	33	520	7	52	-7
Movas	28	9	40	109	26	34	260	8	8	-7
Naco	31	19	53	109	57	5	1340	8	43	-7
Nacori Grande	29	3	37	110	2	44	634	8	26	-7
Ncozari	30	22	25	109	41	28	1040	8	30	-7
Navojoa	27	4	52	109	27	13	40	8	0	-7
Nogales	31	19	49	110	56	42	1120	9	3	-7
Nabas	28	27	40	109	31	35	170	8	12	-7
Puerto Libertad	29	54	34	102	40	52	8	5	40	-7
Punta Peñasco	31	18	9	113	32	57	61	9	50	-6
Quiriego	27	31	11	109	15	7	251	7	59	-7
Rayón	29	42	47	110	34	36	560	8	42	-7
Sahuaripa	29	3	18	109	13	31	460	8	10	-7
San José de Pimas	28	42	47	110	21	2	415	8	29	-7
Santa Ana	30	32	38	111	7	26	687	8	59	-7
Santa Clara	31	40	41	114	29	30	0	10	9	-6
Soyopa	28	45	49	109	38	7	272	8	16	-7
Suaqui Grande	28	23	44	109	53	30	272	8	18	-7
Tiburón	28	45	55	112	41	56	0	9	11	-6
Torin	27	34	30	110	13	19	64	8	18	-7
Tubutama	30	53	4	111	28	16	682	9	9	-6
Ures	29	25	45	110	23	29	432	8	36	-7
Yabaros	26	42	12	109	30	45	2	7	59	-7
<b>Tabasco</b>										
Álvaro Obregón	18	13	19	92	40	4	33	1	3	-7
Astapa	17	46	42	92	59	18	134	1	15	-7
Cárdenas	18	0	42	93	22	10	4	1	25	-7
Comalcalco	18	15	54	93	13	7	5	1	19	-7
Francisco I. Madero	18	25	18	92	44	28	72	1	4	-7
Huimantillo	17	52	10	93	27	31	193	1	29	-7
Ignacio Allende	18	23	10	92	50	51	32	1	7	-7
Tacotalpa	17	35	47	92	49	26	60	1	11	-7
Tapijulapa	17	27	52	92	46	50	0	1	11	-7
Teapa	17	33	14	92	57	12	50	1	16	-7
Tenosique	17	28	45	91	25	33	60	0	29	-7
Tierra Colorada	17	57	22	92	37	46	144	1	3	-7
Villahermosa	17	59	15	92	55	0	10	1	12	-7

# Poblaciones de la República Mexicana, 2025

## Coordenadas geográficas (INEGI-2020)

ESTADO Población	latitud			longitud			alt m	$\delta m$		$\Delta\delta m$ '/año
	°	'	''	°	'	''		°	'	
Xicoténcatl	17	30	35	92	40	52	206	1	8	-7
<b>Tamaulipas</b>										
Abasolo	24	4	0	98	22	38	61	3	31	-7
Aldama Presas	22	55	6	98	4	12	98	3	24	-7
Altamira	22	23	40	97	55	47	26	3	20	-7
Antiguo Morelos	22	33	3	99	5	9	178	3	52	-8
Burgos	24	57	1	98	46	57	193	3	42	-7
Camargo	26	19	1	98	49	55	68	3	44	-7
Casas	23	43	44	98	44	27	120	3	41	-7
Ciudad Victoria	23	44	6	99	7	51	321	3	52	-7
Crujillas	24	45	32	98	30	59	265	3	34	-7
Guemes	23	55	18	99	0	28	220	3	49	-7
Guerrero	26	46	45	99	20	22	34	3	59	-7
Jaumave	23	24	30	99	22	28	735	3	59	-7
Jiménez	24	12	56	99	28	44	101	4	1	-7
Llera	23	19	11	99	1	15	290	3	49	-7
Magiscatzin	22	48	29	98	42	1	56	3	41	-8
Matamoros	25	52	45	97	31	9	12	3	5	-7
Méndez	25	7	11	98	34	12	128	3	36	-7
Mier	26	25	57	99	8	41	80	3	53	-7
Miquihuana	23	34	15	99	46	32	1892	4	9	-7
Ocampo	20	50	32	99	20	14	348	4	0	-8
Padilla	24	0	39	98	46	27	153	3	42	-7
Reynosa	26	5	50	98	16	42	38	3	27	-7
San Carlos	24	34	50	98	56	26	432	3	47	-7
San Fernando	24	50	56	98	9	30	55	3	24	-7
Tampico	22	13	0	97	51	19	12	3	19	-7
Tula	22	59	50	99	42	55	1173	4	8	-8
Villagrán	24	28	33	99	20	21	363	3	58	-7
Xicoténcatl	22	59	48	98	56	35	131	3	47	-8
<b>Tlaxcala</b>										
Apizaco	19	24	59	98	8	27	2408	3	32	-8
Calpulalpan	19	35	37	98	34	18	2578	3	43	-8
Cuauila	19	36	10	98	38	44	2703	3	45	-8
Cuauhtotatla	19	7	7	98	10	9	2308	3	34	-8
Huamantla	19	18	53	97	55	39	2553	3	27	-8
Tenancingo	19	8	47	98	11	57	2281	3	34	-8
Tlaxcala	19	19	4	98	14	9	2252	3	35	-8
San Aparicio	19	6	0	98	9	30	2293	3	33	-8
San Juan de los Llanos	19	27	54	97	41	0	2448	3	20	-8
San Martín Texmelucan	19	16	59	98	25	59	2278	3	40	-8
<b>Veracruz</b>										
Acayucan	17	56	42	95	54	43	88	2	39	-8
Actopan	19	30	11	96	36	45	311	2	52	-8
Alvarado	18	46	14	95	45	56	9	2	31	-8
Ciudad Azueta	18	4	43	95	42	18	0	2	32	-8
Coatepec	19	27	8	96	57	1	1252	3	1	-8

