

Sun - Apparent data

Date	Right Ascension	Declination	Distance	Diameter
0 h TT	h m s	d m s	au	arc sec
12/31/2024	18 42 37.086	-23 04 37.56	0.9833692	1951.73
01/01/2025	18 47 02.214	-22 59 53.79	0.9833532	1951.76
01/02/2025	18 51 27.016	-22 54 42.46	0.9833409	1951.78
01/03/2025	18 55 51.456	-22 49 03.75	0.9833325	1951.80
01/04/2025	19 00 15.499	-22 42 57.80	0.9833281	1951.81
01/05/2025	19 04 39.113	-22 36 24.81	0.9833278	1951.81
01/06/2025	19 09 02.268	-22 29 24.98	0.9833320	1951.80
01/07/2025	19 13 24.936	-22 21 58.52	0.9833410	1951.78
01/08/2025	19 17 47.093	-22 14 05.66	0.9833550	1951.76
01/09/2025	19 22 08.715	-22 05 46.66	0.9833746	1951.72
01/10/2025	19 26 29.779	-21 57 01.78	0.9833998	1951.67
01/11/2025	19 30 50.264	-21 47 51.29	0.9834311	1951.60
01/12/2025	19 35 10.150	-21 38 15.46	0.9834686	1951.53
01/13/2025	19 39 29.417	-21 28 14.57	0.9835126	1951.44
01/14/2025	19 43 48.046	-21 17 48.90	0.9835629	1951.34
01/15/2025	19 48 06.022	-21 06 58.71	0.9836197	1951.23
01/16/2025	19 52 23.329	-20 55 44.30	0.9836828	1951.11
01/17/2025	19 56 39.953	-20 44 05.94	0.9837520	1950.97
01/18/2025	20 00 55.883	-20 32 03.93	0.9838273	1950.82
01/19/2025	20 05 11.106	-20 19 38.58	0.9839084	1950.66
01/20/2025	20 09 25.611	-20 06 50.21	0.9839951	1950.49
01/21/2025	20 13 39.387	-19 53 39.14	0.9840870	1950.30
01/22/2025	20 17 52.424	-19 40 05.72	0.9841840	1950.11
01/23/2025	20 22 04.712	-19 26 10.29	0.9842858	1949.91
01/24/2025	20 26 16.241	-19 11 53.22	0.9843921	1949.70
01/25/2025	20 30 27.002	-18 57 14.88	0.9845027	1949.48
01/26/2025	20 34 36.984	-18 42 15.65	0.9846173	1949.25
01/27/2025	20 38 46.180	-18 26 55.92	0.9847356	1949.02
01/28/2025	20 42 54.578	-18 11 16.10	0.9848574	1948.78
01/29/2025	20 47 02.170	-17 55 16.58	0.9849825	1948.53
01/30/2025	20 51 08.945	-17 38 57.78	0.9851107	1948.28
01/31/2025	20 55 14.898	-17 22 20.12	0.9852420	1948.02
02/01/2025	20 59 20.021	-17 05 24.02	0.9853764	1947.75
02/02/2025	21 03 24.313	-16 48 09.89	0.9855139	1947.48
02/03/2025	21 07 27.772	-16 30 38.15	0.9856548	1947.20
02/04/2025	21 11 30.401	-16 12 49.25	0.9857992	1946.92
02/05/2025	21 15 32.201	-15 54 43.59	0.9859475	1946.62
02/06/2025	21 19 33.179	-15 36 21.63	0.9860999	1946.32
02/07/2025	21 23 33.339	-15 17 43.79	0.9862567	1946.01
02/08/2025	21 27 32.686	-14 58 50.50	0.9864182	1945.69
02/09/2025	21 31 31.229	-14 39 42.17	0.9865847	1945.37
02/10/2025	21 35 28.977	-14 20 19.21	0.9867562	1945.03
02/11/2025	21 39 25.938	-14 00 42.03	0.9869328	1944.68
02/12/2025	21 43 22.126	-13 40 51.02	0.9871147	1944.32
02/13/2025	21 47 17.553	-13 20 46.56	0.9873018	1943.95
02/14/2025	21 51 12.234	-13 00 29.04	0.9874939	1943.57
02/15/2025	21 55 06.184	-12 39 58.85	0.9876911	1943.19
02/16/2025	21 58 59.418	-12 19 16.37	0.9878931	1942.79
02/17/2025	22 02 51.954	-11 58 21.99	0.9880996	1942.38
02/18/2025	22 06 43.805	-11 37 16.10	0.9883105	1941.97

Sun - Apparent data

Date	Right Ascension	Declination	Distance	Diameter
0 h TT	h m s	d m s	au	arc sec
02/19/2025	22 10 34.989	-11 15 59.09	0.9885256	1941.55
02/20/2025	22 14 25.521	-10 54 31.38	0.9887444	1941.12
02/21/2025	22 18 15.415	-10 32 53.35	0.9889668	1940.68
02/22/2025	22 22 04.687	-10 11 05.42	0.9891924	1940.24
02/23/2025	22 25 53.352	-09 49 08.00	0.9894209	1939.79
02/24/2025	22 29 41.422	-09 27 01.50	0.9896520	1939.34
02/25/2025	22 33 28.912	-09 04 46.34	0.9898853	1938.88
02/26/2025	22 37 15.833	-08 42 22.95	0.9901205	1938.42
02/27/2025	22 41 02.200	-08 19 51.77	0.9903573	1937.96
02/28/2025	22 44 48.023	-07 57 13.20	0.9905956	1937.49
03/01/2025	22 48 33.319	-07 34 27.68	0.9908350	1937.02
03/02/2025	22 52 18.101	-07 11 35.64	0.9910756	1936.55
03/03/2025	22 56 02.387	-06 48 37.49	0.9913174	1936.08
03/04/2025	22 59 46.193	-06 25 33.65	0.9915606	1935.60
03/05/2025	23 03 29.536	-06 02 24.55	0.9918053	1935.13
03/06/2025	23 07 12.433	-05 39 10.59	0.9920519	1934.65
03/07/2025	23 10 54.901	-05 15 52.19	0.9923006	1934.16
03/08/2025	23 14 36.959	-04 52 29.73	0.9925516	1933.67
03/09/2025	23 18 18.626	-04 29 03.62	0.9928052	1933.18
03/10/2025	23 21 59.923	-04 05 34.22	0.9930615	1932.68
03/11/2025	23 25 40.870	-03 42 01.90	0.9933207	1932.17
03/12/2025	23 29 21.490	-03 18 27.01	0.9935829	1931.66
03/13/2025	23 33 01.807	-02 54 49.91	0.9938481	1931.15
03/14/2025	23 36 41.845	-02 31 10.94	0.9941163	1930.63
03/15/2025	23 40 21.629	-02 07 30.43	0.9943874	1930.10
03/16/2025	23 44 01.182	-01 43 48.73	0.9946613	1929.57
03/17/2025	23 47 40.530	-01 20 06.17	0.9949379	1929.03
03/18/2025	23 51 19.696	-00 56 23.11	0.9952170	1928.49
03/19/2025	23 54 58.703	-00 32 39.87	0.9954984	1927.95
03/20/2025	23 58 37.573	-00 08 56.81	0.9957818	1927.40
03/21/2025	00 02 16.330	00 14 45.71	0.9960669	1926.85
03/22/2025	00 05 54.993	00 38 27.35	0.9963535	1926.29
03/23/2025	00 09 33.584	01 02 07.75	0.9966413	1925.74
03/24/2025	00 13 12.121	01 25 46.55	0.9969297	1925.18
03/25/2025	00 16 50.624	01 49 23.37	0.9972187	1924.62
03/26/2025	00 20 29.111	02 12 57.84	0.9975076	1924.06
03/27/2025	00 24 07.599	02 36 29.58	0.9977962	1923.51
03/28/2025	00 27 46.107	02 59 58.21	0.9980841	1922.95
03/29/2025	00 31 24.650	03 23 23.35	0.9983709	1922.40
03/30/2025	00 35 03.248	03 46 44.63	0.9986566	1921.85
03/31/2025	00 38 41.917	04 10 01.66	0.9989410	1921.30
04/01/2025	00 42 20.673	04 33 14.06	0.9992241	1920.76
04/02/2025	00 45 59.533	04 56 21.46	0.9995061	1920.22
04/03/2025	00 49 38.509	05 19 23.47	0.9997871	1919.68
04/04/2025	00 53 17.617	05 42 19.73	1.0000674	1919.14
04/05/2025	00 56 56.872	06 05 09.88	1.0003472	1918.60
04/06/2025	01 00 36.292	06 27 53.56	1.0006269	1918.07
04/07/2025	01 04 15.894	06 50 30.43	1.0009065	1917.53
04/08/2025	01 07 55.698	07 13 00.16	1.0011864	1916.99
04/09/2025	01 11 35.723	07 35 22.43	1.0014665	1916.46

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Date	Right Ascension	Declination	Distance	Diameter
0 h TT	h m s	d m s	au	arc sec
04/10/2025	01 15 15.990	07 57 36.92	1.0017470	1915.92
04/11/2025	01 18 56.520	08 19 43.32	1.0020280	1915.38
04/12/2025	01 22 37.333	08 41 41.31	1.0023094	1914.85
04/13/2025	01 26 18.450	09 03 30.58	1.0025913	1914.31
04/14/2025	01 29 59.890	09 25 10.84	1.0028736	1913.77
04/15/2025	01 33 41.673	09 46 41.76	1.0031561	1913.23
04/16/2025	01 37 23.818	10 08 03.04	1.0034388	1912.69
04/17/2025	01 41 06.341	10 29 14.36	1.0037214	1912.15
04/18/2025	01 44 49.260	10 50 15.40	1.0040038	1911.62
04/19/2025	01 48 32.590	11 11 05.84	1.0042856	1911.08
04/20/2025	01 52 16.346	11 31 45.34	1.0045666	1910.54
04/21/2025	01 56 00.541	11 52 13.58	1.0048465	1910.01
04/22/2025	01 59 45.189	12 12 30.21	1.0051250	1909.48
04/23/2025	02 03 30.302	12 32 34.90	1.0054016	1908.96
04/24/2025	02 07 15.891	12 52 27.29	1.0056759	1908.44
04/25/2025	02 11 01.967	13 12 07.04	1.0059477	1907.92
04/26/2025	02 14 48.541	13 31 33.79	1.0062164	1907.41
04/27/2025	02 18 35.622	13 50 47.21	1.0064817	1906.91
04/28/2025	02 22 23.217	14 09 46.94	1.0067436	1906.41
04/29/2025	02 26 11.331	14 28 32.64	1.0070017	1905.92
04/30/2025	02 29 59.965	14 47 03.97	1.0072562	1905.44
05/01/2025	02 33 49.122	15 05 20.58	1.0075072	1904.97
05/02/2025	02 37 38.801	15 23 22.12	1.0077549	1904.50
05/03/2025	02 41 29.006	15 41 08.27	1.0079994	1904.04
05/04/2025	02 45 19.738	15 58 38.70	1.0082411	1903.58
05/05/2025	02 49 11.004	16 15 53.09	1.0084802	1903.13
05/06/2025	02 53 02.808	16 32 51.14	1.0087169	1902.68
05/07/2025	02 56 55.156	16 49 32.57	1.0089514	1902.24
05/08/2025	03 00 48.055	17 05 57.07	1.0091838	1901.80
05/09/2025	03 04 41.509	17 22 04.38	1.0094143	1901.37
05/10/2025	03 08 35.524	17 37 54.21	1.0096429	1900.94
05/11/2025	03 12 30.105	17 53 26.31	1.0098698	1900.51
05/12/2025	03 16 25.255	18 08 40.39	1.0100949	1900.09
05/13/2025	03 20 20.977	18 23 36.19	1.0103183	1899.67
05/14/2025	03 24 17.274	18 38 13.46	1.0105399	1899.25
05/15/2025	03 28 14.146	18 52 31.91	1.0107595	1898.84
05/16/2025	03 32 11.592	19 06 31.30	1.0109772	1898.43
05/17/2025	03 36 09.611	19 20 11.35	1.0111926	1898.03
05/18/2025	03 40 08.201	19 33 31.80	1.0114057	1897.63
05/19/2025	03 44 07.357	19 46 32.37	1.0116161	1897.23
05/20/2025	03 48 07.076	19 59 12.80	1.0118236	1896.84
05/21/2025	03 52 07.352	20 11 32.82	1.0120277	1896.46
05/22/2025	03 56 08.179	20 23 32.16	1.0122282	1896.08
05/23/2025	04 00 09.550	20 35 10.55	1.0124247	1895.72
05/24/2025	04 04 11.457	20 46 27.75	1.0126167	1895.36
05/25/2025	04 08 13.889	20 57 23.50	1.0128040	1895.01
05/26/2025	04 12 16.833	21 07 57.58	1.0129861	1894.66
05/27/2025	04 16 20.272	21 18 09.76	1.0131629	1894.33
05/28/2025	04 20 24.186	21 27 59.80	1.0133342	1894.01
05/29/2025	04 24 28.553	21 37 27.50	1.0135002	1893.70

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Date	Right Ascension	Declination	Distance	Diameter
0 h TT	h m s	d m s	au	arc sec
05/30/2025	04 28 33.352	21 46 32.63	1.0136609	1893.40
05/31/2025	04 32 38.562	21 55 14.98	1.0138165	1893.11
06/01/2025	04 36 44.163	22 03 34.36	1.0139672	1892.83
06/02/2025	04 40 50.137	22 11 30.60	1.0141133	1892.56
06/03/2025	04 44 56.468	22 19 03.51	1.0142550	1892.29
06/04/2025	04 49 03.140	22 26 12.95	1.0143926	1892.04
06/05/2025	04 53 10.136	22 32 58.77	1.0145262	1891.79
06/06/2025	04 57 17.440	22 39 20.85	1.0146561	1891.55
06/07/2025	05 01 25.035	22 45 19.06	1.0147825	1891.31
06/08/2025	05 05 32.905	22 50 53.30	1.0149054	1891.08
06/09/2025	05 09 41.032	22 56 03.46	1.0150250	1890.86
06/10/2025	05 13 49.398	23 00 49.44	1.0151414	1890.64
06/11/2025	05 17 57.985	23 05 11.16	1.0152546	1890.43
06/12/2025	05 22 06.774	23 09 08.54	1.0153647	1890.23
06/13/2025	05 26 15.745	23 12 41.49	1.0154717	1890.03
06/14/2025	05 30 24.878	23 15 49.95	1.0155755	1889.83
06/15/2025	05 34 34.154	23 18 33.83	1.0156759	1889.65
06/16/2025	05 38 43.553	23 20 53.08	1.0157729	1889.47
06/17/2025	05 42 53.053	23 22 47.63	1.0158661	1889.29
06/18/2025	05 47 02.634	23 24 17.42	1.0159554	1889.13
06/19/2025	05 51 12.277	23 25 22.41	1.0160403	1888.97
06/20/2025	05 55 21.961	23 26 02.56	1.0161206	1888.82
06/21/2025	05 59 31.663	23 26 17.86	1.0161959	1888.68
06/22/2025	06 03 41.360	23 26 08.30	1.0162658	1888.55
06/23/2025	06 07 51.027	23 25 33.90	1.0163300	1888.43
06/24/2025	06 12 00.634	23 24 34.68	1.0163882	1888.32
06/25/2025	06 16 10.151	23 23 10.70	1.0164402	1888.23
06/26/2025	06 20 19.547	23 21 22.00	1.0164860	1888.14
06/27/2025	06 24 28.788	23 19 08.63	1.0165256	1888.07
06/28/2025	06 28 37.847	23 16 30.65	1.0165590	1888.01
06/29/2025	06 32 46.695	23 13 28.14	1.0165866	1887.95
06/30/2025	06 36 55.308	23 10 01.17	1.0166084	1887.91
07/01/2025	06 41 03.663	23 06 09.85	1.0166248	1887.88
07/02/2025	06 45 11.738	23 01 54.28	1.0166360	1887.86
07/03/2025	06 49 19.514	22 57 14.58	1.0166422	1887.85
07/04/2025	06 53 26.970	22 52 10.88	1.0166437	1887.85
07/05/2025	06 57 34.089	22 46 43.33	1.0166407	1887.85
07/06/2025	07 01 40.851	22 40 52.07	1.0166335	1887.87
07/07/2025	07 05 47.241	22 34 37.25	1.0166222	1887.89
07/08/2025	07 09 53.242	22 27 59.03	1.0166071	1887.92
07/09/2025	07 13 58.837	22 20 57.60	1.0165883	1887.95
07/10/2025	07 18 04.012	22 13 33.10	1.0165660	1887.99
07/11/2025	07 22 08.751	22 05 45.72	1.0165402	1888.04
07/12/2025	07 26 13.042	21 57 35.62	1.0165110	1888.10
07/13/2025	07 30 16.872	21 49 02.99	1.0164784	1888.16
07/14/2025	07 34 20.229	21 40 07.99	1.0164424	1888.22
07/15/2025	07 38 23.105	21 30 50.79	1.0164027	1888.30
07/16/2025	07 42 25.490	21 21 11.59	1.0163594	1888.38
07/17/2025	07 46 27.377	21 11 10.56	1.0163120	1888.46
07/18/2025	07 50 28.757	21 00 47.91	1.0162602	1888.56

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Date	Right Ascension	Declination	Distance	Diameter
0 h TT	h m s	d m s	au	arc sec
07/19/2025	07 54 29.622	20 50 03.85	1.0162039	1888.67
07/20/2025	07 58 29.964	20 38 58.62	1.0161425	1888.78
07/21/2025	08 02 29.769	20 27 32.46	1.0160759	1888.90
07/22/2025	08 06 29.026	20 15 45.63	1.0160037	1889.04
07/23/2025	08 10 27.721	20 03 38.40	1.0159256	1889.18
07/24/2025	08 14 25.840	19 51 11.05	1.0158417	1889.34
07/25/2025	08 18 23.370	19 38 23.84	1.0157517	1889.51
07/26/2025	08 22 20.300	19 25 17.07	1.0156558	1889.68
07/27/2025	08 26 16.621	19 11 50.99	1.0155540	1889.87
07/28/2025	08 30 12.326	18 58 05.91	1.0154465	1890.07
07/29/2025	08 34 07.412	18 44 02.10	1.0153335	1890.28
07/30/2025	08 38 01.876	18 29 39.86	1.0152153	1890.50
07/31/2025	08 41 55.715	18 14 59.48	1.0150921	1890.73
08/01/2025	08 45 48.931	18 00 01.27	1.0149643	1890.97
08/02/2025	08 49 41.523	17 44 45.51	1.0148320	1891.22
08/03/2025	08 53 33.493	17 29 12.52	1.0146955	1891.47
08/04/2025	08 57 24.844	17 13 22.59	1.0145552	1891.73
08/05/2025	09 01 15.578	16 57 16.03	1.0144112	1892.00
08/06/2025	09 05 05.700	16 40 53.14	1.0142638	1892.28
08/07/2025	09 08 55.216	16 24 14.22	1.0141133	1892.56
08/08/2025	09 12 44.130	16 07 19.56	1.0139599	1892.85
08/09/2025	09 16 32.450	15 50 09.45	1.0138038	1893.14
08/10/2025	09 20 20.186	15 32 44.17	1.0136451	1893.43
08/11/2025	09 24 07.347	15 15 03.99	1.0134839	1893.73
08/12/2025	09 27 53.946	14 57 09.18	1.0133202	1894.04
08/13/2025	09 31 39.996	14 39 00.01	1.0131538	1894.35
08/14/2025	09 35 25.512	14 20 36.76	1.0129847	1894.67
08/15/2025	09 39 10.507	14 01 59.70	1.0128125	1894.99
08/16/2025	09 42 54.993	13 43 09.13	1.0126370	1895.32
08/17/2025	09 46 38.980	13 24 05.37	1.0124579	1895.65
08/18/2025	09 50 22.479	13 04 48.73	1.0122749	1896.00
08/19/2025	09 54 05.496	12 45 19.55	1.0120877	1896.35
08/20/2025	09 57 48.039	12 25 38.16	1.0118961	1896.71
08/21/2025	10 01 30.114	12 05 44.91	1.0116999	1897.07
08/22/2025	10 05 11.730	11 45 40.14	1.0114991	1897.45
08/23/2025	10 08 52.895	11 25 24.18	1.0112935	1897.84
08/24/2025	10 12 33.620	11 04 57.38	1.0110832	1898.23
08/25/2025	10 16 13.915	10 44 20.07	1.0108684	1898.63
08/26/2025	10 19 53.795	10 23 32.58	1.0106491	1899.05
08/27/2025	10 23 33.271	10 02 35.27	1.0104256	1899.47
08/28/2025	10 27 12.358	09 41 28.46	1.0101981	1899.89
08/29/2025	10 30 51.071	09 20 12.49	1.0099669	1900.33
08/30/2025	10 34 29.424	08 58 47.70	1.0097322	1900.77
08/31/2025	10 38 07.433	08 37 14.42	1.0094943	1901.22
09/01/2025	10 41 45.114	08 15 32.99	1.0092536	1901.67
09/02/2025	10 45 22.482	07 53 43.73	1.0090102	1902.13
09/03/2025	10 48 59.555	07 31 46.98	1.0087647	1902.59
09/04/2025	10 52 36.350	07 09 43.05	1.0085171	1903.06
09/05/2025	10 56 12.884	06 47 32.27	1.0082680	1903.53
09/06/2025	10 59 49.178	06 25 14.93	1.0080175	1904.00

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0 h TT	h m s	d m s	au	arc sec
09/07/2025	11 03 25.251	06 02 51.35	1.0077660	1904.48
09/08/2025	11 07 01.127	05 40 21.81	1.0075136	1904.96
09/09/2025	11 10 36.830	05 17 46.59	1.0072604	1905.43
09/10/2025	11 14 12.384	04 55 05.97	1.0070065	1905.92
09/11/2025	11 17 47.816	04 32 20.22	1.0067519	1906.40
09/12/2025	11 21 23.149	04 09 29.64	1.0064964	1906.88
09/13/2025	11 24 58.407	03 46 34.52	1.0062397	1907.37
09/14/2025	11 28 33.608	03 23 35.21	1.0059816	1907.86
09/15/2025	11 32 08.772	03 00 32.01	1.0057218	1908.35
09/16/2025	11 35 43.916	02 37 25.30	1.0054601	1908.85
09/17/2025	11 39 19.057	02 14 15.40	1.0051962	1909.35
09/18/2025	11 42 54.212	01 51 02.69	1.0049300	1909.85
09/19/2025	11 46 29.398	01 27 47.51	1.0046612	1910.36
09/20/2025	11 50 04.632	01 04 30.23	1.0043898	1910.88
09/21/2025	11 53 39.934	00 41 11.20	1.0041159	1911.40
09/22/2025	11 57 15.320	00 17 50.78	1.0038393	1911.93
09/23/2025	12 00 50.811	-00 05 30.67	1.0035603	1912.46
09/24/2025	12 04 26.424	-00 28 52.79	1.0032788	1913.00
09/25/2025	12 08 02.177	-00 52 15.21	1.0029953	1913.54
09/26/2025	12 11 38.091	-01 15 37.59	1.0027097	1914.08
09/27/2025	12 15 14.182	-01 38 59.55	1.0024224	1914.63
09/28/2025	12 18 50.469	-02 02 20.74	1.0021336	1915.18
09/29/2025	12 22 26.970	-02 25 40.79	1.0018437	1915.74
09/30/2025	12 26 03.705	-02 48 59.35	1.0015529	1916.29
10/01/2025	12 29 40.691	-03 12 16.05	1.0012615	1916.85
10/02/2025	12 33 17.948	-03 35 30.54	1.0009699	1917.41
10/03/2025	12 36 55.495	-03 58 42.47	1.0006784	1917.97
10/04/2025	12 40 33.352	-04 21 51.48	1.0003875	1918.53
10/05/2025	12 44 11.543	-04 44 57.23	1.0000975	1919.08
10/06/2025	12 47 50.091	-05 07 59.41	0.9998086	1919.64
10/07/2025	12 51 29.020	-05 30 57.69	0.9995212	1920.19
10/08/2025	12 55 08.359	-05 53 51.75	0.9992354	1920.74
10/09/2025	12 58 48.134	-06 16 41.29	0.9989513	1921.28
10/10/2025	13 02 28.368	-06 39 25.99	0.9986689	1921.83
10/11/2025	13 06 09.085	-07 02 05.49	0.9983880	1922.37
10/12/2025	13 09 50.304	-07 24 39.45	0.9981084	1922.91
10/13/2025	13 13 32.045	-07 47 07.49	0.9978298	1923.44
10/14/2025	13 17 14.324	-08 09 29.23	0.9975521	1923.98
10/15/2025	13 20 57.159	-08 31 44.26	0.9972748	1924.51
10/16/2025	13 24 40.567	-08 53 52.18	0.9969980	1925.05
10/17/2025	13 28 24.563	-09 15 52.61	0.9967213	1925.58
10/18/2025	13 32 09.164	-09 37 45.12	0.9964446	1926.12
10/19/2025	13 35 54.386	-09 59 29.32	0.9961679	1926.65
10/20/2025	13 39 40.244	-10 21 04.81	0.9958912	1927.19
10/21/2025	13 43 26.752	-10 42 31.17	0.9956143	1927.72
10/22/2025	13 47 13.924	-11 03 47.99	0.9953375	1928.26
10/23/2025	13 51 01.773	-11 24 54.87	0.9950607	1928.80
10/24/2025	13 54 50.310	-11 45 51.39	0.9947842	1929.33
10/25/2025	13 58 39.546	-12 06 37.15	0.9945081	1929.87
10/26/2025	14 02 29.493	-12 27 11.72	0.9942325	1930.40

Sun - Apparent data

Date	Right Ascension	Declination	Distance	Diameter
0 h TT	h m s	d m s	au	arc sec
10/27/2025	14 06 20.159	-12 47 34.70	0.9939578	1930.94
10/28/2025	14 10 11.556	-13 07 45.67	0.9936842	1931.47
10/29/2025	14 14 03.690	-13 27 44.22	0.9934120	1932.00
10/30/2025	14 17 56.573	-13 47 29.94	0.9931415	1932.52
10/31/2025	14 21 50.213	-14 07 02.43	0.9928730	1933.05
11/01/2025	14 25 44.620	-14 26 21.27	0.9926070	1933.56
11/02/2025	14 29 39.804	-14 45 26.08	0.9923438	1934.08
11/03/2025	14 33 35.778	-15 04 16.46	0.9920838	1934.58
11/04/2025	14 37 32.555	-15 22 52.05	0.9918274	1935.08
11/05/2025	14 41 30.148	-15 41 12.49	0.9915748	1935.58
11/06/2025	14 45 28.571	-15 59 17.42	0.9913262	1936.06
11/07/2025	14 49 27.835	-16 17 06.48	0.9910819	1936.54
11/08/2025	14 53 27.948	-16 34 39.29	0.9908416	1937.01
11/09/2025	14 57 28.917	-16 51 55.47	0.9906053	1937.47
11/10/2025	15 01 30.745	-17 08 54.61	0.9903728	1937.93
11/11/2025	15 05 33.436	-17 25 36.31	0.9901439	1938.37
11/12/2025	15 09 36.992	-17 42 00.13	0.9899182	1938.82
11/13/2025	15 13 41.413	-17 58 05.68	0.9896956	1939.25
11/14/2025	15 17 46.700	-18 13 52.55	0.9894758	1939.68
11/15/2025	15 21 52.850	-18 29 20.31	0.9892586	1940.11
11/16/2025	15 25 59.860	-18 44 28.58	0.9890439	1940.53
11/17/2025	15 30 07.725	-18 59 16.95	0.9888317	1940.95
11/18/2025	15 34 16.439	-19 13 45.03	0.9886217	1941.36
11/19/2025	15 38 25.993	-19 27 52.43	0.9884141	1941.77
11/20/2025	15 42 36.376	-19 41 38.78	0.9882087	1942.17
11/21/2025	15 46 47.578	-19 55 03.68	0.9880056	1942.57
11/22/2025	15 50 59.584	-20 08 06.77	0.9878049	1942.96
11/23/2025	15 55 12.379	-20 20 47.69	0.9876068	1943.35
11/24/2025	15 59 25.947	-20 33 06.07	0.9874113	1943.74
11/25/2025	16 03 40.270	-20 45 01.56	0.9872186	1944.12
11/26/2025	16 07 55.332	-20 56 33.82	0.9870289	1944.49
11/27/2025	16 12 11.112	-21 07 42.51	0.9868426	1944.86
11/28/2025	16 16 27.593	-21 18 27.30	0.9866599	1945.22
11/29/2025	16 20 44.756	-21 28 47.88	0.9864811	1945.57
11/30/2025	16 25 02.583	-21 38 43.96	0.9863066	1945.91
12/01/2025	16 29 21.055	-21 48 15.24	0.9861367	1946.25
12/02/2025	16 33 40.157	-21 57 21.47	0.9859719	1946.58
12/03/2025	16 37 59.871	-22 06 02.39	0.9858125	1946.89
12/04/2025	16 42 20.181	-22 14 17.78	0.9856588	1947.19
12/05/2025	16 46 41.067	-22 22 07.42	0.9855110	1947.49
12/06/2025	16 51 02.507	-22 29 31.07	0.9853692	1947.77
12/07/2025	16 55 24.480	-22 36 28.52	0.9852333	1948.03
12/08/2025	16 59 46.962	-22 42 59.53	0.9851034	1948.29
12/09/2025	17 04 09.927	-22 49 03.86	0.9849790	1948.54
12/10/2025	17 08 33.350	-22 54 41.32	0.9848600	1948.77
12/11/2025	17 12 57.205	-22 59 51.68	0.9847462	1949.00
12/12/2025	17 17 21.464	-23 04 34.77	0.9846372	1949.21
12/13/2025	17 21 46.098	-23 08 50.40	0.9845329	1949.42
12/14/2025	17 26 11.075	-23 12 38.43	0.9844330	1949.62
12/15/2025	17 30 36.365	-23 15 58.72	0.9843373	1949.81

Sun - Apparent data

Date	Right Ascension	Declination	Distance	Diameter
0 h TT	h m s	d m s	au	arc sec
12/16/2025	17 35 01.933	-23 18 51.14	0.9842457	1949.99
12/17/2025	17 39 27.744	-23 21 15.59	0.9841580	1950.16
12/18/2025	17 43 53.761	-23 23 11.98	0.9840741	1950.33
12/19/2025	17 48 19.949	-23 24 40.23	0.9839940	1950.49
12/20/2025	17 52 46.268	-23 25 40.29	0.9839176	1950.64
12/21/2025	17 57 12.679	-23 26 12.12	0.9838449	1950.78
12/22/2025	18 01 39.144	-23 26 15.69	0.9837759	1950.92
12/23/2025	18 06 05.622	-23 25 50.98	0.9837106	1951.05
12/24/2025	18 10 32.076	-23 24 58.00	0.9836493	1951.17
12/25/2025	18 14 58.466	-23 23 36.77	0.9835920	1951.29
12/26/2025	18 19 24.757	-23 21 47.33	0.9835390	1951.39
12/27/2025	18 23 50.911	-23 19 29.72	0.9834905	1951.49
12/28/2025	18 28 16.897	-23 16 44.01	0.9834468	1951.57
12/29/2025	18 32 42.680	-23 13 30.30	0.9834082	1951.65
12/30/2025	18 37 08.231	-23 09 48.70	0.9833751	1951.72
12/31/2025	18 41 33.520	-23 05 39.33	0.9833478	1951.77
01/01/2026	18 45 58.519	-23 01 02.33	0.9833267	1951.81
01/02/2026	18 50 23.199	-22 55 57.85	0.9833119	1951.84



Moon - Apparent data

Date	Right Ascension	Declination	Distance	Parallax	Diameter	%Illum.
0 h TT	h m s	d m s	km	arc min	arc sec	
12/31/2024	18 47 45.757	-27 56 06.87	385361.380	56.90093	1860.62	0.2
01/01/2025	19 46 40.476	-25 51 45.94	381747.112	57.43970	1878.24	1.5
01/02/2025	20 43 49.972	-22 17 45.67	378579.133	57.92040	1893.96	5.0
01/03/2025	21 38 26.375	-17 28 25.51	375938.756	58.32724	1907.26	10.9
01/04/2025	22 30 32.087	-11 42 18.38	373840.073	58.65471	1917.97	18.7
01/05/2025	23 20 48.002	-05 19 12.82	372252.409	58.90490	1926.15	28.2
01/06/2025	00 10 17.923	01 21 12.02	371130.835	59.08293	1931.97	38.9
01/07/2025	01 00 16.266	07 59 27.27	370446.320	59.19212	1935.54	50.1
01/08/2025	01 51 58.398	14 15 28.17	370207.059	59.23038	1936.79	61.4
01/09/2025	02 46 29.119	19 47 47.92	370464.748	59.18917	1935.44	72.1
01/10/2025	03 44 24.770	24 13 49.79	371303.504	59.05545	1931.07	81.7
01/11/2025	04 45 30.044	27 12 02.38	372813.748	58.81620	1923.25	89.5
01/12/2025	05 48 23.376	28 26 38.64	375057.684	58.46427	1911.74	95.3
01/13/2025	06 50 53.121	27 52 48.00	378035.799	58.00366	1896.68	98.8
01/14/2025	07 50 46.923	25 38 38.60	381663.805	57.45224	1878.65	99.8
01/15/2025	08 46 40.726	22 02 12.69	385766.345	56.84119	1858.67	98.6
01/16/2025	09 38 14.306	17 25 32.27	390088.696	56.21131	1838.08	95.3
01/17/2025	10 25 56.387	12 09 39.24	394322.740	55.60769	1818.34	90.1
01/18/2025	11 10 41.873	06 32 10.18	398140.713	55.07439	1800.90	83.5
01/19/2025	11 53 35.421	00 46 59.35	401230.107	54.65029	1787.04	75.8
01/20/2025	12 35 43.333	-04 54 49.84	403324.854	54.36643	1777.76	67.3
01/21/2025	13 18 10.700	-10 23 47.58	404230.238	54.24465	1773.77	58.2
01/22/2025	14 02 00.310	-15 30 35.53	403840.771	54.29697	1775.49	48.8
01/23/2025	14 48 10.421	-20 04 50.60	402151.095	54.52512	1782.94	39.4
01/24/2025	15 37 28.826	-23 54 08.01	399260.020	54.91998	1795.86	30.3
01/25/2025	16 30 21.489	-26 43 48.46	395367.207	55.46077	1813.54	21.7
01/26/2025	17 26 37.544	-28 18 07.41	390761.325	56.11454	1834.91	14.0
01/27/2025	18 25 19.466	-28 23 11.14	385798.236	56.83649	1858.52	7.7
01/28/2025	19 24 51.877	-26 51 01.38	380868.405	57.57223	1882.57	3.0
01/29/2025	20 23 32.745	-23 42 47.53	376354.962	58.26273	1905.15	0.5
01/30/2025	21 20 09.834	-19 09 10.64	372587.420	58.85193	1924.41	0.4
01/31/2025	22 14 19.634	-13 28 02.40	369799.956	59.29559	1938.92	2.9
02/01/2025	23 06 23.781	-07 01 05.68	368104.963	59.56865	1947.85	7.9
02/02/2025	23 57 14.297	-00 11 14.96	367490.110	59.66833	1951.11	15.3
02/03/2025	00 47 58.714	06 38 48.93	367840.407	59.61150	1949.25	24.5
02/04/2025	01 39 48.182	13 07 01.22	368978.510	59.42761	1943.24	35.1
02/05/2025	02 33 45.954	18 51 44.64	370711.016	59.14985	1934.15	46.3
02/06/2025	03 30 32.335	23 31 55.55	372868.038	58.80764	1922.97	57.6
02/07/2025	04 30 05.818	26 48 19.00	375327.175	58.42229	1910.37	68.4
02/08/2025	05 31 29.152	28 26 24.44	378018.717	58.00628	1896.76	78.1
02/09/2025	06 32 56.913	28 20 11.00	380914.008	57.56534	1882.35	86.4
02/10/2025	07 32 31.081	26 34 17.17	384002.499	57.10230	1867.21	92.8
02/11/2025	08 28 44.376	23 22 38.22	387264.651	56.62125	1851.48	97.2
02/12/2025	09 21 02.313	19 04 18.78	390647.861	56.13084	1835.45	99.6
02/13/2025	10 09 37.824	13 59 15.82	394051.007	55.64603	1819.59	99.8
02/14/2025	10 55 13.406	08 25 37.18	397320.633	55.18807	1804.62	98.0
02/15/2025	11 38 45.128	02 38 44.31	400258.883	54.78291	1791.37	94.4
02/16/2025	12 21 13.190	-03 08 37.03	402640.941	54.45878	1780.78	89.2
02/17/2025	13 03 37.754	-08 45 32.26	404238.473	54.24355	1773.74	82.6
02/18/2025	13 46 57.287	-14 01 59.58	404845.470	54.16221	1771.08	74.9

Moon - Apparent data

Date	Right Ascension	Declination	Distance	Parallax	Diameter	%Illum.
0 h TT	h m s	d m s	km	arc min	arc sec	
02/19/2025	14 32 06.855	-18 47 48.79	404303.583	54.23481	1773.45	66.3
02/20/2025	15 19 54.159	-22 51 47.24	402524.935	54.47448	1781.29	57.1
02/21/2025	16 10 51.621	-26 01 09.78	399511.015	54.88547	1794.73	47.5
02/22/2025	17 05 04.715	-28 01 59.31	395366.336	55.46089	1813.54	37.9
02/23/2025	18 02 01.275	-28 40 45.01	390305.032	56.18015	1837.06	28.4
02/24/2025	19 00 31.594	-27 47 16.22	384647.605	57.00653	1864.08	19.6
02/25/2025	19 59 06.922	-25 17 51.45	378804.253	57.88598	1892.83	11.8
02/26/2025	20 56 30.175	-21 17 08.25	373241.429	58.74880	1921.04	5.6
02/27/2025	21 52 00.745	-15 57 46.17	368430.880	59.51595	1946.12	1.5
02/28/2025	22 45 41.161	-09 38 40.02	364786.028	60.11068	1965.57	0.0
03/01/2025	23 38 08.754	-02 42 51.41	362598.096	60.47343	1977.43	1.3
03/02/2025	00 30 21.986	04 24 21.82	361989.753	60.57507	1980.75	5.5
03/03/2025	01 23 27.103	11 16 52.40	362902.192	60.42275	1975.77	12.3
03/04/2025	02 18 24.845	17 28 54.69	365120.874	60.05555	1963.77	21.1
03/05/2025	03 15 54.478	22 36 18.80	368330.842	59.53212	1946.65	31.4
03/06/2025	04 15 55.133	26 18 19.51	372182.993	58.91589	1926.51	42.4
03/07/2025	05 17 32.711	28 20 20.70	376352.461	58.26312	1905.16	53.6
03/08/2025	06 19 07.357	28 36 52.72	380577.238	57.61628	1884.01	64.3
03/09/2025	07 18 47.032	27 12 47.34	384673.758	57.00265	1863.95	74.1
03/10/2025	08 15 08.267	24 21 28.06	388532.564	56.43646	1845.44	82.7
03/11/2025	09 07 37.327	20 20 52.31	392100.202	55.92291	1828.65	89.7
03/12/2025	09 56 25.729	15 29 42.89	395354.203	55.46259	1813.60	95.0
03/13/2025	10 42 13.612	10 05 13.25	398277.341	55.05549	1800.29	98.4
03/14/2025	11 25 54.403	04 22 24.86	400836.167	54.70401	1788.79	99.9
03/15/2025	12 08 25.465	-01 25 41.10	402967.246	54.41468	1779.33	99.5
03/16/2025	12 50 43.754	-07 07 29.03	404572.827	54.19871	1772.27	97.3
03/17/2025	13 33 43.986	-12 32 07.79	405526.022	54.07131	1768.11	93.4
03/18/2025	14 18 17.049	-17 28 49.94	405684.190	54.05023	1767.42	88.0
03/19/2025	15 05 06.787	-21 46 17.11	404908.427	54.15379	1770.80	81.3
03/20/2025	15 54 43.850	-25 12 21.80	403086.757	54.39855	1778.81	73.3
03/21/2025	16 47 16.749	-27 34 22.70	400158.678	54.79663	1791.82	64.5
03/22/2025	17 42 23.380	-28 40 11.02	396138.872	55.35272	1810.00	54.9
03/23/2025	18 39 09.947	-28 20 07.87	391137.717	56.06054	1833.15	44.9
03/24/2025	19 36 23.505	-26 29 16.85	385375.579	56.89883	1860.56	34.8
03/25/2025	20 32 55.567	-23 08 53.15	379186.683	57.82759	1890.92	25.0
03/26/2025	21 28 04.484	-18 26 35.94	373007.134	58.78570	1922.25	16.1
03/27/2025	22 21 45.489	-12 35 46.57	367341.564	59.69246	1951.90	8.6
03/28/2025	23 14 27.632	-05 54 39.38	362705.839	60.45546	1976.84	3.1
03/29/2025	00 07 03.882	01 14 13.20	359550.684	60.98603	1994.19	0.3
03/30/2025	01 00 39.442	08 24 35.91	358181.936	61.21910	2001.81	0.5
03/31/2025	01 56 18.545	15 07 36.12	358701.401	61.13044	1998.91	3.7
04/01/2025	02 54 46.974	20 53 44.91	360990.249	60.74280	1986.24	9.6
04/02/2025	03 56 09.505	25 16 11.13	364741.849	60.11796	1965.81	17.8
04/03/2025	04 59 30.970	27 55 04.08	369531.250	59.33871	1940.33	27.6
04/04/2025	06 03 00.290	28 41 51.63	374896.564	58.48940	1912.56	38.2
04/05/2025	07 04 28.184	27 41 01.03	380409.090	57.64175	1884.85	49.1
04/06/2025	08 02 17.109	25 07 21.12	385719.293	56.84812	1858.90	59.7
04/07/2025	08 55 47.866	21 20 39.27	390576.682	56.14107	1835.78	69.6
04/08/2025	09 45 13.745	16 40 50.35	394828.289	55.53648	1816.01	78.4
04/09/2025	10 31 19.816	11 25 25.66	398402.735	55.03816	1799.72	85.9