# Poblaciones de la República Mexicana, 2025

## Coordenadas geográficas (INEGI-2020)

ESTADO Población	latitud			longitud			alt m	$\delta m$		$\Delta\delta m$ '/año
	°	'	''	°	'	''		°	'	
Coatzacoalcos	18	8	56	94	24	40	2	1	55	-8
Coatzintla	20	29	6	97	26	12	144	3	11	-8
Córdoba	18	53	34	96	55	52	924	3	2	-8
Cosamaloapan	18	21	46	95	48	32	96	2	34	-8
Coscomatepec	19	4	23	97	2	5	1588	3	4	-8
Cuautotolapan	18	7	16	95	18	7	23	2	21	-8
Cuichapa	18	46	28	96	52	8	642	3	1	-8
Chiconamel	21	14	0	98	27	36	158	3	37	-8
Chicontepec	20	58	31	98	9	54	595	3	29	-8
Gral Alemán	18	11	32	96	5	44	18	2	42	-8
Hidalgotitlán	17	46	20	94	38	47	77	2	4	-8
Huatusco	19	9	1	96	57	9	1344	3	2	-8
Huayacocotla	20	32	27	98	28	38	2100	3	38	-8
Inalambrica	19	10	50	96	7	36	0	2	39	-8
Ixcatepec	21	14	23	98	0	14	295	3	24	-8
Ixhuatlán	20	41	30	98	0	35	306	3	26	-8
Lobos	21	28	0	97	13	3	0	3	2	-7
Martínez de la Torre	20	3	58	97	2	36	151	3	1	-8
Minatitlán	17	58	47	94	32	27	64	2	0	-8
Misantla	19	56	2	96	50	24	410	2	56	-8
Mocayapan	18	12	49	94	50	17	340	2	7	-8
Naolingó	19	39	15	96	51	51	1605	2	58	-8
Nautla	20	12	43	95	45	38	4	2	25	-7
Orizaba	18	50	58	97	5	47	1284	3	7	-8
Ozuluama	21	39	46	97	51	0	229	3	19	-8
Pantepec	20	31	29	97	56	14	738	3	24	-8
Papantla	20	26	53	97	19	7	298	3	8	-8
Perote	19	33	52	97	14	24	2465	3	8	-8
Pico Orizaba	19	2	0	97	15	42	5700	3	10	-8
Playa Vicente	17	50	5	95	48	35	95	2	36	-8
Rizo	19	3	17	95	55	8	0	2	34	-8
Rodríguez Clara	17	59	28	95	24	9	148	2	24	-8
Sacrificios	19	10	26	96	5	27	0	2	38	-8
San Andrés Tuxtla	18	26	42	95	11	53	361	2	16	-8
San Carlos	19	24	17	96	21	25	136	2	45	-8
San Juan de Ulua	19	12	26	96	7	46	0	2	39	-8
San Juan Evangelista	17	52	59	95	8	12	88	2	17	-8
San Martín	18	33	48	95	10	48	1738	2	15	-8
Santiagoullo	19	8	29	95	48	23	0	2	31	-8
Tamarindo	18	45	23	96	22	49	80	2	48	-8
Tamiahua	21	16	26	97	26	29	4	3	9	-8
Tantoyucan	21	21	7	98	13	31	217	3	30	-8
Tehuipango	18	31	14	97	3	31	2382	3	7	-8
Teocelo de Díaz	19	23	8	96	57	47	1218	3	1	-8
Tepetzintla	21	10	43	96	49	48	351	2	52	-7
Tesechoacan	18	8	12	95	39	47	0	2	31	-8
Tierra Blanca	18	27	3	96	21	28	60	2	48	-8