Moon - Apparent data

Date	Right Ascension	Declination	Distance	Parallax	Diameter	%Illum.
0 h TT	h m s	d m s	km	arc min	arc sec	
04/10/2025	11 15 04.546	05 49 05.74	401286.525	54.64261	1786.79	92.0
04/11/2025	11 57 29.158	00 04 17.09	403497.974	54.34310	1776.99	96.4
04/12/2025	12 39 33.029	-05 37 52.61	405062.950	54.13313	1770.13	99.1
04/13/2025	13 22 12.005	-11 06 42.02	405995.592	54.00877	1766.06	100.0
04/14/2025	14 06 17.039	-16 11 14.44	406286.198	53.97013	1764.80	99.1
04/15/2025	14 52 31.266	-20 39 50.84	405897.565	54.02181	1766.49	96.4
04/16/2025	15 41 24.295	-24 20 04.92	404769.978	54.17231	1771.41	92.1
04/17/2025	16 33 03.988	-26 59 12.05	402834.151	54.43266	1779.92	86.2
04/18/2025	17 27 08.859	-28 25 22.36	400030.577	54.81418	1792.40	79.0
04/19/2025	18 22 47.460	-28 29 31.06	396333.191	55.32558	1809.12	70.5
04/20/2025	19 18 50.262	-27 07 07.92	391774.775	55.96937	1830.17	61.0
04/21/2025	20 14 11.617	-24 19 13.55	386470.964	56.73755	1855.28	50.8
04/22/2025	21 08 10.760	-20 12 00.60	380638.793	57.60696	1883.71	40.3
04/23/2025	22 00 41.779	-14 55 52.89	374604.428	58.53502	1914.05	29.8
04/24/2025	22 52 11.717	-08 44 38.70	368793.494	59.45743	1944.21	20.0
04/25/2025	23 43 32.513	-01 55 30.76	363697.613	60.29059	1971.45	11.5
04/26/2025	00 35 51.629	05 10 16.62	359814.438	60.94132	1992.73	5.0
04/27/2025	01 30 21.643	12 06 53.71	357567.252	61.32436	2005.25	1.1
04/28/2025	02 28 05.102	18 24 22.31	357222.165	61.38360	2007.19	0.2
04/29/2025	03 29 30.465	23 31 05.42	358829.307	61.10865	1998.20	2.3
04/30/2025	04 34 02.968	26 58 59.84	362210.462	60.53815	1979.55	7.3
05/01/2025	05 39 51.815	28 30 38.17	366998.164	59.74832	1953.72	14.7
05/02/2025	06 44 20.683	28 04 23.58	372710.575	58.83248	1923.78	23.7
05/03/2025	07 45 12.373	25 53 45.84	378835.809	57.88116	1892.67	33.7
05/04/2025	08 41 17.402	22 20 53.07	384902.926	56.96871	1862.84	44.1
05/05/2025	09 32 36.706	17 49 09.59	390528.196	56.14804	1836.01	54.4
05/06/2025	10 19 56.206	12 38 53.60	395435.952	55.45113	1813.22	64.3
05/07/2025	11 04 20.933	07 06 12.64	399459.182	54.89259	1794.96	73.4
05/08/2025	11 46 59.655	01 23 49.66	402526.515	54.47427	1781.28	81.4
05/09/2025	12 28 58.434	-04 17 35.93	404641.377	54.18953	1771.97	88.2
05/10/2025	13 11 18.677	-09 48 09.28	405857.714	54.02711	1766.66	93.5
05/11/2025	13 54 56.158	-14 57 36.49	406255.570	53.97420	1764.93	97.3
05/12/2025	14 40 38.564	-19 34 42.15	405919.150	54.01894	1766.39	99.4
05/13/2025	15 29 00.019	-23 26 56.15	404919.627	54.15229	1770.75	99.8
05/14/2025	16 20 12.458	-26 21 03.01	403304.587	54.36916	1777.85	98.3
05/15/2025	17 13 56.773	-28 04 25.62	401095.483	54.66864	1787.64	95.0
05/16/2025	18 09 20.590	-28 27 15.42	398293.650	55.05324	1800.21	90.0
05/17/2025	19 05 09.514	-27 24 43.31	394894.402	55.52718	1815.71	83.3
05/18/2025	20 00 10.468	-24 58 04.00	390907.658	56.09353	1834.23	75.2
05/19/2025	20 53 35.234	-21 14 00.36	386382.415	56.75055	1855.71	65.8
05/20/2025	21 45 12.198	-16 23 04.09	381431.286	57.48726	1879.80	55.5
05/21/2025	22 35 24.729	-10 38 04.48	376250.147	58.27896	1905.68	44.7
05/22/2025	23 25 02.769	-04 13 35.29	371126.756	59.08358	1931.99	33.7
05/23/2025	00 15 13.856	02 33 33.33	366431.609	59.84071	1956.74	23.3
05/24/2025	01 07 15.019	09 23 02.21	362585.437	60.47554	1977.50	14.1
05/25/2025	02 02 22.354	15 49 55.75	360002.413	60.90950	1991.69	6.8
05/26/2025	03 01 32.375	21 24 48.74	359016.870	61.07672	1997.15	2.1
05/27/2025	04 04 51.704	25 36 38.84	359811.576	60.94181	1992.74	0.2
05/28/2025	05 11 06.422	27 59 22.50	362370.846	60.51135	1978.67	1.3
05/29/2025	06 17 43.991	28 20 21.93	366475.936	59.83347	1956.51	5.3

Moon - Apparent data

Date	Right Ascension	Declination	Distance	Parallax	Diameter	%Illum.
0 h TT	h m s	d m s	km	arc min	arc sec	
05/30/2025	07 21 49.866	26 45 04.31	371744.200	58.98544	1928.78	11.5
05/31/2025	08 21 21.986	23 33 34.59	377697.057	58.05568	1898.38	19.6
06/01/2025	09 15 42.817	19 11 54.60	383834.572	57.12729	1868.03	28.8
06/02/2025	10 05 21.721	14 04 34.97	389698.357	56.26762	1839.92	38.6
06/03/2025	10 51 22.071	08 31 18.68	394913.874	55.52444	1815.62	48.6
06/04/2025	11 34 57.479	02 46 59.18	399211.620	54.92664	1796.07	58.4
06/05/2025	12 17 20.523	-02 56 56.42	402431.187	54.48717	1781.70	67.7
06/06/2025	12 59 39.068	-08 30 47.49	404513.232	54.20670	1772.53	76.2
06/07/2025	13 42 55.249	-13 45 10.99	405483.721	54.07695	1768.29	83.7
06/08/2025	14 28 03.793	-18 29 53.24	405433.605	54.08363	1768.51	90.0
06/09/2025	15 15 47.412	-22 33 10.73	404496.260	54.20897	1772.61	94.9
06/10/2025	16 06 28.293	-25 41 55.18	402824.669	54.43394	1779.96	98.2
06/11/2025	16 59 57.467	-27 42 42.09	400570.396	54.74030	1789.98	99.7
06/12/2025	17 55 28.581	-28 24 07.47	397866.608	55.11233	1802.14	99.4
06/13/2025	18 51 45.073	-27 39 34.46	394817.465	55.53800	1816.06	97.1
06/14/2025	19 47 23.195	-25 29 07.72	391495.773	56.00926	1831.47	92.8
06/15/2025	20 41 19.953	-21 59 28.67	387949.817	56.52124	1848.21	86.7
06/16/2025	21 33 10.230	-17 22 05.34	384218.746	57.07016	1866.16	78.8
06/17/2025	22 23 07.741	-11 50 57.03	380354.085	57.65009	1885.12	69.5
06/18/2025	23 11 56.214	-05 41 06.76	376443.171	58.24908	1904.70	59.1
06/19/2025	00 00 39.156	00 51 33.16	372628.845	58.84539	1924.20	47.9
06/20/2025	00 50 31.675	07 29 34.79	369118.943	59.40500	1942.50	36.7
06/21/2025	01 42 52.723	13 52 37.62	366179.473	59.88191	1958.09	25.9
06/22/2025	02 38 52.704	19 36 27.35	364107.656	60.22268	1969.23	16.3
06/23/2025	03 39 10.633	24 13 25.18	363185.960	60.37553	1974.23	8.5
06/24/2025	04 43 21.979	27 16 03.10	363625.324	60.30257	1971.84	3.1
06/25/2025	05 49 37.799	28 24 14.77	365512.402	59.99121	1961.66	0.5
06/26/2025	06 55 09.242	27 32 53.89	368777.478	59.46001	1944.30	0.6
06/27/2025	07 57 17.787	24 54 01.85	373194.054	58.75626	1921.29	3.4
06/28/2025	08 54 36.215	20 51 13.59	378409.883	57.94631	1894.80	8.5
06/29/2025	09 46 57.564	15 51 04.07	383998.799	57.10285	1867.23	15.4
06/30/2025	10 35 07.743	10 17 07.56	389518.275	56.29363	1840.77	23.7
07/01/2025	11 20 15.571	04 27 53.59	394560.092	55.57423	1817.25	32.8
07/02/2025	12 03 34.738	-01 22 43.32	398787.345	54.98508	1797.98	42.3
07/03/2025	12 46 16.307	-07 03 53.36	401956.463	54.55153	1783.81	51.9
07/04/2025	13 29 26.431	-12 26 12.17	403926.165	54.28549	1775.11	61.3
07/05/2025	14 14 05.042	-17 20 13.70	404656.257	54.18754	1771.91	70.3
07/06/2025	15 01 02.557	-21 35 25.41	404198.880	54.24886	1773.91	78.5
07/07/2025	15 50 52.772	-24 59 39.87	402683.995	54.45296	1780.59	85.8
07/08/2025	16 43 42.154	-27 19 44.03	400300.346	54.77724	1791.19	91.8
07/09/2025	17 39 00.038	-28 23 05.28	397272.939	55.19470	1804.84	96.3
07/10/2025	18 35 38.907	-28 00 41.62	393838.512	55.67606	1820.58	99.1
07/11/2025	19 32 11.872	-26 09 47.35	390221.270	56.19221	1837.45	99.8
07/12/2025	20 27 21.786	-22 55 01.64	386612.086	56.71683	1854.61	98.5
07/13/2025	21 20 25.303	-18 27 24.52	383154.777	57.22865	1871.34	95.0
07/14/2025	22 11 20.268	-13 01 55.66	379942.535	57.71254	1887.16	89.3
07/15/2025	23 00 39.131	-06 55 22.81	377025.798	58.15906	1901.76	81.6
07/16/2025	23 49 17.714	-00 25 10.95	374430.127	58.56227	1914.94	72.3
07/17/2025	00 38 25.449	06 10 43.08	372179.775	58.91640	1926.52	61.7
07/18/2025	01 29 17.479	12 33 09.87	370320.524	59.21223	1936.19	50.4

Moon - Apparent data

Date	Right Ascension	Declination	Distance	Parallax	Diameter	%Illum.
0 h TT	h m s	d m s	km	arc min	arc sec	
07/19/2025	02 23 05.063	18 20 53.38	368934.716	59.43466	1943.47	39.0
07/20/2025	03 20 39.139	23 10 13.69	368142.643	59.56255	1947.65	28.1
07/21/2025	04 22 04.886	26 36 41.58	368087.467	59.57148	1947.94	18.3
07/22/2025	05 26 17.226	28 19 28.35	368905.359	59.43939	1943.62	10.2
07/23/2025	06 31 03.284	28 07 55.77	370687.525	59.15360	1934.28	4.4
07/24/2025	07 33 48.697	26 06 04.96	373444.443	58.71686	1920.00	1.0
07/25/2025	08 32 40.143	22 31 10.73	377083.026	58.15023	1901.47	0.1
07/26/2025	09 26 56.202	17 47 23.86	381403.718	57.49142	1879.93	1.8
07/27/2025	10 16 56.709	12 19 18.12	386118.134	56.78940	1856.98	5.7
07/28/2025	11 03 35.908	06 28 03.95	390881.879	56.09723	1834.35	11.4
07/29/2025	11 48 00.888	00 30 30.41	395334.115	55.46541	1813.69	18.5
07/30/2025	12 31 20.184	-05 20 15.54	399135.929	54.93705	1796.41	26.8
07/31/2025	13 14 39.286	-10 53 31.41	402002.257	54.54531	1783.61	35.7
08/01/2025	13 58 58.794	-15 59 35.65	403725.101	54.31253	1775.99	45.1
08/02/2025	14 45 12.000	-20 28 34.13	404187.965	54.25033	1773.96	54.6
08/03/2025	15 33 59.663	-24 09 30.29	403372.382	54.36002	1777.55	63.9
08/04/2025	16 25 41.129	-26 50 17.23	401357.384	54.63296	1786.47	72.8
08/05/2025	17 20 04.033	-28 18 34.06	398312.301	55.05066	1800.13	81.0
08/06/2025	18 16 19.414	-28 23 54.26	394482.717	55.58513	1817.60	88.1
08/07/2025	19 13 10.743	-27 00 31.39	390169.254	56.19970	1837.70	93.8
08/08/2025	20 09 17.742	-24 09 24.16	385699.457	56.85105	1858.99	97.8
08/09/2025	21 03 43.093	-19 58 34.12	381394.508	57.49281	1879.98	99.8
08/10/2025	21 56 07.294	-14 41 41.24	377534.759	58.08064	1899.20	99.4
08/11/2025	22 46 47.910	-08 36 01.34	374330.184	58.57791	1915.45	96.6
08/12/2025	23 36 30.023	-02 00 45.71	371902.579	58.96032	1927.96	91.4
08/13/2025	00 26 15.475	04 43 53.58	370284.522	59.21798	1936.38	83.9
08/14/2025	01 17 13.588	11 16 57.51	369435.778	59.35405	1940.83	74.6
08/15/2025	02 10 31.476	17 16 31.96	369272.524	59.38029	1941.69	64.0
08/16/2025	03 06 59.979	22 19 51.22	369700.845	59.31149	1939.44	52.6
08/17/2025	04 06 52.976	26 04 25.90	370644.976	59.16039	1934.50	41.2
08/18/2025	05 09 26.279	28 11 07.05	372062.908	58.93491	1927.13	30.2
08/19/2025	06 12 54.739	28 28 48.77	373946.034	58.63809	1917.42	20.4
08/20/2025	07 15 03.874	26 58 19.87	376304.116	58.27061	1905.41	12.2
08/21/2025	08 14 01.913	23 52 19.35	379140.707	57.83460	1891.15	5.9
08/22/2025	09 08 54.630	19 31 04.89	382426.516	57.33764	1874.90	1.9
08/23/2025	09 59 45.428	14 17 12.18	386078.338	56.79525	1857.17	0.1
08/24/2025	10 47 15.308	08 31 48.65	389949.233	56.23141	1838.73	0.6
08/25/2025	11 32 22.537	02 32 57.60	393832.209	55.67695	1820.61	3.2
08/26/2025	12 16 09.972	-03 24 26.70	397476.045	55.16649	1803.92	7.7
08/27/2025	12 59 39.113	-09 07 58.83	400609.416	54.73497	1789.81	13.7
08/28/2025	13 43 47.513	-14 26 45.02	402968.642	54.41449	1779.33	21.0
08/29/2025	14 29 26.574	-19 10 25.04	404325.004	54.23194	1773.36	29.2
08/30/2025	15 17 17.601	-23 08 24.98	404508.867	54.20728	1772.55	38.2
08/31/2025	16 07 45.033	-26 09 36.04	403429.175	54.35237	1777.30	47.6
09/01/2025	17 00 47.887	-28 02 37.37	401087.545	54.66972	1787.67	57.1
09/02/2025	17 55 53.864	-28 37 14.95	397586.393	55.15118	1803.41	66.6
09/03/2025	18 52 02.974	-27 46 23.58	393129.981	55.77641	1823.86	75.6
09/04/2025	19 48 04.073	-25 28 04.66	388016.644	56.51151	1847.89	83.8
09/05/2025	20 42 58.110	-21 46 24.21	382619.967	57.30865	1873.96	90.8
09/06/2025	21 36 15.805	-16 51 14.23	377357.177	58.10798	1900.09	96.1

Moon - Apparent data

Date	Right Ascension	Declination	Distance	Parallax	Diameter	%Illum.
0 h TT	h m s	d m s	km	arc min	arc sec	
09/07/2025	22 28 02.562	-10 57 09.44	372645.217	58.84280	1924.12	99.2
09/08/2025	23 18 53.057	-04 22 22.20	368849.120	59.44846	1943.92	99.9
09/09/2025	00 09 41.830	02 32 05.10	366232.345	59.87327	1957.81	97.9
09/10/2025	01 01 33.581	09 22 55.22	364921.932	60.08829	1964.84	93.2
09/11/2025	01 55 32.620	15 45 13.27	364899.525	60.09198	1964.96	86.0
09/12/2025	02 52 28.349	21 13 25.83	366021.738	59.90772	1958.93	76.9
09/13/2025	03 52 34.957	25 23 13.63	368063.322	59.57539	1948.07	66.4
09/14/2025	04 55 11.178	27 54 48.19	370769.393	59.14053	1933.85	55.1
09/15/2025	05 58 37.377	28 37 06.80	373902.064	58.64499	1917.65	43.8
09/16/2025	07 00 45.030	27 30 55.48	377271.237	58.12122	1900.52	33.0
09/17/2025	07 59 45.874	24 48 10.86	380745.833	57.59077	1883.18	23.2
09/18/2025	08 54 45.800	20 47 50.23	384247.337	57.06591	1866.02	14.8
09/19/2025	09 45 46.179	15 50 56.72	387730.994	56.55315	1849.25	8.1
09/20/2025	10 33 25.394	10 17 22.14	391161.381	56.05714	1833.04	3.4
09/21/2025	11 18 39.248	04 24 30.45	394488.923	55.58426	1817.57	0.7
09/22/2025	12 02 28.343	-01 32 41.76	397632.607	55.14477	1803.21	0.0
09/23/2025	12 45 51.899	-07 21 12.38	400472.125	54.75374	1790.42	1.4
09/24/2025	13 29 44.996	-12 49 12.87	402850.403	54.43046	1779.85	4.5
09/25/2025	14 14 56.439	-17 45 30.21	404585.431	54.19703	1772.22	9.3
09/26/2025	15 02 05.360	-21 58 58.41	405488.986	54.07625	1768.27	15.5
09/27/2025	15 51 35.620	-25 18 28.71	405389.369	54.08954	1768.70	23.0
09/28/2025	16 43 28.832	-27 33 10.35	404155.475	54.25469	1774.10	31.4
09/29/2025	17 37 19.450	-28 33 29.45	401719.999	54.58364	1784.86	40.5
09/30/2025	18 32 17.291	-28 12 36.25	398100.022	55.08002	1801.09	50.2
10/01/2025	19 27 20.537	-26 27 47.42	393413.157	55.73626	1822.54	60.0
10/02/2025	20 21 35.200	-23 21 05.88	387886.884	56.53042	1848.51	69.7
10/03/2025	21 14 31.575	-18 59 08.52	381857.660	57.42307	1877.70	78.9
10/04/2025	22 06 10.909	-13 32 30.12	375755.442	58.35570	1908.19	87.0
10/05/2025	22 57 02.872	-07 15 20.81	370069.434	59.25241	1937.51	93.6
10/06/2025	23 47 58.515	-00 25 32.34	365293.658	60.02714	1962.84	98.1
10/07/2025	00 40 02.037	06 35 01.88	361857.514	60.59721	1981.48	99.9
10/08/2025	01 34 21.006	13 20 25.88	360055.312	60.90055	1991.39	98.9
10/09/2025	02 31 51.633	19 21 38.85	359995.272	60.91070	1991.73	94.9
10/10/2025	03 32 56.045	24 09 11.35	361586.207	60.64268	1982.96	88.3
10/11/2025	04 36 56.426	27 17 44.59	364567.432	60.14673	1966.75	79.6
10/12/2025	05 42 06.010	28 32 05.84	368570.915	59.49334	1945.39	69.5
10/13/2025	06 45 59.159	27 51 22.88	373194.345	58.75621	1921.28	58.5
10/14/2025	07 46 29.787	25 28 17.33	378064.520	57.99925	1896.54	47.5
10/15/2025	08 42 34.079	21 43 33.08	382878.911	57.26989	1872.69	36.9
10/16/2025	09 34 12.783	16 59 37.43	387422.843	56.59813	1850.72	27.1
10/17/2025	10 22 08.626	11 36 48.16	391566.105	55.99920	1831.14	18.5
10/18/2025	11 07 22.823	05 52 05.98	395245.525	55.47785	1814.10	11.3
10/19/2025	11 51 00.565	-00 00 17.62	398440.237	55.03298	1799.55	5.9
10/20/2025	12 34 04.393	-05 48 01.23	401145.513	54.66182	1787.41	2.2
10/21/2025	13 17 31.565	-11 19 36.19	403349.873	54.36306	1777.65	0.3
10/22/2025	14 02 12.221	-16 23 43.74	405018.853	54.13902	1770.32	0.3
10/23/2025	14 48 46.240	-20 48 51.82	406087.486	53.99654	1765.66	2.1
10/24/2025	15 37 37.873	-24 23 17.47	406462.088	53.94677	1764.04	5.6
10/25/2025	16 28 48.960	-26 55 41.89	406030.705	54.00409	1765.91	10.7
10/26/2025	17 21 54.150	-28 16 20.42	404680.607	54.18428	1771.80	17.2

Moon - Apparent data

Date	Right Ascension	Declination	Distance	Parallax	Diameter	%Illum.
0 h TT	h m s	d m s	km	arc min	arc sec	
10/27/2025	18 16 03.435	-28 18 31.64	402320.671	54.50214	1782.19	25.0
10/28/2025	19 10 14.990	-26 59 49.17	398906.318	54.96868	1797.45	33.7
10/29/2025	20 03 34.406	-24 22 19.08	394464.566	55.58769	1817.69	43.3
10/30/2025	20 55 31.007	-20 31 59.28	389116.472	56.35177	1842.67	53.4
10/31/2025	21 46 04.646	-15 37 36.94	383093.417	57.23782	1871.64	63.6
11/01/2025	22 35 43.593	-09 50 11.16	376742.424	58.20281	1903.19	73.6
11/02/2025	23 25 18.345	-03 23 06.67	370514.314	59.18125	1935.18	82.8
11/03/2025	00 15 54.971	03 26 45.18	364928.505	60.08721	1964.80	90.6
11/04/2025	01 08 47.960	10 17 46.58	360511.627	60.82345	1988.87	96.3
11/05/2025	02 05 08.828	16 42 45.31	357715.652	61.29891	2004.42	99.4
11/06/2025	03 05 44.705	22 09 53.46	356833.343	61.45050	2009.38	99.5
11/07/2025	04 10 25.570	26 06 58.21	357937.623	61.26089	2003.18	96.6
11/08/2025	05 17 36.754	28 09 06.24	360868.084	60.76337	1986.91	90.9
11/09/2025	06 24 32.544	28 07 02.24	365270.358	60.03097	1962.96	83.0
11/10/2025	07 28 22.924	26 10 00.09	370672.664	59.15597	1934.35	73.6
11/11/2025	08 27 23.592	22 40 20.03	376572.351	58.22909	1904.05	63.2
11/12/2025	09 21 15.092	18 04 26.03	382508.562	57.32534	1874.50	52.6
11/13/2025	10 10 37.856	12 46 11.98	388108.914	56.49807	1847.45	42.1
11/14/2025	10 56 39.542	07 04 43.75	393109.342	55.77934	1823.95	32.3
11/15/2025	11 40 33.911	01 14 47.19	397352.540	55.18364	1804.48	23.5
11/16/2025	12 23 31.431	-04 31 43.65	400772.107	54.71275	1789.08	15.8
11/17/2025	13 06 36.160	-10 04 15.92	403368.764	54.36051	1777.56	9.5
11/18/2025	13 50 44.316	-15 12 26.48	405183.647	54.11700	1769.60	4.7
11/19/2025	14 36 41.695	-19 45 17.63	406272.535	53.97195	1764.86	1.6
11/20/2025	15 24 58.480	-23 31 07.10	406684.089	53.91732	1763.07	0.2
11/21/2025	16 15 41.797	-26 18 01.61	406444.549	53.94910	1764.11	0.6
11/22/2025	17 08 29.273	-27 55 18.27	405550.618	54.06803	1768.00	2.8
11/23/2025	18 02 29.659	-28 15 17.64	403971.381	54.27941	1774.91	6.7
11/24/2025	18 56 35.142	-27 15 02.75	401659.079	54.59192	1785.13	12.2
11/25/2025	19 49 42.383	-24 56 50.74	398567.533	55.01541	1798.98	19.2
11/26/2025	20 41 11.815	-21 27 20.85	394676.188	55.55788	1816.71	27.5
11/27/2025	21 30 56.420	-16 55 57.52	390016.951	56.22165	1838.41	36.9
11/28/2025	22 19 19.873	-11 33 28.71	384700.305	56.99872	1863.82	47.1
11/29/2025	23 07 09.713	-05 31 39.04	378936.114	57.86583	1892.17	57.7
11/30/2025	23 55 30.590	00 56 14.29	373043.270	58.78001	1922.06	68.3
12/01/2025	00 45 38.797	07 33 55.68	367441.097	59.67629	1951.37	78.3
12/02/2025	01 38 55.510	14 00 24.17	362615.791	60.47048	1977.33	87.1
12/03/2025	02 36 32.755	19 48 40.04	359059.149	61.06953	1996.92	94.0
12/04/2025	03 39 05.303	24 26 43.86	357186.098	61.38980	2007.39	98.4
12/05/2025	04 45 51.266	27 22 51.96	357250.020	61.37882	2007.03	99.8
12/06/2025	05 54 30.883	28 15 18.62	359283.221	61.03143	1995.67	98.2
12/07/2025	07 01 46.241	27 01 20.38	363085.362	60.39226	1974.78	93.8
12/08/2025	08 04 50.156	23 57 55.67	368264.380	59.54286	1947.00	87.0
12/09/2025	09 02 27.634	19 33 11.44	374313.371	58.58054	1915.54	78.6
12/10/2025	09 54 50.950	14 16 09.44	380696.598	57.59821	1883.42	69.0
12/11/2025	10 43 01.583	08 30 59.19	386921.890	56.67142	1853.12	59.0
12/12/2025	11 28 17.650	02 35 50.94	392588.354	55.85337	1826.37	48.8
12/13/2025	12 11 57.106	-03 15 47.58	397408.921	55.17581	1804.22	39.0
12/14/2025	12 55 11.685	-08 53 17.01	401212.843	54.65264	1787.11	29.9
12/15/2025	13 39 05.098	-14 07 02.57	403934.461	54.28437	1775.07	21.6

Moon - Apparent data

Date	Right Ascension	Declination	Distance	Parallax	Diameter	%Illum.
0 h TT	h m s	d m s	km	arc min	arc sec	
12/16/2025	14 24 31.215	-18 47 16.97	405593.613	54.06230	1767.81	14.4
12/17/2025	15 12 09.817	-22 43 18.68	406271.600	53.97207	1764.86	8.5
12/18/2025	16 02 19.270	-25 43 36.70	406085.602	53.99679	1765.67	4.1
12/19/2025	16 54 48.283	-27 36 53.65	405164.007	54.11963	1769.69	1.2
12/20/2025	17 48 52.576	-28 14 03.28	403625.055	54.32599	1776.43	0.2
12/21/2025	18 43 23.259	-27 30 23.31	401561.205	54.60523	1785.56	1.0
12/22/2025	19 37 07.418	-25 26 56.61	399031.418	54.95144	1796.88	3.6
12/23/2025	20 29 11.290	-22 10 13.45	396062.819	55.36335	1810.35	8.1
12/24/2025	21 19 14.021	-17 50 32.41	392662.034	55.84289	1826.03	14.3
12/25/2025	22 07 28.464	-12 40 04.29	388835.011	56.39256	1844.00	22.1
12/26/2025	22 54 34.257	-06 51 36.51	384612.580	57.01172	1864.25	31.3
12/27/2025	23 41 29.822	-00 38 19.65	380077.543	57.69204	1886.49	41.5
12/28/2025	00 29 26.357	05 45 28.44	375387.808	58.41286	1910.06	52.3
12/29/2025	01 19 42.865	12 02 57.68	370789.018	59.13740	1933.75	63.4
12/30/2025	02 13 38.077	17 53 08.55	366609.716	59.81163	1955.79	74.0
12/31/2025	03 12 12.745	22 49 59.75	363233.411	60.36764	1973.97	83.6
01/01/2026	04 15 37.727	26 24 05.49	361046.298	60.73337	1985.93	91.4
01/02/2026	05 22 38.471	28 08 34.77	360367.563	60.84777	1989.67	96.9



## Mercury - Apparent data

Date	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase
0 h TT	h	m	s	d	m	s	Distance	Distance	Diameter		Angle
							au	au	arc sec		deg.
12/31/2024	17	10	51.889	-21	41	56.90	1.1304774	0.4154166	5.95	-0.3	59.0
01/01/2025	17	16	16.932	-21	56	28.45	1.1478875	0.4202731	5.86	-0.3	56.9
01/02/2025	17	21	49.828	-22	10	22.90	1.1646808	0.4249322	5.78	-0.3	54.9
01/03/2025	17	27	29.869	-22	23	35.28	1.1808596	0.4293826	5.70	-0.3	53.0
01/04/2025	17	33	16.426	-22	36	01.20	1.1964286	0.4336138	5.63	-0.3	51.2
01/05/2025	17	39	08.941	-22	47	36.72	1.2113940	0.4376169	5.56	-0.3	49.4
01/06/2025	17	45	06.917	-22	58	18.34	1.2257630	0.4413840	5.49	-0.3	47.7
01/07/2025	17	51	09.911	-23	08	02.94	1.2395436	0.4449081	5.43	-0.3	46.1
01/08/2025	17	57	17.524	-23	16	47.71	1.2527445	0.4481831	5.37	-0.3	44.5
01/09/2025	18	03	29.399	-23	24	30.14	1.2653743	0.4512035	5.32	-0.3	42.9
01/10/2025	18	09	45.211	-23	31	07.94	1.2774417	0.4539649	5.27	-0.3	41.4
01/11/2025	18	16	04.663	-23	36	39.04	1.2889554	0.4564630	5.22	-0.3	40.0
01/12/2025	18	22	27.483	-23	41	01.55	1.2999236	0.4586945	5.18	-0.3	38.6
01/13/2025	18	28	53.423	-23	44	13.75	1.3103540	0.4606564	5.14	-0.3	37.3
01/14/2025	18	35	22.253	-23	46	14.04	1.3202540	0.4623461	5.10	-0.3	35.9
01/15/2025	18	41	53.761	-23	47	00.93	1.3296302	0.4637616	5.06	-0.3	34.7
01/16/2025	18	48	27.750	-23	46	33.08	1.3384888	0.4649011	5.03	-0.4	33.4
01/17/2025	18	55	04.038	-23	44	49.20	1.3468349	0.4657634	5.00	-0.4	32.2
01/18/2025	19	01	42.456	-23	41	48.14	1.3546733	0.4663474	4.97	-0.4	31.0
01/19/2025	19	08	22.845	-23	37	28.81	1.3620078	0.4666525	4.94	-0.4	29.8
01/20/2025	19	15	05.055	-23	31	50.20	1.3688413	0.4666784	4.92	-0.5	28.7
01/21/2025	19	21	48.946	-23	24	51.38	1.3751761	0.4664249	4.89	-0.5	27.6
01/22/2025	19	28	34.387	-23	16	31.48	1.3810133	0.4658924	4.87	-0.5	26.4
01/23/2025	19	35	21.252	-23	06	49.68	1.3863532	0.4650815	4.85	-0.5	25.3
01/24/2025	19	42	09.425	-22	55	45.25	1.3911953	0.4639931	4.84	-0.6	24.2
01/25/2025	19	48	58.794	-22	43	17.46	1.3955376	0.4626285	4.82	-0.6	23.1
01/26/2025	19	55	49.255	-22	29	25.69	1.3993775	0.4609893	4.81	-0.6	22.0
01/27/2025	20	02	40.708	-22	14	09.32	1.4027108	0.4590774	4.80	-0.7	20.9
01/28/2025	20	09	33.060	-21	57	27.79	1.4055323	0.4568955	4.79	-0.7	19.8
01/29/2025	20	16	26.221	-21	39	20.60	1.4078357	0.4544462	4.78	-0.8	18.7
01/30/2025	20	23	20.109	-21	19	47.29	1.4096131	0.4517330	4.77	-0.8	17.5
01/31/2025	20	30	14.645	-20	58	47.41	1.4108554	0.4487599	4.77	-0.9	16.4
02/01/2025	20	37	09.757	-20	36	20.60	1.4115519	0.4455313	4.77	-0.9	15.2
02/02/2025	20	44	05.379	-20	12	26.52	1.4116906	0.4420524	4.77	-1.0	13.9
02/03/2025	20	51	01.448	-19	47	04.90	1.4112578	0.4383294	4.77	-1.1	12.7
02/04/2025	20	57	57.905	-19	20	15.54	1.4102378	0.4343688	4.77	-1.1	11.4
02/05/2025	21	04	54.693	-18	51	58.30	1.4086135	0.4301786	4.78	-1.2	10.1
02/06/2025	21	11	51.753	-18	22	13.15	1.4063655	0.4257674	4.79	-1.3	8.8
02/07/2025	21	18	49.023	-17	51	00.12	1.4034725	0.4211453	4.80	-1.4	7.5
02/08/2025	21	25	46.440	-17	18	19.38	1.3999111	0.4163236	4.81	-1.5	6.3
02/09/2025	21	32	43.933	-16	44	11.23	1.3956557	0.4113150	4.82	-1.5	5.4
02/10/2025	21	39	41.422	-16	08	36.09	1.3906783	0.4061340	4.84	-1.6	4.9
02/11/2025	21	46	38.816	-15	31	34.60	1.3849488	0.4007967	4.86	-1.6	5.2
02/12/2025	21	53	36.009	-14	53	07.60	1.3784350	0.3953214	4.88	-1.6	6.2
02/13/2025	22	00	32.875	-14	13	16.22	1.3711022	0.3897284	4.91	-1.6	7.6
02/14/2025	22	07	29.264	-13	32	01.89	1.3629143	0.3840407	4.94	-1.6	9.5
02/15/2025	22	14	24.991	-12	49	26.42	1.3538331	0.3782836	4.97	-1.5	11.5
02/16/2025	22	21	19.835	-12	05	32.11	1.3438194	0.3724854	5.01	-1.5	13.8
02/17/2025	22	28	13.528	-11	20	21.75	1.3328332	0.3666774	5.05	-1.5	16.3
02/18/2025	22	35	05.741	-10	33	58.79	1.3208344	0.3608940	5.10	-1.4	19.0

## Mercury - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
02/19/2025	22	41	56.083	-09	46	27.39	1.3077841	0.3551727	5.15	-1.4	21.8
02/20/2025	22	48	44.082	-08	57	52.55	1.2936452	0.3495544	5.20	-1.4	24.8
02/21/2025	22	55	29.177	-08	08	20.21	1.2783842	0.3440831	5.26	-1.3	28.0
02/22/2025	23	02	10.706	-07	17	57.38	1.2619727	0.3388055	5.33	-1.3	31.3
02/23/2025	23	08	47.891	-06	26	52.28	1.2443895	0.3337709	5.41	-1.3	34.9
02/24/2025	23	15	19.830	-05	35	14.37	1.2256226	0.3290307	5.49	-1.2	38.6
02/25/2025	23	21	45.489	-04	43	14.53	1.2056715	0.3246368	5.58	-1.2	42.4
02/26/2025	23	28	03.691	-03	51	05.06	1.1845500	0.3206416	5.68	-1.2	46.5
02/27/2025	23	34	13.116	-02	58	59.72	1.1622881	0.3170958	5.79	-1.2	50.7
02/28/2025	23	40	12.303	-02	07	13.72	1.1389344	0.3140476	5.91	-1.1	55.1
03/01/2025	23	45	59.662	-01	16	03.59	1.1145578	0.3115405	6.04	-1.1	59.7
03/02/2025	23	51	33.485	-00	25	47.07	1.0892482	0.3096122	6.18	-1.0	64.4
03/03/2025	23	56	51.970	00	23	17.10	1.0631171	0.3082926	6.33	-1.0	69.2
03/04/2025	00	01	53.247	01	10	49.42	1.0362964	0.3076030	6.49	-0.9	74.1
03/05/2025	00	06	35.418	01	56	29.96	1.0089367	0.3075545	6.67	-0.8	79.1
03/06/2025	00	10	56.591	02	39	58.64	0.9812046	0.3081479	6.86	-0.7	84.1
03/07/2025	00	14	54.926	03	20	55.61	0.9532792	0.3093736	7.06	-0.6	89.2
03/08/2025	00	18	28.682	03	59	01.48	0.9253481	0.3112118	7.27	-0.5	94.4
03/09/2025	00	21	36.262	04	33	57.70	0.8976029	0.3136339	7.50	-0.3	99.5
03/10/2025	00	24	16.260	05	05	26.77	0.8702356	0.3166033	7.73	-0.1	104.7
03/11/2025	00	26	27.506	05	33	12.50	0.8434342	0.3200771	7.98	0.1	109.8
03/12/2025	00	28	09.108	05	57	00.28	0.8173801	0.3240079	8.23	0.4	114.9
03/13/2025	00	29	20.504	06	16	37.30	0.7922446	0.3283452	8.49	0.6	120.0
03/14/2025	00	30	01.496	06	31	52.88	0.7681875	0.3330367	8.76	0.9	125.1
03/15/2025	00	30	12.298	06	42	38.77	0.7453550	0.3380304	9.03	1.3	130.2
03/16/2025	00	29	53.570	06	48	49.57	0.7238785	0.3432747	9.30	1.7	135.2
03/17/2025	00	29	06.444	06	50	23.14	0.7038740	0.3487201	9.56	2.1	140.2
03/18/2025	00	27	52.551	06	47	21.09	0.6854408	0.3543193	9.82	2.5	145.1
03/19/2025	00	26	14.014	06	39	49.17	0.6686614	0.3600280	10.06	3.0	150.0
03/20/2025	00	24	13.440	06	27	57.68	0.6536006	0.3658046	10.30	3.5	154.8
03/21/2025	00	21	53.875	06	12	01.64	0.6403053	0.3716113	10.51	4.1	159.4
03/22/2025	00	19	18.742	05	52	20.84	0.6288040	0.3774131	10.70	4.6	163.8
03/23/2025	00	16	31.757	05	29	19.59	0.6191070	0.3831783	10.87	5.2	167.8
03/24/2025	00	13	36.819	05	03	26.17	0.6112064	0.3888783	11.01	5.6	170.8
03/25/2025	00	10	37.896	04	35	12.09	0.6050773	0.3944870	11.12	5.8	172.0
03/26/2025	00	07	38.901	04	05	11.04	0.6006782	0.3999814	11.20	5.6	170.5
03/27/2025	00	04	43.576	03	33	57.79	0.5979534	0.4053407	11.26	5.2	167.5
03/28/2025	00	01	55.388	03	02	06.96	0.5968344	0.4105462	11.28	4.7	163.9
03/29/2025	23	59	17.449	02	30	11.95	0.5972424	0.4155817	11.27	4.3	160.0
03/30/2025	23	56	52.454	01	58	43.93	0.5990909	0.4204323	11.23	3.8	156.1
03/31/2025	23	54	42.653	01	28	11.10	0.6022878	0.4250852	11.17	3.4	152.2
04/01/2025	23	52	49.839	00	58	58.17	0.6067383	0.4295287	11.09	3.0	148.4
04/02/2025	23	51	15.364	00	31	26.14	0.6123465	0.4337527	10.99	2.7	144.8
04/03/2025	23	50	00.165	00	05	52.18	0.6190177	0.4377483	10.87	2.4	141.2
04/04/2025	23	49	04.810	-00	17	30.14	0.6266595	0.4415076	10.74	2.2	137.8
04/05/2025	23	48	29.543	-00	38	30.65	0.6351835	0.4450236	10.60	1.9	134.6
04/06/2025	23	48	14.335	-00	57	02.19	0.6445059	0.4482902	10.44	1.7	131.4
04/07/2025	23	48	18.934	-01	13	00.24	0.6545479	0.4513022	10.28	1.5	128.4
04/08/2025	23	48	42.910	-01	26	22.48	0.6652366	0.4540548	10.12	1.4	125.6
04/09/2025	23	49	25.701	-01	37	08.45	0.6765048	0.4565441	9.95	1.2	122.8

## Mercury - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
04/10/2025	23	50	26.646	-01	45	19.13	0.6882911	0.4587666	9.78	1.1	120.2
04/11/2025	23	51	45.021	-01	50	56.67	0.7005395	0.4607194	9.61	1.0	117.7
04/12/2025	23	53	20.062	-01	54	04.11	0.7131997	0.4624000	9.44	0.9	115.3
04/13/2025	23	55	10.989	-01	54	45.12	0.7262262	0.4638062	9.27	0.8	113.0
04/14/2025	23	57	17.025	-01	53	03.81	0.7395782	0.4649365	9.10	0.7	110.8
04/15/2025	23	59	37.404	-01	49	04.60	0.7532195	0.4657895	8.93	0.7	108.7
04/16/2025	00	02	11.388	-01	42	52.10	0.7671175	0.4663641	8.77	0.6	106.6
04/17/2025	00	04	58.269	-01	34	30.96	0.7812433	0.4666599	8.61	0.6	104.6
04/18/2025	00	07	57.380	-01	24	05.87	0.7955714	0.4666764	8.46	0.5	102.7
04/19/2025	00	11	08.095	-01	11	41.45	0.8100788	0.4664136	8.31	0.5	100.9
04/20/2025	00	14	29.831	-00	57	22.23	0.8247452	0.4658718	8.16	0.4	99.0
04/21/2025	00	18	02.052	-00	41	12.66	0.8395525	0.4650517	8.02	0.4	97.3
04/22/2025	00	21	44.268	-00	23	17.01	0.8544844	0.4639541	7.88	0.3	95.5
04/23/2025	00	25	36.037	-00	03	39.44	0.8695262	0.4625803	7.74	0.3	93.8
04/24/2025	00	29	36.960	00	17	36.03	0.8846645	0.4609321	7.61	0.3	92.1
04/25/2025	00	33	46.686	00	40	25.53	0.8998872	0.4590113	7.48	0.2	90.4
04/26/2025	00	38	04.906	01	04	45.35	0.9151827	0.4568205	7.35	0.2	88.7
04/27/2025	00	42	31.356	01	30	31.89	0.9305404	0.4543626	7.23	0.2	87.0
04/28/2025	00	47	05.813	01	57	41.67	0.9459498	0.4516409	7.11	0.1	85.3
04/29/2025	00	51	48.092	02	26	11.34	0.9614008	0.4486594	7.00	0.1	83.6
04/30/2025	00	56	38.047	02	55	57.62	0.9768831	0.4454227	6.89	0.1	81.9
05/01/2025	01	01	35.570	03	26	57.32	0.9923862	0.4419359	6.78	0.0	80.2
05/02/2025	01	06	40.590	03	59	07.32	1.0078989	0.4382052	6.68	0.0	78.4
05/03/2025	01	11	53.073	04	32	24.54	1.0234089	0.4342372	6.58	-0.0	76.6
05/04/2025	01	17	13.018	05	06	45.91	1.0389031	0.4300399	6.48	-0.1	74.8
05/05/2025	01	22	40.462	05	42	08.39	1.0543666	0.4256220	6.38	-0.1	73.0
05/06/2025	01	28	15.473	06	18	28.90	1.0697827	0.4209935	6.29	-0.2	71.1
05/07/2025	01	33	58.150	06	55	44.31	1.0851327	0.4161659	6.20	-0.2	69.2
05/08/2025	01	39	48.621	07	33	51.41	1.1003957	0.4111519	6.12	-0.3	67.2
05/09/2025	01	45	47.044	08	12	46.84	1.1155475	0.4059659	6.03	-0.3	65.2
05/10/2025	01	51	53.600	08	52	27.13	1.1305614	0.4006243	5.95	-0.4	63.1
05/11/2025	01	58	08.493	09	32	48.57	1.1454067	0.3951453	5.88	-0.4	61.0
05/12/2025	02	04	31.949	10	13	47.23	1.1600491	0.3895494	5.80	-0.5	58.8
05/13/2025	02	11	04.209	10	55	18.89	1.1744499	0.3838595	5.73	-0.5	56.5
05/14/2025	02	17	45.527	11	37	18.97	1.1885658	0.3781011	5.66	-0.6	54.1
05/15/2025	02	24	36.163	12	19	42.52	1.2023484	0.3723025	5.60	-0.7	51.6
05/16/2025	02	31	36.379	13	02	24.10	1.2157442	0.3664952	5.54	-0.8	49.1
05/17/2025	02	38	46.429	13	45	17.77	1.2286939	0.3607136	5.48	-0.8	46.4
05/18/2025	02	46	06.547	14	28	17.02	1.2411327	0.3549953	5.42	-0.9	43.6
05/19/2025	02	53	36.944	15	11	14.69	1.2529902	0.3493813	5.37	-1.0	40.7
05/20/2025	03	01	17.786	15	54	02.93	1.2641906	0.3439156	5.32	-1.1	37.6
05/21/2025	03	09	09.185	16	36	33.20	1.2746533	0.3386451	5.28	-1.2	34.5
05/22/2025	03	17	11.179	17	18	36.19	1.2842937	0.3336192	5.24	-1.3	31.2
05/23/2025	03	25	23.718	18	00	01.86	1.2930246	0.3288890	5.20	-1.4	27.7
05/24/2025	03	33	46.642	18	40	39.50	1.3007575	0.3245067	5.17	-1.6	24.2
05/25/2025	03	42	19.664	19	20	17.75	1.3074049	0.3205245	5.15	-1.7	20.5
05/26/2025	03	51	02.353	19	58	44.78	1.3128827	0.3169931	5.13	-1.9	16.7
05/27/2025	03	59	54.123	20	35	48.42	1.3171130	0.3139604	5.11	-2.0	12.8
05/28/2025	04	08	54.222	21	11	16.39	1.3200269	0.3114700	5.10	-2.2	8.8
05/29/2025	04	18	01.734	21	44	56.56	1.3215676	0.3095593	5.09	-2.4	4.9

## Mercury - Apparent data

Date	Right Ascension	Declination	Earth Distance	Solar Distance	Equatorial Diameter	Mag.	Phase Angle
0 h TT	h m s	d m s	au	au	arc sec		deg.
05/30/2025	04 27 15.586	22 16 37.24	1.3216927	0.3082579	5.09	-2.5	1.9
05/31/2025	04 36 34.566	22 46 07.51	1.3203767	0.3075868	5.10	-2.4	4.3
06/01/2025	04 45 57.340	23 13 17.47	1.3176126	0.3075568	5.11	-2.2	8.3
06/02/2025	04 55 22.487	23 37 58.57	1.3134121	0.3081686	5.12	-2.1	12.5
06/03/2025	05 04 48.532	24 00 03.81	1.3078055	0.3094120	5.15	-1.9	16.6
06/04/2025	05 14 13.978	24 19 27.89	1.3008409	0.3112673	5.17	-1.8	20.7
06/05/2025	05 23 37.344	24 36 07.26	1.2925816	0.3137055	5.21	-1.6	24.8
06/06/2025	05 32 57.199	24 50 00.17	1.2831038	0.3166897	5.25	-1.5	28.7
06/07/2025	05 42 12.187	25 01 06.58	1.2724937	0.3201771	5.29	-1.4	32.6
06/08/2025	05 51 21.052	25 09 28.00	1.2608444	0.3241200	5.34	-1.2	36.3
06/09/2025	06 00 22.650	25 15 07.38	1.2482528	0.3284679	5.39	-1.1	39.9
06/10/2025	06 09 15.960	25 18 08.87	1.2348169	0.3331688	5.45	-1.0	43.4
06/11/2025	06 18 00.086	25 18 37.62	1.2206338	0.3381703	5.51	-0.9	46.8
06/12/2025	06 26 34.255	25 16 39.58	1.2057973	0.3434211	5.58	-0.9	50.0
06/13/2025	06 34 57.809	25 12 21.34	1.1903969	0.3488717	5.65	-0.8	53.1
06/14/2025	06 43 10.200	25 05 49.90	1.1745166	0.3544749	5.73	-0.7	56.1
06/15/2025	06 51 10.975	24 57 12.58	1.1582343	0.3601863	5.81	-0.6	59.0
06/16/2025	06 58 59.768	24 46 36.84	1.1416215	0.3659648	5.90	-0.5	61.8
06/17/2025	07 06 36.287	24 34 10.23	1.1247433	0.3717723	5.98	-0.5	64.5
06/18/2025	07 14 00.305	24 20 00.30	1.1076587	0.3775740	6.08	-0.4	67.1
06/19/2025	07 21 11.644	24 04 14.52	1.0904203	0.3833383	6.17	-0.3	69.5
06/20/2025	07 28 10.168	23 47 00.25	1.0730755	0.3890366	6.27	-0.3	72.0
06/21/2025	07 34 55.774	23 28 24.73	1.0556662	0.3946431	6.38	-0.2	74.3
06/22/2025	07 41 28.379	23 08 35.06	1.0382298	0.4001347	6.48	-0.2	76.5
06/23/2025	07 47 47.913	22 47 38.18	1.0207995	0.4054905	6.59	-0.1	78.7
06/24/2025	07 53 54.314	22 25 40.87	1.0034049	0.4106922	6.71	-0.1	80.9
06/25/2025	07 59 47.517	22 02 49.80	0.9860722	0.4157233	6.83	-0.0	82.9
06/26/2025	08 05 27.455	21 39 11.46	0.9688252	0.4205691	6.95	0.0	85.0
06/27/2025	08 10 54.051	21 14 52.22	0.9516851	0.4252167	7.07	0.1	86.9
06/28/2025	08 16 07.220	20 49 58.34	0.9346715	0.4296547	7.20	0.1	88.9
06/29/2025	08 21 06.859	20 24 35.99	0.9178025	0.4338729	7.33	0.2	90.8
06/30/2025	08 25 52.851	19 58 51.27	0.9010950	0.4378624	7.47	0.2	92.7
07/01/2025	08 30 25.058	19 32 50.22	0.8845649	0.4416152	7.61	0.3	94.6
07/02/2025	08 34 43.321	19 06 38.86	0.8682279	0.4451245	7.75	0.3	96.4
07/03/2025	08 38 47.455	18 40 23.23	0.8520993	0.4483842	7.90	0.4	98.3
07/04/2025	08 42 37.250	18 14 09.36	0.8361946	0.4513889	8.05	0.4	100.1
07/05/2025	08 46 12.469	17 48 03.35	0.8205295	0.4541342	8.20	0.5	102.0
07/06/2025	08 49 32.849	17 22 11.34	0.8051204	0.4566159	8.36	0.5	103.9
07/07/2025	08 52 38.100	16 56 39.56	0.7899847	0.4588306	8.52	0.6	105.8
07/08/2025	08 55 27.907	16 31 34.37	0.7751409	0.4607754	8.68	0.7	107.8
07/09/2025	08 58 01.935	16 07 02.19	0.7606089	0.4624479	8.85	0.7	109.8
07/10/2025	09 00 19.828	15 43 09.63	0.7464105	0.4638459	9.02	0.8	111.8
07/11/2025	09 02 21.219	15 20 03.36	0.7325692	0.4649677	9.19	0.9	113.9
07/12/2025	09 04 05.733	14 57 50.24	0.7191109	0.4658121	9.36	1.0	116.0
07/13/2025	09 05 32.998	14 36 37.20	0.7060639	0.4663781	9.53	1.1	118.2
07/14/2025	09 06 42.657	14 16 31.28	0.6934590	0.4666651	9.70	1.2	120.5
07/15/2025	09 07 34.376	13 57 39.59	0.6813300	0.4666727	9.88	1.3	122.8
07/16/2025	09 08 07.867	13 40 09.25	0.6697138	0.4664010	10.05	1.4	125.3
07/17/2025	09 08 22.898	13 24 07.36	0.6586503	0.4658502	10.22	1.6	127.8
07/18/2025	09 08 19.320	13 09 40.89	0.6481828	0.4650210	10.38	1.7	130.4

## Mercury - Apparent data

Date	Right Ascension	Declination	Earth Distance	Solar Distance	Equatorial Diameter	Mag.	Phase Angle
0 h TT	h m s	d m s	au	au	arc sec		deg.
07/19/2025	09 07 57.087	12 56 56.58	0.6383579	0.4639143	10.54	1.9	133.1
07/20/2025	09 07 16.283	12 46 00.86	0.6292255	0.4625314	10.70	2.1	135.9
07/21/2025	09 06 17.149	12 36 59.63	0.6208388	0.4608740	10.84	2.3	138.7
07/22/2025	09 05 00.117	12 29 58.16	0.6132537	0.4589441	10.97	2.5	141.7
07/23/2025	09 03 25.833	12 25 00.84	0.6065291	0.4567441	11.10	2.8	144.7
07/24/2025	09 01 35.196	12 22 10.99	0.6007256	0.4542771	11.20	3.1	147.8
07/25/2025	08 59 29.376	12 21 30.65	0.5959054	0.4515464	11.29	3.4	150.9
07/26/2025	08 57 09.838	12 23 00.39	0.5921315	0.4485560	11.37	3.7	154.1
07/27/2025	08 54 38.351	12 26 39.12	0.5894663	0.4453105	11.42	4.0	157.2
07/28/2025	08 51 56.992	12 32 23.97	0.5879709	0.4418152	11.45	4.4	160.3
07/29/2025	08 49 08.128	12 40 10.18	0.5877037	0.4380760	11.45	4.7	163.1
07/30/2025	08 46 14.392	12 49 51.13	0.5887193	0.4340999	11.43	5.0	165.6
07/31/2025	08 43 18.644	13 01 18.35	0.5910672	0.4298946	11.39	5.3	167.4
08/01/2025	08 40 23.912	13 14 21.69	0.5947907	0.4254692	11.31	5.4	168.2
08/02/2025	08 37 33.336	13 28 49.48	0.5999259	0.4208335	11.22	5.3	167.7
08/03/2025	08 34 50.091	13 44 28.81	0.6065008	0.4159991	11.10	5.0	166.0
08/04/2025	08 32 17.323	14 01 05.80	0.6145349	0.4109788	10.95	4.7	163.4
08/05/2025	08 29 58.069	14 18 25.89	0.6240384	0.4057872	10.78	4.3	160.2
08/06/2025	08 27 55.202	14 36 14.17	0.6350125	0.4004404	10.60	3.9	156.8
08/07/2025	08 26 11.369	14 54 15.57	0.6474486	0.3949570	10.39	3.4	153.1
08/08/2025	08 24 48.955	15 12 15.15	0.6613290	0.3893575	10.18	3.0	149.2
08/09/2025	08 23 50.046	15 29 58.21	0.6766267	0.3836649	9.95	2.6	145.3
08/10/2025	08 23 16.419	15 47 10.46	0.6933057	0.3779048	9.71	2.3	141.3
08/11/2025	08 23 09.526	16 03 38.02	0.7113209	0.3721056	9.46	1.9	137.2
08/12/2025	08 23 30.507	16 19 07.51	0.7306183	0.3662988	9.21	1.6	133.0
08/13/2025	08 24 20.190	16 33 26.06	0.7511346	0.3605189	8.96	1.3	128.8
08/14/2025	08 25 39.108	16 46 21.23	0.7727975	0.3548038	8.71	1.0	124.6
08/15/2025	08 27 27.513	16 57 41.10	0.7955252	0.3491945	8.46	0.8	120.2
08/16/2025	08 29 45.391	17 07 14.18	0.8192258	0.3437350	8.22	0.5	115.8
08/17/2025	08 32 32.473	17 14 49.48	0.8437975	0.3384723	7.98	0.3	111.4
08/18/2025	08 35 48.254	17 20 16.52	0.8691278	0.3334559	7.74	0.1	106.8
08/19/2025	08 39 31.996	17 23 25.43	0.8950937	0.3287370	7.52	-0.1	102.2
08/20/2025	08 43 42.743	17 24 07.08	0.9215618	0.3243677	7.30	-0.3	97.6
08/21/2025	08 48 19.324	17 22 13.21	0.9483892	0.3204001	7.10	-0.4	92.8
08/22/2025	08 53 20.368	17 17 36.61	0.9754243	0.3168849	6.90	-0.5	88.0
08/23/2025	08 58 44.315	17 10 11.39	1.0025086	0.3138699	6.71	-0.7	83.2
08/24/2025	09 04 29.429	16 59 53.12	1.0294796	0.3113984	6.54	-0.8	78.3
08/25/2025	09 10 33.823	16 46 39.06	1.0561732	0.3095074	6.37	-0.8	73.4
08/26/2025	09 16 55.487	16 30 28.33	1.0824276	0.3082264	6.22	-0.9	68.6
08/27/2025	09 23 32.322	16 11 21.98	1.1080869	0.3075761	6.07	-1.0	63.7
08/28/2025	09 30 22.182	15 49 23.04	1.1330052	0.3075668	5.94	-1.1	58.9
08/29/2025	09 37 22.918	15 24 36.44	1.1570499	0.3081989	5.82	-1.1	54.2
08/30/2025	09 44 32.419	14 57 08.90	1.1801048	0.3094621	5.70	-1.2	49.6
08/31/2025	09 51 48.661	14 27 08.68	1.2020722	0.3113360	5.60	-1.2	45.1
09/01/2025	09 59 09.741	13 54 45.33	1.2228744	0.3137916	5.50	-1.3	40.7
09/02/2025	10 06 33.908	13 20 09.37	1.2424539	0.3167918	5.42	-1.3	36.5
09/03/2025	10 13 59.586	12 43 31.99	1.2607729	0.3202935	5.34	-1.4	32.4
09/04/2025	10 21 25.387	12 05 04.70	1.2778117	0.3242491	5.27	-1.4	28.5
09/05/2025	10 28 50.114	11 24 59.10	1.2935671	0.3286080	5.20	-1.5	24.8
09/06/2025	10 36 12.761	10 43 26.60	1.3080499	0.3333181	5.15	-1.5	21.3

## Mercury - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
09/07/2025	10	43	32.503	10	00	38.24	1.3212827	0.3383272	5.09	-1.6	17.9
09/08/2025	10	50	48.681	09	16	44.54	1.3332970	0.3435840	5.05	-1.6	14.8
09/09/2025	10	58	00.790	08	31	55.38	1.3441315	0.3490390	5.01	-1.7	11.9
09/10/2025	11	05	08.459	07	46	19.97	1.3538293	0.3546452	4.97	-1.8	9.2
09/11/2025	11	12	11.432	07	00	06.82	1.3624370	0.3603584	4.94	-1.8	6.9
09/12/2025	11	19	09.552	06	13	23.72	1.3700023	0.3661374	4.91	-1.8	5.1
09/13/2025	11	26	02.740	05	26	17.80	1.3765734	0.3719444	4.89	-1.8	4.4
09/14/2025	11	32	50.987	04	38	55.53	1.3821977	0.3777446	4.87	-1.8	4.9
09/15/2025	11	39	34.335	03	51	22.76	1.3869215	0.3835067	4.85	-1.7	6.2
09/16/2025	11	46	12.874	03	03	44.77	1.3907890	0.3892019	4.84	-1.6	7.8
09/17/2025	11	52	46.723	02	16	06.34	1.3938422	0.3948047	4.83	-1.4	9.6
09/18/2025	11	59	16.031	01	28	31.76	1.3961206	0.4002918	4.82	-1.3	11.3
09/19/2025	12	05	40.966	00	41	04.89	1.3976611	0.4056429	4.82	-1.2	13.0
09/20/2025	12	12	01.711	-00	06	10.80	1.3984980	0.4108393	4.81	-1.2	14.6
09/21/2025	12	18	18.459	-00	53	12.16	1.3986629	0.4158646	4.81	-1.1	16.2
09/22/2025	12	24	31.405	-01	39	56.35	1.3981846	0.4207045	4.81	-1.0	17.8
09/23/2025	12	30	40.750	-02	26	20.81	1.3970897	0.4253458	4.82	-0.9	19.2
09/24/2025	12	36	46.693	-03	12	23.17	1.3954021	0.4297773	4.82	-0.8	20.7
09/25/2025	12	42	49.428	-03	58	01.31	1.3931436	0.4339887	4.83	-0.8	22.1
09/26/2025	12	48	49.147	-04	43	13.23	1.3903336	0.4379712	4.84	-0.7	23.4
09/27/2025	12	54	46.033	-05	27	57.12	1.3869895	0.4417169	4.85	-0.7	24.7
09/28/2025	13	00	40.263	-06	12	11.28	1.3831268	0.4452190	4.87	-0.6	26.0
09/29/2025	13	06	32.005	-06	55	54.11	1.3787591	0.4484713	4.88	-0.6	27.3
09/30/2025	13	12	21.418	-07	39	04.10	1.3738984	0.4514687	4.90	-0.5	28.5
10/01/2025	13	18	08.651	-08	21	39.82	1.3685550	0.4542064	4.92	-0.5	29.8
10/02/2025	13	23	53.841	-09	03	39.90	1.3627378	0.4566806	4.94	-0.4	31.0
10/03/2025	13	29	37.116	-09	45	03.01	1.3564542	0.4588877	4.96	-0.4	32.2
10/04/2025	13	35	18.591	-10	25	47.86	1.3497107	0.4608249	4.99	-0.4	33.5
10/05/2025	13	40	58.370	-11	05	53.19	1.3425121	0.4624896	5.01	-0.3	34.7
10/06/2025	13	46	36.544	-11	45	17.76	1.3348625	0.4638799	5.04	-0.3	36.0
10/07/2025	13	52	13.191	-12	24	00.34	1.3267646	0.4649940	5.07	-0.3	37.2
10/08/2025	13	57	48.375	-13	01	59.71	1.3182204	0.4658307	5.11	-0.3	38.5
10/09/2025	14	03	22.143	-13	39	14.64	1.3092308	0.4663890	5.14	-0.2	39.7
10/10/2025	14	08	54.521	-14	15	43.87	1.2997959	0.4666683	5.18	-0.2	41.0
10/11/2025	14	14	25.515	-14	51	26.10	1.2899147	0.4666682	5.22	-0.2	42.3
10/12/2025	14	19	55.107	-15	26	20.00	1.2795858	0.4663887	5.26	-0.2	43.7
10/13/2025	14	25	23.256	-16	00	24.15	1.2688070	0.4658302	5.30	-0.2	45.0
10/14/2025	14	30	49.892	-16	33	37.11	1.2575757	0.4649933	5.35	-0.2	46.4
10/15/2025	14	36	14.920	-17	05	57.36	1.2458888	0.4638790	5.40	-0.2	47.8
10/16/2025	14	41	38.212	-17	37	23.30	1.2337430	0.4624885	5.45	-0.2	49.2
10/17/2025	14	46	59.605	-18	07	53.29	1.2211347	0.4608235	5.51	-0.2	50.6
10/18/2025	14	52	18.899	-18	37	25.59	1.2080603	0.4588860	5.57	-0.2	52.1
10/19/2025	14	57	35.850	-19	05	58.37	1.1945163	0.4566786	5.63	-0.2	53.6
10/20/2025	15	02	50.167	-19	33	29.72	1.1804994	0.4542041	5.70	-0.2	55.2
10/21/2025	15	08	01.504	-19	59	57.60	1.1660069	0.4514660	5.77	-0.2	56.8
10/22/2025	15	13	09.456	-20	25	19.86	1.1510365	0.4484682	5.85	-0.2	58.4
10/23/2025	15	18	13.552	-20	49	34.24	1.1355870	0.4452155	5.93	-0.2	60.1
10/24/2025	15	23	13.243	-21	12	38.30	1.1196582	0.4417129	6.01	-0.2	61.9
10/25/2025	15	28	07.899	-21	34	29.44	1.1032515	0.4379666	6.10	-0.2	63.8
10/26/2025	15	32	56.795	-21	55	04.90	1.0863704	0.4339836	6.19	-0.2	65.7

## Mercury - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
10/27/2025	15	37	39.103	-22	14	21.69	1.0690205	0.4297715	6.30	-0.2	67.7
10/28/2025	15	42	13.877	-22	32	16.58	1.0512108	0.4253394	6.40	-0.2	69.8
10/29/2025	15	46	40.046	-22	48	46.08	1.0329536	0.4206973	6.52	-0.2	72.0
10/30/2025	15	50	56.391	-23	03	46.40	1.0142661	0.4158567	6.64	-0.2	74.4
10/31/2025	15	55	01.540	-23	17	13.37	0.9951708	0.4108305	6.76	-0.2	76.8
11/01/2025	15	58	53.949	-23	29	02.43	0.9756967	0.4056333	6.90	-0.2	79.4
11/02/2025	16	02	31.891	-23	39	08.55	0.9558810	0.4002814	7.04	-0.2	82.2
11/03/2025	16	05	53.441	-23	47	26.15	0.9357701	0.3947933	7.19	-0.2	85.2
11/04/2025	16	08	56.475	-23	53	49.06	0.9154218	0.3891897	7.35	-0.2	88.3
11/05/2025	16	11	38.659	-23	58	10.37	0.8949070	0.3834935	7.52	-0.1	91.7
11/06/2025	16	13	57.464	-24	00	22.42	0.8743121	0.3777306	7.70	-0.1	95.3
11/07/2025	16	15	50.185	-24	00	16.69	0.8537411	0.3719295	7.88	-0.0	99.1
11/08/2025	16	17	13.980	-23	57	43.74	0.8333183	0.3661217	8.08	0.1	103.2
11/09/2025	16	18	05.948	-23	52	33.30	0.8131911	0.3603420	8.28	0.2	107.6
11/10/2025	16	18	23.236	-23	44	34.40	0.7935316	0.3546283	8.48	0.3	112.3
11/11/2025	16	18	03.190	-23	33	35.69	0.7745394	0.3490217	8.69	0.5	117.4
11/12/2025	16	17	03.565	-23	19	26.12	0.7564416	0.3435664	8.90	0.8	122.7
11/13/2025	16	15	22.783	-23	01	55.88	0.7394925	0.3383096	9.10	1.1	128.4
11/14/2025	16	13	00.242	-22	40	57.84	0.7239705	0.3333008	9.30	1.5	134.5
11/15/2025	16	09	56.643	-22	16	29.42	0.7101724	0.3285913	9.48	2.0	140.9
11/16/2025	16	06	14.313	-21	48	34.91	0.6984035	0.3242333	9.64	2.6	147.6
11/17/2025	16	01	57.441	-21	17	27.84	0.6889650	0.3202790	9.77	3.3	154.6
11/18/2025	15	57	12.185	-20	43	33.14	0.6821373	0.3167789	9.87	4.1	161.9
11/19/2025	15	52	06.558	-20	07	28.36	0.6781610	0.3137806	9.92	5.1	169.4
11/20/2025	15	46	50.077	-19	30	03.34	0.6772183	0.3113274	9.94	6.2	176.7
11/21/2025	15	41	33.176	-18	52	18.00	0.6794166	0.3094561	9.91	5.9	174.7
11/22/2025	15	36	26.467	-18	15	18.26	0.6847776	0.3081958	9.83	4.8	167.1
11/23/2025	15	31	39.955	-17	40	10.65	0.6932334	0.3075668	9.71	3.8	159.3
11/24/2025	15	27	22.349	-17	07	56.62	0.7046313	0.3075791	9.55	2.9	151.7
11/25/2025	15	23	40.579	-16	39	27.76	0.7187452	0.3082327	9.36	2.2	144.2
11/26/2025	15	20	39.549	-16	15	22.44	0.7352922	0.3095169	9.15	1.6	137.0
11/27/2025	15	18	22.151	-15	56	04.62	0.7539525	0.3114109	8.93	1.1	130.0
11/28/2025	15	16	49.451	-15	41	44.26	0.7743880	0.3138854	8.69	0.7	123.3
11/29/2025	15	16	01.006	-15	32	19.11	0.7962598	0.3169032	8.45	0.4	116.9
11/30/2025	15	15	55.224	-15	27	37.24	0.8192419	0.3204208	8.21	0.1	110.9
12/01/2025	15	16	29.713	-15	27	19.67	0.8430305	0.3243906	7.98	-0.1	105.2
12/02/2025	15	17	41.592	-15	31	02.92	0.8673511	0.3287618	7.76	-0.2	99.8
12/03/2025	15	19	27.740	-15	38	21.10	0.8919613	0.3334824	7.55	-0.3	94.8
12/04/2025	15	21	44.984	-15	48	47.52	0.9166513	0.3385002	7.34	-0.4	90.1
12/05/2025	15	24	30.233	-16	01	55.93	0.9412433	0.3437639	7.15	-0.5	85.6
12/06/2025	15	27	40.564	-16	17	21.28	0.9655890	0.3492241	6.97	-0.5	81.5
12/07/2025	15	31	13.275	-16	34	40.19	0.9895671	0.3548340	6.80	-0.5	77.6
12/08/2025	15	35	05.906	-16	53	31.24	1.0130798	0.3605494	6.64	-0.6	74.0
12/09/2025	15	39	16.250	-17	13	35.05	1.0360500	0.3663293	6.50	-0.6	70.6
12/10/2025	15	43	42.343	-17	34	34.23	1.0584183	0.3721360	6.36	-0.6	67.4
12/11/2025	15	48	22.450	-17	56	13.31	1.0801400	0.3779348	6.23	-0.6	64.4
12/12/2025	15	53	15.049	-18	18	18.60	1.1011829	0.3836944	6.11	-0.5	61.6
12/13/2025	15	58	18.808	-18	40	38.01	1.1215249	0.3893864	6.00	-0.5	59.0
12/14/2025	16	03	32.562	-19	03	00.88	1.1411520	0.3949851	5.90	-0.5	56.5
12/15/2025	16	08	55.297	-19	25	17.83	1.1600572	0.4004676	5.80	-0.5	54.1

Mercury - Apparent data

Date	Right Ascension	Declination	Earth Distance	Solar Distance	Equatorial Diameter	Mag.	Phase Angle
0 h TT	h m s	d m s	au	au	arc sec		deg.
12/16/2025	16 14 26.130	-19 47 20.60	1.1782384	0.4058132	5.71	-0.5	51.9
12/17/2025	16 20 04.292	-20 09 01.93	1.1956979	0.4110037	5.63	-0.5	49.7
12/18/2025	16 25 49.113	-20 30 15.39	1.2124411	0.4160228	5.55	-0.5	47.7
12/19/2025	16 31 40.006	-20 50 55.31	1.2284758	0.4208559	5.48	-0.5	45.8
12/20/2025	16 37 36.460	-21 10 56.64	1.2438116	0.4254902	5.41	-0.5	43.9
12/21/2025	16 43 38.024	-21 30 14.91	1.2584592	0.4299143	5.35	-0.5	42.2
12/22/2025	16 49 44.304	-21 48 46.10	1.2724304	0.4341181	5.29	-0.4	40.5
12/23/2025	16 55 54.950	-22 06 26.64	1.2857371	0.4380928	5.23	-0.4	38.8
12/24/2025	17 02 09.653	-22 23 13.29	1.2983918	0.4418305	5.18	-0.4	37.3
12/25/2025	17 08 28.137	-22 39 03.12	1.3104067	0.4453244	5.14	-0.4	35.7
12/26/2025	17 14 50.157	-22 53 53.48	1.3217938	0.4485684	5.09	-0.4	34.3
12/27/2025	17 21 15.490	-23 07 41.96	1.3325650	0.4515574	5.05	-0.5	32.8
12/28/2025	17 27 43.939	-23 20 26.33	1.3427315	0.4542866	5.01	-0.5	31.4
12/29/2025	17 34 15.320	-23 32 04.56	1.3523038	0.4567522	4.98	-0.5	30.0
12/30/2025	17 40 49.468	-23 42 34.77	1.3612921	0.4589508	4.94	-0.5	28.7
12/31/2025	17 47 26.227	-23 51 55.22	1.3697057	0.4608794	4.91	-0.5	27.4
01/01/2026	17 54 05.452	-24 00 04.28	1.3775529	0.4625355	4.89	-0.5	26.1
01/02/2026	18 00 47.006	-24 07 00.43	1.3848415	0.4639171	4.86	-0.5	24.8



Venus - Apparent data

Date 0 h TT	Earth			Solar	Equatorial	Mag.	Phase Angle deg.
	Right Ascension	Declination	Distance	Distance	Diameter		
	h m s	d m s	au	au	arc sec		
12/31/2024	21 57 30.740	-14 01 14.53	0.7582708	0.7226420	22.01	-4.5	83.4
01/01/2025	22 01 34.569	-13 35 12.27	0.7509052	0.7225070	22.22	-4.5	84.0
01/02/2025	22 05 36.223	-13 08 54.70	0.7435315	0.7223727	22.44	-4.5	84.6
01/03/2025	22 09 35.685	-12 42 22.72	0.7361501	0.7222391	22.67	-4.5	85.1
01/04/2025	22 13 32.937	-12 15 37.19	0.7287616	0.7221063	22.90	-4.5	85.7
01/05/2025	22 17 27.962	-11 48 39.00	0.7213663	0.7219745	23.13	-4.5	86.2
01/06/2025	22 21 20.740	-11 21 29.03	0.7139649	0.7218436	23.37	-4.5	86.8
01/07/2025	22 25 11.253	-10 54 08.17	0.7065582	0.7217140	23.62	-4.5	87.4
01/08/2025	22 28 59.481	-10 26 37.31	0.6991469	0.7215856	23.87	-4.5	87.9
01/09/2025	22 32 45.403	-09 58 57.33	0.6917319	0.7214585	24.13	-4.6	88.5
01/10/2025	22 36 28.999	-09 31 09.13	0.6843144	0.7213329	24.39	-4.6	89.0
01/11/2025	22 40 10.243	-09 03 13.59	0.6768952	0.7212088	24.65	-4.6	89.6
01/12/2025	22 43 49.112	-08 35 11.60	0.6694755	0.7210864	24.93	-4.6	90.2
01/13/2025	22 47 25.578	-08 07 04.04	0.6620564	0.7209658	25.21	-4.6	90.7
01/14/2025	22 50 59.616	-07 38 51.77	0.6546390	0.7208470	25.49	-4.6	91.3
01/15/2025	22 54 31.197	-07 10 35.64	0.6472243	0.7207301	25.78	-4.6	91.9
01/16/2025	22 58 00.292	-06 42 16.49	0.6398134	0.7206152	26.08	-4.6	92.6
01/17/2025	23 01 26.872	-06 13 55.18	0.6324074	0.7205025	26.39	-4.6	93.2
01/18/2025	23 04 50.903	-05 45 32.53	0.6250072	0.7203920	26.70	-4.6	93.9
01/19/2025	23 08 12.351	-05 17 09.40	0.6176138	0.7202838	27.02	-4.7	94.5
01/20/2025	23 11 31.175	-04 48 46.63	0.6102284	0.7201780	27.35	-4.7	95.2
01/21/2025	23 14 47.334	-04 20 25.09	0.6028518	0.7200747	27.68	-4.7	95.9
01/22/2025	23 18 00.780	-03 52 05.66	0.5954851	0.7199739	28.02	-4.7	96.6
01/23/2025	23 21 11.461	-03 23 49.20	0.5881294	0.7198758	28.38	-4.7	97.4
01/24/2025	23 24 19.321	-02 55 36.64	0.5807857	0.7197804	28.73	-4.7	98.1
01/25/2025	23 27 24.298	-02 27 28.87	0.5734552	0.7196878	29.10	-4.7	98.9
01/26/2025	23 30 26.325	-01 59 26.85	0.5661391	0.7195980	29.48	-4.7	99.7
01/27/2025	23 33 25.328	-01 31 31.52	0.5588384	0.7195112	29.86	-4.7	100.5
01/28/2025	23 36 21.226	-01 03 43.87	0.5515545	0.7194274	30.26	-4.7	101.3
01/29/2025	23 39 13.932	-00 36 04.92	0.5442887	0.7193467	30.66	-4.7	102.1
01/30/2025	23 42 03.351	-00 08 35.71	0.5370423	0.7192691	31.07	-4.7	102.9
01/31/2025	23 44 49.382	00 18 42.66	0.5298168	0.7191948	31.50	-4.7	103.8
02/01/2025	23 47 31.916	00 45 49.09	0.5226138	0.7191237	31.93	-4.8	104.6
02/02/2025	23 50 10.837	01 12 42.43	0.5154352	0.7190559	32.38	-4.8	105.4
02/03/2025	23 52 46.024	01 39 21.48	0.5082830	0.7189915	32.83	-4.8	106.3
02/04/2025	23 55 17.345	02 05 45.03	0.5011594	0.7189306	33.30	-4.8	107.2
02/05/2025	23 57 44.664	02 31 51.81	0.4940667	0.7188731	33.78	-4.8	108.0
02/06/2025	00 00 07.837	02 57 40.53	0.4870078	0.7188192	34.27	-4.8	108.9
02/07/2025	00 02 26.712	03 23 09.85	0.4799852	0.7187688	34.77	-4.8	109.8
02/08/2025	00 04 41.132	03 48 18.39	0.4730021	0.7187221	35.28	-4.8	110.7
02/09/2025	00 06 50.933	04 13 04.75	0.4660615	0.7186790	35.81	-4.8	111.6
02/10/2025	00 08 55.946	04 37 27.47	0.4591669	0.7186396	36.34	-4.8	112.5
02/11/2025	00 10 55.997	05 01 25.08	0.4523215	0.7186039	36.89	-4.8	113.5
02/12/2025	00 12 50.907	05 24 56.04	0.4455290	0.7185719	37.46	-4.8	114.4
02/13/2025	00 14 40.492	05 47 58.78	0.4387931	0.7185438	38.03	-4.8	115.4
02/14/2025	00 16 24.564	06 10 31.67	0.4321176	0.7185194	38.62	-4.8	116.4
02/15/2025	00 18 02.930	06 32 33.02	0.4255065	0.7184988	39.22	-4.8	117.5
02/16/2025	00 19 35.392	06 54 01.08	0.4189640	0.7184821	39.83	-4.8	118.6
02/17/2025	00 21 01.748	07 14 54.02	0.4124943	0.7184692	40.46	-4.8	119.7
02/18/2025	00 22 21.790	07 35 09.91	0.4061018	0.7184602	41.09	-4.8	120.8

Venus - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
02/19/2025	00	23	35.308	07	54	46.77	0.3997913	0.7184551	41.74	-4.8	122.0
02/20/2025	00	24	42.090	08	13	42.50	0.3935676	0.7184538	42.40	-4.8	123.2
02/21/2025	00	25	41.921	08	31	54.91	0.3874356	0.7184564	43.07	-4.8	124.4
02/22/2025	00	26	34.589	08	49	21.73	0.3814008	0.7184628	43.76	-4.8	125.7
02/23/2025	00	27	19.881	09	06	00.57	0.3754686	0.7184731	44.45	-4.8	127.0
02/24/2025	00	27	57.589	09	21	48.96	0.3696446	0.7184873	45.15	-4.8	128.4
02/25/2025	00	28	27.512	09	36	44.33	0.3639349	0.7185053	45.86	-4.8	129.8
02/26/2025	00	28	49.454	09	50	43.99	0.3583457	0.7185272	46.57	-4.8	131.2
02/27/2025	00	29	03.234	10	03	45.17	0.3528833	0.7185529	47.29	-4.8	132.7
02/28/2025	00	29	08.681	10	15	45.03	0.3475545	0.7185823	48.02	-4.7	134.2
03/01/2025	00	29	05.645	10	26	40.62	0.3423664	0.7186155	48.74	-4.7	135.7
03/02/2025	00	28	53.997	10	36	28.97	0.3373263	0.7186525	49.47	-4.7	137.2
03/03/2025	00	28	33.638	10	45	07.08	0.3324422	0.7186932	50.20	-4.7	138.8
03/04/2025	00	28	04.498	10	52	31.95	0.3277221	0.7187375	50.92	-4.7	140.4
03/05/2025	00	27	26.550	10	58	40.63	0.3231746	0.7187855	51.64	-4.6	142.0
03/06/2025	00	26	39.811	11	03	30.29	0.3188084	0.7188371	52.35	-4.6	143.7
03/07/2025	00	25	44.350	11	06	58.23	0.3146324	0.7188923	53.04	-4.6	145.3
03/08/2025	00	24	40.295	11	09	01.99	0.3106559	0.7189510	53.72	-4.6	147.0
03/09/2025	00	23	27.835	11	09	39.40	0.3068880	0.7190132	54.38	-4.5	148.7
03/10/2025	00	22	07.230	11	08	48.63	0.3033378	0.7190788	55.02	-4.5	150.4
03/11/2025	00	20	38.807	11	06	28.27	0.3000146	0.7191477	55.63	-4.5	152.1
03/12/2025	00	19	02.967	11	02	37.39	0.2969271	0.7192200	56.20	-4.4	153.9
03/13/2025	00	17	20.186	10	57	15.62	0.2940840	0.7192955	56.75	-4.4	155.6
03/14/2025	00	15	31.010	10	50	23.17	0.2914935	0.7193742	57.25	-4.3	157.3
03/15/2025	00	13	36.057	10	42	00.93	0.2891635	0.7194561	57.71	-4.3	159.0
03/16/2025	00	11	36.008	10	32	10.48	0.2871011	0.7195410	58.13	-4.2	160.7
03/17/2025	00	09	31.608	10	20	54.13	0.2853131	0.7196289	58.49	-4.2	162.3
03/18/2025	00	07	23.653	10	08	14.94	0.2838053	0.7197198	58.80	-4.1	163.8
03/19/2025	00	05	12.983	09	54	16.72	0.2825830	0.7198135	59.06	-4.2	165.2
03/20/2025	00	03	00.476	09	39	04.00	0.2816502	0.7199100	59.25	-4.2	166.4
03/21/2025	00	00	47.030	09	22	42.00	0.2810105	0.7200092	59.39	-4.2	167.4
03/22/2025	23	58	33.560	09	05	16.61	0.2806663	0.7201110	59.46	-4.2	168.0
03/23/2025	23	56	20.979	08	46	54.28	0.2806190	0.7202153	59.47	-4.2	168.3
03/24/2025	23	54	10.188	08	27	41.91	0.2808689	0.7203221	59.42	-4.2	168.2
03/25/2025	23	52	02.066	08	07	46.84	0.2814156	0.7204313	59.30	-4.2	167.7
03/26/2025	23	49	57.456	07	47	16.63	0.2822574	0.7205428	59.12	-4.2	166.8
03/27/2025	23	47	57.157	07	26	19.03	0.2833920	0.7206564	58.89	-4.1	165.6
03/28/2025	23	46	01.917	07	05	01.82	0.2848158	0.7207722	58.59	-4.1	164.3
03/29/2025	23	44	12.423	06	43	32.71	0.2865249	0.7208900	58.24	-4.1	162.8
03/30/2025	23	42	29.299	06	21	59.27	0.2885145	0.7210097	57.84	-4.2	161.1
03/31/2025	23	40	53.105	06	00	28.82	0.2907792	0.7211312	57.39	-4.2	159.4
04/01/2025	23	39	24.333	05	39	08.37	0.2933131	0.7212545	56.90	-4.3	157.7
04/02/2025	23	38	03.410	05	18	04.57	0.2961100	0.7213793	56.36	-4.3	155.9
04/03/2025	23	36	50.695	04	57	23.66	0.2991632	0.7215057	55.78	-4.4	154.1
04/04/2025	23	35	46.486	04	37	11.45	0.3024654	0.7216336	55.17	-4.4	152.3
04/05/2025	23	34	51.019	04	17	33.27	0.3060093	0.7217627	54.54	-4.4	150.6
04/06/2025	23	34	04.472	03	58	33.97	0.3097870	0.7218931	53.87	-4.5	148.8
04/07/2025	23	33	26.964	03	40	17.89	0.3137906	0.7220246	53.18	-4.5	147.1
04/08/2025	23	32	58.566	03	22	48.84	0.3180119	0.7221571	52.48	-4.5	145.4
04/09/2025	23	32	39.296	03	06	10.15	0.3224425	0.7222905	51.76	-4.6	143.8