# Poblaciones de la República Mexicana, 2025

## Coordenadas geográficas (INEGI-2020)

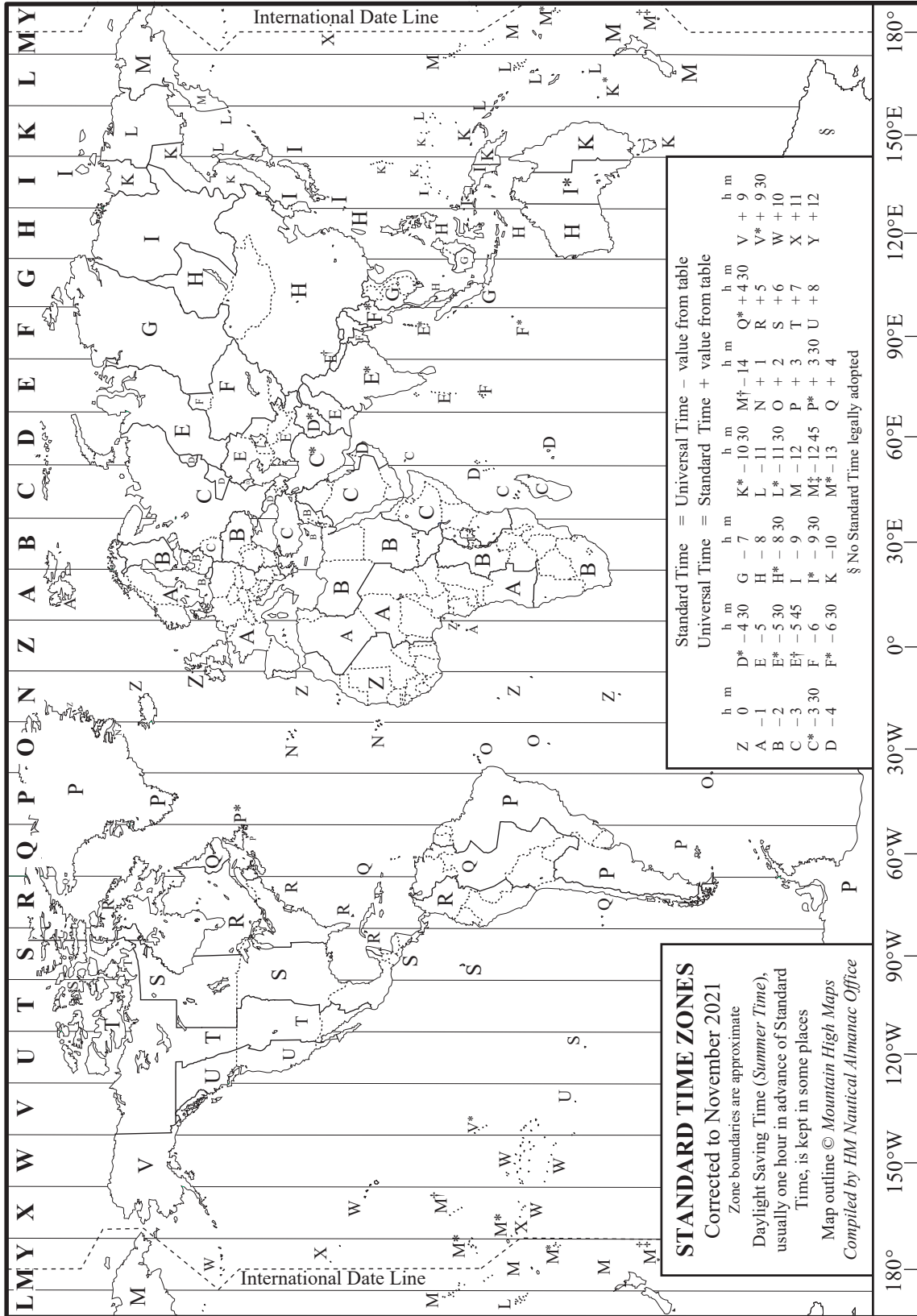
ESTADO Población	latitud			longitud			alt m	$\delta m$		$\Delta\delta m$ '/año
	°	'	''	°	'	''		°	'	
Tehuacan	20	43	26	97	32	23	222	3	13	-8
Tlacojalpan	18	13	57	95	57	13	91	2	38	-8
Tlaliscoyan	18	48	7	96	3	26	84	2	39	-8
Tlapacoyan	19	58	13	97	12	35	504	3	6	-8
Tonayan	19	40	54	96	54	45	0	2	59	-8
Tuxpan	20	57	18	97	23	59	14	3	9	-8
Veracruz	19	12	2	96	8	13	14	2	40	-8
Verde	19	11	50	96	3	59	0	2	38	-8
Xalapa	19	31	35	96	54	51	1427	3	0	-8
Xico	19	25	17	97	0	11	0	3	2	-8
Zongolica	18	40	10	96	59	26	1294	3	5	-8
<b>Yucatán</b>										
Becanchen	19	52	32	89	13	3	0	-1	0	-7
Celestún	20	51	36	90	24	5	3	0	-26	-7
Cuyo	21	31	9	87	40	48	8	-2	5	-7
Chancenote	20	59	36	87	46	56	0	-1	58	-7
Chavilhau	21	21	28	89	7	7	0	-1	13	-7
Espita	21	0	36	88	18	27	22	-1	39	-7
Halacho	20	28	44	90	4	51	6	0	-35	-7
Huhi	20	43	42	89	10	0	15	-1	7	-7
Izamal	20	56	16	88	57	14	14	1	16	-7
Maxcanu	20	35	11	89	59	55	8	0	-38	-7
Mérida	20	59	0	89	38	43	9	0	-53	-7
Molas	20	49	0	89	37	48	10	0	-52	-7
Progreso	21	18	0	89	39	30	8	0	-54	-7
San Felipe	21	34	8	88	13	58	0	-1	46	-7
Sisal	21	9	59	90	1	55	0	0	-41	-7
Tekax	20	12	18	98	17	20	35	3	34	-8
Telchac	21	20	35	89	15	50	10	-1	8	-7
Tzimin	21	8	1	88	9	6	17	-1	46	-7
Valladolid	20	41	24	88	12	23	20	-1	41	-7
Yalkubul	21	31	26	88	36	55	0	-1	32	-7
<b>Zacatecas</b>										
Calera	22	57	2	102	42	10	2236	5	21	-7
Concepción del Oro	24	36	54	101	25	43	2070	4	53	-7
Chalchihuites	23	28	42	103	53	15	2321	5	49	-7
Fresnillo	23	10	35	102	52	39	2250	5	25	-7
Guadalupe	22	45	30	102	31	9	2265	5	17	-7
Jerez	22	38	51	102	59	48	2027	5	27	-7
Juchipila	21	24	46	103	7	29	1350	5	28	-7
Nieves	23	59	41	103	1	12	2017	5	30	-7
Nochistlán	21	21	47	102	50	55	1930	5	22	-7
Observatorio Astronómico	22	43	56	102	32	26	2717	5	17	-7
Ojo Caliente	22	34	44	102	15	20	2114	5	10	-7
Ojuelos	21	52	5	101	35	20	0	4	54	-8
Pánuco	22	52	45	102	32	30	2321	5	17	-7
Pinos	22	17	54	101	34	23	2419	4	54	-8