Venus - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
04/10/2025	23	32	29.130	02	50	24.63	0.3270741	0.7224247	51.02	-4.6	142.2
04/11/2025	23	32	28.002	02	35	34.65	0.3318982	0.7225597	50.28	-4.6	140.6
04/12/2025	23	32	35.810	02	21	42.09	0.3369067	0.7226952	49.53	-4.6	139.0
04/13/2025	23	32	52.421	02	08	48.43	0.3420911	0.7228312	48.78	-4.7	137.5
04/14/2025	23	33	17.676	01	56	54.76	0.3474435	0.7229675	48.03	-4.7	136.1
04/15/2025	23	33	51.389	01	46	01.80	0.3529558	0.7231042	47.28	-4.7	134.6
04/16/2025	23	34	33.358	01	36	09.95	0.3586202	0.7232410	46.53	-4.7	133.2
04/17/2025	23	35	23.363	01	27	19.33	0.3644293	0.7233778	45.79	-4.7	131.8
04/18/2025	23	36	21.171	01	19	29.77	0.3703756	0.7235146	45.06	-4.7	130.5
04/19/2025	23	37	26.542	01	12	40.91	0.3764520	0.7236513	44.33	-4.7	129.2
04/20/2025	23	38	39.227	01	06	52.15	0.3826517	0.7237876	43.61	-4.7	127.9
04/21/2025	23	39	58.972	01	02	02.73	0.3889681	0.7239236	42.90	-4.7	126.6
04/22/2025	23	41	25.522	00	58	11.74	0.3953948	0.7240592	42.21	-4.7	125.4
04/23/2025	23	42	58.622	00	55	18.15	0.4019258	0.7241941	41.52	-4.7	124.2
04/24/2025	23	44	38.016	00	53	20.81	0.4085553	0.7243283	40.85	-4.7	123.0
04/25/2025	23	46	23.455	00	52	18.47	0.4152779	0.7244618	40.19	-4.7	121.8
04/26/2025	23	48	14.691	00	52	09.84	0.4220884	0.7245943	39.54	-4.7	120.6
04/27/2025	23	50	11.484	00	52	53.56	0.4289820	0.7247259	38.90	-4.7	119.5
04/28/2025	23	52	13.600	00	54	28.24	0.4359543	0.7248564	38.28	-4.7	118.3
04/29/2025	23	54	20.814	00	56	52.48	0.4430012	0.7249856	37.67	-4.7	117.2
04/30/2025	23	56	32.909	01	00	04.87	0.4501188	0.7251135	37.08	-4.7	116.1
05/01/2025	23	58	49.678	01	04	04.02	0.4573037	0.7252401	36.49	-4.7	115.1
05/02/2025	00	01	10.924	01	08	48.53	0.4645525	0.7253651	35.92	-4.7	114.0
05/03/2025	00	03	36.461	01	14	17.07	0.4718618	0.7254886	35.37	-4.7	113.0
05/04/2025	00	06	06.112	01	20	28.30	0.4792288	0.7256103	34.82	-4.7	112.0
05/05/2025	00	08	39.713	01	27	20.90	0.4866502	0.7257303	34.29	-4.7	111.1
05/06/2025	00	11	17.104	01	34	53.60	0.4941232	0.7258484	33.77	-4.7	110.1
05/07/2025	00	13	58.139	01	43	05.10	0.5016450	0.7259645	33.27	-4.7	109.2
05/08/2025	00	16	42.674	01	51	54.15	0.5092127	0.7260786	32.77	-4.7	108.3
05/09/2025	00	19	30.575	02	01	19.48	0.5168238	0.7261905	32.29	-4.7	107.5
05/10/2025	00	22	21.714	02	11	19.85	0.5244755	0.7263002	31.82	-4.6	106.6
05/11/2025	00	25	15.970	02	21	54.03	0.5321653	0.7264075	31.36	-4.6	105.8
05/12/2025	00	28	13.226	02	33	00.78	0.5398909	0.7265125	30.91	-4.6	105.0
05/13/2025	00	31	13.373	02	44	38.88	0.5476497	0.7266150	30.47	-4.6	104.3
05/14/2025	00	34	16.306	02	56	47.13	0.5554394	0.7267150	30.05	-4.6	103.5
05/15/2025	00	37	21.925	03	09	24.32	0.5632578	0.7268123	29.63	-4.6	102.7
05/16/2025	00	40	30.135	03	22	29.25	0.5711026	0.7269069	29.22	-4.6	102.0
05/17/2025	00	43	40.845	03	36	00.73	0.5789716	0.7269988	28.82	-4.6	101.3
05/18/2025	00	46	53.969	03	49	57.58	0.5868627	0.7270878	28.44	-4.6	100.6
05/19/2025	00	50	09.427	04	04	18.62	0.5947740	0.7271738	28.06	-4.6	99.9
05/20/2025	00	53	27.139	04	19	02.68	0.6027033	0.7272569	27.69	-4.5	99.2
05/21/2025	00	56	47.034	04	34	08.59	0.6106488	0.7273370	27.33	-4.5	98.5
05/22/2025	01	00	09.042	04	49	35.22	0.6186087	0.7274140	26.98	-4.5	97.8
05/23/2025	01	03	33.099	05	05	21.43	0.6265813	0.7274878	26.63	-4.5	97.1
05/24/2025	01	06	59.143	05	21	26.09	0.6345648	0.7275583	26.30	-4.5	96.4
05/25/2025	01	10	27.118	05	37	48.11	0.6425580	0.7276256	25.97	-4.5	95.7
05/26/2025	01	13	56.969	05	54	26.38	0.6505594	0.7276896	25.65	-4.5	95.1
05/27/2025	01	17	28.644	06	11	19.84	0.6585678	0.7277502	25.34	-4.5	94.4
05/28/2025	01	21	02.095	06	28	27.44	0.6665824	0.7278074	25.04	-4.5	93.7
05/29/2025	01	24	37.278	06	45	48.13	0.6746021	0.7278612	24.74	-4.4	93.0

Venus - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
05/30/2025	01	28	14.152	07	03	20.93	0.6826263	0.7279114	24.45	-4.4	92.3
05/31/2025	01	31	52.685	07	21	04.84	0.6906540	0.7279581	24.16	-4.4	91.7
06/01/2025	01	35	32.848	07	38	58.93	0.6986845	0.7280013	23.89	-4.4	91.0
06/02/2025	01	39	14.616	07	57	02.24	0.7067171	0.7280408	23.61	-4.4	90.3
06/03/2025	01	42	57.969	08	15	13.89	0.7147508	0.7280767	23.35	-4.4	89.7
06/04/2025	01	46	42.891	08	33	32.96	0.7227849	0.7281089	23.09	-4.4	89.1
06/05/2025	01	50	29.366	08	51	58.57	0.7308186	0.7281374	22.84	-4.4	88.4
06/06/2025	01	54	17.382	09	10	29.84	0.7388509	0.7281623	22.59	-4.4	87.8
06/07/2025	01	58	06.927	09	29	05.89	0.7468810	0.7281834	22.34	-4.4	87.2
06/08/2025	02	01	57.992	09	47	45.85	0.7549079	0.7282007	22.11	-4.4	86.7
06/09/2025	02	05	50.568	10	06	28.86	0.7629309	0.7282143	21.87	-4.4	86.1
06/10/2025	02	09	44.648	10	25	14.05	0.7709489	0.7282242	21.65	-4.3	85.5
06/11/2025	02	13	40.224	10	44	00.56	0.7789610	0.7282302	21.42	-4.3	85.0
06/12/2025	02	17	37.290	11	02	47.52	0.7869662	0.7282325	21.21	-4.3	84.5
06/13/2025	02	21	35.840	11	21	34.06	0.7949636	0.7282310	20.99	-4.3	83.9
06/14/2025	02	25	35.869	11	40	19.33	0.8029523	0.7282257	20.78	-4.3	83.4
06/15/2025	02	29	37.370	11	59	02.45	0.8109310	0.7282167	20.58	-4.3	82.9
06/16/2025	02	33	40.341	12	17	42.55	0.8188990	0.7282038	20.38	-4.3	82.4
06/17/2025	02	37	44.775	12	36	18.76	0.8268551	0.7281873	20.18	-4.3	81.9
06/18/2025	02	41	50.669	12	54	50.21	0.8347983	0.7281669	19.99	-4.3	81.4
06/19/2025	02	45	58.019	13	13	16.04	0.8427276	0.7281428	19.80	-4.3	80.9
06/20/2025	02	50	06.820	13	31	35.39	0.8506421	0.7281150	19.62	-4.3	80.4
06/21/2025	02	54	17.068	13	49	47.40	0.8585410	0.7280836	19.44	-4.2	79.9
06/22/2025	02	58	28.758	14	07	51.25	0.8664233	0.7280484	19.26	-4.2	79.4
06/23/2025	03	02	41.882	14	25	46.08	0.8742884	0.7280096	19.09	-4.2	78.9
06/24/2025	03	06	56.432	14	43	31.08	0.8821356	0.7279672	18.92	-4.2	78.4
06/25/2025	03	11	12.396	15	01	05.41	0.8899645	0.7279212	18.75	-4.2	77.8
06/26/2025	03	15	29.766	15	18	28.25	0.8977747	0.7278716	18.59	-4.2	77.3
06/27/2025	03	19	48.532	15	35	38.81	0.9055658	0.7278185	18.43	-4.2	76.8
06/28/2025	03	24	08.688	15	52	36.28	0.9133376	0.7277620	18.27	-4.2	76.2
06/29/2025	03	28	30.229	16	09	19.87	0.9210898	0.7277020	18.12	-4.2	75.7
06/30/2025	03	32	53.151	16	25	48.83	0.9288221	0.7276387	17.97	-4.2	75.1
07/01/2025	03	37	17.451	16	42	02.40	0.9365343	0.7275720	17.82	-4.2	74.6
07/02/2025	03	41	43.128	16	57	59.84	0.9442261	0.7275020	17.67	-4.2	74.1
07/03/2025	03	46	10.178	17	13	40.41	0.9518971	0.7274287	17.53	-4.2	73.5
07/04/2025	03	50	38.597	17	29	03.39	0.9595469	0.7273523	17.39	-4.1	73.0
07/05/2025	03	55	08.382	17	44	08.06	0.9671752	0.7272728	17.25	-4.1	72.5
07/06/2025	03	59	39.525	17	58	53.69	0.9747815	0.7271902	17.12	-4.1	72.0
07/07/2025	04	04	12.021	18	13	19.58	0.9823655	0.7271046	16.99	-4.1	71.5
07/08/2025	04	08	45.861	18	27	25.03	0.9899265	0.7270161	16.86	-4.1	71.0
07/09/2025	04	13	21.035	18	41	09.33	0.9974643	0.7269247	16.73	-4.1	70.5
07/10/2025	04	17	57.530	18	54	31.78	1.0049782	0.7268305	16.61	-4.1	70.0
07/11/2025	04	22	35.335	19	07	31.69	1.0124676	0.7267335	16.48	-4.1	69.6
07/12/2025	04	27	14.434	19	20	08.38	1.0199320	0.7266340	16.36	-4.1	69.1
07/13/2025	04	31	54.812	19	32	21.15	1.0273706	0.7265318	16.24	-4.1	68.7
07/14/2025	04	36	36.451	19	44	09.32	1.0347829	0.7264271	16.13	-4.1	68.2
07/15/2025	04	41	19.331	19	55	32.22	1.0421681	0.7263200	16.01	-4.1	67.8
07/16/2025	04	46	03.433	20	06	29.19	1.0495254	0.7262106	15.90	-4.1	67.4
07/17/2025	04	50	48.735	20	16	59.59	1.0568541	0.7260989	15.79	-4.1	66.9
07/18/2025	04	55	35.212	20	27	02.80	1.0641534	0.7259851	15.68	-4.1	66.5

Venus - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
07/19/2025	05	00	22.837	20	36	38.21	1.0714227	0.7258691	15.58	-4.1	66.1
07/20/2025	05	05	11.578	20	45	45.23	1.0786613	0.7257512	15.47	-4.1	65.6
07/21/2025	05	10	01.403	20	54	23.31	1.0858686	0.7256313	15.37	-4.1	65.2
07/22/2025	05	14	52.274	21	02	31.89	1.0930441	0.7255097	15.27	-4.1	64.8
07/23/2025	05	19	44.152	21	10	10.45	1.1001875	0.7253863	15.17	-4.0	64.3
07/24/2025	05	24	36.995	21	17	18.46	1.1072983	0.7252613	15.07	-4.0	63.9
07/25/2025	05	29	30.763	21	23	55.44	1.1143764	0.7251348	14.98	-4.0	63.4
07/26/2025	05	34	25.415	21	30	00.90	1.1214215	0.7250068	14.88	-4.0	62.9
07/27/2025	05	39	20.910	21	35	34.39	1.1284337	0.7248775	14.79	-4.0	62.5
07/28/2025	05	44	17.211	21	40	35.48	1.1354127	0.7247470	14.70	-4.0	62.0
07/29/2025	05	49	14.276	21	45	03.78	1.1423585	0.7246153	14.61	-4.0	61.5
07/30/2025	05	54	12.067	21	48	58.90	1.1492710	0.7244826	14.52	-4.0	61.0
07/31/2025	05	59	10.544	21	52	20.49	1.1561500	0.7243490	14.43	-4.0	60.5
08/01/2025	06	04	09.664	21	55	08.23	1.1629954	0.7242145	14.35	-4.0	60.0
08/02/2025	06	09	09.387	21	57	21.81	1.1698071	0.7240793	14.27	-4.0	59.5
08/03/2025	06	14	09.670	21	59	00.94	1.1765850	0.7239436	14.18	-4.0	59.0
08/04/2025	06	19	10.468	22	00	05.38	1.1833288	0.7238073	14.10	-4.0	58.6
08/05/2025	06	24	11.737	22	00	34.86	1.1900382	0.7236706	14.02	-4.0	58.1
08/06/2025	06	29	13.433	22	00	29.19	1.1967132	0.7235336	13.95	-4.0	57.6
08/07/2025	06	34	15.509	21	59	48.17	1.2033535	0.7233964	13.87	-4.0	57.1
08/08/2025	06	39	17.920	21	58	31.61	1.2099587	0.7232591	13.79	-4.0	56.7
08/09/2025	06	44	20.620	21	56	39.36	1.2165285	0.7231219	13.72	-4.0	56.2
08/10/2025	06	49	23.564	21	54	11.29	1.2230625	0.7229848	13.64	-4.0	55.8
08/11/2025	06	54	26.706	21	51	07.27	1.2295603	0.7228479	13.57	-4.0	55.4
08/12/2025	06	59	30.002	21	47	27.22	1.2360213	0.7227114	13.50	-4.0	54.9
08/13/2025	07	04	33.408	21	43	11.07	1.2424450	0.7225754	13.43	-4.0	54.5
08/14/2025	07	09	36.880	21	38	18.79	1.2488307	0.7224399	13.36	-4.0	54.1
08/15/2025	07	14	40.374	21	32	50.39	1.2551778	0.7223050	13.30	-4.0	53.7
08/16/2025	07	19	43.844	21	26	45.90	1.2614858	0.7221710	13.23	-4.0	53.3
08/17/2025	07	24	47.242	21	20	05.41	1.2677540	0.7220378	13.16	-4.0	52.9
08/18/2025	07	29	50.521	21	12	49.01	1.2739819	0.7219057	13.10	-4.0	52.5
08/19/2025	07	34	53.632	21	04	56.83	1.2801692	0.7217746	13.04	-4.0	52.1
08/20/2025	07	39	56.526	20	56	29.04	1.2863154	0.7216447	12.97	-4.0	51.7
08/21/2025	07	44	59.158	20	47	25.80	1.2924201	0.7215161	12.91	-3.9	51.3
08/22/2025	07	50	01.482	20	37	47.33	1.2984833	0.7213889	12.85	-3.9	50.9
08/23/2025	07	55	03.457	20	27	33.83	1.3045047	0.7212633	12.79	-3.9	50.5
08/24/2025	08	00	05.043	20	16	45.56	1.3104842	0.7211392	12.73	-3.9	50.1
08/25/2025	08	05	06.205	20	05	22.78	1.3164218	0.7210168	12.68	-3.9	49.6
08/26/2025	08	10	06.908	19	53	25.80	1.3223175	0.7208962	12.62	-3.9	49.2
08/27/2025	08	15	07.121	19	40	54.92	1.3281713	0.7207776	12.56	-3.9	48.7
08/28/2025	08	20	06.813	19	27	50.48	1.3339832	0.7206609	12.51	-3.9	48.3
08/29/2025	08	25	05.957	19	14	12.85	1.3397533	0.7205463	12.46	-3.9	47.8
08/30/2025	08	30	04.527	19	00	02.39	1.3454814	0.7204339	12.40	-3.9	47.4
08/31/2025	08	35	02.498	18	45	19.52	1.3511677	0.7203238	12.35	-3.9	46.9
09/01/2025	08	39	59.847	18	30	04.64	1.3568122	0.7202160	12.30	-3.9	46.4
09/02/2025	08	44	56.554	18	14	18.19	1.3624148	0.7201106	12.25	-3.9	46.0
09/03/2025	08	49	52.600	17	58	00.59	1.3679756	0.7200078	12.20	-3.9	45.5
09/04/2025	08	54	47.967	17	41	12.32	1.3734945	0.7199076	12.15	-3.9	45.1
09/05/2025	08	59	42.642	17	23	53.83	1.3789715	0.7198101	12.10	-3.9	44.6
09/06/2025	09	04	36.611	17	06	05.60	1.3844065	0.7197153	12.05	-3.9	44.2

Venus - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
09/07/2025	09	09	29.866	16	47	48.12	1.3897994	0.7196234	12.01	-3.9	43.7
09/08/2025	09	14	22.400	16	29	01.86	1.3951499	0.7195345	11.96	-3.9	43.3
09/09/2025	09	19	14.209	16	09	47.33	1.4004578	0.7194485	11.92	-3.9	42.9
09/10/2025	09	24	05.293	15	50	05.04	1.4057228	0.7193656	11.87	-3.9	42.4
09/11/2025	09	28	55.650	15	29	55.52	1.4109444	0.7192858	11.83	-3.9	42.0
09/12/2025	09	33	45.282	15	09	19.33	1.4161221	0.7192092	11.78	-3.9	41.6
09/13/2025	09	38	34.189	14	48	17.04	1.4212555	0.7191358	11.74	-3.9	41.3
09/14/2025	09	43	22.370	14	26	49.26	1.4263441	0.7190658	11.70	-3.9	40.9
09/15/2025	09	48	09.827	14	04	56.59	1.4313873	0.7189992	11.66	-3.9	40.5
09/16/2025	09	52	56.560	13	42	39.67	1.4363849	0.7189360	11.62	-3.9	40.1
09/17/2025	09	57	42.573	13	19	59.13	1.4413365	0.7188762	11.58	-3.9	39.8
09/18/2025	10	02	27.869	12	56	55.59	1.4462419	0.7188200	11.54	-3.9	39.4
09/19/2025	10	07	12.457	12	33	29.72	1.4511007	0.7187673	11.50	-3.9	39.0
09/20/2025	10	11	56.346	12	09	42.15	1.4559130	0.7187183	11.46	-3.9	38.7
09/21/2025	10	16	39.548	11	45	33.55	1.4606786	0.7186729	11.43	-3.9	38.3
09/22/2025	10	21	22.078	11	21	04.57	1.4653975	0.7186312	11.39	-3.9	37.9
09/23/2025	10	26	03.950	10	56	15.87	1.4700698	0.7185933	11.35	-3.9	37.5
09/24/2025	10	30	45.184	10	31	08.12	1.4746954	0.7185591	11.32	-3.9	37.1
09/25/2025	10	35	25.797	10	05	42.01	1.4792746	0.7185286	11.28	-3.9	36.7
09/26/2025	10	40	05.811	09	39	58.21	1.4838074	0.7185020	11.25	-3.9	36.3
09/27/2025	10	44	45.245	09	13	57.39	1.4882939	0.7184792	11.21	-3.9	35.9
09/28/2025	10	49	24.124	08	47	40.26	1.4927344	0.7184603	11.18	-3.9	35.5
09/29/2025	10	54	02.471	08	21	07.49	1.4971289	0.7184452	11.15	-3.9	35.0
09/30/2025	10	58	40.309	07	54	19.78	1.5014776	0.7184340	11.11	-3.9	34.6
10/01/2025	11	03	17.666	07	27	17.82	1.5057807	0.7184267	11.08	-3.9	34.2
10/02/2025	11	07	54.568	07	00	02.29	1.5100384	0.7184233	11.05	-3.9	33.7
10/03/2025	11	12	31.044	06	32	33.89	1.5142508	0.7184237	11.02	-3.9	33.3
10/04/2025	11	17	07.124	06	04	53.31	1.5184181	0.7184281	10.99	-3.9	32.9
10/05/2025	11	21	42.840	05	37	01.21	1.5225405	0.7184363	10.96	-3.9	32.4
10/06/2025	11	26	18.227	05	08	58.29	1.5266181	0.7184484	10.93	-3.9	32.0
10/07/2025	11	30	53.320	04	40	45.20	1.5306508	0.7184644	10.90	-3.9	31.6
10/08/2025	11	35	28.159	04	12	22.62	1.5346386	0.7184843	10.87	-3.9	31.2
10/09/2025	11	40	02.780	03	43	51.22	1.5385813	0.7185080	10.85	-3.9	30.8
10/10/2025	11	44	37.221	03	15	11.70	1.5424786	0.7185355	10.82	-3.9	30.4
10/11/2025	11	49	11.518	02	46	24.77	1.5463303	0.7185668	10.79	-3.9	30.0
10/12/2025	11	53	45.703	02	17	31.14	1.5501360	0.7186019	10.77	-3.9	29.6
10/13/2025	11	58	19.812	01	48	31.56	1.5538953	0.7186407	10.74	-3.9	29.3
10/14/2025	12	02	53.877	01	19	26.76	1.5576079	0.7186832	10.71	-3.9	28.9
10/15/2025	12	07	27.932	00	50	17.49	1.5612736	0.7187295	10.69	-3.9	28.6
10/16/2025	12	12	02.013	00	21	04.49	1.5648922	0.7187793	10.66	-3.9	28.2
10/17/2025	12	16	36.156	-00	08	11.50	1.5684634	0.7188328	10.64	-3.9	27.9
10/18/2025	12	21	10.397	-00	37	29.73	1.5719872	0.7188898	10.62	-3.9	27.5
10/19/2025	12	25	44.774	-01	06	49.46	1.5754636	0.7189503	10.59	-3.9	27.2
10/20/2025	12	30	19.323	-01	36	09.93	1.5788925	0.7190143	10.57	-3.9	26.9
10/21/2025	12	34	54.082	-02	05	30.41	1.5822740	0.7190817	10.55	-3.9	26.5
10/22/2025	12	39	29.090	-02	34	50.13	1.5856082	0.7191524	10.52	-3.9	26.2
10/23/2025	12	44	04.382	-03	04	08.34	1.5888952	0.7192265	10.50	-3.9	25.8
10/24/2025	12	48	39.996	-03	33	24.29	1.5921352	0.7193037	10.48	-3.9	25.5
10/25/2025	12	53	15.969	-04	02	37.21	1.5953284	0.7193842	10.46	-3.9	25.1
10/26/2025	12	57	52.337	-04	31	46.35	1.5984750	0.7194677	10.44	-3.9	24.8

Venus - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
10/27/2025	13	02	29.136	-05	00	50.93	1.6015752	0.7195543	10.42	-3.9	24.4
10/28/2025	13	07	06.402	-05	29	50.20	1.6046294	0.7196439	10.40	-3.9	24.0
10/29/2025	13	11	44.171	-05	58	43.38	1.6076377	0.7197364	10.38	-3.9	23.6
10/30/2025	13	16	22.480	-06	27	29.70	1.6106005	0.7198316	10.36	-3.9	23.2
10/31/2025	13	21	01.365	-06	56	08.39	1.6135182	0.7199297	10.34	-3.9	22.8
11/01/2025	13	25	40.862	-07	24	38.69	1.6163911	0.7200304	10.32	-3.9	22.4
11/02/2025	13	30	21.009	-07	52	59.84	1.6192194	0.7201337	10.31	-3.9	22.0
11/03/2025	13	35	01.844	-08	21	11.06	1.6220036	0.7202394	10.29	-3.9	21.6
11/04/2025	13	39	43.408	-08	49	11.62	1.6247439	0.7203477	10.27	-3.9	21.2
11/05/2025	13	44	25.738	-09	17	00.76	1.6274406	0.7204582	10.25	-3.9	20.8
11/06/2025	13	49	08.874	-09	44	37.73	1.6300936	0.7205710	10.24	-3.9	20.4
11/07/2025	13	53	52.850	-10	12	01.78	1.6327031	0.7206859	10.22	-3.9	20.1
11/08/2025	13	58	37.700	-10	39	12.11	1.6352689	0.7208029	10.21	-3.9	19.7
11/09/2025	14	03	23.454	-11	06	07.95	1.6377909	0.7209219	10.19	-3.9	19.3
11/10/2025	14	08	10.141	-11	32	48.47	1.6402688	0.7210427	10.17	-3.9	19.0
11/11/2025	14	12	57.790	-11	59	12.88	1.6427024	0.7211653	10.16	-3.9	18.6
11/12/2025	14	17	46.428	-12	25	20.34	1.6450914	0.7212896	10.14	-3.9	18.3
11/13/2025	14	22	36.080	-12	51	10.05	1.6474358	0.7214155	10.13	-3.9	18.0
11/14/2025	14	27	26.774	-13	16	41.19	1.6497354	0.7215429	10.12	-3.9	17.6
11/15/2025	14	32	18.532	-13	41	52.94	1.6519900	0.7216716	10.10	-3.9	17.3
11/16/2025	14	37	11.378	-14	06	44.50	1.6541997	0.7218016	10.09	-3.9	17.0
11/17/2025	14	42	05.332	-14	31	15.04	1.6563644	0.7219328	10.08	-3.9	16.7
11/18/2025	14	47	00.412	-14	55	23.78	1.6584841	0.7220651	10.06	-3.9	16.4
11/19/2025	14	51	56.636	-15	19	09.88	1.6605589	0.7221983	10.05	-3.9	16.1
11/20/2025	14	56	54.017	-15	42	32.55	1.6625890	0.7223324	10.04	-3.9	15.8
11/21/2025	15	01	52.568	-16	05	30.99	1.6645743	0.7224672	10.03	-3.9	15.5
11/22/2025	15	06	52.297	-16	28	04.38	1.6665152	0.7226027	10.01	-3.9	15.2
11/23/2025	15	11	53.213	-16	50	11.94	1.6684118	0.7227387	10.00	-3.9	14.9
11/24/2025	15	16	55.321	-17	11	52.86	1.6702644	0.7228752	9.99	-3.9	14.5
11/25/2025	15	21	58.623	-17	33	06.36	1.6720731	0.7230120	9.98	-3.9	14.2
11/26/2025	15	27	03.121	-17	53	51.65	1.6738384	0.7231490	9.97	-3.9	13.9
11/27/2025	15	32	08.815	-18	14	07.95	1.6755605	0.7232862	9.96	-3.9	13.6
11/28/2025	15	37	15.701	-18	33	54.49	1.6772398	0.7234233	9.95	-3.9	13.2
11/29/2025	15	42	23.777	-18	53	10.52	1.6788767	0.7235604	9.94	-3.9	12.9
11/30/2025	15	47	33.037	-19	11	55.30	1.6804716	0.7236972	9.93	-3.9	12.5
12/01/2025	15	52	43.476	-19	30	08.09	1.6820249	0.7238338	9.92	-3.9	12.1
12/02/2025	15	57	55.084	-19	47	48.19	1.6835369	0.7239699	9.91	-3.9	11.8
12/03/2025	16	03	07.854	-20	04	54.91	1.6850082	0.7241055	9.90	-3.9	11.4
12/04/2025	16	08	21.771	-20	21	27.58	1.6864390	0.7242404	9.90	-3.9	11.0
12/05/2025	16	13	36.820	-20	37	25.53	1.6878295	0.7243747	9.89	-3.9	10.7
12/06/2025	16	18	52.979	-20	52	48.12	1.6891799	0.7245081	9.88	-3.9	10.3
12/07/2025	16	24	10.224	-21	07	34.68	1.6904900	0.7246405	9.87	-3.9	9.9
12/08/2025	16	29	28.528	-21	21	44.57	1.6917599	0.7247719	9.86	-3.9	9.6
12/09/2025	16	34	47.862	-21	35	17.16	1.6929894	0.7249022	9.86	-3.9	9.2
12/10/2025	16	40	08.194	-21	48	11.82	1.6941782	0.7250312	9.85	-3.9	8.9
12/11/2025	16	45	29.492	-22	00	27.97	1.6953262	0.7251589	9.84	-3.9	8.6
12/12/2025	16	50	51.720	-22	12	05.04	1.6964333	0.7252851	9.84	-3.9	8.2
12/13/2025	16	56	14.838	-22	23	02.48	1.6974993	0.7254098	9.83	-3.9	7.9
12/14/2025	17	01	38.804	-22	33	19.80	1.6985240	0.7255329	9.83	-3.9	7.6
12/15/2025	17	07	03.574	-22	42	56.49	1.6995074	0.7256542	9.82	-3.9	7.3

Venus - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
12/16/2025	17	12	29.100	-22	51	52.10	1.7004495	0.7257737	9.81	-3.9	7.1
12/17/2025	17	17	55.332	-23	00	06.21	1.7013501	0.7258913	9.81	-3.9	6.8
12/18/2025	17	23	22.216	-23	07	38.42	1.7022092	0.7260069	9.80	-3.9	6.5
12/19/2025	17	28	49.697	-23	14	28.36	1.7030269	0.7261204	9.80	-3.9	6.2
12/20/2025	17	34	17.716	-23	20	35.68	1.7038032	0.7262317	9.79	-3.9	5.9
12/21/2025	17	39	46.214	-23	26	00.09	1.7045382	0.7263408	9.79	-3.9	5.7
12/22/2025	17	45	15.129	-23	30	41.30	1.7052320	0.7264475	9.79	-3.9	5.4
12/23/2025	17	50	44.399	-23	34	39.08	1.7058846	0.7265518	9.78	-3.9	5.1
12/24/2025	17	56	13.959	-23	37	53.20	1.7064964	0.7266536	9.78	-3.9	4.8
12/25/2025	18	01	43.747	-23	40	23.48	1.7070675	0.7267528	9.78	-3.9	4.5
12/26/2025	18	07	13.696	-23	42	09.80	1.7075982	0.7268493	9.77	-3.9	4.2
12/27/2025	18	12	43.745	-23	43	12.02	1.7080887	0.7269431	9.77	-3.9	3.9
12/28/2025	18	18	13.831	-23	43	30.09	1.7085395	0.7270341	9.77	-3.9	3.6
12/29/2025	18	23	43.890	-23	43	03.97	1.7089508	0.7271222	9.77	-3.9	3.3
12/30/2025	18	29	13.862	-23	41	53.67	1.7093231	0.7272074	9.76	-3.9	3.0
12/31/2025	18	34	43.685	-23	39	59.23	1.7096566	0.7272896	9.76	-3.9	2.7
01/01/2026	18	40	13.298	-23	37	20.74	1.7099519	0.7273688	9.76	-4.0	2.3
01/02/2026	18	45	42.639	-23	33	58.32	1.7102090	0.7274448	9.76	99.0	2.0



Mars - Apparent data

Date 0 h TT	Earth			Solar	Equatorial	Mag.	Phase Angle deg.
	Right Ascension	Declination	Distance	Distance	Diameter		
	h m s	d m s	au	au	arc sec		
12/31/2024	08 21 50.094	23 26 07.90	0.6592733	1.6116381	14.21	-1.2	13.4
01/01/2025	08 20 30.247	23 32 42.50	0.6567224	1.6126029	14.26	-1.2	12.6
01/02/2025	08 19 07.677	23 39 18.99	0.6543688	1.6135604	14.31	-1.2	11.8
01/03/2025	08 17 42.521	23 45 56.44	0.6522160	1.6145107	14.36	-1.2	11.0
01/04/2025	08 16 14.925	23 52 33.86	0.6502671	1.6154536	14.40	-1.3	10.2
01/05/2025	08 14 45.047	23 59 10.28	0.6485252	1.6163892	14.44	-1.3	9.4
01/06/2025	08 13 13.053	24 05 44.72	0.6469929	1.6173174	14.48	-1.3	8.6
01/07/2025	08 11 39.114	24 12 16.22	0.6456724	1.6182380	14.50	-1.3	7.8
01/08/2025	08 10 03.412	24 18 43.84	0.6445660	1.6191512	14.53	-1.3	7.0
01/09/2025	08 08 26.128	24 25 06.67	0.6436753	1.6200567	14.55	-1.3	6.3
01/10/2025	08 06 47.449	24 31 23.84	0.6430018	1.6209547	14.56	-1.3	5.5
01/11/2025	08 05 07.564	24 37 34.51	0.6425471	1.6218449	14.58	-1.4	4.8
01/12/2025	08 03 26.663	24 43 37.89	0.6423120	1.6227275	14.58	-1.4	4.1
01/13/2025	08 01 44.939	24 49 33.22	0.6422977	1.6236022	14.58	-1.4	3.5
01/14/2025	08 00 02.588	24 55 19.78	0.6425049	1.6244691	14.58	-1.4	3.0
01/15/2025	07 58 19.808	25 00 56.87	0.6429343	1.6253281	14.57	-1.4	2.7
01/16/2025	07 56 36.801	25 06 23.86	0.6435863	1.6261793	14.55	-1.4	2.6
01/17/2025	07 54 53.772	25 11 40.14	0.6444612	1.6270224	14.53	-1.4	2.8
01/18/2025	07 53 10.926	25 16 45.16	0.6455590	1.6278575	14.51	-1.4	3.2
01/19/2025	07 51 28.473	25 21 38.41	0.6468797	1.6286846	14.48	-1.4	3.7
01/20/2025	07 49 46.619	25 26 19.46	0.6484228	1.6295036	14.44	-1.3	4.3
01/21/2025	07 48 05.572	25 30 47.91	0.6501877	1.6303144	14.40	-1.3	5.0
01/22/2025	07 46 25.535	25 35 03.44	0.6521734	1.6311170	14.36	-1.3	5.8
01/23/2025	07 44 46.708	25 39 05.78	0.6543788	1.6319114	14.31	-1.3	6.5
01/24/2025	07 43 09.288	25 42 54.71	0.6568024	1.6326976	14.26	-1.3	7.3
01/25/2025	07 41 33.466	25 46 30.07	0.6594427	1.6334754	14.20	-1.2	8.1
01/26/2025	07 39 59.426	25 49 51.76	0.6622977	1.6342448	14.14	-1.2	8.9
01/27/2025	07 38 27.347	25 52 59.73	0.6653653	1.6350058	14.08	-1.2	9.7
01/28/2025	07 36 57.400	25 55 53.97	0.6686429	1.6357584	14.01	-1.2	10.4
01/29/2025	07 35 29.748	25 58 34.50	0.6721280	1.6365026	13.93	-1.1	11.2
01/30/2025	07 34 04.544	26 01 01.42	0.6758174	1.6372382	13.86	-1.1	12.0
01/31/2025	07 32 41.936	26 03 14.82	0.6797080	1.6379652	13.78	-1.1	12.7
02/01/2025	07 31 22.060	26 05 14.84	0.6837963	1.6386837	13.70	-1.1	13.5
02/02/2025	07 30 05.042	26 07 01.68	0.6880784	1.6393935	13.61	-1.0	14.2
02/03/2025	07 28 50.997	26 08 35.56	0.6925504	1.6400946	13.52	-1.0	15.0
02/04/2025	07 27 40.027	26 09 56.74	0.6972082	1.6407871	13.43	-1.0	15.7
02/05/2025	07 26 32.222	26 11 05.52	0.7020475	1.6414708	13.34	-1.0	16.4
02/06/2025	07 25 27.657	26 12 02.24	0.7070641	1.6421457	13.25	-0.9	17.0
02/07/2025	07 24 26.395	26 12 47.24	0.7122537	1.6428118	13.15	-0.9	17.7
02/08/2025	07 23 28.487	26 13 20.89	0.7176120	1.6434691	13.05	-0.9	18.3
02/09/2025	07 22 33.974	26 13 43.56	0.7231349	1.6441175	12.95	-0.8	19.0
02/10/2025	07 21 42.887	26 13 55.60	0.7288181	1.6447570	12.85	-0.8	19.6
02/11/2025	07 20 55.250	26 13 57.38	0.7346576	1.6453876	12.75	-0.8	20.2
02/12/2025	07 20 11.081	26 13 49.26	0.7406494	1.6460092	12.64	-0.8	20.8
02/13/2025	07 19 30.391	26 13 31.57	0.7467897	1.6466217	12.54	-0.7	21.3
02/14/2025	07 18 53.188	26 13 04.66	0.7530745	1.6472253	12.44	-0.7	21.9
02/15/2025	07 18 19.471	26 12 28.84	0.7595000	1.6478198	12.33	-0.7	22.4
02/16/2025	07 17 49.240	26 11 44.44	0.7660625	1.6484051	12.23	-0.6	23.0
02/17/2025	07 17 22.487	26 10 51.77	0.7727584	1.6489814	12.12	-0.6	23.5
02/18/2025	07 16 59.200	26 09 51.12	0.7795838	1.6495485	12.01	-0.6	24.0