# Poblaciones de la República Mexicana, 2025

## Coordenadas geográficas (INEGI-2020)

ESTADO Población	latitud			longitud			alt m	$\delta m$		$\Delta \delta m$ '/año
	°	'	''	°	'	''		°	'	
Río Grande	23	49	40	103	2	17	0	5	31	-7
San Juan del Mezquital	24	17	28	103	23	47	0	5	40	-7
Sombrerete	23	37	53	103	38	30	2351	5	44	-7
Tlaltenango	21	47	0	103	18	44	1724	5	33	-7
Valparaíso	22	46	13	103	34	5	2140	5	40	-7
Villa de Cos	23	17	40	102	20	55	2050	5	13	-7
Villanueva	22	21	16	102	53	13	1955	5	24	-7
Zacatecas	22	46	30	102	34	45	2496	5	40	-7

# Mapa de zonas horarias



## Zonas horarias

Las zonas horarias dividen a la Tierra en 24 franjas de 15° de anchura; las letras representan el código de uso con las 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.

°	'	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		E*	+5	30
+90		F	+6	
+97	30	F*	+6	30
+105		G	+7	
+120		H	+8	
+135	30	I	+9	
+142		I*	+9	30
+150	30	K	+10	
+157		K*	+10	30
+165		L	+11	
+180		M	+12	
+187		M*	+12	30
-15		N	-1	
-30		O	-2	
-45	30	P	-3	
-52		P*	-3	30
-60	30	Q	-4	
-75		R	-5	
-90		S	-6	
-105		T	-7	
-120		U	-8	
-127		U*	-8	30
-135		V	-9	
-142	30	V*	-9	30
-150		W	-10	
-165	30	X	-11	
-180		Y	-12	

# 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, 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 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 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 de la República Mexicana

Centro astronómico Astronómico	latitud			longitud			altura m.s.n.m	ubicación
	°	'	"	°	'	"		
<b>Universidad Nacional Autónoma de México Instituto de Astronomía BAJA CALIFORNIA San Pedro Mártir</b>	31	02	39	115	27	49	2800	Telescopio 2.12 m
	31	02	43	115	28	00	2790	Telescopio 1.50 m
<b>PUEBLA Tonantzintla</b>	19	01	58	98	18	50	2147	Telescopio 1 m
<b>Observatorio Astronómico Universum (DGDC-UNAM) Casita de las ciencias, Museo Universum DGDC-UNAM, Ciudad Universitaria, Coyoacán, CdMx.</b>	19°	18'	42"	99°	10'	53"	2310	
<b>Centro de Radioastronomía y Astrofísica, UNAM. MICHOACÁN Morelia</b>	19	42	16	101	11	30	1941	
<b>Instituto Nacional de Astrofísica, Óptica y Electrónica, SEP. PUEBLA Tonantzintla</b>	19	01	58	98	18	50	2147	
<b>SONORA Observatorio Cananea Guillermo Haro</b>	31	03	10	110	18	19	2480	Telescopio 2.1 m
<b>Departamento de Astronomía, Universidad de Guanajuato GUANAJUATO Guanajuato</b>	21	03	10	101	19	28	2425	Mineral de la Luz
<b>Universidad Autónoma de Zacatecas ZACATECAS Observatorio astronómico Observatorio astronómico</b>	22	43	56	102	32	26	2425	Cd. Universitaria
	22	46	01	102	32	56	2714	Cerro de la Virgen
<b>Sociedad Astronómica de México CIUDAD DE MÉXICO Observatorio Luis G. León</b>	19	23	56	99	8	29	2246	Col. Álamos, Cd. de México
<b>ESTADO DE MÉXICO Observatorio Chapa de Mota</b>	19	47	24	99	31	23	3070	Municipio de Chapa de Mota
<b>Universidad Autónoma de Sinaloa SINALOA Observatorio Cosala</b>	24	24	5	106	36	36	595	Municipio de Cosala
<b>Instituto de Geofísica  MEXART*: Observatorio de centelleo Coeneo interplanetario * Mexican Array Radiotelescope</b>	19	48	39	101	41	39		Michoacán

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# Refracción

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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. Esta se obtiene de la regresión polinomial de noveno orden dada por la ecuación

$$r = a + b_1z + b_2z^2 + b_3z^3 + b_4z^4 + b_5z^5 + b_6z^6 + b_7z^7 + b_8z^8 + b_9z^9$$

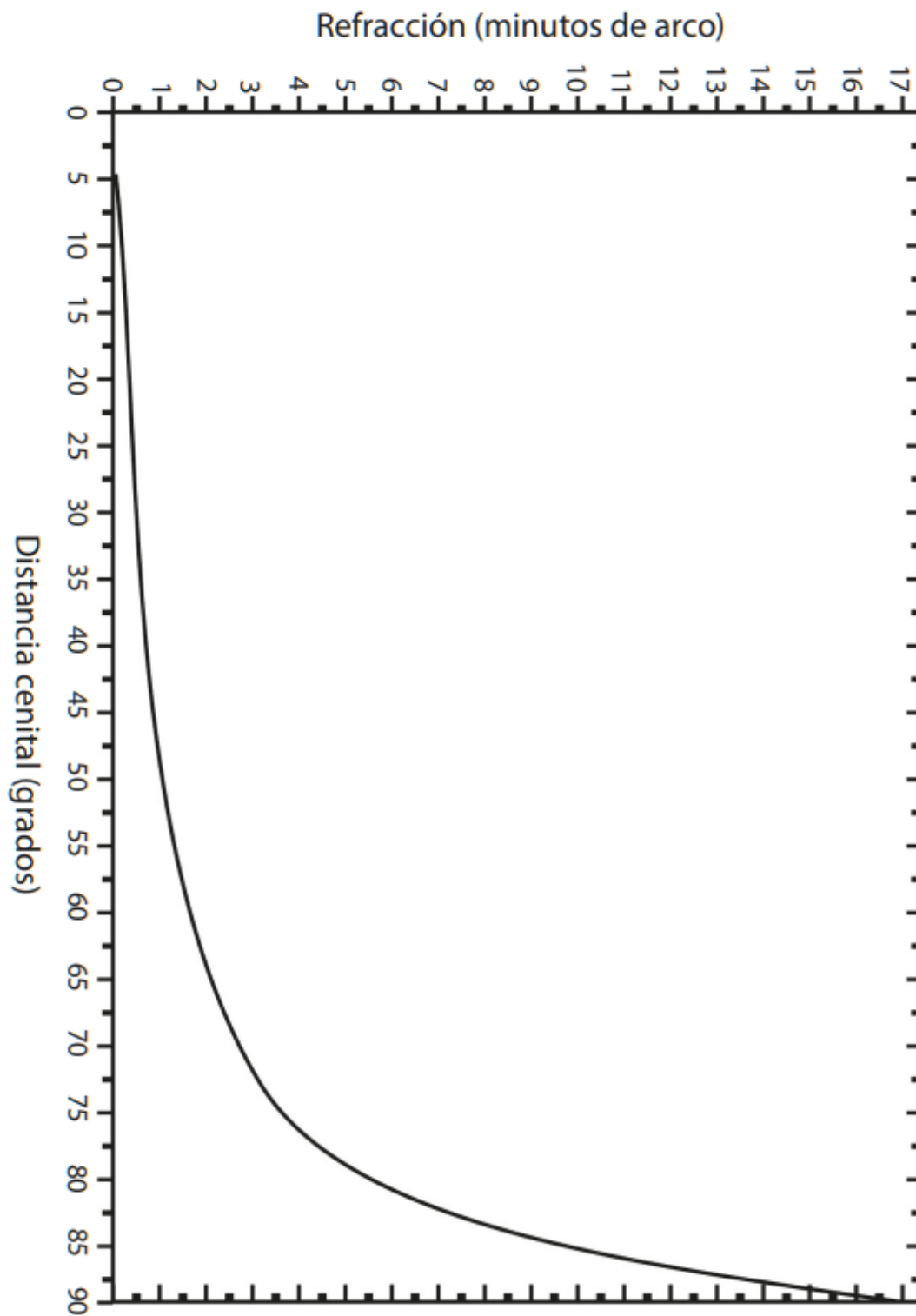
donde  $r$  está dada en minutos de arco y sus coeficientes son:

$a$	$-7,64878 \times 10^{-4}$	$b_5$	$1,22379 \times 10^{-6}$
$b_1$	$0,02752$	$b_6$	$-2,70552 \times 10^{-8}$
$b_2$	$-0,00384$	$b_7$	$3,52568 \times 10^{-10}$
$b_3$	$5,03936 \times 10^{-4}$	$b_8$	$-2,50309 \times 10^{-12}$
$b_4$	$-3,28953 \times 10^{-5}$	$b_9$	$7,48708 \times 10^{-15}$