Mars - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
02/19/2025	07	16	39.364	26	08	42.77	0.7865352	1.6501064	11.91	-0.6	24.5
02/20/2025	07	16	22.958	26	07	27.01	0.7936088	1.6506551	11.80	-0.5	25.0
02/21/2025	07	16	09.959	26	06	04.08	0.8008013	1.6511946	11.69	-0.5	25.5
02/22/2025	07	16	00.339	26	04	34.23	0.8081088	1.6517248	11.59	-0.5	26.0
02/23/2025	07	15	54.069	26	02	57.69	0.8155279	1.6522458	11.48	-0.4	26.5
02/24/2025	07	15	51.113	26	01	14.66	0.8230551	1.6527574	11.38	-0.4	27.0
02/25/2025	07	15	51.437	25	59	25.32	0.8306867	1.6532597	11.27	-0.4	27.4
02/26/2025	07	15	55.001	25	57	29.86	0.8384192	1.6537526	11.17	-0.4	27.8
02/27/2025	07	16	01.766	25	55	28.41	0.8462490	1.6542361	11.07	-0.3	28.3
02/28/2025	07	16	11.688	25	53	21.10	0.8541725	1.6547102	10.96	-0.3	28.7
03/01/2025	07	16	24.726	25	51	08.04	0.8621859	1.6551749	10.86	-0.3	29.1
03/02/2025	07	16	40.834	25	48	49.33	0.8702855	1.6556301	10.76	-0.3	29.5
03/03/2025	07	16	59.962	25	46	25.09	0.8784677	1.6560759	10.66	-0.2	29.9
03/04/2025	07	17	22.061	25	43	55.40	0.8867286	1.6565121	10.56	-0.2	30.2
03/05/2025	07	17	47.072	25	41	20.39	0.8950649	1.6569389	10.46	-0.2	30.6
03/06/2025	07	18	14.936	25	38	40.14	0.9034729	1.6573561	10.37	-0.1	30.9
03/07/2025	07	18	45.591	25	35	54.76	0.9119495	1.6577637	10.27	-0.1	31.2
03/08/2025	07	19	18.971	25	33	04.31	0.9204916	1.6581617	10.17	-0.1	31.5
03/09/2025	07	19	55.014	25	30	08.87	0.9290961	1.6585502	10.08	-0.1	31.8
03/10/2025	07	20	33.654	25	27	08.47	0.9377603	1.6589290	9.99	-0.0	32.0
03/11/2025	07	21	14.831	25	24	03.16	0.9464815	1.6592982	9.89	-0.0	32.3
03/12/2025	07	21	58.482	25	20	52.95	0.9552572	1.6596577	9.80	-0.0	32.6
03/13/2025	07	22	44.549	25	17	37.87	0.9640851	1.6600076	9.71	0.0	32.8
03/14/2025	07	23	32.975	25	14	17.92	0.9729627	1.6603478	9.63	0.0	33.0
03/15/2025	07	24	23.705	25	10	53.10	0.9818879	1.6606783	9.54	0.1	33.3
03/16/2025	07	25	16.686	25	07	23.42	0.9908586	1.6609990	9.45	0.1	33.5
03/17/2025	07	26	11.864	25	03	48.85	0.9998727	1.6613101	9.37	0.1	33.7
03/18/2025	07	27	09.189	25	00	09.40	1.0089281	1.6616113	9.28	0.1	33.9
03/19/2025	07	28	08.611	24	56	25.04	1.0180230	1.6619028	9.20	0.2	34.1
03/20/2025	07	29	10.081	24	52	35.75	1.0271554	1.6621846	9.12	0.2	34.3
03/21/2025	07	30	13.550	24	48	41.51	1.0363234	1.6624565	9.04	0.2	34.5
03/22/2025	07	31	18.972	24	44	42.29	1.0455252	1.6627187	8.96	0.2	34.7
03/23/2025	07	32	26.298	24	40	38.06	1.0547588	1.6629710	8.88	0.3	34.9
03/24/2025	07	33	35.485	24	36	28.76	1.0640224	1.6632135	8.80	0.3	35.0
03/25/2025	07	34	46.488	24	32	14.35	1.0733143	1.6634462	8.73	0.3	35.2
03/26/2025	07	35	59.263	24	27	54.77	1.0826324	1.6636690	8.65	0.3	35.4
03/27/2025	07	37	13.768	24	23	29.95	1.0919749	1.6638819	8.58	0.4	35.6
03/28/2025	07	38	29.963	24	18	59.83	1.1013398	1.6640850	8.50	0.4	35.7
03/29/2025	07	39	47.809	24	14	24.31	1.1107250	1.6642782	8.43	0.4	35.9
03/30/2025	07	41	07.269	24	09	43.34	1.1201285	1.6644615	8.36	0.4	36.0
03/31/2025	07	42	28.303	24	04	56.85	1.1295481	1.6646349	8.29	0.4	36.1
04/01/2025	07	43	50.871	24	00	04.81	1.1389817	1.6647985	8.22	0.5	36.3
04/02/2025	07	45	14.930	23	55	07.19	1.1484273	1.6649521	8.15	0.5	36.4
04/03/2025	07	46	40.435	23	50	03.97	1.1578830	1.6650958	8.09	0.5	36.5
04/04/2025	07	48	07.340	23	44	55.11	1.1673471	1.6652295	8.02	0.5	36.6
04/05/2025	07	49	35.600	23	39	40.60	1.1768178	1.6653533	7.96	0.5	36.6
04/06/2025	07	51	05.172	23	34	20.40	1.1862938	1.6654672	7.89	0.5	36.7
04/07/2025	07	52	36.012	23	28	54.47	1.1957735	1.6655712	7.83	0.6	36.8
04/08/2025	07	54	08.083	23	23	22.77	1.2052557	1.6656652	7.77	0.6	36.8
04/09/2025	07	55	41.345	23	17	45.27	1.2147393	1.6657492	7.71	0.6	36.9

Mars - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
04/10/2025	07	57	15.764	23	12	01.92	1.2242231	1.6658233	7.65	0.6	36.9
04/11/2025	07	58	51.305	23	06	12.69	1.2337061	1.6658874	7.59	0.6	37.0
04/12/2025	08	00	27.936	23	00	17.54	1.2431872	1.6659416	7.53	0.7	37.0
04/13/2025	08	02	05.625	22	54	16.43	1.2526655	1.6659858	7.48	0.7	37.0
04/14/2025	08	03	44.344	22	48	09.34	1.2621401	1.6660200	7.42	0.7	37.1
04/15/2025	08	05	24.064	22	41	56.23	1.2716102	1.6660443	7.36	0.7	37.1
04/16/2025	08	07	04.755	22	35	37.08	1.2810748	1.6660586	7.31	0.7	37.1
04/17/2025	08	08	46.391	22	29	11.86	1.2905331	1.6660629	7.26	0.7	37.2
04/18/2025	08	10	28.946	22	22	40.53	1.2999842	1.6660572	7.20	0.8	37.2
04/19/2025	08	12	12.393	22	16	03.07	1.3094273	1.6660416	7.15	0.8	37.2
04/20/2025	08	13	56.708	22	09	19.45	1.3188616	1.6660160	7.10	0.8	37.2
04/21/2025	08	15	41.867	22	02	29.63	1.3282862	1.6659805	7.05	0.8	37.3
04/22/2025	08	17	27.846	21	55	33.57	1.3377001	1.6659350	7.00	0.8	37.3
04/23/2025	08	19	14.623	21	48	31.24	1.3471024	1.6658795	6.95	0.8	37.3
04/24/2025	08	21	02.178	21	41	22.58	1.3564921	1.6658140	6.90	0.9	37.3
04/25/2025	08	22	50.491	21	34	07.54	1.3658680	1.6657386	6.86	0.9	37.4
04/26/2025	08	24	39.545	21	26	46.09	1.3752292	1.6656532	6.81	0.9	37.4
04/27/2025	08	26	29.322	21	19	18.17	1.3845742	1.6655579	6.76	0.9	37.4
04/28/2025	08	28	19.804	21	11	43.77	1.3939017	1.6654526	6.72	0.9	37.4
04/29/2025	08	30	10.972	21	04	02.88	1.4032106	1.6653374	6.67	0.9	37.4
04/30/2025	08	32	02.802	20	56	15.51	1.4124994	1.6652123	6.63	0.9	37.4
05/01/2025	08	33	55.270	20	48	21.68	1.4217671	1.6650772	6.59	1.0	37.4
05/02/2025	08	35	48.350	20	40	21.40	1.4310125	1.6649322	6.54	1.0	37.3
05/03/2025	08	37	42.018	20	32	14.69	1.4402347	1.6647772	6.50	1.0	37.3
05/04/2025	08	39	36.251	20	24	01.55	1.4494328	1.6646124	6.46	1.0	37.2
05/05/2025	08	41	31.025	20	15	42.01	1.4586062	1.6644377	6.42	1.0	37.2
05/06/2025	08	43	26.322	20	07	16.05	1.4677541	1.6642530	6.38	1.0	37.1
05/07/2025	08	45	22.123	19	58	43.69	1.4768761	1.6640585	6.34	1.0	37.1
05/08/2025	08	47	18.411	19	50	04.94	1.4859715	1.6638541	6.30	1.0	37.0
05/09/2025	08	49	15.169	19	41	19.80	1.4950400	1.6636398	6.26	1.1	37.0
05/10/2025	08	51	12.383	19	32	28.29	1.5040810	1.6634157	6.23	1.1	36.9
05/11/2025	08	53	10.038	19	23	30.43	1.5130941	1.6631817	6.19	1.1	36.8
05/12/2025	08	55	08.119	19	14	26.23	1.5220791	1.6629379	6.15	1.1	36.8
05/13/2025	08	57	06.615	19	05	15.70	1.5310355	1.6626842	6.12	1.1	36.7
05/14/2025	08	59	05.511	18	55	58.87	1.5399630	1.6624208	6.08	1.1	36.7
05/15/2025	09	01	04.795	18	46	35.75	1.5488613	1.6621475	6.05	1.1	36.6
05/16/2025	09	03	04.456	18	37	06.37	1.5577299	1.6618645	6.01	1.1	36.5
05/17/2025	09	05	04.480	18	27	30.74	1.5665687	1.6615716	5.98	1.1	36.5
05/18/2025	09	07	04.858	18	17	48.88	1.5753771	1.6612690	5.94	1.2	36.4
05/19/2025	09	09	05.578	18	08	00.79	1.5841549	1.6609567	5.91	1.2	36.4
05/20/2025	09	11	06.632	17	58	06.49	1.5929015	1.6606346	5.88	1.2	36.3
05/21/2025	09	13	08.011	17	48	05.97	1.6016165	1.6603028	5.85	1.2	36.3
05/22/2025	09	15	09.708	17	37	59.23	1.6102992	1.6599613	5.82	1.2	36.2
05/23/2025	09	17	11.716	17	27	46.28	1.6189492	1.6596102	5.78	1.2	36.2
05/24/2025	09	19	14.032	17	17	27.10	1.6275655	1.6592493	5.75	1.2	36.1
05/25/2025	09	21	16.649	17	07	01.71	1.6361475	1.6588788	5.72	1.2	36.0
05/26/2025	09	23	19.561	16	56	30.13	1.6446943	1.6584987	5.69	1.2	36.0
05/27/2025	09	25	22.762	16	45	52.40	1.6532048	1.6581089	5.66	1.3	35.9
05/28/2025	09	27	26.240	16	35	08.57	1.6616784	1.6577096	5.64	1.3	35.8
05/29/2025	09	29	29.983	16	24	18.69	1.6701141	1.6573006	5.61	1.3	35.7

Mars - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
05/30/2025	09	31	33.979	16	13	22.83	1.6785111	1.6568821	5.58	1.3	35.7
05/31/2025	09	33	38.215	16	02	21.04	1.6868689	1.6564541	5.55	1.3	35.6
06/01/2025	09	35	42.679	15	51	13.37	1.6951869	1.6560165	5.52	1.3	35.5
06/02/2025	09	37	47.364	15	39	59.87	1.7034646	1.6555695	5.50	1.3	35.3
06/03/2025	09	39	52.260	15	28	40.59	1.7117018	1.6551130	5.47	1.3	35.2
06/04/2025	09	41	57.361	15	17	15.57	1.7198982	1.6546470	5.45	1.3	35.1
06/05/2025	09	44	02.659	15	05	44.87	1.7280534	1.6541716	5.42	1.3	35.0
06/06/2025	09	46	08.150	14	54	08.52	1.7361674	1.6536867	5.39	1.3	34.9
06/07/2025	09	48	13.827	14	42	26.59	1.7442399	1.6531925	5.37	1.3	34.8
06/08/2025	09	50	19.686	14	30	39.12	1.7522709	1.6526889	5.34	1.3	34.7
06/09/2025	09	52	25.723	14	18	46.16	1.7602603	1.6521760	5.32	1.4	34.5
06/10/2025	09	54	31.932	14	06	47.78	1.7682079	1.6516538	5.30	1.4	34.4
06/11/2025	09	56	38.310	13	54	44.01	1.7761137	1.6511223	5.27	1.4	34.3
06/12/2025	09	58	44.852	13	42	34.92	1.7839777	1.6505815	5.25	1.4	34.2
06/13/2025	10	00	51.554	13	30	20.56	1.7917998	1.6500315	5.23	1.4	34.1
06/14/2025	10	02	58.413	13	18	00.98	1.7995800	1.6494723	5.20	1.4	34.0
06/15/2025	10	05	05.426	13	05	36.21	1.8073181	1.6489038	5.18	1.4	33.9
06/16/2025	10	07	12.590	12	53	06.31	1.8150140	1.6483263	5.16	1.4	33.8
06/17/2025	10	09	19.906	12	40	31.31	1.8226676	1.6477396	5.14	1.4	33.7
06/18/2025	10	11	27.372	12	27	51.24	1.8302787	1.6471438	5.12	1.4	33.6
06/19/2025	10	13	34.989	12	15	06.12	1.8378469	1.6465390	5.10	1.4	33.5
06/20/2025	10	15	42.761	12	02	15.99	1.8453718	1.6459251	5.08	1.4	33.4
06/21/2025	10	17	50.689	11	49	20.86	1.8528530	1.6453022	5.05	1.4	33.3
06/22/2025	10	19	58.774	11	36	20.79	1.8602900	1.6446704	5.03	1.4	33.2
06/23/2025	10	22	07.018	11	23	15.81	1.8676821	1.6440296	5.01	1.5	33.1
06/24/2025	10	24	15.418	11	10	06.00	1.8750287	1.6433799	4.99	1.5	33.0
06/25/2025	10	26	23.973	10	56	51.42	1.8823291	1.6427213	4.98	1.5	32.9
06/26/2025	10	28	32.678	10	43	32.16	1.8895827	1.6420539	4.96	1.5	32.8
06/27/2025	10	30	41.527	10	30	08.31	1.8967890	1.6413776	4.94	1.5	32.6
06/28/2025	10	32	50.516	10	16	39.93	1.9039474	1.6406926	4.92	1.5	32.5
06/29/2025	10	34	59.644	10	03	07.11	1.9110576	1.6399989	4.90	1.5	32.4
06/30/2025	10	37	08.906	09	49	29.91	1.9181194	1.6392964	4.88	1.5	32.2
07/01/2025	10	39	18.303	09	35	48.41	1.9251324	1.6385853	4.86	1.5	32.1
07/02/2025	10	41	27.834	09	22	02.68	1.9320967	1.6378656	4.85	1.5	31.9
07/03/2025	10	43	37.499	09	08	12.79	1.9390120	1.6371372	4.83	1.5	31.8
07/04/2025	10	45	47.299	08	54	18.81	1.9458784	1.6364003	4.81	1.5	31.6
07/05/2025	10	47	57.232	08	40	20.81	1.9526960	1.6356549	4.80	1.5	31.5
07/06/2025	10	50	07.301	08	26	18.87	1.9594646	1.6349010	4.78	1.5	31.3
07/07/2025	10	52	17.506	08	12	13.06	1.9661844	1.6341386	4.76	1.5	31.2
07/08/2025	10	54	27.846	07	58	03.45	1.9728555	1.6333679	4.75	1.5	31.0
07/09/2025	10	56	38.324	07	43	50.13	1.9794779	1.6325888	4.73	1.5	30.9
07/10/2025	10	58	48.938	07	29	33.16	1.9860519	1.6318014	4.72	1.5	30.7
07/11/2025	11	00	59.691	07	15	12.63	1.9925775	1.6310057	4.70	1.5	30.6
07/12/2025	11	03	10.583	07	00	48.59	1.9990549	1.6302017	4.68	1.5	30.5
07/13/2025	11	05	21.617	06	46	21.12	2.0054842	1.6293896	4.67	1.5	30.4
07/14/2025	11	07	32.795	06	31	50.27	2.0118655	1.6285693	4.66	1.6	30.2
07/15/2025	11	09	44.122	06	17	16.10	2.0181987	1.6277409	4.64	1.6	30.1
07/16/2025	11	11	55.603	06	02	38.65	2.0244839	1.6269045	4.63	1.6	30.0
07/17/2025	11	14	07.245	05	47	57.98	2.0307210	1.6260600	4.61	1.6	29.9
07/18/2025	11	16	19.054	05	33	14.11	2.0369097	1.6252076	4.60	1.6	29.7

## Mars - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
07/19/2025	11	18	31.035	05	18	27.12	2.0430497	1.6243473	4.58	1.6	29.6
07/20/2025	11	20	43.195	05	03	37.05	2.0491407	1.6234790	4.57	1.6	29.5
07/21/2025	11	22	55.538	04	48	43.97	2.0551822	1.6226030	4.56	1.6	29.4
07/22/2025	11	25	08.066	04	33	47.97	2.0611738	1.6217191	4.54	1.6	29.2
07/23/2025	11	27	20.780	04	18	49.13	2.0671150	1.6208276	4.53	1.6	29.1
07/24/2025	11	29	33.681	04	03	47.55	2.0730053	1.6199283	4.52	1.6	28.9
07/25/2025	11	31	46.769	03	48	43.34	2.0788443	1.6190214	4.51	1.6	28.8
07/26/2025	11	34	00.045	03	33	36.57	2.0846317	1.6181070	4.49	1.6	28.6
07/27/2025	11	36	13.512	03	18	27.35	2.0903671	1.6171850	4.48	1.6	28.5
07/28/2025	11	38	27.172	03	03	15.76	2.0960504	1.6162555	4.47	1.6	28.3
07/29/2025	11	40	41.028	02	48	01.90	2.1016815	1.6153186	4.46	1.6	28.2
07/30/2025	11	42	55.084	02	32	45.84	2.1072603	1.6143743	4.44	1.6	28.0
07/31/2025	11	45	09.344	02	17	27.69	2.1127868	1.6134227	4.43	1.6	27.8
08/01/2025	11	47	23.811	02	02	07.52	2.1182610	1.6124638	4.42	1.6	27.6
08/02/2025	11	49	38.489	01	46	45.43	2.1236832	1.6114978	4.41	1.6	27.5
08/03/2025	11	51	53.380	01	31	21.52	2.1290534	1.6105245	4.40	1.6	27.3
08/04/2025	11	54	08.490	01	15	55.87	2.1343717	1.6095442	4.39	1.6	27.1
08/05/2025	11	56	23.820	01	00	28.59	2.1396385	1.6085568	4.38	1.6	27.0
08/06/2025	11	58	39.375	00	44	59.75	2.1448538	1.6075624	4.37	1.6	26.8
08/07/2025	12	00	55.156	00	29	29.47	2.1500180	1.6065611	4.36	1.6	26.7
08/08/2025	12	03	11.170	00	13	57.83	2.1551313	1.6055530	4.35	1.6	26.5
08/09/2025	12	05	27.418	-00	01	35.07	2.1601941	1.6045380	4.34	1.6	26.3
08/10/2025	12	07	43.906	-00	17	09.15	2.1652066	1.6035163	4.33	1.6	26.2
08/11/2025	12	10	00.641	-00	32	44.33	2.1701690	1.6024878	4.32	1.6	26.1
08/12/2025	12	12	17.630	-00	48	20.54	2.1750815	1.6014528	4.31	1.6	25.9
08/13/2025	12	14	34.882	-01	03	57.71	2.1799444	1.6004112	4.30	1.6	25.8
08/14/2025	12	16	52.405	-01	19	35.77	2.1847575	1.5993631	4.29	1.6	25.6
08/15/2025	12	19	10.210	-01	35	14.66	2.1895208	1.5983085	4.28	1.6	25.5
08/16/2025	12	21	28.304	-01	50	54.32	2.1942342	1.5972476	4.27	1.6	25.4
08/17/2025	12	23	46.695	-02	06	34.64	2.1988975	1.5961803	4.26	1.6	25.2
08/18/2025	12	26	05.387	-02	22	15.55	2.2035103	1.5951068	4.25	1.6	25.1
08/19/2025	12	28	24.386	-02	37	56.94	2.2080724	1.5940271	4.24	1.6	24.9
08/20/2025	12	30	43.695	-02	53	38.70	2.2125834	1.5929413	4.23	1.6	24.8
08/21/2025	12	33	03.318	-03	09	20.72	2.2170429	1.5918495	4.22	1.6	24.6
08/22/2025	12	35	23.259	-03	25	02.87	2.2214507	1.5907516	4.22	1.6	24.5
08/23/2025	12	37	43.523	-03	40	45.05	2.2258065	1.5896479	4.21	1.6	24.3
08/24/2025	12	40	04.114	-03	56	27.15	2.2301101	1.5885383	4.20	1.6	24.1
08/25/2025	12	42	25.039	-04	12	09.04	2.2343614	1.5874229	4.19	1.6	23.9
08/26/2025	12	44	46.303	-04	27	50.63	2.2385603	1.5863019	4.18	1.6	23.8
08/27/2025	12	47	07.911	-04	43	31.80	2.2427068	1.5851752	4.18	1.6	23.6
08/28/2025	12	49	29.869	-04	59	12.44	2.2468011	1.5840429	4.17	1.6	23.4
08/29/2025	12	51	52.182	-05	14	52.43	2.2508432	1.5829051	4.16	1.6	23.2
08/30/2025	12	54	14.856	-05	30	31.67	2.2548332	1.5817620	4.15	1.6	23.0
08/31/2025	12	56	37.895	-05	46	10.03	2.2587715	1.5806135	4.15	1.6	22.9
09/01/2025	12	59	01.303	-06	01	47.39	2.2626582	1.5794597	4.14	1.6	22.7
09/02/2025	13	01	25.085	-06	17	23.64	2.2664936	1.5783007	4.13	1.6	22.5
09/03/2025	13	03	49.246	-06	32	58.65	2.2702780	1.5771366	4.13	1.6	22.3
09/04/2025	13	06	13.789	-06	48	32.30	2.2740118	1.5759675	4.12	1.6	22.1
09/05/2025	13	08	38.720	-07	04	04.47	2.2776953	1.5747934	4.11	1.6	22.0
09/06/2025	13	11	04.044	-07	19	35.04	2.2813290	1.5736144	4.11	1.6	21.8

Mars - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
09/07/2025	13	13	29.768	-07	35	03.88	2.2849132	1.5724307	4.10	1.6	21.6
09/08/2025	13	15	55.898	-07	50	30.90	2.2884484	1.5712421	4.09	1.6	21.5
09/09/2025	13	18	22.445	-08	05	55.98	2.2919350	1.5700490	4.09	1.6	21.3
09/10/2025	13	20	49.418	-08	21	19.04	2.2953732	1.5688513	4.08	1.6	21.2
09/11/2025	13	23	16.829	-08	36	39.98	2.2987631	1.5676491	4.07	1.6	21.0
09/12/2025	13	25	44.686	-08	51	58.71	2.3021050	1.5664424	4.07	1.6	20.9
09/13/2025	13	28	12.998	-09	07	15.12	2.3053987	1.5652315	4.06	1.6	20.7
09/14/2025	13	30	41.771	-09	22	29.10	2.3086443	1.5640163	4.06	1.6	20.6
09/15/2025	13	33	11.013	-09	37	40.52	2.3118414	1.5627970	4.05	1.6	20.4
09/16/2025	13	35	40.727	-09	52	49.25	2.3149899	1.5615736	4.05	1.6	20.3
09/17/2025	13	38	10.919	-10	07	55.15	2.3180896	1.5603463	4.04	1.6	20.1
09/18/2025	13	40	41.593	-10	22	58.07	2.3211403	1.5591150	4.03	1.6	20.0
09/19/2025	13	43	12.756	-10	37	57.88	2.3241418	1.5578799	4.03	1.6	19.8
09/20/2025	13	45	44.413	-10	52	54.42	2.3270939	1.5566411	4.02	1.6	19.6
09/21/2025	13	48	16.570	-11	07	47.56	2.3299965	1.5553987	4.02	1.6	19.4
09/22/2025	13	50	49.234	-11	22	37.16	2.3328495	1.5541527	4.01	1.6	19.3
09/23/2025	13	53	22.409	-11	37	23.07	2.3356531	1.5529033	4.01	1.6	19.1
09/24/2025	13	55	56.102	-11	52	05.15	2.3384071	1.5516505	4.00	1.6	18.9
09/25/2025	13	58	30.318	-12	06	43.27	2.3411118	1.5503945	4.00	1.6	18.7
09/26/2025	14	01	05.062	-12	21	17.26	2.3437673	1.5491352	4.00	1.6	18.5
09/27/2025	14	03	40.337	-12	35	47.00	2.3463739	1.5478729	3.99	1.6	18.3
09/28/2025	14	06	16.147	-12	50	12.32	2.3489317	1.5466076	3.99	1.6	18.1
09/29/2025	14	08	52.496	-13	04	33.08	2.3514411	1.5453393	3.98	1.6	17.9
09/30/2025	14	11	29.388	-13	18	49.12	2.3539024	1.5440683	3.98	1.6	17.7
10/01/2025	14	14	06.825	-13	33	00.30	2.3563160	1.5427946	3.97	1.6	17.5
10/02/2025	14	16	44.810	-13	47	06.44	2.3586823	1.5415182	3.97	1.6	17.4
10/03/2025	14	19	23.348	-14	01	07.39	2.3610018	1.5402393	3.97	1.6	17.2
10/04/2025	14	22	02.441	-14	15	03.00	2.3632749	1.5389580	3.96	1.6	17.0
10/05/2025	14	24	42.097	-14	28	53.11	2.3655023	1.5376744	3.96	1.6	16.8
10/06/2025	14	27	22.320	-14	42	37.58	2.3676844	1.5363886	3.96	1.6	16.7
10/07/2025	14	30	03.118	-14	56	16.26	2.3698218	1.5351006	3.95	1.6	16.5
10/08/2025	14	32	44.501	-15	09	49.03	2.3719149	1.5338106	3.95	1.6	16.4
10/09/2025	14	35	26.477	-15	23	15.75	2.3739641	1.5325187	3.95	1.6	16.2
10/10/2025	14	38	09.053	-15	36	36.30	2.3759696	1.5312250	3.94	1.6	16.0
10/11/2025	14	40	52.233	-15	49	50.55	2.3779316	1.5299295	3.94	1.6	15.9
10/12/2025	14	43	36.024	-16	02	58.33	2.3798501	1.5286324	3.94	1.5	15.7
10/13/2025	14	46	20.426	-16	15	59.50	2.3817251	1.5273339	3.93	1.5	15.6
10/14/2025	14	49	05.443	-16	28	53.87	2.3835565	1.5260339	3.93	1.5	15.4
10/15/2025	14	51	51.078	-16	41	41.28	2.3853441	1.5247326	3.93	1.5	15.3
10/16/2025	14	54	37.333	-16	54	21.55	2.3870879	1.5234301	3.92	1.5	15.1
10/17/2025	14	57	24.214	-17	06	54.52	2.3887877	1.5221265	3.92	1.5	14.9
10/18/2025	15	00	11.722	-17	19	20.00	2.3904436	1.5208219	3.92	1.5	14.7
10/19/2025	15	02	59.861	-17	31	37.82	2.3920555	1.5195164	3.92	1.5	14.6
10/20/2025	15	05	48.633	-17	43	47.82	2.3936234	1.5182102	3.91	1.5	14.4
10/21/2025	15	08	38.041	-17	55	49.84	2.3951473	1.5169033	3.91	1.5	14.2
10/22/2025	15	11	28.086	-18	07	43.69	2.3966275	1.5155958	3.91	1.5	14.0
10/23/2025	15	14	18.770	-18	19	29.22	2.3980640	1.5142879	3.91	1.5	13.8
10/24/2025	15	17	10.091	-18	31	06.25	2.3994570	1.5129797	3.90	1.5	13.6
10/25/2025	15	20	02.049	-18	42	34.61	2.4008069	1.5116712	3.90	1.5	13.4
10/26/2025	15	22	54.642	-18	53	54.13	2.4021139	1.5103627	3.90	1.5	13.2

Mars - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
10/27/2025	15	25	47.870	-19	05	04.63	2.4033784	1.5090541	3.90	1.5	13.0
10/28/2025	15	28	41.729	-19	16	05.94	2.4046007	1.5077457	3.89	1.5	12.8
10/29/2025	15	31	36.217	-19	26	57.88	2.4057813	1.5064374	3.89	1.5	12.6
10/30/2025	15	34	31.333	-19	37	40.27	2.4069207	1.5051295	3.89	1.5	12.4
10/31/2025	15	37	27.073	-19	48	12.94	2.4080194	1.5038221	3.89	1.5	12.2
11/01/2025	15	40	23.436	-19	58	35.71	2.4090779	1.5025153	3.89	1.5	12.1
11/02/2025	15	43	20.421	-20	08	48.40	2.4100969	1.5012091	3.89	1.5	11.9
11/03/2025	15	46	18.029	-20	18	50.84	2.4110769	1.4999037	3.88	1.5	11.7
11/04/2025	15	49	16.261	-20	28	42.89	2.4120188	1.4985993	3.88	1.5	11.5
11/05/2025	15	52	15.118	-20	38	24.38	2.4129230	1.4972958	3.88	1.5	11.4
11/06/2025	15	55	14.602	-20	47	55.19	2.4137900	1.4959936	3.88	1.5	11.2
11/07/2025	15	58	14.711	-20	57	15.16	2.4146204	1.4946926	3.88	1.5	11.1
11/08/2025	16	01	15.445	-21	06	24.15	2.4154145	1.4933930	3.88	1.5	10.9
11/09/2025	16	04	16.798	-21	15	22.00	2.4161723	1.4920949	3.88	1.4	10.8
11/10/2025	16	07	18.766	-21	24	08.54	2.4168941	1.4907984	3.87	1.4	10.6
11/11/2025	16	10	21.345	-21	32	43.59	2.4175799	1.4895037	3.87	1.4	10.4
11/12/2025	16	13	24.531	-21	41	06.98	2.4182295	1.4882109	3.87	1.4	10.3
11/13/2025	16	16	28.320	-21	49	18.53	2.4188431	1.4869200	3.87	1.4	10.1
11/14/2025	16	19	32.707	-21	57	18.08	2.4194206	1.4856313	3.87	1.4	9.9
11/15/2025	16	22	37.689	-22	05	05.45	2.4199620	1.4843447	3.87	1.4	9.7
11/16/2025	16	25	43.260	-22	12	40.49	2.4204674	1.4830606	3.87	1.4	9.6
11/17/2025	16	28	49.415	-22	20	03.03	2.4209369	1.4817789	3.87	1.4	9.4
11/18/2025	16	31	56.146	-22	27	12.93	2.4213705	1.4804998	3.87	1.4	9.2
11/19/2025	16	35	03.446	-22	34	10.04	2.4217685	1.4792235	3.87	1.4	9.0
11/20/2025	16	38	11.306	-22	40	54.20	2.4221310	1.4779500	3.87	1.4	8.8
11/21/2025	16	41	19.717	-22	47	25.28	2.4224583	1.4766795	3.87	1.4	8.6
11/22/2025	16	44	28.668	-22	53	43.11	2.4227506	1.4754121	3.87	1.4	8.4
11/23/2025	16	47	38.148	-22	59	47.56	2.4230083	1.4741479	3.87	1.4	8.2
11/24/2025	16	50	48.146	-23	05	38.49	2.4232317	1.4728870	3.86	1.4	8.0
11/25/2025	16	53	58.648	-23	11	15.74	2.4234212	1.4716296	3.86	1.4	7.8
11/26/2025	16	57	09.643	-23	16	39.18	2.4235773	1.4703759	3.86	1.4	7.6
11/27/2025	17	00	21.119	-23	21	48.68	2.4237006	1.4691258	3.86	1.4	7.4
11/28/2025	17	03	33.064	-23	26	44.08	2.4237915	1.4678796	3.86	1.4	7.2
11/29/2025	17	06	45.466	-23	31	25.26	2.4238507	1.4666374	3.86	1.4	7.0
11/30/2025	17	09	58.314	-23	35	52.09	2.4238789	1.4653992	3.86	1.4	6.9
12/01/2025	17	13	11.600	-23	40	04.45	2.4238766	1.4641654	3.86	1.3	6.7
12/02/2025	17	16	25.313	-23	44	02.23	2.4238447	1.4629358	3.86	1.3	6.5
12/03/2025	17	19	39.446	-23	47	45.33	2.4237837	1.4617108	3.86	1.3	6.4
12/04/2025	17	22	53.988	-23	51	13.67	2.4236945	1.4604903	3.86	1.3	6.2
12/05/2025	17	26	08.927	-23	54	27.15	2.4235776	1.4592747	3.86	1.3	6.1
12/06/2025	17	29	24.253	-23	57	25.68	2.4234334	1.4580638	3.86	1.3	5.9
12/07/2025	17	32	39.949	-24	00	09.18	2.4232622	1.4568580	3.86	1.3	5.7
12/08/2025	17	35	56.004	-24	02	37.54	2.4230644	1.4556573	3.87	1.3	5.6
12/09/2025	17	39	12.403	-24	04	50.65	2.4228400	1.4544618	3.87	1.3	5.4
12/10/2025	17	42	29.133	-24	06	48.40	2.4225891	1.4532718	3.87	1.3	5.3
12/11/2025	17	45	46.184	-24	08	30.70	2.4223117	1.4520872	3.87	1.3	5.1
12/12/2025	17	49	03.541	-24	09	57.47	2.4220080	1.4509083	3.87	1.3	4.9
12/13/2025	17	52	21.193	-24	11	08.61	2.4216779	1.4497351	3.87	1.3	4.8
12/14/2025	17	55	39.125	-24	12	04.07	2.4213216	1.4485678	3.87	1.3	4.6
12/15/2025	17	58	57.324	-24	12	43.78	2.4209391	1.4474066	3.87	1.3	4.4

Mars - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
12/16/2025	18	02	15.773	-24	13	07.67	2.4205306	1.4462514	3.87	1.3	4.2
12/17/2025	18	05	34.457	-24	13	15.71	2.4200963	1.4451026	3.87	1.3	4.0
12/18/2025	18	08	53.360	-24	13	07.84	2.4196362	1.4439602	3.87	1.3	3.8
12/19/2025	18	12	12.464	-24	12	44.02	2.4191507	1.4428243	3.87	1.3	3.6
12/20/2025	18	15	31.750	-24	12	04.21	2.4186400	1.4416950	3.87	1.3	3.5
12/21/2025	18	18	51.201	-24	11	08.40	2.4181044	1.4405726	3.87	1.2	3.3
12/22/2025	18	22	10.798	-24	09	56.53	2.4175442	1.4394570	3.87	1.2	3.1
12/23/2025	18	25	30.521	-24	08	28.60	2.4169598	1.4383485	3.87	1.2	2.9
12/24/2025	18	28	50.353	-24	06	44.58	2.4163516	1.4372471	3.88	1.2	2.7
12/25/2025	18	32	10.276	-24	04	44.45	2.4157202	1.4361531	3.88	1.2	2.5
12/26/2025	18	35	30.271	-24	02	28.19	2.4150660	1.4350664	3.88	1.2	2.3
12/27/2025	18	38	50.324	-23	59	55.80	2.4143897	1.4339873	3.88	1.2	2.1
12/28/2025	18	42	10.419	-23	57	07.27	2.4136919	1.4329159	3.88	1.2	2.0
12/29/2025	18	45	30.542	-23	54	02.63	2.4129732	1.4318523	3.88	1.2	1.8
12/30/2025	18	48	50.679	-23	50	41.87	2.4122345	1.4307965	3.88	1.2	1.7
12/31/2025	18	52	10.817	-23	47	05.05	2.4114763	1.4297488	3.88	1.2	1.5
01/01/2026	18	55	30.941	-23	43	12.18	2.4106994	1.4287093	3.88	1.2	1.4
01/02/2026	18	58	51.038	-23	39	03.32	2.4099044	1.4276781	3.89	1.2	1.2



Jupiter - Apparent data

Date	Right Ascension	Declination	Earth Distance	Solar Distance	Equatorial Diameter	Mag.	Phase Angle
0 h TT	h m s	d m s	au	au	arc sec		deg.
12/31/2024	04 47 59.468	21 47 50.62	4.1831261	5.0822333	47.13	-2.7	5.0
01/01/2025	04 47 31.761	21 47 14.59	4.1907437	5.0825609	47.04	-2.7	5.2
01/02/2025	04 47 04.652	21 46 39.44	4.1986368	5.0828887	46.95	-2.7	5.4
01/03/2025	04 46 38.160	21 46 05.20	4.2068016	5.0832169	46.86	-2.7	5.6
01/04/2025	04 46 12.302	21 45 31.89	4.2152344	5.0835452	46.77	-2.7	5.8
01/05/2025	04 45 47.096	21 44 59.56	4.2239309	5.0838738	46.67	-2.7	6.0
01/06/2025	04 45 22.562	21 44 28.24	4.2328872	5.0842026	46.57	-2.7	6.2
01/07/2025	04 44 58.716	21 43 57.97	4.2420988	5.0845317	46.47	-2.7	6.3
01/08/2025	04 44 35.576	21 43 28.80	4.2515615	5.0848609	46.37	-2.7	6.5
01/09/2025	04 44 13.155	21 43 00.78	4.2612711	5.0851905	46.26	-2.7	6.7
01/10/2025	04 43 51.467	21 42 33.96	4.2712230	5.0855202	46.16	-2.7	6.8
01/11/2025	04 43 30.524	21 42 08.38	4.2814131	5.0858502	46.05	-2.7	7.0
01/12/2025	04 43 10.333	21 41 44.09	4.2918371	5.0861804	45.94	-2.7	7.2
01/13/2025	04 42 50.903	21 41 21.12	4.3024907	5.0865109	45.82	-2.7	7.3
01/14/2025	04 42 32.242	21 40 59.49	4.3133697	5.0868416	45.71	-2.7	7.5
01/15/2025	04 42 14.358	21 40 39.22	4.3244700	5.0871725	45.59	-2.7	7.6
01/16/2025	04 41 57.259	21 40 20.33	4.3357875	5.0875037	45.47	-2.6	7.8
01/17/2025	04 41 40.955	21 40 02.85	4.3473178	5.0878350	45.35	-2.6	7.9
01/18/2025	04 41 25.456	21 39 46.78	4.3590568	5.0881666	45.23	-2.6	8.1
01/19/2025	04 41 10.770	21 39 32.16	4.3710002	5.0884985	45.10	-2.6	8.2
01/20/2025	04 40 56.907	21 39 19.02	4.3831435	5.0888305	44.98	-2.6	8.3
01/21/2025	04 40 43.875	21 39 07.39	4.3954824	5.0891628	44.85	-2.6	8.5
01/22/2025	04 40 31.682	21 38 57.28	4.4080122	5.0894953	44.72	-2.6	8.6
01/23/2025	04 40 20.335	21 38 48.75	4.4207286	5.0898280	44.60	-2.6	8.8
01/24/2025	04 40 09.841	21 38 41.80	4.4336267	5.0901610	44.47	-2.6	8.9
01/25/2025	04 40 00.204	21 38 36.46	4.4467019	5.0904942	44.34	-2.6	9.0
01/26/2025	04 39 51.429	21 38 32.77	4.4599494	5.0908275	44.20	-2.6	9.2
01/27/2025	04 39 43.519	21 38 30.73	4.4733643	5.0911612	44.07	-2.6	9.3
01/28/2025	04 39 36.477	21 38 30.36	4.4869416	5.0914950	43.94	-2.6	9.4
01/29/2025	04 39 30.304	21 38 31.66	4.5006763	5.0918291	43.80	-2.6	9.5
01/30/2025	04 39 25.002	21 38 34.63	4.5145632	5.0921633	43.67	-2.5	9.6
01/31/2025	04 39 20.572	21 38 39.25	4.5285969	5.0924978	43.53	-2.5	9.7
02/01/2025	04 39 17.016	21 38 45.53	4.5427722	5.0928325	43.40	-2.5	9.8
02/02/2025	04 39 14.337	21 38 53.45	4.5570838	5.0931675	43.26	-2.5	9.9
02/03/2025	04 39 12.536	21 39 03.01	4.5715261	5.0935026	43.12	-2.5	10.0
02/04/2025	04 39 11.614	21 39 14.21	4.5860940	5.0938379	42.99	-2.5	10.1
02/05/2025	04 39 11.573	21 39 27.06	4.6007822	5.0941735	42.85	-2.5	10.2
02/06/2025	04 39 12.408	21 39 41.56	4.6155854	5.0945093	42.71	-2.5	10.3
02/07/2025	04 39 14.118	21 39 57.72	4.6304988	5.0948453	42.58	-2.5	10.3
02/08/2025	04 39 16.697	21 40 15.53	4.6455174	5.0951815	42.44	-2.5	10.4
02/09/2025	04 39 20.140	21 40 34.98	4.6606364	5.0955179	42.30	-2.5	10.5
02/10/2025	04 39 24.440	21 40 56.05	4.6758511	5.0958545	42.16	-2.5	10.5
02/11/2025	04 39 29.593	21 41 18.72	4.6911570	5.0961914	42.02	-2.5	10.6
02/12/2025	04 39 35.593	21 41 42.96	4.7065495	5.0965284	41.89	-2.4	10.7
02/13/2025	04 39 42.437	21 42 08.75	4.7220242	5.0968657	41.75	-2.4	10.7
02/14/2025	04 39 50.121	21 42 36.07	4.7375766	5.0972031	41.61	-2.4	10.8
02/15/2025	04 39 58.641	21 43 04.89	4.7532025	5.0975408	41.48	-2.4	10.8
02/16/2025	04 40 07.997	21 43 35.20	4.7688974	5.0978786	41.34	-2.4	10.9
02/17/2025	04 40 18.183	21 44 06.99	4.7846570	5.0982167	41.20	-2.4	10.9
02/18/2025	04 40 29.197	21 44 40.23	4.8004769	5.0985550	41.07	-2.4	11.0