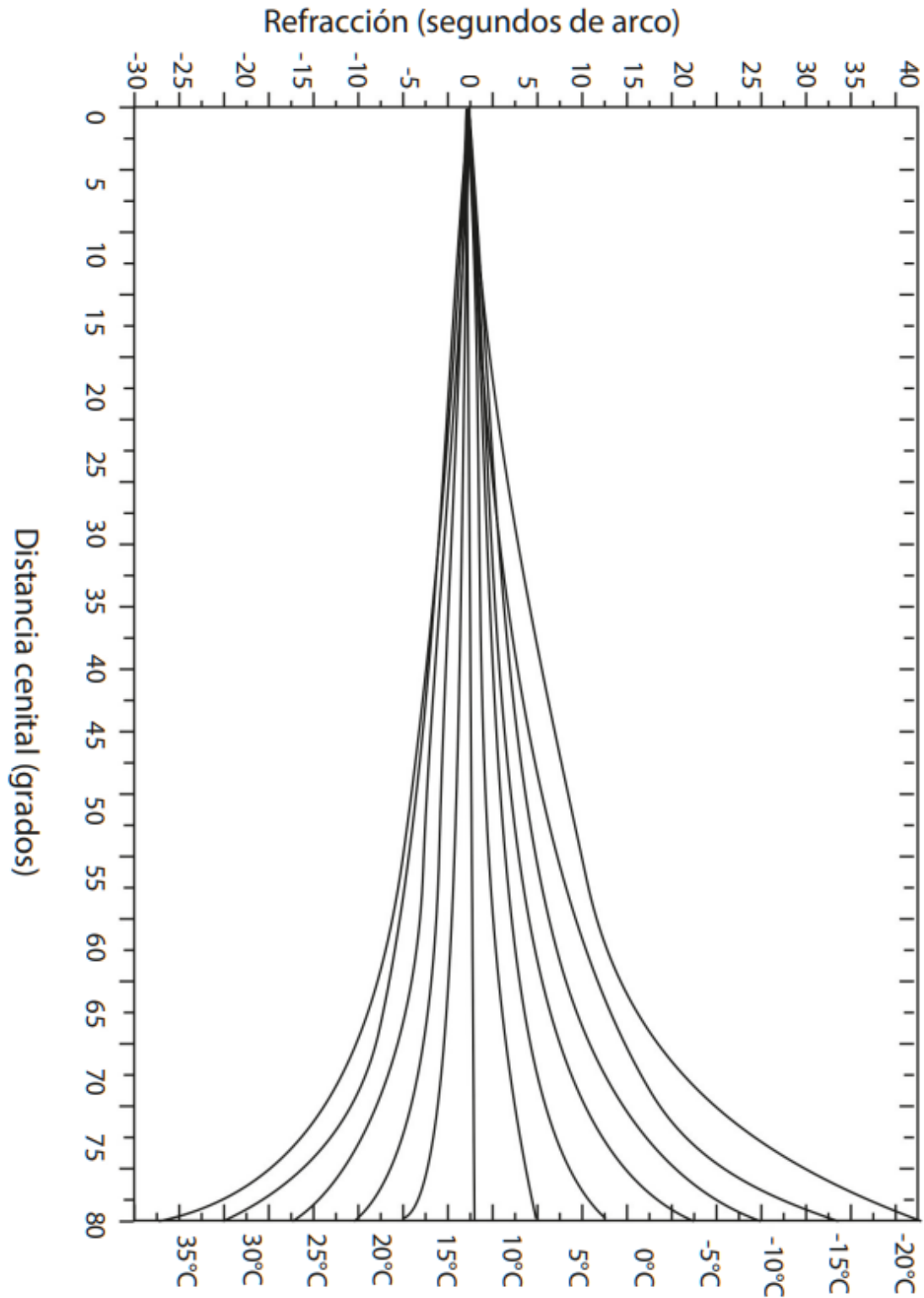
Con la gráfica de corrección por temperatura, se determina el valor en segundos de arco, que se deberá sumar algebraicamente a la refracción media. Cada curva corresponde a la temperaturas en grados Celsius, señaladas al extremo derecho de cada una de ellas.

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.