Jupiter - Apparent data

Date	Right Ascension	Declination	Earth Distance	Solar Distance	Equatorial Diameter	Mag.	Phase Angle
0 h TT	h m s	d m s	au	au	arc sec		deg.
02/19/2025	04 40 41.036	21 45 14.93	4.8163528	5.0988935	40.93	-2.4	11.0
02/20/2025	04 40 53.694	21 45 51.06	4.8322802	5.0992322	40.80	-2.4	11.0
02/21/2025	04 41 07.167	21 46 28.62	4.8482548	5.0995710	40.66	-2.4	11.1
02/22/2025	04 41 21.450	21 47 07.58	4.8642722	5.0999101	40.53	-2.4	11.1
02/23/2025	04 41 36.537	21 47 47.92	4.8803279	5.1002494	40.40	-2.4	11.2
02/24/2025	04 41 52.421	21 48 29.62	4.8964176	5.1005889	40.26	-2.4	11.2
02/25/2025	04 42 09.095	21 49 12.66	4.9125368	5.1009286	40.13	-2.4	11.2
02/26/2025	04 42 26.553	21 49 56.99	4.9286808	5.1012685	40.00	-2.3	11.2
02/27/2025	04 42 44.787	21 50 42.58	4.9448453	5.1016085	39.87	-2.3	11.2
02/28/2025	04 43 03.791	21 51 29.38	4.9610255	5.1019488	39.74	-2.3	11.3
03/01/2025	04 43 23.559	21 52 17.34	4.9772167	5.1022893	39.61	-2.3	11.3
03/02/2025	04 43 44.087	21 53 06.43	4.9934145	5.1026299	39.48	-2.3	11.3
03/03/2025	04 44 05.371	21 53 56.62	5.0096142	5.1029708	39.35	-2.3	11.3
03/04/2025	04 44 27.403	21 54 47.89	5.0258114	5.1033118	39.23	-2.3	11.3
03/05/2025	04 44 50.177	21 55 40.21	5.0420018	5.1036531	39.10	-2.3	11.3
03/06/2025	04 45 13.684	21 56 33.57	5.0581812	5.1039945	38.98	-2.3	11.3
03/07/2025	04 45 37.912	21 57 27.93	5.0743457	5.1043361	38.85	-2.3	11.2
03/08/2025	04 46 02.852	21 58 23.26	5.0904913	5.1046779	38.73	-2.3	11.2
03/09/2025	04 46 28.493	21 59 19.52	5.1066144	5.1050199	38.61	-2.3	11.2
03/10/2025	04 46 54.825	22 00 16.66	5.1227115	5.1053621	38.48	-2.3	11.2
03/11/2025	04 47 21.839	22 01 14.64	5.1387789	5.1057045	38.36	-2.3	11.2
03/12/2025	04 47 49.525	22 02 13.41	5.1548134	5.1060471	38.24	-2.2	11.1
03/13/2025	04 48 17.878	22 03 12.93	5.1708116	5.1063898	38.13	-2.2	11.1
03/14/2025	04 48 46.889	22 04 13.17	5.1867702	5.1067328	38.01	-2.2	11.1
03/15/2025	04 49 16.553	22 05 14.07	5.2026860	5.1070759	37.89	-2.2	11.0
03/16/2025	04 49 46.863	22 06 15.62	5.2185558	5.1074192	37.78	-2.2	11.0
03/17/2025	04 50 17.813	22 07 17.78	5.2343763	5.1077627	37.66	-2.2	11.0
03/18/2025	04 50 49.396	22 08 20.53	5.2501444	5.1081063	37.55	-2.2	10.9
03/19/2025	04 51 21.606	22 09 23.83	5.2658570	5.1084502	37.44	-2.2	10.9
03/20/2025	04 51 54.435	22 10 27.66	5.2815108	5.1087942	37.33	-2.2	10.9
03/21/2025	04 52 27.877	22 11 31.99	5.2971027	5.1091384	37.22	-2.2	10.8
03/22/2025	04 53 01.922	22 12 36.79	5.3126296	5.1094828	37.11	-2.2	10.8
03/23/2025	04 53 36.564	22 13 42.03	5.3280881	5.1098274	37.00	-2.2	10.8
03/24/2025	04 54 11.793	22 14 47.66	5.3434753	5.1101722	36.89	-2.2	10.7
03/25/2025	04 54 47.601	22 15 53.66	5.3587878	5.1105171	36.79	-2.2	10.7
03/26/2025	04 55 23.979	22 16 59.98	5.3740223	5.1108622	36.68	-2.2	10.6
03/27/2025	04 56 00.920	22 18 06.56	5.3891757	5.1112075	36.58	-2.1	10.6
03/28/2025	04 56 38.417	22 19 13.35	5.4042444	5.1115529	36.48	-2.1	10.5
03/29/2025	04 57 16.464	22 20 20.31	5.4192253	5.1118986	36.38	-2.1	10.4
03/30/2025	04 57 55.055	22 21 27.40	5.4341150	5.1122444	36.28	-2.1	10.4
03/31/2025	04 58 34.185	22 22 34.58	5.4489103	5.1125904	36.18	-2.1	10.3
04/01/2025	04 59 13.848	22 23 41.84	5.4636079	5.1129365	36.08	-2.1	10.2
04/02/2025	04 59 54.034	22 24 49.16	5.4782049	5.1132828	35.99	-2.1	10.2
04/03/2025	05 00 34.732	22 25 56.50	5.4926986	5.1136293	35.89	-2.1	10.1
04/04/2025	05 01 15.932	22 27 03.85	5.5070862	5.1139760	35.80	-2.1	10.0
04/05/2025	05 01 57.623	22 28 11.15	5.5213653	5.1143228	35.71	-2.1	9.9
04/06/2025	05 02 39.793	22 29 18.36	5.5355335	5.1146698	35.61	-2.1	9.8
04/07/2025	05 03 22.435	22 30 25.45	5.5495886	5.1150170	35.52	-2.1	9.7
04/08/2025	05 04 05.540	22 31 32.36	5.5635284	5.1153644	35.44	-2.1	9.7
04/09/2025	05 04 49.100	22 32 39.05	5.5773507	5.1157119	35.35	-2.1	9.6

Jupiter - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
04/10/2025	05	05	33.108	22	33	45.49	5.5910535	5.1160595	35.26	-2.1	9.5
04/11/2025	05	06	17.560	22	34	51.65	5.6046349	5.1164074	35.18	-2.1	9.4
04/12/2025	05	07	02.447	22	35	57.49	5.6180927	5.1167554	35.09	-2.1	9.3
04/13/2025	05	07	47.766	22	37	02.99	5.6314251	5.1171035	35.01	-2.1	9.2
04/14/2025	05	08	33.509	22	38	08.11	5.6446300	5.1174519	34.93	-2.1	9.1
04/15/2025	05	09	19.671	22	39	12.85	5.6577055	5.1178004	34.85	-2.0	9.0
04/16/2025	05	10	06.245	22	40	17.17	5.6706498	5.1181490	34.77	-2.0	9.0
04/17/2025	05	10	53.225	22	41	21.06	5.6834607	5.1184978	34.69	-2.0	8.9
04/18/2025	05	11	40.602	22	42	24.49	5.6961364	5.1188468	34.61	-2.0	8.8
04/19/2025	05	12	28.371	22	43	27.43	5.7086749	5.1191959	34.53	-2.0	8.7
04/20/2025	05	13	16.524	22	44	29.86	5.7210743	5.1195452	34.46	-2.0	8.6
04/21/2025	05	14	05.052	22	45	31.75	5.7333323	5.1198946	34.39	-2.0	8.5
04/22/2025	05	14	53.948	22	46	33.05	5.7454472	5.1202442	34.31	-2.0	8.4
04/23/2025	05	15	43.206	22	47	33.74	5.7574166	5.1205940	34.24	-2.0	8.3
04/24/2025	05	16	32.818	22	48	33.76	5.7692386	5.1209439	34.17	-2.0	8.2
04/25/2025	05	17	22.780	22	49	33.09	5.7809110	5.1212940	34.10	-2.0	8.1
04/26/2025	05	18	13.087	22	50	31.68	5.7924316	5.1216442	34.04	-2.0	8.0
04/27/2025	05	19	03.735	22	51	29.51	5.8037981	5.1219946	33.97	-2.0	7.9
04/28/2025	05	19	54.718	22	52	26.55	5.8150086	5.1223451	33.90	-2.0	7.7
04/29/2025	05	20	46.032	22	53	22.81	5.8260611	5.1226958	33.84	-2.0	7.6
04/30/2025	05	21	37.666	22	54	18.28	5.8369536	5.1230466	33.78	-2.0	7.5
05/01/2025	05	22	29.612	22	55	12.92	5.8476845	5.1233976	33.71	-2.0	7.4
05/02/2025	05	23	21.857	22	56	06.74	5.8582523	5.1237487	33.65	-2.0	7.3
05/03/2025	05	24	14.394	22	56	59.68	5.8686556	5.1241000	33.59	-2.0	7.1
05/04/2025	05	25	07.212	22	57	51.72	5.8788933	5.1244514	33.53	-2.0	7.0
05/05/2025	05	26	00.305	22	58	42.82	5.8889640	5.1248030	33.48	-2.0	6.9
05/06/2025	05	26	53.665	22	59	32.96	5.8988668	5.1251547	33.42	-2.0	6.8
05/07/2025	05	27	47.288	23	00	22.10	5.9086006	5.1255066	33.37	-2.0	6.7
05/08/2025	05	28	41.169	23	01	10.22	5.9181643	5.1258586	33.31	-2.0	6.5
05/09/2025	05	29	35.301	23	01	57.30	5.9275570	5.1262107	33.26	-2.0	6.4
05/10/2025	05	30	29.681	23	02	43.33	5.9367776	5.1265630	33.21	-2.0	6.3
05/11/2025	05	31	24.304	23	03	28.29	5.9458252	5.1269154	33.16	-2.0	6.2
05/12/2025	05	32	19.164	23	04	12.16	5.9546990	5.1272680	33.11	-1.9	6.0
05/13/2025	05	33	14.257	23	04	54.95	5.9633978	5.1276207	33.06	-1.9	5.9
05/14/2025	05	34	09.576	23	05	36.64	5.9719207	5.1279736	33.01	-1.9	5.8
05/15/2025	05	35	05.115	23	06	17.21	5.9802668	5.1283265	32.97	-1.9	5.7
05/16/2025	05	36	00.869	23	06	56.66	5.9884350	5.1286797	32.92	-1.9	5.6
05/17/2025	05	36	56.831	23	07	34.97	5.9964243	5.1290329	32.88	-1.9	5.4
05/18/2025	05	37	52.994	23	08	12.13	6.0042336	5.1293863	32.83	-1.9	5.3
05/19/2025	05	38	49.352	23	08	48.10	6.0118619	5.1297399	32.79	-1.9	5.2
05/20/2025	05	39	45.898	23	09	22.88	6.0193080	5.1300935	32.75	-1.9	5.1
05/21/2025	05	40	42.628	23	09	56.42	6.0265708	5.1304474	32.71	-1.9	4.9
05/22/2025	05	41	39.536	23	10	28.71	6.0336489	5.1308013	32.67	-1.9	4.8
05/23/2025	05	42	36.619	23	10	59.71	6.0405412	5.1311554	32.64	-1.9	4.7
05/24/2025	05	43	33.873	23	11	29.42	6.0472464	5.1315096	32.60	-1.9	4.5
05/25/2025	05	44	31.295	23	11	57.82	6.0537633	5.1318639	32.57	-1.9	4.4
05/26/2025	05	45	28.881	23	12	24.91	6.0600906	5.1322184	32.53	-1.9	4.2
05/27/2025	05	46	26.623	23	12	50.69	6.0662273	5.1325729	32.50	-1.9	4.1
05/28/2025	05	47	24.515	23	13	15.18	6.0721725	5.1329277	32.47	-1.9	4.0
05/29/2025	05	48	22.546	23	13	38.36	6.0779252	5.1332825	32.44	-1.9	3.8

Jupiter - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
05/30/2025	05	49	20.707	23	14	00.23	6.0834849	5.1336375	32.41	-1.9	3.7
05/31/2025	05	50	18.989	23	14	20.77	6.0888510	5.1339926	32.38	-1.9	3.5
06/01/2025	05	51	17.385	23	14	39.95	6.0940233	5.1343478	32.35	-1.9	3.4
06/02/2025	05	52	15.889	23	14	57.75	6.0990012	5.1347031	32.32	-1.9	3.2
06/03/2025	05	53	14.496	23	15	14.16	6.1037847	5.1350586	32.30	-1.9	3.1
06/04/2025	05	54	13.201	23	15	29.17	6.1083734	5.1354142	32.27	-1.9	3.0
06/05/2025	05	55	12.000	23	15	42.77	6.1127672	5.1357699	32.25	-1.9	2.8
06/06/2025	05	56	10.890	23	15	54.96	6.1169658	5.1361257	32.23	-1.9	2.7
06/07/2025	05	57	09.866	23	16	05.72	6.1209692	5.1364817	32.21	-1.9	2.5
06/08/2025	05	58	08.923	23	16	15.08	6.1247770	5.1368377	32.19	-1.9	2.4
06/09/2025	05	59	08.058	23	16	23.02	6.1283891	5.1371939	32.17	-1.9	2.3
06/10/2025	06	00	07.265	23	16	29.55	6.1318053	5.1375502	32.15	-1.9	2.1
06/11/2025	06	01	06.539	23	16	34.67	6.1350255	5.1379067	32.13	-1.9	2.0
06/12/2025	06	02	05.875	23	16	38.40	6.1380494	5.1382632	32.12	-1.9	1.9
06/13/2025	06	03	05.266	23	16	40.71	6.1408768	5.1386198	32.10	-1.9	1.7
06/14/2025	06	04	04.707	23	16	41.62	6.1435073	5.1389766	32.09	-1.9	1.6
06/15/2025	06	05	04.192	23	16	41.11	6.1459406	5.1393335	32.08	-1.9	1.4
06/16/2025	06	06	03.715	23	16	39.18	6.1481765	5.1396905	32.07	-1.9	1.3
06/17/2025	06	07	03.271	23	16	35.81	6.1502143	5.1400476	32.06	-1.9	1.2
06/18/2025	06	08	02.856	23	16	30.99	6.1520537	5.1404048	32.05	-1.9	1.0
06/19/2025	06	09	02.466	23	16	24.71	6.1536942	5.1407621	32.04	-1.9	0.9
06/20/2025	06	10	02.099	23	16	16.96	6.1551353	5.1411195	32.03	-1.9	0.7
06/21/2025	06	11	01.751	23	16	07.73	6.1563764	5.1414771	32.02	-1.9	0.6
06/22/2025	06	12	01.419	23	15	57.05	6.1574170	5.1418347	32.02	-1.9	0.5
06/23/2025	06	13	01.098	23	15	44.93	6.1582567	5.1421925	32.01	-1.9	0.3
06/24/2025	06	14	00.781	23	15	31.38	6.1588952	5.1425504	32.01	-1.9	0.2
06/25/2025	06	15	00.461	23	15	16.41	6.1593322	5.1429083	32.01	-1.9	0.0
06/26/2025	06	16	00.128	23	15	00.05	6.1595677	5.1432664	32.01	-1.9	0.1
06/27/2025	06	16	59.772	23	14	42.28	6.1596016	5.1436246	32.01	-1.9	0.3
06/28/2025	06	17	59.388	23	14	23.11	6.1594343	5.1439829	32.01	-1.9	0.4
06/29/2025	06	18	58.967	23	14	02.52	6.1590661	5.1443412	32.01	-1.9	0.6
06/30/2025	06	19	58.505	23	13	40.51	6.1584973	5.1446997	32.01	-1.9	0.7
07/01/2025	06	20	57.997	23	13	17.08	6.1577283	5.1450583	32.02	-1.9	0.9
07/02/2025	06	21	57.440	23	12	52.23	6.1567597	5.1454170	32.02	-1.9	1.0
07/03/2025	06	22	56.829	23	12	25.98	6.1555918	5.1457758	32.03	-1.9	1.2
07/04/2025	06	23	56.162	23	11	58.33	6.1542253	5.1461347	32.03	-1.9	1.3
07/05/2025	06	24	55.433	23	11	29.29	6.1526606	5.1464936	32.04	-1.9	1.5
07/06/2025	06	25	54.638	23	10	58.89	6.1508983	5.1468527	32.05	-1.9	1.6
07/07/2025	06	26	53.773	23	10	27.14	6.1489387	5.1472119	32.06	-1.9	1.7
07/08/2025	06	27	52.833	23	09	54.04	6.1467825	5.1475711	32.07	-1.9	1.9
07/09/2025	06	28	51.812	23	09	19.63	6.1444301	5.1479305	32.09	-1.9	2.0
07/10/2025	06	29	50.705	23	08	43.91	6.1418819	5.1482899	32.10	-1.9	2.1
07/11/2025	06	30	49.506	23	08	06.90	6.1391385	5.1486495	32.11	-1.9	2.3
07/12/2025	06	31	48.209	23	07	28.60	6.1362001	5.1490091	32.13	-1.9	2.4
07/13/2025	06	32	46.807	23	06	49.02	6.1330671	5.1493688	32.14	-1.9	2.5
07/14/2025	06	33	45.297	23	06	08.16	6.1297397	5.1497287	32.16	-1.9	2.7
07/15/2025	06	34	43.674	23	05	26.02	6.1262183	5.1500886	32.18	-1.9	2.8
07/16/2025	06	35	41.934	23	04	42.59	6.1225030	5.1504486	32.20	-1.9	2.9
07/17/2025	06	36	40.074	23	03	57.89	6.1185940	5.1508086	32.22	-1.9	3.1
07/18/2025	06	37	38.091	23	03	11.92	6.1144913	5.1511688	32.24	-1.9	3.2

Jupiter - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
07/19/2025	06	38	35.982	23	02	24.70	6.1101952	5.1515290	32.27	-1.9	3.4
07/20/2025	06	39	33.743	23	01	36.26	6.1057059	5.1518894	32.29	-1.9	3.5
07/21/2025	06	40	31.366	23	00	46.64	6.1010237	5.1522498	32.31	-1.9	3.7
07/22/2025	06	41	28.845	22	59	55.85	6.0961489	5.1526103	32.34	-1.9	3.8
07/23/2025	06	42	26.171	22	59	03.92	6.0910821	5.1529709	32.37	-1.9	3.9
07/24/2025	06	43	23.335	22	58	10.88	6.0858239	5.1533316	32.39	-1.9	4.1
07/25/2025	06	44	20.329	22	57	16.74	6.0803751	5.1536923	32.42	-1.9	4.2
07/26/2025	06	45	17.145	22	56	21.50	6.0747366	5.1540531	32.45	-1.9	4.4
07/27/2025	06	46	13.777	22	55	25.18	6.0689094	5.1544140	32.48	-1.9	4.5
07/28/2025	06	47	10.220	22	54	27.77	6.0628946	5.1547750	32.52	-1.9	4.6
07/29/2025	06	48	06.469	22	53	29.31	6.0566934	5.1551361	32.55	-1.9	4.8
07/30/2025	06	49	02.521	22	52	29.80	6.0503069	5.1554972	32.58	-1.9	4.9
07/31/2025	06	49	58.372	22	51	29.28	6.0437363	5.1558584	32.62	-1.9	5.0
08/01/2025	06	50	54.016	22	50	27.75	6.0369829	5.1562197	32.66	-1.9	5.2
08/02/2025	06	51	49.450	22	49	25.26	6.0300478	5.1565811	32.69	-1.9	5.3
08/03/2025	06	52	44.668	22	48	21.84	6.0229323	5.1569425	32.73	-1.9	5.4
08/04/2025	06	53	39.665	22	47	17.50	6.0156376	5.1573040	32.77	-1.9	5.5
08/05/2025	06	54	34.435	22	46	12.28	6.0081650	5.1576656	32.81	-1.9	5.6
08/06/2025	06	55	28.973	22	45	06.21	6.0005156	5.1580273	32.85	-1.9	5.8
08/07/2025	06	56	23.272	22	43	59.31	5.9926908	5.1583890	32.90	-1.9	5.9
08/08/2025	06	57	17.325	22	42	51.61	5.9846915	5.1587508	32.94	-1.9	6.0
08/09/2025	06	58	11.127	22	41	43.13	5.9765190	5.1591126	32.99	-1.9	6.1
08/10/2025	06	59	04.671	22	40	33.88	5.9681743	5.1594745	33.03	-1.9	6.2
08/11/2025	06	59	57.953	22	39	23.87	5.9596584	5.1598365	33.08	-1.9	6.4
08/12/2025	07	00	50.968	22	38	13.11	5.9509724	5.1601986	33.13	-1.9	6.5
08/13/2025	07	01	43.712	22	37	01.62	5.9421171	5.1605607	33.18	-1.9	6.6
08/14/2025	07	02	36.183	22	35	49.41	5.9330933	5.1609229	33.23	-1.9	6.7
08/15/2025	07	03	28.377	22	34	36.53	5.9239021	5.1612851	33.28	-1.9	6.8
08/16/2025	07	04	20.288	22	33	22.99	5.9145444	5.1616474	33.33	-1.9	7.0
08/17/2025	07	05	11.910	22	32	08.86	5.9050212	5.1620098	33.39	-1.9	7.1
08/18/2025	07	06	03.236	22	30	54.16	5.8953336	5.1623722	33.44	-2.0	7.2
08/19/2025	07	06	54.257	22	29	38.94	5.8854830	5.1627347	33.50	-2.0	7.3
08/20/2025	07	07	44.963	22	28	23.23	5.8754706	5.1630973	33.55	-2.0	7.4
08/21/2025	07	08	35.345	22	27	07.07	5.8652979	5.1634599	33.61	-2.0	7.5
08/22/2025	07	09	25.394	22	25	50.48	5.8549667	5.1638226	33.67	-2.0	7.7
08/23/2025	07	10	15.104	22	24	33.47	5.8444786	5.1641853	33.73	-2.0	7.8
08/24/2025	07	11	04.468	22	23	16.08	5.8338355	5.1645481	33.79	-2.0	7.9
08/25/2025	07	11	53.481	22	21	58.33	5.8230394	5.1649109	33.86	-2.0	8.0
08/26/2025	07	12	42.136	22	20	40.24	5.8120922	5.1652738	33.92	-2.0	8.1
08/27/2025	07	13	30.430	22	19	21.85	5.8009961	5.1656367	33.98	-2.0	8.2
08/28/2025	07	14	18.356	22	18	03.19	5.7897530	5.1659997	34.05	-2.0	8.3
08/29/2025	07	15	05.910	22	16	44.31	5.7783651	5.1663627	34.12	-2.0	8.4
08/30/2025	07	15	53.086	22	15	25.24	5.7668345	5.1667258	34.19	-2.0	8.5
08/31/2025	07	16	39.877	22	14	06.03	5.7551633	5.1670890	34.26	-2.0	8.6
09/01/2025	07	17	26.278	22	12	46.71	5.7433537	5.1674521	34.33	-2.0	8.7
09/02/2025	07	18	12.280	22	11	27.33	5.7314077	5.1678154	34.40	-2.0	8.8
09/03/2025	07	18	57.878	22	10	07.92	5.7193276	5.1681787	34.47	-2.0	8.9
09/04/2025	07	19	43.064	22	08	48.52	5.7071155	5.1685420	34.54	-2.0	8.9
09/05/2025	07	20	27.830	22	07	29.16	5.6947734	5.1689054	34.62	-2.0	9.0
09/06/2025	07	21	12.170	22	06	09.88	5.6823035	5.1692688	34.69	-2.0	9.1

Jupiter - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
09/07/2025	07	21	56.078	22	04	50.69	5.6697078	5.1696322	34.77	-2.0	9.2
09/08/2025	07	22	39.547	22	03	31.61	5.6569881	5.1699957	34.85	-2.0	9.3
09/09/2025	07	23	22.574	22	02	12.67	5.6441465	5.1703593	34.93	-2.0	9.4
09/10/2025	07	24	05.154	22	00	53.89	5.6311848	5.1707229	35.01	-2.0	9.4
09/11/2025	07	24	47.283	21	59	35.30	5.6181048	5.1710865	35.09	-2.0	9.5
09/12/2025	07	25	28.956	21	58	16.96	5.6049085	5.1714502	35.17	-2.0	9.6
09/13/2025	07	26	10.165	21	56	58.91	5.5915978	5.1718139	35.26	-2.0	9.7
09/14/2025	07	26	50.903	21	55	41.21	5.5781749	5.1721776	35.34	-2.1	9.8
09/15/2025	07	27	31.159	21	54	23.91	5.5646418	5.1725414	35.43	-2.1	9.8
09/16/2025	07	28	10.924	21	53	07.06	5.5510010	5.1729052	35.52	-2.1	9.9
09/17/2025	07	28	50.186	21	51	50.70	5.5372549	5.1732691	35.60	-2.1	10.0
09/18/2025	07	29	28.937	21	50	34.86	5.5234062	5.1736330	35.69	-2.1	10.1
09/19/2025	07	30	07.167	21	49	19.58	5.5094576	5.1739969	35.78	-2.1	10.1
09/20/2025	07	30	44.870	21	48	04.88	5.4954121	5.1743609	35.87	-2.1	10.2
09/21/2025	07	31	22.038	21	46	50.81	5.4812724	5.1747248	35.97	-2.1	10.3
09/22/2025	07	31	58.665	21	45	37.39	5.4670418	5.1750889	36.06	-2.1	10.3
09/23/2025	07	32	34.745	21	44	24.67	5.4527232	5.1754529	36.16	-2.1	10.4
09/24/2025	07	33	10.272	21	43	12.69	5.4383200	5.1758170	36.25	-2.1	10.4
09/25/2025	07	33	45.239	21	42	01.49	5.4238353	5.1761811	36.35	-2.1	10.5
09/26/2025	07	34	19.639	21	40	51.12	5.4092723	5.1765453	36.45	-2.1	10.5
09/27/2025	07	34	53.467	21	39	41.62	5.3946344	5.1769095	36.54	-2.1	10.6
09/28/2025	07	35	26.714	21	38	33.05	5.3799248	5.1772737	36.64	-2.1	10.6
09/29/2025	07	35	59.373	21	37	25.45	5.3651468	5.1776379	36.75	-2.1	10.7
09/30/2025	07	36	31.436	21	36	18.86	5.3503037	5.1780021	36.85	-2.1	10.7
10/01/2025	07	37	02.896	21	35	13.32	5.3353989	5.1783664	36.95	-2.1	10.7
10/02/2025	07	37	33.745	21	34	08.88	5.3204356	5.1787307	37.05	-2.1	10.8
10/03/2025	07	38	03.975	21	33	05.56	5.3054173	5.1790950	37.16	-2.2	10.8
10/04/2025	07	38	33.579	21	32	03.40	5.2903470	5.1794594	37.27	-2.2	10.8
10/05/2025	07	39	02.551	21	31	02.42	5.2752282	5.1798238	37.37	-2.2	10.9
10/06/2025	07	39	30.884	21	30	02.65	5.2600639	5.1801882	37.48	-2.2	10.9
10/07/2025	07	39	58.575	21	29	04.10	5.2448572	5.1805526	37.59	-2.2	10.9
10/08/2025	07	40	25.619	21	28	06.81	5.2296113	5.1809170	37.70	-2.2	10.9
10/09/2025	07	40	52.013	21	27	10.81	5.2143292	5.1812815	37.81	-2.2	10.9
10/10/2025	07	41	17.748	21	26	16.17	5.1990141	5.1816459	37.92	-2.2	11.0
10/11/2025	07	41	42.818	21	25	22.93	5.1836691	5.1820104	38.03	-2.2	11.0
10/12/2025	07	42	07.212	21	24	31.15	5.1682978	5.1823749	38.15	-2.2	11.0
10/13/2025	07	42	30.920	21	23	40.88	5.1529035	5.1827395	38.26	-2.2	11.0
10/14/2025	07	42	53.930	21	22	52.16	5.1374900	5.1831040	38.37	-2.2	11.0
10/15/2025	07	43	16.234	21	22	05.02	5.1220611	5.1834685	38.49	-2.2	11.0
10/16/2025	07	43	37.822	21	21	19.50	5.1066207	5.1838331	38.61	-2.2	11.1
10/17/2025	07	43	58.689	21	20	35.62	5.0911730	5.1841977	38.72	-2.2	11.1
10/18/2025	07	44	18.825	21	19	53.41	5.0757222	5.1845623	38.84	-2.2	11.1
10/19/2025	07	44	38.227	21	19	12.90	5.0602726	5.1849269	38.96	-2.3	11.0
10/20/2025	07	44	56.888	21	18	34.12	5.0448284	5.1852915	39.08	-2.3	11.0
10/21/2025	07	45	14.802	21	17	57.10	5.0293942	5.1856561	39.20	-2.3	11.0
10/22/2025	07	45	31.965	21	17	21.89	5.0139743	5.1860207	39.32	-2.3	11.0
10/23/2025	07	45	48.370	21	16	48.52	4.9985734	5.1863854	39.44	-2.3	11.0
10/24/2025	07	46	04.013	21	16	17.01	4.9831959	5.1867500	39.56	-2.3	11.0
10/25/2025	07	46	18.887	21	15	47.42	4.9678465	5.1871147	39.68	-2.3	10.9
10/26/2025	07	46	32.986	21	15	19.77	4.9525296	5.1874793	39.81	-2.3	10.9

Jupiter - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
10/27/2025	07	46	46.305	21	14	54.09	4.9372498	5.1878440	39.93	-2.3	10.9
10/28/2025	07	46	58.838	21	14	30.42	4.9220118	5.1882087	40.05	-2.3	10.8
10/29/2025	07	47	10.578	21	14	08.77	4.9068200	5.1885733	40.18	-2.3	10.8
10/30/2025	07	47	21.521	21	13	49.17	4.8916790	5.1889380	40.30	-2.3	10.7
10/31/2025	07	47	31.662	21	13	31.63	4.8765934	5.1893027	40.43	-2.3	10.7
11/01/2025	07	47	40.996	21	13	16.16	4.8615676	5.1896674	40.55	-2.3	10.6
11/02/2025	07	47	49.521	21	13	02.76	4.8466060	5.1900320	40.68	-2.3	10.6
11/03/2025	07	47	57.235	21	12	51.44	4.8317130	5.1903967	40.80	-2.4	10.5
11/04/2025	07	48	04.136	21	12	42.20	4.8168928	5.1907614	40.93	-2.4	10.5
11/05/2025	07	48	10.224	21	12	35.05	4.8021498	5.1911261	41.05	-2.4	10.4
11/06/2025	07	48	15.498	21	12	30.01	4.7874881	5.1914907	41.18	-2.4	10.3
11/07/2025	07	48	19.954	21	12	27.11	4.7729120	5.1918554	41.31	-2.4	10.3
11/08/2025	07	48	23.587	21	12	26.39	4.7584260	5.1922201	41.43	-2.4	10.2
11/09/2025	07	48	26.390	21	12	27.87	4.7440343	5.1925847	41.56	-2.4	10.2
11/10/2025	07	48	28.357	21	12	31.57	4.7297418	5.1929494	41.68	-2.4	10.1
11/11/2025	07	48	29.482	21	12	37.49	4.7155532	5.1933140	41.81	-2.4	10.0
11/12/2025	07	48	29.761	21	12	45.64	4.7014734	5.1936787	41.93	-2.4	9.9
11/13/2025	07	48	29.192	21	12	56.01	4.6875075	5.1940433	42.06	-2.4	9.9
11/14/2025	07	48	27.775	21	13	08.59	4.6736605	5.1944079	42.18	-2.4	9.8
11/15/2025	07	48	25.508	21	13	23.38	4.6599377	5.1947726	42.31	-2.4	9.7
11/16/2025	07	48	22.393	21	13	40.38	4.6463443	5.1951372	42.43	-2.4	9.6
11/17/2025	07	48	18.431	21	13	59.58	4.6328854	5.1955018	42.55	-2.4	9.5
11/18/2025	07	48	13.623	21	14	20.98	4.6195664	5.1958663	42.68	-2.5	9.4
11/19/2025	07	48	07.971	21	14	44.56	4.6063924	5.1962309	42.80	-2.5	9.3
11/20/2025	07	48	01.477	21	15	10.34	4.5933687	5.1965955	42.92	-2.5	9.2
11/21/2025	07	47	54.143	21	15	38.31	4.5805005	5.1969600	43.04	-2.5	9.0
11/22/2025	07	47	45.972	21	16	08.44	4.5677931	5.1973245	43.16	-2.5	8.9
11/23/2025	07	47	36.966	21	16	40.74	4.5552514	5.1976890	43.28	-2.5	8.8
11/24/2025	07	47	27.129	21	17	15.18	4.5428806	5.1980535	43.40	-2.5	8.7
11/25/2025	07	47	16.464	21	17	51.75	4.5306858	5.1984180	43.51	-2.5	8.5
11/26/2025	07	47	04.976	21	18	30.42	4.5186717	5.1987825	43.63	-2.5	8.4
11/27/2025	07	46	52.668	21	19	11.14	4.5068433	5.1991469	43.74	-2.5	8.3
11/28/2025	07	46	39.549	21	19	53.89	4.4952054	5.1995113	43.86	-2.5	8.1
11/29/2025	07	46	25.625	21	20	38.63	4.4837625	5.1998757	43.97	-2.5	8.0
11/30/2025	07	46	10.904	21	21	25.29	4.4725192	5.2002401	44.08	-2.5	7.8
12/01/2025	07	45	55.396	21	22	13.84	4.4614798	5.2006045	44.19	-2.5	7.7
12/02/2025	07	45	39.113	21	23	04.24	4.4506487	5.2009688	44.30	-2.5	7.5
12/03/2025	07	45	22.065	21	23	56.44	4.4400301	5.2013331	44.40	-2.5	7.4
12/04/2025	07	45	04.263	21	24	50.41	4.4296280	5.2016974	44.51	-2.6	7.2
12/05/2025	07	44	45.714	21	25	46.14	4.4194465	5.2020617	44.61	-2.6	7.1
12/06/2025	07	44	26.425	21	26	43.60	4.4094897	5.2024259	44.71	-2.6	6.9
12/07/2025	07	44	06.404	21	27	42.75	4.3997618	5.2027901	44.81	-2.6	6.8
12/08/2025	07	43	45.656	21	28	43.57	4.3902670	5.2031543	44.91	-2.6	6.6
12/09/2025	07	43	24.192	21	29	45.99	4.3810096	5.2035184	45.00	-2.6	6.5
12/10/2025	07	43	02.020	21	30	49.96	4.3719940	5.2038826	45.09	-2.6	6.3
12/11/2025	07	42	39.156	21	31	55.41	4.3632245	5.2042467	45.18	-2.6	6.1
12/12/2025	07	42	15.612	21	33	02.28	4.3547055	5.2046107	45.27	-2.6	6.0
12/13/2025	07	41	51.405	21	34	10.51	4.3464413	5.2049748	45.36	-2.6	5.8
12/14/2025	07	41	26.550	21	35	20.06	4.3384361	5.2053388	45.44	-2.6	5.6
12/15/2025	07	41	01.064	21	36	30.85	4.3306940	5.2057028	45.52	-2.6	5.4

Jupiter - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
12/16/2025	07	40	34.966	21	37	42.84	4.3232191	5.2060667	45.60	-2.6	5.2
12/17/2025	07	40	08.271	21	38	55.96	4.3160152	5.2064306	45.68	-2.6	5.0
12/18/2025	07	39	40.999	21	40	10.17	4.3090861	5.2067945	45.75	-2.6	4.8
12/19/2025	07	39	13.167	21	41	25.40	4.3024356	5.2071583	45.82	-2.6	4.6
12/20/2025	07	38	44.795	21	42	41.59	4.2960670	5.2075221	45.89	-2.6	4.4
12/21/2025	07	38	15.901	21	43	58.69	4.2899838	5.2078859	45.95	-2.6	4.2
12/22/2025	07	37	46.505	21	45	16.61	4.2841891	5.2082496	46.02	-2.6	4.0
12/23/2025	07	37	16.628	21	46	35.30	4.2786859	5.2086133	46.08	-2.6	3.8
12/24/2025	07	36	46.290	21	47	54.68	4.2734770	5.2089769	46.13	-2.6	3.6
12/25/2025	07	36	15.514	21	49	14.66	4.2685650	5.2093406	46.19	-2.6	3.4
12/26/2025	07	35	44.323	21	50	35.16	4.2639523	5.2097041	46.24	-2.7	3.2
12/27/2025	07	35	12.741	21	51	56.11	4.2596410	5.2100677	46.28	-2.7	3.0
12/28/2025	07	34	40.794	21	53	17.42	4.2556331	5.2104312	46.33	-2.7	2.8
12/29/2025	07	34	08.507	21	54	39.01	4.2519304	5.2107946	46.37	-2.7	2.6
12/30/2025	07	33	35.907	21	56	00.81	4.2485344	5.2111580	46.40	-2.7	2.4
12/31/2025	07	33	03.019	21	57	22.77	4.2454465	5.2115214	46.44	-2.7	2.2
01/01/2026	07	32	29.867	21	58	44.83	4.2426679	5.2118847	46.47	-2.7	2.0
01/02/2026	07	31	56.475	22	00	06.94	4.2401998	5.2122480	46.49	-2.7	1.7



Saturn - Apparent data

Date	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase
0 h TT	h	m	s	d	m	s	Distance	Distance	Diameter		Angle
							au	au	arc sec		deg.
12/31/2024	23	05	47.397	-07	56	52.19	10.0103892	9.6307569	16.60	1.0	5.3
01/01/2025	23	06	03.923	-07	55	00.40	10.0253165	9.6304547	16.58	1.0	5.2
01/02/2025	23	06	20.749	-07	53	06.81	10.0401217	9.6301525	16.55	1.0	5.2
01/03/2025	23	06	37.870	-07	51	11.45	10.0548004	9.6298502	16.53	1.0	5.1
01/04/2025	23	06	55.281	-07	49	14.36	10.0693487	9.6295478	16.50	1.0	5.1
01/05/2025	23	07	12.977	-07	47	15.55	10.0837627	9.6292455	16.48	1.0	5.0
01/06/2025	23	07	30.958	-07	45	15.04	10.0980387	9.6289431	16.46	1.0	5.0
01/07/2025	23	07	49.218	-07	43	12.84	10.1121730	9.6286407	16.44	1.0	4.9
01/08/2025	23	08	07.757	-07	41	08.98	10.1261624	9.6283382	16.41	1.0	4.9
01/09/2025	23	08	26.571	-07	39	03.48	10.1400034	9.6280357	16.39	1.0	4.8
01/10/2025	23	08	45.656	-07	36	56.36	10.1536929	9.6277331	16.37	1.0	4.8
01/11/2025	23	09	05.007	-07	34	47.65	10.1672279	9.6274306	16.35	1.0	4.7
01/12/2025	23	09	24.620	-07	32	37.41	10.1806055	9.6271279	16.32	1.1	4.7
01/13/2025	23	09	44.487	-07	30	25.65	10.1938227	9.6268253	16.30	1.1	4.6
01/14/2025	23	10	04.603	-07	28	12.43	10.2068766	9.6265226	16.28	1.1	4.5
01/15/2025	23	10	24.963	-07	25	57.76	10.2197644	9.6262199	16.26	1.1	4.5
01/16/2025	23	10	45.562	-07	23	41.68	10.2324830	9.6259171	16.24	1.1	4.4
01/17/2025	23	11	06.397	-07	21	24.19	10.2450296	9.6256144	16.22	1.1	4.4
01/18/2025	23	11	27.464	-07	19	05.32	10.2574011	9.6253115	16.20	1.1	4.3
01/19/2025	23	11	48.761	-07	16	45.09	10.2695946	9.6250087	16.18	1.1	4.3
01/20/2025	23	12	10.285	-07	14	23.50	10.2816072	9.6247058	16.16	1.1	4.2
01/21/2025	23	12	32.033	-07	12	00.58	10.2934357	9.6244029	16.15	1.1	4.1
01/22/2025	23	12	54.003	-07	09	36.35	10.3050773	9.6240999	16.13	1.1	4.1
01/23/2025	23	13	16.190	-07	07	10.83	10.3165290	9.6237969	16.11	1.1	4.0
01/24/2025	23	13	38.591	-07	04	44.04	10.3277879	9.6234939	16.09	1.1	3.9
01/25/2025	23	14	01.202	-07	02	16.01	10.3388510	9.6231908	16.07	1.1	3.9
01/26/2025	23	14	24.018	-06	59	46.77	10.3497154	9.6228878	16.06	1.1	3.8
01/27/2025	23	14	47.034	-06	57	16.36	10.3603783	9.6225846	16.04	1.1	3.7
01/28/2025	23	15	10.244	-06	54	44.81	10.3708369	9.6222815	16.03	1.1	3.6
01/29/2025	23	15	33.643	-06	52	12.16	10.3810884	9.6219783	16.01	1.1	3.6
01/30/2025	23	15	57.223	-06	49	38.45	10.3911301	9.6216751	15.99	1.1	3.5
01/31/2025	23	16	20.980	-06	47	03.71	10.4009595	9.6213718	15.98	1.1	3.4
02/01/2025	23	16	44.908	-06	44	27.97	10.4105741	9.6210685	15.96	1.1	3.3
02/02/2025	23	17	09.005	-06	41	51.24	10.4199717	9.6207652	15.95	1.1	3.3
02/03/2025	23	17	33.267	-06	39	13.55	10.4291502	9.6204618	15.94	1.1	3.2
02/04/2025	23	17	57.691	-06	36	34.91	10.4381077	9.6201585	15.92	1.1	3.1
02/05/2025	23	18	22.275	-06	33	55.36	10.4468424	9.6198550	15.91	1.1	3.0
02/06/2025	23	18	47.014	-06	31	14.91	10.4553527	9.6195516	15.90	1.1	2.9
02/07/2025	23	19	11.903	-06	28	33.60	10.4636372	9.6192481	15.88	1.1	2.9
02/08/2025	23	19	36.937	-06	25	51.48	10.4716944	9.6189446	15.87	1.1	2.8
02/09/2025	23	20	02.109	-06	23	08.57	10.4795231	9.6186411	15.86	1.1	2.7
02/10/2025	23	20	27.414	-06	20	24.93	10.4871217	9.6183375	15.85	1.1	2.6
02/11/2025	23	20	52.845	-06	17	40.58	10.4944892	9.6180339	15.84	1.1	2.5
02/12/2025	23	21	18.399	-06	14	55.54	10.5016241	9.6177302	15.83	1.1	2.5
02/13/2025	23	21	44.071	-06	12	09.85	10.5085251	9.6174266	15.82	1.1	2.4
02/14/2025	23	22	09.857	-06	09	23.52	10.5151910	9.6171229	15.81	1.1	2.3
02/15/2025	23	22	35.755	-06	06	36.57	10.5216203	9.6168191	15.80	1.1	2.2
02/16/2025	23	23	01.762	-06	03	49.02	10.5278118	9.6165154	15.79	1.1	2.1
02/17/2025	23	23	27.874	-06	01	00.89	10.5337641	9.6162116	15.78	1.1	2.1
02/18/2025	23	23	54.089	-05	58	12.19	10.5394759	9.6159078	15.77	1.1	2.0

Saturn - Apparent data

Date	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase
0 h TT	h	m	s	d	m	s	Distance	Distance	Diameter		Angle
							au	au	arc sec		deg.
02/19/2025	23	24	20.404	-05	55	22.95	10.5449458	9.6156039	15.76	1.1	1.9
02/20/2025	23	24	46.815	-05	52	33.19	10.5501725	9.6153000	15.75	1.1	1.8
02/21/2025	23	25	13.318	-05	49	42.94	10.5551548	9.6149961	15.75	1.1	1.7
02/22/2025	23	25	39.908	-05	46	52.23	10.5598913	9.6146922	15.74	1.1	1.6
02/23/2025	23	26	06.581	-05	44	01.09	10.5643810	9.6143882	15.73	1.1	1.6
02/24/2025	23	26	33.331	-05	41	09.57	10.5686226	9.6140842	15.73	1.1	1.5
02/25/2025	23	27	00.153	-05	38	17.68	10.5726149	9.6137801	15.72	1.1	1.4
02/26/2025	23	27	27.040	-05	35	25.49	10.5763568	9.6134761	15.71	1.1	1.3
02/27/2025	23	27	53.987	-05	32	33.01	10.5798474	9.6131720	15.71	1.1	1.2
02/28/2025	23	28	20.989	-05	29	40.28	10.5830857	9.6128679	15.70	1.1	1.1
03/01/2025	23	28	48.042	-05	26	47.33	10.5860711	9.6125637	15.70	1.1	1.0
03/02/2025	23	29	15.143	-05	23	54.17	10.5888029	9.6122595	15.70	1.1	0.9
03/03/2025	23	29	42.290	-05	21	00.82	10.5912809	9.6119553	15.69	1.1	0.8
03/04/2025	23	30	09.479	-05	18	07.30	10.5935047	9.6116511	15.69	1.1	0.7
03/05/2025	23	30	36.708	-05	15	13.64	10.5954744	9.6113468	15.69	1.1	0.7
03/06/2025	23	31	03.972	-05	12	19.87	10.5971900	9.6110425	15.68	1.1	0.6
03/07/2025	23	31	31.264	-05	09	26.04	10.5986518	9.6107382	15.68	1.1	0.5
03/08/2025	23	31	58.579	-05	06	32.18	10.5998600	9.6104339	15.68	1.1	0.4
03/09/2025	23	32	25.912	-05	03	38.32	10.6008148	9.6101295	15.68	1.2	0.3
03/10/2025	23	32	53.257	-05	00	44.51	10.6015166	9.6098251	15.68	1.2	0.3
03/11/2025	23	33	20.609	-04	57	50.77	10.6019655	9.6095206	15.68	1.2	0.2
03/12/2025	23	33	47.964	-04	54	57.13	10.6021620	9.6092162	15.68	1.2	0.2
03/13/2025	23	34	15.318	-04	52	03.60	10.6021062	9.6089117	15.68	1.2	0.2
03/14/2025	23	34	42.670	-04	49	10.21	10.6017985	9.6086072	15.68	1.2	0.3
03/15/2025	23	35	10.016	-04	46	16.97	10.6012390	9.6083026	15.68	1.2	0.3
03/16/2025	23	35	37.353	-04	43	23.90	10.6004280	9.6079981	15.68	1.2	0.4
03/17/2025	23	36	04.679	-04	40	31.02	10.5993657	9.6076935	15.68	1.2	0.5
03/18/2025	23	36	31.991	-04	37	38.35	10.5980524	9.6073889	15.68	1.2	0.6
03/19/2025	23	36	59.286	-04	34	45.91	10.5964882	9.6070842	15.68	1.2	0.6
03/20/2025	23	37	26.559	-04	31	53.73	10.5946736	9.6067795	15.69	1.2	0.7
03/21/2025	23	37	53.808	-04	29	01.84	10.5926087	9.6064748	15.69	1.2	0.8
03/22/2025	23	38	21.027	-04	26	10.26	10.5902938	9.6061701	15.69	1.2	0.9
03/23/2025	23	38	48.211	-04	23	19.02	10.5877294	9.6058653	15.70	1.2	1.0
03/24/2025	23	39	15.356	-04	20	28.18	10.5849157	9.6055606	15.70	1.2	1.1
03/25/2025	23	39	42.455	-04	17	37.75	10.5818532	9.6052558	15.71	1.2	1.2
03/26/2025	23	40	09.504	-04	14	47.78	10.5785423	9.6049509	15.71	1.2	1.3
03/27/2025	23	40	36.497	-04	11	58.30	10.5749835	9.6046461	15.72	1.2	1.4
03/28/2025	23	41	03.431	-04	09	09.33	10.5711776	9.6043412	15.72	1.2	1.4
03/29/2025	23	41	30.301	-04	06	20.90	10.5671254	9.6040363	15.73	1.2	1.5
03/30/2025	23	41	57.107	-04	03	33.02	10.5628278	9.6037313	15.73	1.2	1.6
03/31/2025	23	42	23.845	-04	00	45.71	10.5582859	9.6034264	15.74	1.2	1.7
04/01/2025	23	42	50.514	-03	57	58.99	10.5535012	9.6031214	15.75	1.2	1.8
04/02/2025	23	43	17.108	-03	55	12.89	10.5484752	9.6028164	15.76	1.2	1.9
04/03/2025	23	43	43.623	-03	52	27.45	10.5432094	9.6025113	15.76	1.2	2.0
04/04/2025	23	44	10.052	-03	49	42.71	10.5377056	9.6022063	15.77	1.2	2.1
04/05/2025	23	44	36.390	-03	46	58.70	10.5319655	9.6019012	15.78	1.2	2.1
04/06/2025	23	45	02.632	-03	44	15.46	10.5259908	9.6015961	15.79	1.2	2.2
04/07/2025	23	45	28.772	-03	41	33.03	10.5197831	9.6012909	15.80	1.2	2.3
04/08/2025	23	45	54.807	-03	38	51.41	10.5133443	9.6009858	15.81	1.2	2.4
04/09/2025	23	46	20.734	-03	36	10.64	10.5066759	9.6006806	15.82	1.2	2.5

Saturn - Apparent data

Date	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase
0 h TT	h	m	s	d	m	s	Distance	Distance	Diameter		Angle
							au	au	arc sec		deg.
04/10/2025	23	46	46.551	-03	33	30.74	10.4997797	9.6003754	15.83	1.2	2.6
04/11/2025	23	47	12.253	-03	30	51.70	10.4926572	9.6000701	15.84	1.2	2.6
04/12/2025	23	47	37.840	-03	28	13.57	10.4853100	9.5997649	15.85	1.2	2.7
04/13/2025	23	48	03.309	-03	25	36.34	10.4777399	9.5994596	15.86	1.2	2.8
04/14/2025	23	48	28.656	-03	23	00.03	10.4699483	9.5991543	15.87	1.2	2.9
04/15/2025	23	48	53.880	-03	20	24.68	10.4619370	9.5988489	15.89	1.2	2.9
04/16/2025	23	49	18.977	-03	17	50.30	10.4537075	9.5985436	15.90	1.2	3.0
04/17/2025	23	49	43.943	-03	15	16.91	10.4452614	9.5982382	15.91	1.2	3.1
04/18/2025	23	50	08.773	-03	12	44.54	10.4366004	9.5979328	15.92	1.2	3.2
04/19/2025	23	50	33.464	-03	10	13.23	10.4277261	9.5976273	15.94	1.2	3.3
04/20/2025	23	50	58.011	-03	07	43.00	10.4186402	9.5973219	15.95	1.2	3.3
04/21/2025	23	51	22.408	-03	05	13.89	10.4093443	9.5970164	15.97	1.2	3.4
04/22/2025	23	51	46.650	-03	02	45.93	10.3998404	9.5967109	15.98	1.2	3.5
04/23/2025	23	52	10.733	-03	00	19.16	10.3901301	9.5964054	16.00	1.2	3.6
04/24/2025	23	52	34.653	-02	57	53.60	10.3802154	9.5960998	16.01	1.2	3.6
04/25/2025	23	52	58.405	-02	55	29.27	10.3700983	9.5957942	16.03	1.2	3.7
04/26/2025	23	53	21.989	-02	53	06.20	10.3597809	9.5954886	16.04	1.2	3.8
04/27/2025	23	53	45.401	-02	50	44.38	10.3492655	9.5951830	16.06	1.2	3.9
04/28/2025	23	54	08.640	-02	48	23.85	10.3385547	9.5948773	16.08	1.2	3.9
04/29/2025	23	54	31.702	-02	46	04.62	10.3276510	9.5945717	16.09	1.2	4.0
04/30/2025	23	54	54.583	-02	43	46.72	10.3165574	9.5942660	16.11	1.2	4.1
05/01/2025	23	55	17.277	-02	41	30.19	10.3052767	9.5939602	16.13	1.2	4.2
05/02/2025	23	55	39.779	-02	39	15.08	10.2938120	9.5936545	16.15	1.2	4.2
05/03/2025	23	56	02.081	-02	37	01.41	10.2821661	9.5933487	16.16	1.2	4.3
05/04/2025	23	56	24.181	-02	34	49.21	10.2703420	9.5930429	16.18	1.2	4.4
05/05/2025	23	56	46.074	-02	32	38.52	10.2583427	9.5927371	16.20	1.2	4.4
05/06/2025	23	57	07.756	-02	30	29.34	10.2461711	9.5924313	16.22	1.2	4.5
05/07/2025	23	57	29.227	-02	28	21.69	10.2338299	9.5921254	16.24	1.2	4.5
05/08/2025	23	57	50.482	-02	26	15.58	10.2213221	9.5918195	16.26	1.2	4.6
05/09/2025	23	58	11.521	-02	24	11.03	10.2086505	9.5915136	16.28	1.2	4.7
05/10/2025	23	58	32.341	-02	22	08.06	10.1958178	9.5912077	16.30	1.2	4.7
05/11/2025	23	58	52.940	-02	20	06.66	10.1828268	9.5909017	16.32	1.2	4.8
05/12/2025	23	59	13.315	-02	18	06.87	10.1696803	9.5905957	16.34	1.2	4.8
05/13/2025	23	59	33.463	-02	16	08.69	10.1563811	9.5902897	16.36	1.2	4.9
05/14/2025	23	59	53.382	-02	14	12.16	10.1429319	9.5899837	16.39	1.2	4.9
05/15/2025	00	00	13.066	-02	12	17.29	10.1293355	9.5896776	16.41	1.2	5.0
05/16/2025	00	00	32.513	-02	10	24.10	10.1155947	9.5893716	16.43	1.2	5.0
05/17/2025	00	00	51.717	-02	08	32.64	10.1017121	9.5890655	16.45	1.2	5.1
05/18/2025	00	01	10.675	-02	06	42.92	10.0876908	9.5887593	16.47	1.2	5.1
05/19/2025	00	01	29.380	-02	04	54.98	10.0735334	9.5884532	16.50	1.2	5.2
05/20/2025	00	01	47.830	-02	03	08.84	10.0592430	9.5881470	16.52	1.2	5.3
05/21/2025	00	02	06.020	-02	01	24.54	10.0448224	9.5878408	16.55	1.2	5.3
05/22/2025	00	02	23.946	-01	59	42.08	10.0302748	9.5875346	16.57	1.2	5.4
05/23/2025	00	02	41.608	-01	58	01.49	10.0156033	9.5872284	16.59	1.2	5.4
05/24/2025	00	02	59.001	-01	56	22.77	10.0008111	9.5869221	16.62	1.2	5.4
05/25/2025	00	03	16.126	-01	54	45.94	9.9859019	9.5866158	16.64	1.2	5.5
05/26/2025	00	03	32.979	-01	53	11.01	9.9708791	9.5863095	16.67	1.1	5.5
05/27/2025	00	03	49.558	-01	51	38.01	9.9557466	9.5860032	16.69	1.1	5.6
05/28/2025	00	04	05.857	-01	50	06.96	9.9405083	9.5856969	16.72	1.1	5.6
05/29/2025	00	04	21.871	-01	48	37.89	9.9251682	9.5853905	16.74	1.1	5.7

Saturn - Apparent data

Date	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase
0 h TT	h	m	s	d	m	s	Distance	Distance	Diameter		Angle
							au	au	arc sec		deg.
05/30/2025	00	04	37.595	-01	47	10.84	9.9097303	9.5850841	16.77	1.1	5.7
05/31/2025	00	04	53.023	-01	45	45.84	9.8941986	9.5847777	16.80	1.1	5.7
06/01/2025	00	05	08.152	-01	44	22.92	9.8785772	9.5844713	16.82	1.1	5.8
06/02/2025	00	05	22.979	-01	43	02.07	9.8628699	9.5841648	16.85	1.1	5.8
06/03/2025	00	05	37.502	-01	41	43.32	9.8470806	9.5838583	16.88	1.1	5.8
06/04/2025	00	05	51.721	-01	40	26.67	9.8312133	9.5835518	16.90	1.1	5.8
06/05/2025	00	06	05.632	-01	39	12.13	9.8152717	9.5832453	16.93	1.1	5.9
06/06/2025	00	06	19.236	-01	37	59.70	9.7992595	9.5829387	16.96	1.1	5.9
06/07/2025	00	06	32.531	-01	36	49.39	9.7831806	9.5826322	16.99	1.1	5.9
06/08/2025	00	06	45.514	-01	35	41.21	9.7670387	9.5823256	17.02	1.1	5.9
06/09/2025	00	06	58.184	-01	34	35.16	9.7508374	9.5820190	17.04	1.1	6.0
06/10/2025	00	07	10.539	-01	33	31.27	9.7345806	9.5817124	17.07	1.1	6.0
06/11/2025	00	07	22.574	-01	32	29.55	9.7182718	9.5814057	17.10	1.1	6.0
06/12/2025	00	07	34.288	-01	31	30.01	9.7019148	9.5810990	17.13	1.1	6.0
06/13/2025	00	07	45.677	-01	30	32.68	9.6855133	9.5807923	17.16	1.1	6.0
06/14/2025	00	07	56.737	-01	29	37.57	9.6690709	9.5804856	17.19	1.1	6.0
06/15/2025	00	08	07.464	-01	28	44.71	9.6525914	9.5801789	17.22	1.1	6.1
06/16/2025	00	08	17.855	-01	27	54.12	9.6360785	9.5798721	17.25	1.1	6.1
06/17/2025	00	08	27.907	-01	27	05.82	9.6195361	9.5795654	17.28	1.1	6.1
06/18/2025	00	08	37.617	-01	26	19.82	9.6029680	9.5792586	17.31	1.1	6.1
06/19/2025	00	08	46.984	-01	25	36.12	9.5863782	9.5789518	17.34	1.1	6.1
06/20/2025	00	08	56.008	-01	24	54.74	9.5697709	9.5786449	17.37	1.1	6.1
06/21/2025	00	09	04.687	-01	24	15.67	9.5531502	9.5783381	17.40	1.1	6.1
06/22/2025	00	09	13.020	-01	23	38.91	9.5365205	9.5780312	17.43	1.1	6.1
06/23/2025	00	09	21.006	-01	23	04.48	9.5198863	9.5777243	17.46	1.0	6.1
06/24/2025	00	09	28.642	-01	22	32.38	9.5032523	9.5774174	17.49	1.0	6.1
06/25/2025	00	09	35.924	-01	22	02.65	9.4866231	9.5771105	17.52	1.0	6.1
06/26/2025	00	09	42.848	-01	21	35.30	9.4700035	9.5768035	17.55	1.0	6.1
06/27/2025	00	09	49.409	-01	21	10.35	9.4533983	9.5764965	17.58	1.0	6.1
06/28/2025	00	09	55.606	-01	20	47.81	9.4368123	9.5761895	17.61	1.0	6.1
06/29/2025	00	10	01.437	-01	20	27.70	9.4202502	9.5758825	17.64	1.0	6.1
06/30/2025	00	10	06.900	-01	20	10.01	9.4037165	9.5755755	17.67	1.0	6.1
07/01/2025	00	10	11.997	-01	19	54.74	9.3872159	9.5752684	17.70	1.0	6.1
07/02/2025	00	10	16.727	-01	19	41.87	9.3707528	9.5749614	17.74	1.0	6.1
07/03/2025	00	10	21.091	-01	19	31.40	9.3543316	9.5746543	17.77	1.0	6.0
07/04/2025	00	10	25.090	-01	19	23.33	9.3379569	9.5743472	17.80	1.0	6.0
07/05/2025	00	10	28.724	-01	19	17.64	9.3216328	9.5740400	17.83	1.0	6.0
07/06/2025	00	10	31.992	-01	19	14.33	9.3053637	9.5737329	17.86	1.0	6.0
07/07/2025	00	10	34.894	-01	19	13.39	9.2891539	9.5734257	17.89	1.0	6.0
07/08/2025	00	10	37.430	-01	19	14.84	9.2730077	9.5731185	17.92	1.0	5.9
07/09/2025	00	10	39.598	-01	19	18.66	9.2569291	9.5728113	17.95	1.0	5.9
07/10/2025	00	10	41.398	-01	19	24.87	9.2409225	9.5725041	17.98	1.0	5.9
07/11/2025	00	10	42.828	-01	19	33.46	9.2249920	9.5721969	18.02	1.0	5.8
07/12/2025	00	10	43.886	-01	19	44.45	9.2091417	9.5718896	18.05	1.0	5.8
07/13/2025	00	10	44.570	-01	19	57.83	9.1933757	9.5715823	18.08	1.0	5.8
07/14/2025	00	10	44.881	-01	20	13.61	9.1776984	9.5712750	18.11	1.0	5.8
07/15/2025	00	10	44.819	-01	20	31.79	9.1621139	9.5709677	18.14	0.9	5.7
07/16/2025	00	10	44.383	-01	20	52.35	9.1466266	9.5706604	18.17	0.9	5.7
07/17/2025	00	10	43.576	-01	21	15.29	9.1312408	9.5703530	18.20	0.9	5.7
07/18/2025	00	10	42.399	-01	21	40.58	9.1159610	9.5700457	18.23	0.9	5.6

Saturn - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
07/19/2025	00	10	40.854	-01	22	08.21	9.1007919	9.5697383	18.26	0.9	5.6
07/20/2025	00	10	38.942	-01	22	38.17	9.0857381	9.5694309	18.29	0.9	5.5
07/21/2025	00	10	36.664	-01	23	10.45	9.0708045	9.5691234	18.32	0.9	5.5
07/22/2025	00	10	34.019	-01	23	45.05	9.0559958	9.5688160	18.35	0.9	5.4
07/23/2025	00	10	31.007	-01	24	21.96	9.0413171	9.5685085	18.38	0.9	5.4
07/24/2025	00	10	27.625	-01	25	01.19	9.0267730	9.5682011	18.41	0.9	5.3
07/25/2025	00	10	23.874	-01	25	42.73	9.0123686	9.5678936	18.44	0.9	5.3
07/26/2025	00	10	19.756	-01	26	26.56	8.9981086	9.5675861	18.47	0.9	5.2
07/27/2025	00	10	15.272	-01	27	12.68	8.9839976	9.5672785	18.50	0.9	5.2
07/28/2025	00	10	10.425	-01	28	01.04	8.9700403	9.5669710	18.53	0.9	5.1
07/29/2025	00	10	05.220	-01	28	51.63	8.9562410	9.5666634	18.56	0.9	5.1
07/30/2025	00	09	59.660	-01	29	44.40	8.9426042	9.5663558	18.58	0.9	5.0
07/31/2025	00	09	53.750	-01	30	39.32	8.9291342	9.5660482	18.61	0.9	4.9
08/01/2025	00	09	47.492	-01	31	36.37	8.9158350	9.5657406	18.64	0.9	4.9
08/02/2025	00	09	40.892	-01	32	35.51	8.9027108	9.5654330	18.67	0.9	4.8
08/03/2025	00	09	33.951	-01	33	36.71	8.8897657	9.5651254	18.70	0.9	4.7
08/04/2025	00	09	26.674	-01	34	39.95	8.8770035	9.5648177	18.72	0.8	4.7
08/05/2025	00	09	19.063	-01	35	45.20	8.8644282	9.5645100	18.75	0.8	4.6
08/06/2025	00	09	11.121	-01	36	52.44	8.8520435	9.5642023	18.77	0.8	4.5
08/07/2025	00	09	02.850	-01	38	01.65	8.8398532	9.5638946	18.80	0.8	4.4
08/08/2025	00	08	54.254	-01	39	12.80	8.8278610	9.5635869	18.83	0.8	4.4
08/09/2025	00	08	45.333	-01	40	25.88	8.8160705	9.5632792	18.85	0.8	4.3
08/10/2025	00	08	36.092	-01	41	40.87	8.8044853	9.5629714	18.88	0.8	4.2
08/11/2025	00	08	26.533	-01	42	57.72	8.7931090	9.5626636	18.90	0.8	4.2
08/12/2025	00	08	16.662	-01	44	16.41	8.7819452	9.5623558	18.92	0.8	4.1
08/13/2025	00	08	06.485	-01	45	36.90	8.7709976	9.5620480	18.95	0.8	4.0
08/14/2025	00	07	56.006	-01	46	59.14	8.7602700	9.5617402	18.97	0.8	3.9
08/15/2025	00	07	45.233	-01	48	23.09	8.7497660	9.5614324	18.99	0.8	3.8
08/16/2025	00	07	34.170	-01	49	48.71	8.7394896	9.5611245	19.02	0.8	3.8
08/17/2025	00	07	22.823	-01	51	15.97	8.7294446	9.5608167	19.04	0.8	3.7
08/18/2025	00	07	11.195	-01	52	44.82	8.7196348	9.5605088	19.06	0.8	3.6
08/19/2025	00	06	59.289	-01	54	15.24	8.7100643	9.5602009	19.08	0.8	3.5
08/20/2025	00	06	47.111	-01	55	47.21	8.7007367	9.5598930	19.10	0.8	3.4
08/21/2025	00	06	34.662	-01	57	20.68	8.6916558	9.5595851	19.12	0.8	3.3
08/22/2025	00	06	21.950	-01	58	55.62	8.6828251	9.5592771	19.14	0.8	3.2
08/23/2025	00	06	08.980	-02	00	31.99	8.6742483	9.5589692	19.16	0.8	3.1
08/24/2025	00	05	55.758	-02	02	09.72	8.6659285	9.5586612	19.18	0.8	3.0
08/25/2025	00	05	42.294	-02	03	48.76	8.6578690	9.5583533	19.20	0.7	2.9
08/26/2025	00	05	28.596	-02	05	29.06	8.6500728	9.5580453	19.21	0.7	2.8
08/27/2025	00	05	14.671	-02	07	10.54	8.6425426	9.5577373	19.23	0.7	2.7
08/28/2025	00	05	00.529	-02	08	53.15	8.6352813	9.5574292	19.25	0.7	2.6
08/29/2025	00	04	46.177	-02	10	36.83	8.6282914	9.5571212	19.26	0.7	2.5
08/30/2025	00	04	31.623	-02	12	21.53	8.6215752	9.5568132	19.28	0.7	2.4
08/31/2025	00	04	16.876	-02	14	07.19	8.6151351	9.5565051	19.29	0.7	2.3
09/01/2025	00	04	01.941	-02	15	53.76	8.6089733	9.5561971	19.30	0.7	2.2
09/02/2025	00	03	46.827	-02	17	41.19	8.6030918	9.5558890	19.32	0.7	2.1
09/03/2025	00	03	31.540	-02	19	29.43	8.5974926	9.5555809	19.33	0.7	2.0
09/04/2025	00	03	16.086	-02	21	18.43	8.5921775	9.5552728	19.34	0.7	1.9
09/05/2025	00	03	00.472	-02	23	08.15	8.5871482	9.5549647	19.35	0.7	1.8
09/06/2025	00	02	44.706	-02	24	58.54	8.5824063	9.5546565	19.36	0.7	1.7

Saturn - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
09/07/2025	00	02	28.794	-02	26	49.55	8.5779534	9.5543484	19.37	0.7	1.6
09/08/2025	00	02	12.745	-02	28	41.13	8.5737910	9.5540403	19.38	0.7	1.5
09/09/2025	00	01	56.567	-02	30	33.21	8.5699205	9.5537321	19.39	0.7	1.4
09/10/2025	00	01	40.271	-02	32	25.73	8.5663436	9.5534239	19.40	0.7	1.3
09/11/2025	00	01	23.867	-02	34	18.61	8.5630617	9.5531157	19.41	0.7	1.2
09/12/2025	00	01	07.364	-02	36	11.80	8.5600764	9.5528076	19.42	0.7	1.1
09/13/2025	00	00	50.770	-02	38	05.24	8.5573893	9.5524994	19.42	0.7	1.0
09/14/2025	00	00	34.093	-02	39	58.88	8.5550019	9.5521911	19.43	0.7	0.9
09/15/2025	00	00	17.341	-02	41	52.67	8.5529156	9.5518829	19.43	0.7	0.8
09/16/2025	00	00	00.518	-02	43	46.57	8.5511318	9.5515747	19.44	0.7	0.7
09/17/2025	23	59	43.634	-02	45	40.51	8.5496517	9.5512664	19.44	0.7	0.6
09/18/2025	23	59	26.697	-02	47	34.46	8.5484764	9.5509582	19.44	0.7	0.5
09/19/2025	23	59	09.714	-02	49	28.34	8.5476067	9.5506499	19.44	0.7	0.4
09/20/2025	23	58	52.697	-02	51	22.08	8.5470434	9.5503417	19.44	0.7	0.3
09/21/2025	23	58	35.655	-02	53	15.63	8.5467870	9.5500334	19.45	0.6	0.3
09/22/2025	23	58	18.600	-02	55	08.90	8.5468378	9.5497251	19.45	0.6	0.3
09/23/2025	23	58	01.543	-02	57	01.83	8.5471959	9.5494168	19.44	0.6	0.3
09/24/2025	23	57	44.493	-02	58	54.33	8.5478612	9.5491085	19.44	0.6	0.4
09/25/2025	23	57	27.463	-03	00	46.35	8.5488335	9.5488002	19.44	0.6	0.5
09/26/2025	23	57	10.461	-03	02	37.82	8.5501125	9.5484918	19.44	0.6	0.6
09/27/2025	23	56	53.497	-03	04	28.67	8.5516975	9.5481835	19.43	0.6	0.7
09/28/2025	23	56	36.581	-03	06	18.85	8.5535879	9.5478752	19.43	0.6	0.8
09/29/2025	23	56	19.721	-03	08	08.31	8.5557828	9.5475668	19.42	0.6	0.9
09/30/2025	23	56	02.926	-03	09	56.98	8.5582812	9.5472585	19.42	0.6	1.0
10/01/2025	23	55	46.203	-03	11	44.81	8.5610820	9.5469501	19.41	0.6	1.1
10/02/2025	23	55	29.562	-03	13	31.77	8.5641840	9.5466417	19.41	0.6	1.2
10/03/2025	23	55	13.008	-03	15	17.79	8.5675858	9.5463333	19.40	0.6	1.3
10/04/2025	23	54	56.552	-03	17	02.83	8.5712859	9.5460249	19.39	0.6	1.4
10/05/2025	23	54	40.200	-03	18	46.84	8.5752828	9.5457165	19.38	0.6	1.5
10/06/2025	23	54	23.963	-03	20	29.75	8.5795750	9.5454081	19.37	0.6	1.6
10/07/2025	23	54	07.850	-03	22	11.52	8.5841609	9.5450997	19.36	0.6	1.7
10/08/2025	23	53	51.872	-03	23	52.06	8.5890388	9.5447913	19.35	0.7	1.8
10/09/2025	23	53	36.038	-03	25	31.33	8.5942074	9.5444829	19.34	0.7	1.9
10/10/2025	23	53	20.358	-03	27	09.26	8.5996650	9.5441744	19.33	0.7	2.0
10/11/2025	23	53	04.840	-03	28	45.83	8.6054102	9.5438660	19.31	0.7	2.1
10/12/2025	23	52	49.488	-03	30	20.97	8.6114414	9.5435575	19.30	0.7	2.2
10/13/2025	23	52	34.310	-03	31	54.67	8.6177569	9.5432491	19.29	0.7	2.3
10/14/2025	23	52	19.312	-03	33	26.89	8.6243549	9.5429406	19.27	0.7	2.4
10/15/2025	23	52	04.501	-03	34	57.57	8.6312334	9.5426322	19.26	0.7	2.5
10/16/2025	23	51	49.884	-03	36	26.67	8.6383904	9.5423237	19.24	0.7	2.6
10/17/2025	23	51	35.471	-03	37	54.14	8.6458234	9.5420152	19.22	0.7	2.7
10/18/2025	23	51	21.270	-03	39	19.92	8.6535299	9.5417067	19.21	0.7	2.8
10/19/2025	23	51	07.291	-03	40	43.96	8.6615074	9.5413982	19.19	0.7	2.9
10/20/2025	23	50	53.543	-03	42	06.19	8.6697529	9.5410897	19.17	0.7	3.0
10/21/2025	23	50	40.034	-03	43	26.58	8.6782635	9.5407812	19.15	0.7	3.1
10/22/2025	23	50	26.773	-03	44	45.06	8.6870360	9.5404727	19.13	0.7	3.2
10/23/2025	23	50	13.769	-03	46	01.59	8.6960671	9.5401642	19.11	0.8	3.3
10/24/2025	23	50	01.028	-03	47	16.12	8.7053533	9.5398557	19.09	0.8	3.4
10/25/2025	23	49	48.557	-03	48	28.63	8.7148912	9.5395471	19.07	0.8	3.5
10/26/2025	23	49	36.363	-03	49	39.07	8.7246770	9.5392386	19.05	0.8	3.6

Saturn - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
10/27/2025	23	49	24.452	-03	50	47.42	8.7347070	9.5389301	19.03	0.8	3.6
10/28/2025	23	49	12.828	-03	51	53.65	8.7449773	9.5386215	19.00	0.8	3.7
10/29/2025	23	49	01.496	-03	52	57.72	8.7554839	9.5383130	18.98	0.8	3.8
10/30/2025	23	48	50.462	-03	53	59.62	8.7662229	9.5380044	18.96	0.8	3.9
10/31/2025	23	48	39.731	-03	54	59.32	8.7771901	9.5376958	18.93	0.8	4.0
11/01/2025	23	48	29.307	-03	55	56.80	8.7883815	9.5373873	18.91	0.8	4.1
11/02/2025	23	48	19.195	-03	56	52.02	8.7997928	9.5370787	18.89	0.8	4.1
11/03/2025	23	48	09.402	-03	57	44.96	8.8114200	9.5367701	18.86	0.8	4.2
11/04/2025	23	47	59.935	-03	58	35.57	8.8232589	9.5364616	18.84	0.8	4.3
11/05/2025	23	47	50.799	-03	59	23.83	8.8353055	9.5361530	18.81	0.8	4.3
11/06/2025	23	47	42.001	-04	00	09.70	8.8475559	9.5358444	18.78	0.9	4.4
11/07/2025	23	47	33.545	-04	00	53.17	8.8600061	9.5355358	18.76	0.9	4.5
11/08/2025	23	47	25.433	-04	01	34.23	8.8726524	9.5352272	18.73	0.9	4.5
11/09/2025	23	47	17.668	-04	02	12.87	8.8854908	9.5349186	18.70	0.9	4.6
11/10/2025	23	47	10.250	-04	02	49.08	8.8985173	9.5346100	18.68	0.9	4.7
11/11/2025	23	47	03.182	-04	03	22.86	8.9117280	9.5343014	18.65	0.9	4.7
11/12/2025	23	46	56.468	-04	03	54.19	8.9251185	9.5339928	18.62	0.9	4.8
11/13/2025	23	46	50.112	-04	04	23.05	8.9386847	9.5336842	18.59	0.9	4.9
11/14/2025	23	46	44.117	-04	04	49.42	8.9524219	9.5333755	18.56	0.9	4.9
11/15/2025	23	46	38.490	-04	05	13.26	8.9663257	9.5330669	18.54	0.9	5.0
11/16/2025	23	46	33.234	-04	05	34.55	8.9803913	9.5327583	18.51	0.9	5.1
11/17/2025	23	46	28.354	-04	05	53.27	8.9946139	9.5324497	18.48	0.9	5.1
11/18/2025	23	46	23.854	-04	06	09.41	9.0089886	9.5321410	18.45	0.9	5.2
11/19/2025	23	46	19.737	-04	06	22.94	9.0235104	9.5318324	18.42	0.9	5.2
11/20/2025	23	46	16.007	-04	06	33.85	9.0381744	9.5315238	18.39	0.9	5.3
11/21/2025	23	46	12.665	-04	06	42.14	9.0529752	9.5312151	18.36	0.9	5.3
11/22/2025	23	46	09.713	-04	06	47.81	9.0679078	9.5309065	18.33	0.9	5.4
11/23/2025	23	46	07.152	-04	06	50.85	9.0829670	9.5305978	18.30	1.0	5.4
11/24/2025	23	46	04.983	-04	06	51.27	9.0981475	9.5302892	18.27	1.0	5.4
11/25/2025	23	46	03.206	-04	06	49.07	9.1134439	9.5299805	18.24	1.0	5.5
11/26/2025	23	46	01.821	-04	06	44.25	9.1288511	9.5296719	18.21	1.0	5.5
11/27/2025	23	46	00.828	-04	06	36.83	9.1443637	9.5293632	18.17	1.0	5.6
11/28/2025	23	46	00.228	-04	06	26.80	9.1599765	9.5290545	18.14	1.0	5.6
11/29/2025	23	46	00.021	-04	06	14.18	9.1756841	9.5287459	18.11	1.0	5.6
11/30/2025	23	46	00.209	-04	05	58.94	9.1914815	9.5284372	18.08	1.0	5.6
12/01/2025	23	46	00.792	-04	05	41.11	9.2073634	9.5281285	18.05	1.0	5.7
12/02/2025	23	46	01.773	-04	05	20.66	9.2233249	9.5278199	18.02	1.0	5.7
12/03/2025	23	46	03.153	-04	04	57.59	9.2393611	9.5275112	17.99	1.0	5.7
12/04/2025	23	46	04.932	-04	04	31.92	9.2554672	9.5272025	17.96	1.0	5.7
12/05/2025	23	46	07.111	-04	04	03.65	9.2716386	9.5268939	17.93	1.0	5.8
12/06/2025	23	46	09.685	-04	03	32.80	9.2878706	9.5265852	17.89	1.0	5.8
12/07/2025	23	46	12.653	-04	02	59.40	9.3041587	9.5262765	17.86	1.0	5.8
12/08/2025	23	46	16.011	-04	02	23.48	9.3204983	9.5259679	17.83	1.0	5.8
12/09/2025	23	46	19.757	-04	01	45.05	9.3368847	9.5256592	17.80	1.0	5.8
12/10/2025	23	46	23.890	-04	01	04.10	9.3533133	9.5253505	17.77	1.0	5.8
12/11/2025	23	46	28.412	-04	00	20.66	9.3697791	9.5250418	17.74	1.0	5.9
12/12/2025	23	46	33.323	-03	59	34.70	9.3862773	9.5247331	17.71	1.0	5.9
12/13/2025	23	46	38.623	-03	58	46.24	9.4028028	9.5244245	17.67	1.0	5.9
12/14/2025	23	46	44.313	-03	57	55.27	9.4193506	9.5241158	17.64	1.0	5.9
12/15/2025	23	46	50.392	-03	57	01.80	9.4359157	9.5238071	17.61	1.0	5.9

Saturn - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
12/16/2025	23	46	56.861	-03	56	05.84	9.4524929	9.5234984	17.58	1.0	5.9
12/17/2025	23	47	03.717	-03	55	07.40	9.4690770	9.5231898	17.55	1.1	5.9
12/18/2025	23	47	10.961	-03	54	06.49	9.4856630	9.5228811	17.52	1.1	5.9
12/19/2025	23	47	18.589	-03	53	03.13	9.5022456	9.5225724	17.49	1.1	5.9
12/20/2025	23	47	26.598	-03	51	57.35	9.5188197	9.5222637	17.46	1.1	5.9
12/21/2025	23	47	34.987	-03	50	49.16	9.5353802	9.5219550	17.43	1.1	5.9
12/22/2025	23	47	43.751	-03	49	38.60	9.5519219	9.5216464	17.40	1.1	5.9
12/23/2025	23	47	52.888	-03	48	25.68	9.5684398	9.5213377	17.37	1.1	5.9
12/24/2025	23	48	02.394	-03	47	10.44	9.5849287	9.5210290	17.34	1.1	5.9
12/25/2025	23	48	12.265	-03	45	52.89	9.6013837	9.5207203	17.31	1.1	5.9
12/26/2025	23	48	22.500	-03	44	33.06	9.6177999	9.5204116	17.28	1.1	5.8
12/27/2025	23	48	33.095	-03	43	10.97	9.6341725	9.5201030	17.25	1.1	5.8
12/28/2025	23	48	44.049	-03	41	46.63	9.6504968	9.5197943	17.22	1.1	5.8
12/29/2025	23	48	55.361	-03	40	20.06	9.6667681	9.5194856	17.19	1.1	5.8
12/30/2025	23	49	07.029	-03	38	51.26	9.6829821	9.5191769	17.16	1.1	5.7
12/31/2025	23	49	19.050	-03	37	20.27	9.6991345	9.5188682	17.13	1.1	5.7
01/01/2026	23	49	31.423	-03	35	47.10	9.7152210	9.5185596	17.11	1.1	5.7
01/02/2026	23	49	44.141	-03	34	11.78	9.7312376	9.5182509	17.08	1.1	5.7



Uranus - Apparent data

Date	Right Ascension	Declination	Earth Distance	Solar Distance	Equatorial Diameter	Mag.	Phase Angle
0 h TT	h m s	d m s	au	au	arc sec		deg.
12/31/2024	03 25 22.581	18 26 32.56	18.8592556	19.5534560	3.74	5.6	2.1
01/01/2025	03 25 16.500	18 26 11.58	18.8716838	19.5532870	3.73	5.6	2.1
01/02/2025	03 25 10.592	18 25 51.24	18.8843235	19.5531180	3.73	5.7	2.2
01/03/2025	03 25 04.860	18 25 31.54	18.8971698	19.5529490	3.73	5.7	2.2
01/04/2025	03 24 59.304	18 25 12.49	18.9102182	19.5527800	3.73	5.7	2.2
01/05/2025	03 24 53.929	18 24 54.08	18.9234636	19.5526110	3.72	5.7	2.3
01/06/2025	03 24 48.738	18 24 36.33	18.9369013	19.5524419	3.72	5.7	2.3
01/07/2025	03 24 43.735	18 24 19.23	18.9505262	19.5522728	3.72	5.7	2.3
01/08/2025	03 24 38.926	18 24 02.82	18.9643335	19.5521037	3.72	5.7	2.4
01/09/2025	03 24 34.311	18 23 47.12	18.9783183	19.5519345	3.71	5.7	2.4
01/10/2025	03 24 29.895	18 23 32.14	18.9924758	19.5517653	3.71	5.7	2.4
01/11/2025	03 24 25.677	18 23 17.89	19.0068011	19.5515961	3.71	5.7	2.4
01/12/2025	03 24 21.657	18 23 04.40	19.0212897	19.5514269	3.71	5.7	2.5
01/13/2025	03 24 17.834	18 22 51.65	19.0359368	19.5512577	3.70	5.7	2.5
01/14/2025	03 24 14.208	18 22 39.64	19.0507378	19.5510884	3.70	5.7	2.5
01/15/2025	03 24 10.779	18 22 28.37	19.0656882	19.5509191	3.70	5.7	2.5
01/16/2025	03 24 07.548	18 22 17.83	19.0807834	19.5507498	3.69	5.7	2.6
01/17/2025	03 24 04.517	18 22 08.02	19.0960186	19.5505804	3.69	5.7	2.6
01/18/2025	03 24 01.688	18 21 58.94	19.1113893	19.5504110	3.69	5.7	2.6
01/19/2025	03 23 59.064	18 21 50.60	19.1268905	19.5502416	3.68	5.7	2.6
01/20/2025	03 23 56.647	18 21 43.02	19.1425176	19.5500722	3.68	5.7	2.7
01/21/2025	03 23 54.441	18 21 36.19	19.1582655	19.5499028	3.68	5.7	2.7
01/22/2025	03 23 52.446	18 21 30.13	19.1741294	19.5497333	3.68	5.7	2.7
01/23/2025	03 23 50.665	18 21 24.86	19.1901040	19.5495638	3.67	5.7	2.7
01/24/2025	03 23 49.099	18 21 20.38	19.2061844	19.5493943	3.67	5.7	2.7
01/25/2025	03 23 47.749	18 21 16.71	19.2223653	19.5492247	3.67	5.7	2.8
01/26/2025	03 23 46.615	18 21 13.85	19.2386415	19.5490551	3.66	5.7	2.8
01/27/2025	03 23 45.696	18 21 11.81	19.2550075	19.5488855	3.66	5.7	2.8
01/28/2025	03 23 44.993	18 21 10.59	19.2714580	19.5487159	3.66	5.7	2.8
01/29/2025	03 23 44.504	18 21 10.17	19.2879874	19.5485463	3.65	5.7	2.8
01/30/2025	03 23 44.229	18 21 10.55	19.3045900	19.5483766	3.65	5.7	2.8
01/31/2025	03 23 44.166	18 21 11.73	19.3212602	19.5482069	3.65	5.7	2.8
02/01/2025	03 23 44.317	18 21 13.67	19.3379923	19.5480372	3.64	5.7	2.8
02/02/2025	03 23 44.683	18 21 16.40	19.3547804	19.5478675	3.64	5.7	2.9
02/03/2025	03 23 45.267	18 21 19.90	19.3716190	19.5476977	3.64	5.7	2.9
02/04/2025	03 23 46.071	18 21 24.18	19.3885023	19.5475279	3.64	5.7	2.9
02/05/2025	03 23 47.097	18 21 29.27	19.4054250	19.5473581	3.63	5.7	2.9
02/06/2025	03 23 48.343	18 21 35.17	19.4223815	19.5471883	3.63	5.7	2.9
02/07/2025	03 23 49.808	18 21 41.88	19.4393665	19.5470184	3.63	5.7	2.9
02/08/2025	03 23 51.492	18 21 49.41	19.4563750	19.5468485	3.62	5.7	2.9
02/09/2025	03 23 53.390	18 21 57.75	19.4734018	19.5466786	3.62	5.7	2.9
02/10/2025	03 23 55.501	18 22 06.89	19.4904419	19.5465087	3.62	5.7	2.9
02/11/2025	03 23 57.823	18 22 16.81	19.5074904	19.5463387	3.61	5.7	2.9
02/12/2025	03 24 00.354	18 22 27.51	19.5245426	19.5461687	3.61	5.7	2.9
02/13/2025	03 24 03.094	18 22 38.96	19.5415934	19.5459987	3.61	5.7	2.9
02/14/2025	03 24 06.043	18 22 51.17	19.5586381	19.5458287	3.60	5.7	2.9
02/15/2025	03 24 09.201	18 23 04.12	19.5756719	19.5456586	3.60	5.7	2.9
02/16/2025	03 24 12.569	18 23 17.83	19.5926898	19.5454886	3.60	5.7	2.9
02/17/2025	03 24 16.148	18 23 32.28	19.6096872	19.5453185	3.59	5.7	2.9
02/18/2025	03 24 19.938	18 23 47.49	19.6266590	19.5451483	3.59	5.7	2.9