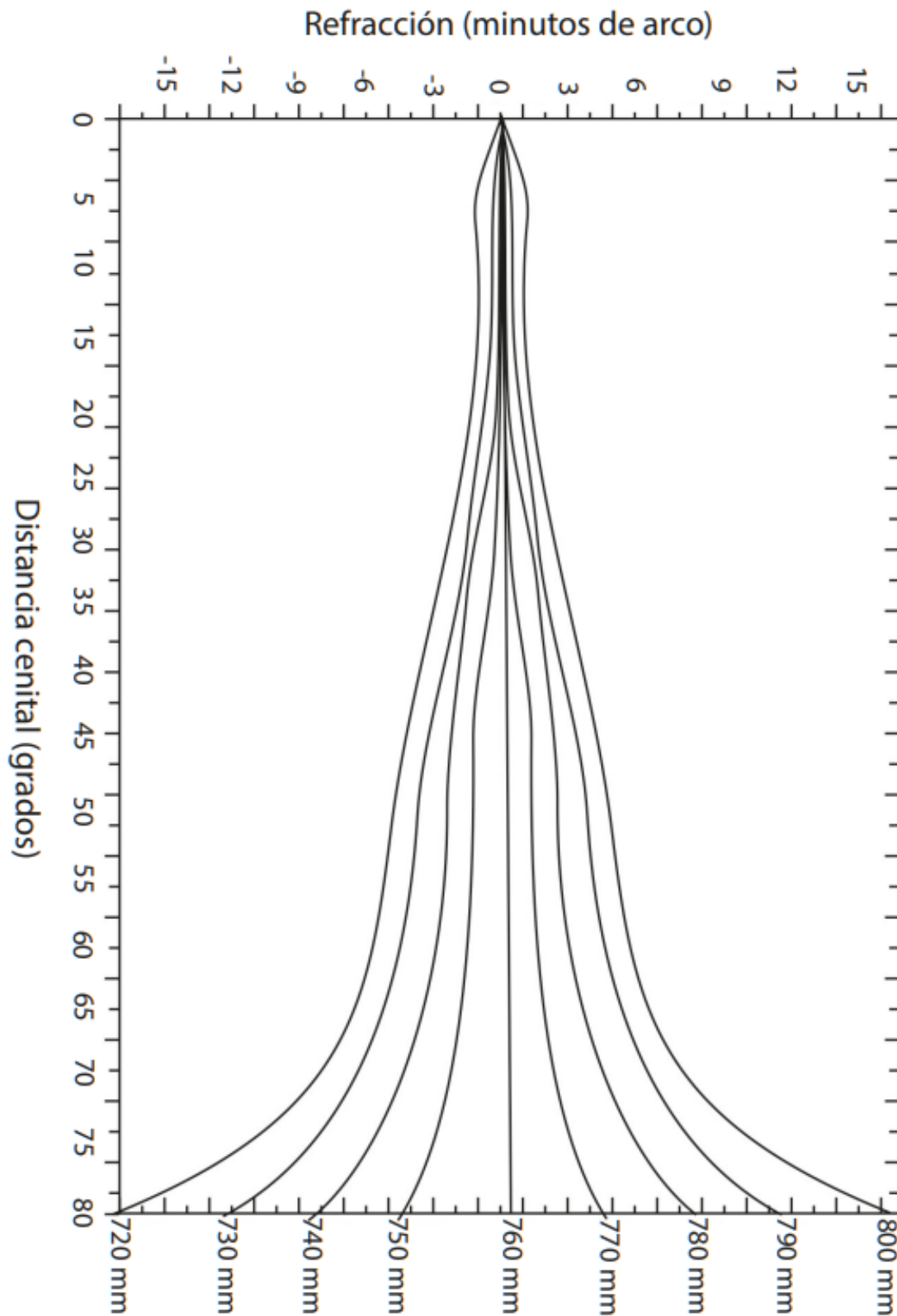
## Corrección por distancia cenital



# Corrección por temperatura



## Corrección por presión



# Abreviaturas

## Día juliano

Abreviaturas:

d: día

ds: día de la semana

dj: día juliano

## Hora sideral

Abreviaturas

dj: día juliano

## Sol

Abreviaturas

$\alpha$ : ascensión recta

$\delta$ : declinación

hp: hora del paso por el meridiano

vh: variación horaria

$\Delta$ : distancia geocéntrica

UA: unidad astronómica

## Luna

Abreviaturas:

dj: día juliano

$\alpha$ : ascensión recta

$\delta$ : declinación

hp: hora del paso por el meridiano

$\Delta$ : distancia geocéntrica en radios terrestres

sd: semidiámetro

pax: paralaje horizontal

DT: diámetro terrestre

## Planetas

Abreviaturas:

$\alpha$ : ascensión recta

$\delta$ : declinación

$\Delta$ : distancia geocéntrica

UA: unidad astronómica

hp: hora del paso por el meridiano

## Sistema de constantes y parámetros

Abreviaturas:

$\alpha$ : ascensión recta,  $\delta$ : declinación, f: latitud

UA: unidad astronómica

DJ: día Juliano

lg: aceleración de la gravedad en la superficie terrestre o Normal

## Nomenclatura de las estrellas brillantes

Abreviaturas:

$\alpha$ : ascensión recta

$\delta$ : 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:

$\alpha$ : ascensión recta

$\alpha_c$ : ascensión recta en el sistema de referencia intermedio

$\delta$ : declinación

Hp: hora del paso

## Posiciones aparentes de la polar

Abreviaturas:

$\alpha$ : ascensión recta

$\alpha_c$ : ascensión recta coordenadas intermedias

$\delta$ : declinación

hp: hora del paso por el meridiano

## Lluvias de estrellas

Abreviaturas:

$\alpha$ : ascensión recta

$\delta$ : 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;  
 $\alpha$ : ascensión recta;  $\delta$ : 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

$\delta_m$ : declinación magnética para el 1 de del 2006

$\Delta\delta_m$ : Variación de la declinación magnética por año

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## Glosario: Términos astronómicos básicos

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**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 referirse al Sur geográfico.

**Adviento** Periodo 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 este.

**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 cada cuatro años, omitiéndose para aquellos 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 a 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 lo Apolo, Amor y Trolanos.

**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 periodo 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 subliman 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 terrestre, 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 centro 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 a 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 astroómico y el cenit geodésico.

**Día Juliano.** Intervalo de tiempo en días, a partir del 1 de enero del año 4713 a.C., al mediodía del meridiano de Greenwich.

**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 su-

cesivos 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 subtende 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 solo 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. Diferencia 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  $0^\circ$  y  $180^\circ$ , 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 cada año.

**Epifanía.** Fiesta que celebra la iglesia cristiana el día 6 de enero para conmemorar la adornación 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 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 luminosidad como 0, I, II, III, 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  $0^\circ$ ,  $90^\circ$ ,  $180^\circ$  y  $270^\circ$ , 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.

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

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

**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 Hégira.** Era de los mahometanos que se cuenta desde la puesta del Sol del 16 de junio del año 622 d.C., día 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 obtienen al dividir entre 15 los  $360^\circ$  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 sur o al norte 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 les 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 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.** Periodo de tiempo entre dos lunas nuevas consecutivos. 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 oscurecido 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.

**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 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.** Envoltura 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 de 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 términos astronómicos, ciclo lunar de diecinueve 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 éste.

**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 es suficiente 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 las tablas de parámetros físicos y orbitales de planetas y satélites de los planetas.

**Polar, Estrella.**

**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.** Dominica que procede a la cuaresma.

**Ramadán** Noveno mes del año lunar de los musulmanes.

**Revolución.** Órbita de un cuerpo alrededor de otro.

**Rash 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 tabla de parámetros físicos y orbitales de planetas y satélites de los planetas.

**Segundo.** En el sistema internacional, duración de 9192631770 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.** Dominica 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 eclipticidad 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 junio y el de invierno cerca del 22 de diciembre. Estas fechas corresponden al día más largo y al más corto, 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 del 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 o 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 a 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.

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# Apéndice

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## Explicaciones generales al contenido del Anuario

Con la abreviatura W.G., debemos leer oeste del meridiano de Greenwich; esta se mantiene en toda la publicación a menos de 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 rotación y traslación 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 bisiestos; en cambio, el 1600 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, instituido 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 le seguiría 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 exica, 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 aya 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 mediodía 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.

### **Eras, ciclos cronológicos, cómputo, fiestas y aniversarios**

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.

### **Eras, ciclos cronológicos, cómputo, fiestas y aniversarios**

### **Nomenclatura de estrellas**

Se dan los nombres propios de algunas estrellas, la extensión de la clasificación Bayer, y su correspondiente número 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.

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**Clasificación espectral de las estrellas**


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Clase espectral	Color	Temperatura (K)	Carácter
O	Blanco-azul	35 000+	Líneas de helio ionizado, nitrógeno, oxígeno e hidrógeno.
B	Blanco-azul	10 000 - 30 000	Líneas de helio neutro.
A	Blanca	7 500 - 10 000	Líneas intensas de hidrógeno, no tiene helio.
F	Blanco-amarillo	6 000 - 7 500	Líneas intensas de calcio y débiles de hidrógeno.
G	Amarilla	5 200 - 6 000	Líneas débiles de hidrógeno y líneas intensas de metales.
K	Naranja	3 700 - 5 200	La clase espectral de nuestro Sol es G2V. Espectro muy complejo con líneas de metales.
M	Roja	2 500 - 3 700	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	Bandas espectrales de compuestos de carbón. Semejantes a las N, con bandas 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.

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Subclase	
Ia	Supergigante brillante
Ib	Supergigante poco luminosa
II	Gigante brillante
III	Gigante normal
IV	Subgigante
V	Secuencia principal
VI	Subenana

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**Catálogo Messier**


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Es una selección de objetos astronómicos brillantes y difusos, fue 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), los 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 calientes, ionizan el material interestelar del que están formadas.

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

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**Eventos astronómicos**

Lluvias de estrellas. Son restos de cometas que al penetrar la atmósfera terrestre, se disuelven en ella dejando una estela luminosa comúnmente 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 latitud 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  $0.5^\circ$  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  $0^\circ$  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  $18^\circ$  y  $6^\circ$  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, si evaluamos para el meridiano  $90^\circ$  W. G. la salida del Sol, en un lugar cuya latitud es  $30^\circ$  y longitud  $97^\circ 30'$ . En la tabla dada para latitud  $30^\circ$ , la salida del Sol (SS) indicada para ese día dado, fuese 4h 59m.

La diferencia en longitud (Dl) será:

$$\Delta l = \frac{97,5^\circ - 90^\circ}{15}$$

$$\Delta l = \frac{7,5^\circ}{15} \text{ donde obtenemos } Dl = 30m; \text{ así, la hora de la salida del Sol será:}$$

$$T = 4h 59m + 30m \text{ es decir } T = 5h 29m$$

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**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  $75^\circ$ ,  $90^\circ$ ,  $105^\circ$  y  $120^\circ$  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  $15^\circ$  centradas en el meridiano horario de referencia, el meridiano de la ciudad de Greenwich, Inglaterra se ha definido como el meridiano  $0^\circ$ . 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  $90^\circ$  W.G. se escribe numéricamente como  $-90^\circ$ . Los meridianos horarios hacia el Este o al Oeste son:  $15^\circ$ ,  $30^\circ$ ,  $45^\circ$ ,  $60^\circ$ ,  $75^\circ$ ,  $90^\circ$ ,  $105^\circ$ ,  $120^\circ$ ,  $135^\circ$ ,  $150^\circ$ ,  $165^\circ$ . Al meridiano  $180^\circ$  se le llama Línea Internacional del Tiempo.

El tiempo referido al meridiano de Greenwich o simplemente meridiano  $0^\circ$ , 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.