Uranus - Apparent data

Date	Right Ascension	Declination	Earth Distance	Solar Distance	Equatorial Diameter	Mag.	Phase Angle
0 h TT	h m s	d m s	au	au	arc sec		deg.
02/19/2025	03 24 23.939	18 24 03.46	19.6436004	19.5449782	3.59	5.7	2.9
02/20/2025	03 24 28.151	18 24 20.19	19.6605063	19.5448080	3.58	5.7	2.9
02/21/2025	03 24 32.572	18 24 37.68	19.6773720	19.5446378	3.58	5.7	2.9
02/22/2025	03 24 37.201	18 24 55.94	19.6941924	19.5444676	3.58	5.7	2.9
02/23/2025	03 24 42.036	18 25 14.95	19.7109625	19.5442974	3.58	5.7	2.9
02/24/2025	03 24 47.076	18 25 34.72	19.7276772	19.5441271	3.57	5.7	2.8
02/25/2025	03 24 52.317	18 25 55.23	19.7443315	19.5439568	3.57	5.7	2.8
02/26/2025	03 24 57.756	18 26 16.47	19.7609203	19.5437865	3.57	5.7	2.8
02/27/2025	03 25 03.392	18 26 38.42	19.7774384	19.5436162	3.56	5.8	2.8
02/28/2025	03 25 09.223	18 27 01.06	19.7938807	19.5434458	3.56	5.8	2.8
03/01/2025	03 25 15.249	18 27 24.37	19.8102420	19.5432754	3.56	5.8	2.8
03/02/2025	03 25 21.469	18 27 48.35	19.8265172	19.5431050	3.55	5.8	2.8
03/03/2025	03 25 27.886	18 28 12.99	19.8427013	19.5429346	3.55	5.8	2.8
03/04/2025	03 25 34.500	18 28 38.31	19.8587894	19.5427641	3.55	5.8	2.7
03/05/2025	03 25 41.308	18 29 04.31	19.8747769	19.5425937	3.55	5.8	2.7
03/06/2025	03 25 48.308	18 29 30.99	19.8906593	19.5424232	3.54	5.8	2.7
03/07/2025	03 25 55.498	18 29 58.35	19.9064321	19.5422527	3.54	5.8	2.7
03/08/2025	03 26 02.872	18 30 26.38	19.9220913	19.5420821	3.54	5.8	2.7
03/09/2025	03 26 10.426	18 30 55.05	19.9376326	19.5419115	3.54	5.8	2.6
03/10/2025	03 26 18.158	18 31 24.35	19.9530523	19.5417410	3.53	5.8	2.6
03/11/2025	03 26 26.065	18 31 54.26	19.9683462	19.5415704	3.53	5.8	2.6
03/12/2025	03 26 34.144	18 32 24.77	19.9835106	19.5413997	3.53	5.8	2.6
03/13/2025	03 26 42.395	18 32 55.85	19.9985418	19.5412291	3.52	5.8	2.6
03/14/2025	03 26 50.816	18 33 27.50	20.0134359	19.5410584	3.52	5.8	2.5
03/15/2025	03 26 59.406	18 33 59.72	20.0281893	19.5408877	3.52	5.8	2.5
03/16/2025	03 27 08.166	18 34 32.49	20.0427982	19.5407170	3.52	5.8	2.5
03/17/2025	03 27 17.094	18 35 05.81	20.0572590	19.5405462	3.51	5.8	2.5
03/18/2025	03 27 26.189	18 35 39.69	20.0715679	19.5403755	3.51	5.8	2.4
03/19/2025	03 27 35.449	18 36 14.13	20.0857213	19.5402047	3.51	5.8	2.4
03/20/2025	03 27 44.873	18 36 49.11	20.0997155	19.5400339	3.51	5.8	2.4
03/21/2025	03 27 54.458	18 37 24.64	20.1135469	19.5398630	3.50	5.8	2.4
03/22/2025	03 28 04.201	18 38 00.71	20.1272117	19.5396922	3.50	5.8	2.3
03/23/2025	03 28 14.100	18 38 37.31	20.1407063	19.5395213	3.50	5.8	2.3
03/24/2025	03 28 24.150	18 39 14.43	20.1540271	19.5393504	3.50	5.8	2.3
03/25/2025	03 28 34.349	18 39 52.05	20.1671703	19.5391795	3.49	5.8	2.2
03/26/2025	03 28 44.692	18 40 30.15	20.1801322	19.5390086	3.49	5.8	2.2
03/27/2025	03 28 55.178	18 41 08.71	20.1929092	19.5388376	3.49	5.8	2.2
03/28/2025	03 29 05.803	18 41 47.70	20.2054975	19.5386667	3.49	5.8	2.2
03/29/2025	03 29 16.568	18 42 27.11	20.2178935	19.5384957	3.49	5.8	2.1
03/30/2025	03 29 27.473	18 43 06.94	20.2300937	19.5383246	3.48	5.8	2.1
03/31/2025	03 29 38.517	18 43 47.18	20.2420947	19.5381536	3.48	5.8	2.0
04/01/2025	03 29 49.699	18 44 27.84	20.2538931	19.5379825	3.48	5.8	2.0
04/02/2025	03 30 01.017	18 45 08.93	20.2654859	19.5378115	3.48	5.8	2.0
04/03/2025	03 30 12.465	18 45 50.44	20.2768703	19.5376404	3.48	5.8	1.9
04/04/2025	03 30 24.039	18 46 32.35	20.2880437	19.5374692	3.47	5.8	1.9
04/05/2025	03 30 35.734	18 47 14.66	20.2990035	19.5372981	3.47	5.8	1.9
04/06/2025	03 30 47.546	18 47 57.33	20.3097474	19.5371269	3.47	5.8	1.8
04/07/2025	03 30 59.470	18 48 40.34	20.3202730	19.5369558	3.47	5.8	1.8
04/08/2025	03 31 11.504	18 49 23.67	20.3305781	19.5367845	3.47	5.8	1.8
04/09/2025	03 31 23.647	18 50 07.31	20.3406607	19.5366133	3.47	5.8	1.7

Uranus - Apparent data

Date	Right Ascension	Declination	Earth Distance	Solar Distance	Equatorial Diameter	Mag.	Phase Angle
0 h TT	h m s	d m s	au	au	arc sec		deg.
04/10/2025	03 31 35.896	18 50 51.25	20.3505185	19.5364421	3.46	5.8	1.7
04/11/2025	03 31 48.251	18 51 35.48	20.3601496	19.5362708	3.46	5.8	1.6
04/12/2025	03 32 00.709	18 52 19.98	20.3695519	19.5360995	3.46	5.8	1.6
04/13/2025	03 32 13.270	18 53 04.75	20.3787234	19.5359282	3.46	5.8	1.6
04/14/2025	03 32 25.932	18 53 49.80	20.3876621	19.5357569	3.46	5.8	1.5
04/15/2025	03 32 38.693	18 54 35.12	20.3963661	19.5355856	3.46	5.8	1.5
04/16/2025	03 32 51.551	18 55 20.71	20.4048333	19.5354142	3.45	5.8	1.4
04/17/2025	03 33 04.503	18 56 06.55	20.4130619	19.5352428	3.45	5.8	1.4
04/18/2025	03 33 17.545	18 56 52.65	20.4210499	19.5350714	3.45	5.8	1.4
04/19/2025	03 33 30.674	18 57 39.00	20.4287954	19.5349000	3.45	5.8	1.3
04/20/2025	03 33 43.887	18 58 25.57	20.4362965	19.5347285	3.45	5.8	1.3
04/21/2025	03 33 57.180	18 59 12.37	20.4435512	19.5345571	3.45	5.8	1.2
04/22/2025	03 34 10.548	18 59 59.36	20.4505576	19.5343856	3.45	5.8	1.2
04/23/2025	03 34 23.989	19 00 46.52	20.4573138	19.5342141	3.45	5.8	1.2
04/24/2025	03 34 37.500	19 01 33.84	20.4638179	19.5340425	3.44	5.8	1.1
04/25/2025	03 34 51.080	19 02 21.30	20.4700681	19.5338710	3.44	5.8	1.1
04/26/2025	03 35 04.726	19 03 08.88	20.4760625	19.5336994	3.44	5.8	1.0
04/27/2025	03 35 18.440	19 03 56.58	20.4817994	19.5335278	3.44	5.8	1.0
04/28/2025	03 35 32.221	19 04 44.40	20.4872773	19.5333562	3.44	5.8	0.9
04/29/2025	03 35 46.066	19 05 32.36	20.4924948	19.5331846	3.44	5.8	0.9
04/30/2025	03 35 59.972	19 06 20.45	20.4974507	19.5330129	3.44	5.8	0.8
05/01/2025	03 36 13.932	19 07 08.67	20.5021440	19.5328413	3.44	5.8	0.8
05/02/2025	03 36 27.941	19 07 56.99	20.5065739	19.5326696	3.44	5.8	0.7
05/03/2025	03 36 41.995	19 08 45.39	20.5107399	19.5324979	3.44	5.8	0.7
05/04/2025	03 36 56.088	19 09 33.86	20.5146415	19.5323262	3.44	5.8	0.6
05/05/2025	03 37 10.218	19 10 22.37	20.5182781	19.5321544	3.44	5.8	0.6
05/06/2025	03 37 24.383	19 11 10.90	20.5216494	19.5319826	3.43	5.8	0.6
05/07/2025	03 37 38.580	19 11 59.45	20.5247551	19.5318109	3.43	5.8	0.5
05/08/2025	03 37 52.809	19 12 47.99	20.5275948	19.5316391	3.43	5.8	0.5
05/09/2025	03 38 07.067	19 13 36.53	20.5301684	19.5314672	3.43	5.8	0.4
05/10/2025	03 38 21.353	19 14 25.06	20.5324756	19.5312954	3.43	5.8	0.4
05/11/2025	03 38 35.666	19 15 13.59	20.5345161	19.5311235	3.43	5.8	0.3
05/12/2025	03 38 50.004	19 16 02.10	20.5362898	19.5309516	3.43	5.8	0.3
05/13/2025	03 39 04.364	19 16 50.59	20.5377964	19.5307797	3.43	5.8	0.2
05/14/2025	03 39 18.744	19 17 39.07	20.5390358	19.5306078	3.43	5.8	0.2
05/15/2025	03 39 33.139	19 18 27.52	20.5400079	19.5304358	3.43	5.8	0.1
05/16/2025	03 39 47.548	19 19 15.95	20.5407124	19.5302639	3.43	5.8	0.1
05/17/2025	03 40 01.965	19 20 04.33	20.5411491	19.5300919	3.43	5.8	0.1
05/18/2025	03 40 16.387	19 20 52.66	20.5413180	19.5299199	3.43	5.8	0.0
05/19/2025	03 40 30.810	19 21 40.92	20.5412188	19.5297479	3.43	5.8	0.0
05/20/2025	03 40 45.231	19 22 29.09	20.5408514	19.5295758	3.43	5.8	0.1
05/21/2025	03 40 59.647	19 23 17.14	20.5402156	19.5294037	3.43	5.8	0.1
05/22/2025	03 41 14.056	19 24 05.07	20.5393114	19.5292316	3.43	5.8	0.2
05/23/2025	03 41 28.457	19 24 52.86	20.5381386	19.5290595	3.43	5.8	0.2
05/24/2025	03 41 42.849	19 25 40.51	20.5366973	19.5288874	3.43	5.8	0.3
05/25/2025	03 41 57.232	19 26 28.01	20.5349875	19.5287153	3.43	5.8	0.3
05/26/2025	03 42 11.603	19 27 15.38	20.5330095	19.5285431	3.43	5.8	0.4
05/27/2025	03 42 25.961	19 28 02.61	20.5307638	19.5283709	3.43	5.8	0.4
05/28/2025	03 42 40.301	19 28 49.71	20.5282509	19.5281987	3.43	5.8	0.5
05/29/2025	03 42 54.616	19 29 36.67	20.5254718	19.5280264	3.43	5.8	0.5

Uranus - Apparent data

Date	Right Ascension	Declination	Earth Distance	Solar Distance	Equatorial Diameter	Mag.	Phase Angle
0 h TT	h m s	d m s	au	au	arc sec		deg.
05/30/2025	03 43 08.901	19 30 23.48	20.5224273	19.5278542	3.43	5.8	0.6
05/31/2025	03 43 23.151	19 31 10.09	20.5191188	19.5276819	3.43	5.8	0.6
06/01/2025	03 43 37.363	19 31 56.50	20.5155474	19.5275096	3.44	5.8	0.7
06/02/2025	03 43 51.533	19 32 42.69	20.5117144	19.5273373	3.44	5.8	0.7
06/03/2025	03 44 05.661	19 33 28.64	20.5076212	19.5271650	3.44	5.8	0.7
06/04/2025	03 44 19.745	19 34 14.35	20.5032691	19.5269926	3.44	5.8	0.8
06/05/2025	03 44 33.783	19 34 59.81	20.4986597	19.5268202	3.44	5.8	0.8
06/06/2025	03 44 47.775	19 35 45.02	20.4937942	19.5266478	3.44	5.8	0.9
06/07/2025	03 45 01.718	19 36 29.98	20.4886742	19.5264754	3.44	5.8	0.9
06/08/2025	03 45 15.611	19 37 14.69	20.4833010	19.5263030	3.44	5.8	1.0
06/09/2025	03 45 29.452	19 37 59.14	20.4776762	19.5261305	3.44	5.8	1.0
06/10/2025	03 45 43.238	19 38 43.35	20.4718011	19.5259580	3.44	5.8	1.1
06/11/2025	03 45 56.967	19 39 27.30	20.4656773	19.5257855	3.44	5.8	1.1
06/12/2025	03 46 10.634	19 40 10.99	20.4593063	19.5256130	3.44	5.8	1.1
06/13/2025	03 46 24.236	19 40 54.41	20.4526894	19.5254405	3.45	5.8	1.2
06/14/2025	03 46 37.770	19 41 37.56	20.4458282	19.5252679	3.45	5.8	1.2
06/15/2025	03 46 51.231	19 42 20.41	20.4387240	19.5250953	3.45	5.8	1.3
06/16/2025	03 47 04.617	19 43 02.96	20.4313783	19.5249227	3.45	5.8	1.3
06/17/2025	03 47 17.923	19 43 45.17	20.4237926	19.5247501	3.45	5.8	1.3
06/18/2025	03 47 31.150	19 44 27.05	20.4159683	19.5245774	3.45	5.8	1.4
06/19/2025	03 47 44.295	19 45 08.57	20.4079069	19.5244048	3.45	5.8	1.4
06/20/2025	03 47 57.357	19 45 49.74	20.3996101	19.5242321	3.46	5.8	1.5
06/21/2025	03 48 10.337	19 46 30.55	20.3910794	19.5240594	3.46	5.8	1.5
06/22/2025	03 48 23.232	19 47 11.01	20.3823167	19.5238866	3.46	5.8	1.6
06/23/2025	03 48 36.042	19 47 51.12	20.3733238	19.5237139	3.46	5.8	1.6
06/24/2025	03 48 48.762	19 48 30.89	20.3641029	19.5235411	3.46	5.8	1.6
06/25/2025	03 49 01.387	19 49 10.33	20.3546563	19.5233683	3.46	5.8	1.7
06/26/2025	03 49 13.911	19 49 49.41	20.3449863	19.5231955	3.46	5.8	1.7
06/27/2025	03 49 26.331	19 50 28.11	20.3350958	19.5230227	3.47	5.8	1.8
06/28/2025	03 49 38.640	19 51 06.42	20.3249873	19.5228498	3.47	5.8	1.8
06/29/2025	03 49 50.838	19 51 44.32	20.3146637	19.5226770	3.47	5.8	1.8
06/30/2025	03 50 02.921	19 52 21.79	20.3041279	19.5225041	3.47	5.8	1.9
07/01/2025	03 50 14.888	19 52 58.83	20.2933827	19.5223312	3.47	5.8	1.9
07/02/2025	03 50 26.740	19 53 35.43	20.2824312	19.5221582	3.47	5.8	1.9
07/03/2025	03 50 38.475	19 54 11.59	20.2712762	19.5219853	3.48	5.8	2.0
07/04/2025	03 50 50.091	19 54 47.31	20.2599207	19.5218123	3.48	5.8	2.0
07/05/2025	03 51 01.588	19 55 22.60	20.2483675	19.5216393	3.48	5.8	2.0
07/06/2025	03 51 12.963	19 55 57.46	20.2366197	19.5214663	3.48	5.8	2.1
07/07/2025	03 51 24.215	19 56 31.89	20.2246801	19.5212932	3.48	5.8	2.1
07/08/2025	03 51 35.341	19 57 05.88	20.2125517	19.5211202	3.49	5.8	2.1
07/09/2025	03 51 46.338	19 57 39.45	20.2002374	19.5209471	3.49	5.8	2.2
07/10/2025	03 51 57.202	19 58 12.58	20.1877402	19.5207740	3.49	5.8	2.2
07/11/2025	03 52 07.931	19 58 45.26	20.1750628	19.5206009	3.49	5.8	2.2
07/12/2025	03 52 18.520	19 59 17.49	20.1622082	19.5204277	3.50	5.8	2.3
07/13/2025	03 52 28.968	19 59 49.25	20.1491793	19.5202545	3.50	5.8	2.3
07/14/2025	03 52 39.270	20 00 20.53	20.1359788	19.5200814	3.50	5.8	2.3
07/15/2025	03 52 49.426	20 00 51.30	20.1226097	19.5199081	3.50	5.8	2.4
07/16/2025	03 52 59.435	20 01 21.56	20.1090748	19.5197349	3.50	5.8	2.4
07/17/2025	03 53 09.295	20 01 51.31	20.0953771	19.5195617	3.51	5.8	2.4
07/18/2025	03 53 19.008	20 02 20.55	20.0815196	19.5193884	3.51	5.8	2.4

Uranus - Apparent data

Date	Right Ascension	Declination	Earth Distance	Solar Distance	Equatorial Diameter	Mag.	Phase Angle
0 h TT	h m s	d m s	au	au	arc sec		deg.
07/19/2025	03 53 28.573	20 02 49.28	20.0675054	19.5192151	3.51	5.8	2.5
07/20/2025	03 53 37.987	20 03 17.51	20.0533377	19.5190418	3.51	5.8	2.5
07/21/2025	03 53 47.249	20 03 45.25	20.0390200	19.5188684	3.52	5.8	2.5
07/22/2025	03 53 56.354	20 04 12.50	20.0245558	19.5186951	3.52	5.8	2.6
07/23/2025	03 54 05.298	20 04 39.26	20.0099489	19.5185217	3.52	5.8	2.6
07/24/2025	03 54 14.076	20 05 05.51	19.9952031	19.5183483	3.52	5.8	2.6
07/25/2025	03 54 22.685	20 05 31.24	19.9803225	19.5181749	3.53	5.8	2.6
07/26/2025	03 54 31.120	20 05 56.42	19.9653110	19.5180014	3.53	5.8	2.7
07/27/2025	03 54 39.381	20 06 21.05	19.9501729	19.5178280	3.53	5.8	2.7
07/28/2025	03 54 47.467	20 06 45.10	19.9349124	19.5176545	3.54	5.8	2.7
07/29/2025	03 54 55.377	20 07 08.59	19.9195336	19.5174810	3.54	5.8	2.7
07/30/2025	03 55 03.112	20 07 31.51	19.9040409	19.5173074	3.54	5.8	2.7
07/31/2025	03 55 10.670	20 07 53.86	19.8884383	19.5171339	3.54	5.8	2.8
08/01/2025	03 55 18.052	20 08 15.65	19.8727300	19.5169603	3.55	5.8	2.8
08/02/2025	03 55 25.256	20 08 36.89	19.8569203	19.5167867	3.55	5.8	2.8
08/03/2025	03 55 32.281	20 08 57.57	19.8410132	19.5166131	3.55	5.8	2.8
08/04/2025	03 55 39.125	20 09 17.71	19.8250130	19.5164395	3.56	5.8	2.8
08/05/2025	03 55 45.786	20 09 37.29	19.8089237	19.5162658	3.56	5.8	2.8
08/06/2025	03 55 52.262	20 09 56.33	19.7927495	19.5160921	3.56	5.7	2.8
08/07/2025	03 55 58.551	20 10 14.82	19.7764944	19.5159184	3.56	5.7	2.9
08/08/2025	03 56 04.649	20 10 32.75	19.7601624	19.5157447	3.57	5.7	2.9
08/09/2025	03 56 10.554	20 10 50.10	19.7437576	19.5155709	3.57	5.7	2.9
08/10/2025	03 56 16.263	20 11 06.87	19.7272840	19.5153972	3.57	5.7	2.9
08/11/2025	03 56 21.777	20 11 23.04	19.7107454	19.5152234	3.58	5.7	2.9
08/12/2025	03 56 27.094	20 11 38.60	19.6941458	19.5150496	3.58	5.7	2.9
08/13/2025	03 56 32.215	20 11 53.55	19.6774893	19.5148757	3.58	5.7	2.9
08/14/2025	03 56 37.142	20 12 07.88	19.6607798	19.5147019	3.58	5.7	2.9
08/15/2025	03 56 41.874	20 12 21.62	19.6440215	19.5145280	3.59	5.7	2.9
08/16/2025	03 56 46.411	20 12 34.76	19.6272186	19.5143541	3.59	5.7	2.9
08/17/2025	03 56 50.752	20 12 47.33	19.6103755	19.5141802	3.59	5.7	3.0
08/18/2025	03 56 54.894	20 12 59.32	19.5934967	19.5140062	3.60	5.7	3.0
08/19/2025	03 56 58.833	20 13 10.73	19.5765870	19.5138323	3.60	5.7	3.0
08/20/2025	03 57 02.566	20 13 21.56	19.5596509	19.5136583	3.60	5.7	3.0
08/21/2025	03 57 06.091	20 13 31.79	19.5426936	19.5134843	3.61	5.7	3.0
08/22/2025	03 57 09.404	20 13 41.40	19.5257198	19.5133102	3.61	5.7	3.0
08/23/2025	03 57 12.505	20 13 50.39	19.5087346	19.5131362	3.61	5.7	3.0
08/24/2025	03 57 15.394	20 13 58.74	19.4917432	19.5129621	3.62	5.7	3.0
08/25/2025	03 57 18.071	20 14 06.45	19.4747505	19.5127880	3.62	5.7	3.0
08/26/2025	03 57 20.539	20 14 13.53	19.4577615	19.5126139	3.62	5.7	3.0
08/27/2025	03 57 22.796	20 14 19.98	19.4407814	19.5124397	3.63	5.7	3.0
08/28/2025	03 57 24.845	20 14 25.80	19.4238151	19.5122656	3.63	5.7	3.0
08/29/2025	03 57 26.685	20 14 31.01	19.4068675	19.5120914	3.63	5.7	3.0
08/30/2025	03 57 28.317	20 14 35.61	19.3899436	19.5119171	3.63	5.7	3.0
08/31/2025	03 57 29.740	20 14 39.61	19.3730482	19.5117429	3.64	5.7	2.9
09/01/2025	03 57 30.954	20 14 43.01	19.3561861	19.5115687	3.64	5.7	2.9
09/02/2025	03 57 31.958	20 14 45.82	19.3393621	19.5113944	3.64	5.7	2.9
09/03/2025	03 57 32.750	20 14 48.03	19.3225809	19.5112201	3.65	5.7	2.9
09/04/2025	03 57 33.330	20 14 49.65	19.3058473	19.5110458	3.65	5.7	2.9
09/05/2025	03 57 33.696	20 14 50.66	19.2891657	19.5108714	3.65	5.7	2.9
09/06/2025	03 57 33.848	20 14 51.05	19.2725409	19.5106970	3.66	5.7	2.9

Uranus - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
09/07/2025	03	57	33.785	20	14	50.82	19.2559771	19.5105227	3.66	5.7	2.9
09/08/2025	03	57	33.508	20	14	49.96	19.2394790	19.5103482	3.66	5.7	2.9
09/09/2025	03	57	33.019	20	14	48.45	19.2230508	19.5101738	3.67	5.7	2.8
09/10/2025	03	57	32.322	20	14	46.31	19.2066971	19.5099994	3.67	5.7	2.8
09/11/2025	03	57	31.417	20	14	43.55	19.1904222	19.5098249	3.67	5.7	2.8
09/12/2025	03	57	30.308	20	14	40.18	19.1742308	19.5096504	3.68	5.7	2.8
09/13/2025	03	57	28.993	20	14	36.22	19.1581276	19.5094759	3.68	5.7	2.8
09/14/2025	03	57	27.473	20	14	31.67	19.1421173	19.5093013	3.68	5.7	2.8
09/15/2025	03	57	25.744	20	14	26.55	19.1262048	19.5091268	3.69	5.7	2.8
09/16/2025	03	57	23.806	20	14	20.84	19.1103951	19.5089522	3.69	5.7	2.7
09/17/2025	03	57	21.657	20	14	14.53	19.0946933	19.5087776	3.69	5.7	2.7
09/18/2025	03	57	19.297	20	14	07.62	19.0791045	19.5086030	3.69	5.7	2.7
09/19/2025	03	57	16.725	20	14	00.10	19.0636339	19.5084283	3.70	5.7	2.7
09/20/2025	03	57	13.945	20	13	51.96	19.0482865	19.5082537	3.70	5.7	2.7
09/21/2025	03	57	10.957	20	13	43.20	19.0330674	19.5080790	3.70	5.7	2.6
09/22/2025	03	57	07.765	20	13	33.83	19.0179817	19.5079043	3.71	5.7	2.6
09/23/2025	03	57	04.371	20	13	23.85	19.0030345	19.5077295	3.71	5.7	2.6
09/24/2025	03	57	00.778	20	13	13.28	18.9882306	19.5075548	3.71	5.7	2.6
09/25/2025	03	56	56.989	20	13	02.12	18.9735748	19.5073800	3.71	5.7	2.5
09/26/2025	03	56	53.004	20	12	50.39	18.9590721	19.5072052	3.72	5.7	2.5
09/27/2025	03	56	48.827	20	12	38.10	18.9447269	19.5070304	3.72	5.7	2.5
09/28/2025	03	56	44.459	20	12	25.25	18.9305441	19.5068556	3.72	5.7	2.4
09/29/2025	03	56	39.900	20	12	11.87	18.9165280	19.5066808	3.73	5.6	2.4
09/30/2025	03	56	35.152	20	11	57.94	18.9026830	19.5065059	3.73	5.6	2.4
10/01/2025	03	56	30.215	20	11	43.48	18.8890136	19.5063310	3.73	5.6	2.3
10/02/2025	03	56	25.090	20	11	28.49	18.8755239	19.5061561	3.73	5.6	2.3
10/03/2025	03	56	19.779	20	11	12.95	18.8622181	19.5059811	3.74	5.6	2.3
10/04/2025	03	56	14.283	20	10	56.87	18.8491002	19.5058062	3.74	5.6	2.2
10/05/2025	03	56	08.605	20	10	40.24	18.8361740	19.5056312	3.74	5.6	2.2
10/06/2025	03	56	02.748	20	10	23.05	18.8234435	19.5054562	3.74	5.6	2.2
10/07/2025	03	55	56.716	20	10	05.32	18.8109124	19.5052812	3.75	5.6	2.1
10/08/2025	03	55	50.515	20	09	47.05	18.7985844	19.5051062	3.75	5.6	2.1
10/09/2025	03	55	44.148	20	09	28.26	18.7864634	19.5049311	3.75	5.6	2.1
10/10/2025	03	55	37.618	20	09	08.99	18.7745530	19.5047560	3.75	5.6	2.0
10/11/2025	03	55	30.928	20	08	49.24	18.7628574	19.5045810	3.76	5.6	2.0
10/12/2025	03	55	24.076	20	08	29.03	18.7513804	19.5044058	3.76	5.6	2.0
10/13/2025	03	55	17.063	20	08	08.36	18.7401261	19.5042307	3.76	5.6	1.9
10/14/2025	03	55	09.889	20	07	47.22	18.7290986	19.5040556	3.76	5.6	1.9
10/15/2025	03	55	02.555	20	07	25.61	18.7183020	19.5038804	3.77	5.6	1.8
10/16/2025	03	54	55.065	20	07	03.53	18.7077404	19.5037052	3.77	5.6	1.8
10/17/2025	03	54	47.422	20	06	40.97	18.6974177	19.5035300	3.77	5.6	1.8
10/18/2025	03	54	39.629	20	06	17.93	18.6873379	19.5033547	3.77	5.6	1.7
10/19/2025	03	54	31.692	20	05	54.44	18.6775048	19.5031795	3.77	5.6	1.7
10/20/2025	03	54	23.615	20	05	30.50	18.6679222	19.5030042	3.78	5.6	1.6
10/21/2025	03	54	15.403	20	05	06.12	18.6585935	19.5028289	3.78	5.6	1.6
10/22/2025	03	54	07.060	20	04	41.33	18.6495224	19.5026536	3.78	5.6	1.5
10/23/2025	03	53	58.592	20	04	16.14	18.6407122	19.5024783	3.78	5.6	1.5
10/24/2025	03	53	50.000	20	03	50.56	18.6321661	19.5023029	3.78	5.6	1.4
10/25/2025	03	53	41.290	20	03	24.62	18.6238872	19.5021276	3.78	5.6	1.4
10/26/2025	03	53	32.464	20	02	58.33	18.6158784	19.5019522	3.79	5.6	1.4

Uranus - Apparent data

Date	Right Ascension	Declination	Earth Distance	Solar Distance	Equatorial Diameter	Mag.	Phase Angle
0 h TT	h m s	d m s	au	au	arc sec		deg.
10/27/2025	03 53 23.525	20 02 31.70	18.6081426	19.5017768	3.79	5.6	1.3
10/28/2025	03 53 14.475	20 02 04.74	18.6006824	19.5016013	3.79	5.6	1.3
10/29/2025	03 53 05.319	20 01 37.45	18.5935003	19.5014259	3.79	5.6	1.2
10/30/2025	03 52 56.059	20 01 09.84	18.5865987	19.5012504	3.79	5.6	1.2
10/31/2025	03 52 46.698	20 00 41.91	18.5799798	19.5010749	3.79	5.6	1.1
11/01/2025	03 52 37.241	20 00 13.66	18.5736457	19.5008994	3.79	5.6	1.1
11/02/2025	03 52 27.691	19 59 45.09	18.5675984	19.5007239	3.80	5.6	1.0
11/03/2025	03 52 18.056	19 59 16.22	18.5618397	19.5005483	3.80	5.6	1.0
11/04/2025	03 52 08.341	19 58 47.05	18.5563713	19.5003728	3.80	5.6	0.9
11/05/2025	03 51 58.553	19 58 17.61	18.5511948	19.5001972	3.80	5.6	0.9
11/06/2025	03 51 48.697	19 57 47.92	18.5463120	19.5000216	3.80	5.6	0.8
11/07/2025	03 51 38.777	19 57 18.03	18.5417244	19.4998460	3.80	5.6	0.8
11/08/2025	03 51 28.796	19 56 47.94	18.5374340	19.4996703	3.80	5.6	0.7
11/09/2025	03 51 18.754	19 56 17.66	18.5334424	19.4994947	3.80	5.6	0.7
11/10/2025	03 51 08.652	19 55 47.21	18.5297514	19.4993190	3.80	5.6	0.6
11/11/2025	03 50 58.494	19 55 16.57	18.5263629	19.4991433	3.80	5.6	0.6
11/12/2025	03 50 48.282	19 54 45.74	18.5232784	19.4989676	3.81	5.6	0.5
11/13/2025	03 50 38.022	19 54 14.73	18.5204998	19.4987919	3.81	5.6	0.5
11/14/2025	03 50 27.719	19 53 43.55	18.5180284	19.4986161	3.81	5.6	0.4
11/15/2025	03 50 17.379	19 53 12.21	18.5158656	19.4984403	3.81	5.6	0.4
11/16/2025	03 50 07.008	19 52 40.73	18.5140126	19.4982645	3.81	5.6	0.3
11/17/2025	03 49 56.613	19 52 09.13	18.5124705	19.4980887	3.81	5.6	0.2
11/18/2025	03 49 46.199	19 51 37.43	18.5112401	19.4979129	3.81	5.6	0.2
11/19/2025	03 49 35.772	19 51 05.65	18.5103222	19.4977370	3.81	5.6	0.1
11/20/2025	03 49 25.335	19 50 33.82	18.5097175	19.4975612	3.81	5.6	0.1
11/21/2025	03 49 14.895	19 50 01.96	18.5094261	19.4973853	3.81	5.6	0.0
11/22/2025	03 49 04.455	19 49 30.08	18.5094485	19.4972094	3.81	5.6	0.0
11/23/2025	03 48 54.020	19 48 58.21	18.5097847	19.4970335	3.81	5.6	0.1
11/24/2025	03 48 43.592	19 48 26.34	18.5104345	19.4968575	3.81	5.6	0.1
11/25/2025	03 48 33.176	19 47 54.51	18.5113977	19.4966816	3.81	5.6	0.2
11/26/2025	03 48 22.775	19 47 22.70	18.5126738	19.4965056	3.81	5.6	0.2
11/27/2025	03 48 12.394	19 46 50.94	18.5142622	19.4963296	3.81	5.6	0.3
11/28/2025	03 48 02.037	19 46 19.22	18.5161622	19.4961536	3.81	5.6	0.4
11/29/2025	03 47 51.709	19 45 47.55	18.5183728	19.4959775	3.81	5.6	0.4
11/30/2025	03 47 41.416	19 45 15.94	18.5208929	19.4958015	3.81	5.6	0.5
12/01/2025	03 47 31.165	19 44 44.41	18.5237215	19.4956254	3.80	5.6	0.5
12/02/2025	03 47 20.962	19 44 12.98	18.5268572	19.4954493	3.80	5.6	0.6
12/03/2025	03 47 10.813	19 43 41.68	18.5302987	19.4952732	3.80	5.6	0.6
12/04/2025	03 47 00.725	19 43 10.54	18.5340446	19.4950971	3.80	5.6	0.7
12/05/2025	03 46 50.699	19 42 39.58	18.5380936	19.4949209	3.80	5.6	0.7
12/06/2025	03 46 40.737	19 42 08.82	18.5424445	19.4947447	3.80	5.6	0.8
12/07/2025	03 46 30.841	19 41 38.27	18.5470960	19.4945686	3.80	5.6	0.8
12/08/2025	03 46 21.012	19 41 07.93	18.5520468	19.4943924	3.80	5.6	0.9
12/09/2025	03 46 11.253	19 40 37.80	18.5572957	19.4942161	3.80	5.6	0.9
12/10/2025	03 46 01.567	19 40 07.88	18.5628413	19.4940399	3.80	5.6	1.0
12/11/2025	03 45 51.961	19 39 38.18	18.5686821	19.4938636	3.80	5.6	1.0
12/12/2025	03 45 42.441	19 39 08.70	18.5748165	19.4936874	3.79	5.6	1.1
12/13/2025	03 45 33.012	19 38 39.48	18.5812426	19.4935111	3.79	5.6	1.1
12/14/2025	03 45 23.679	19 38 10.52	18.5879587	19.4933348	3.79	5.6	1.2
12/15/2025	03 45 14.449	19 37 41.86	18.5949625	19.4931584	3.79	5.6	1.2

Uranus - Apparent data

Date	Right Ascension	Declination	Earth Distance	Solar Distance	Equatorial Diameter	Mag.	Phase Angle
0 h TT	h m s	d m s	au	au	arc sec		deg.
12/16/2025	03 45 05.327	19 37 13.51	18.6022518	19.4929821	3.79	5.6	1.3
12/17/2025	03 44 56.316	19 36 45.50	18.6098242	19.4928057	3.79	5.6	1.3
12/18/2025	03 44 47.420	19 36 17.85	18.6176772	19.4926294	3.79	5.6	1.4
12/19/2025	03 44 38.644	19 35 50.57	18.6258080	19.4924530	3.78	5.6	1.4
12/20/2025	03 44 29.991	19 35 23.69	18.6342137	19.4922765	3.78	5.6	1.5
12/21/2025	03 44 21.464	19 34 57.20	18.6428914	19.4921001	3.78	5.6	1.5
12/22/2025	03 44 13.064	19 34 31.14	18.6518377	19.4919237	3.78	5.6	1.5
12/23/2025	03 44 04.796	19 34 05.49	18.6610495	19.4917472	3.78	5.6	1.6
12/24/2025	03 43 56.661	19 33 40.26	18.6705232	19.4915707	3.78	5.6	1.6
12/25/2025	03 43 48.664	19 33 15.46	18.6802553	19.4913942	3.77	5.6	1.7
12/26/2025	03 43 40.809	19 32 51.10	18.6902419	19.4912177	3.77	5.6	1.7
12/27/2025	03 43 33.099	19 32 27.18	18.7004793	19.4910411	3.77	5.6	1.8
12/28/2025	03 43 25.541	19 32 03.71	18.7109636	19.4908646	3.77	5.6	1.8
12/29/2025	03 43 18.138	19 31 40.70	18.7216907	19.4906880	3.76	5.6	1.8
12/30/2025	03 43 10.896	19 31 18.19	18.7326567	19.4905114	3.76	5.6	1.9
12/31/2025	03 43 03.819	19 30 56.20	18.7438574	19.4903348	3.76	5.6	1.9
01/01/2026	03 42 56.909	19 30 34.74	18.7552890	19.4901582	3.76	5.6	2.0
01/02/2026	03 42 50.169	19 30 13.84	18.7669474	19.4899815	3.76	5.6	2.0



## Neptune - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
12/31/2024	23	52	04.675	-02	15	35.83	30.0919109	29.8943201	2.27	7.9	1.8
01/01/2025	23	52	07.600	-02	15	14.49	30.1088242	29.8942938	2.27	7.9	1.8
01/02/2025	23	52	10.644	-02	14	52.39	30.1256666	29.8942675	2.27	7.9	1.8
01/03/2025	23	52	13.807	-02	14	29.52	30.1424328	29.8942412	2.27	7.9	1.8
01/04/2025	23	52	17.087	-02	14	05.92	30.1591174	29.8942149	2.26	7.9	1.8
01/05/2025	23	52	20.484	-02	13	41.57	30.1757151	29.8941886	2.26	7.9	1.8
01/06/2025	23	52	23.998	-02	13	16.47	30.1922210	29.8941623	2.26	7.9	1.8
01/07/2025	23	52	27.630	-02	12	50.62	30.2086300	29.8941359	2.26	7.9	1.8
01/08/2025	23	52	31.382	-02	12	24.02	30.2249373	29.8941096	2.26	7.9	1.8
01/09/2025	23	52	35.252	-02	11	56.66	30.2411383	29.8940833	2.26	7.9	1.7
01/10/2025	23	52	39.241	-02	11	28.56	30.2572284	29.8940570	2.26	7.9	1.7
01/11/2025	23	52	43.347	-02	10	59.71	30.2732033	29.8940307	2.26	7.9	1.7
01/12/2025	23	52	47.568	-02	10	30.15	30.2890586	29.8940044	2.25	7.9	1.7
01/13/2025	23	52	51.900	-02	09	59.88	30.3047901	29.8939780	2.25	7.9	1.7
01/14/2025	23	52	56.341	-02	09	28.94	30.3203935	29.8939517	2.25	7.9	1.7
01/15/2025	23	53	00.887	-02	08	57.33	30.3358647	29.8939254	2.25	7.9	1.7
01/16/2025	23	53	05.539	-02	08	25.06	30.3511993	29.8938991	2.25	7.9	1.6
01/17/2025	23	53	10.295	-02	07	52.15	30.3663931	29.8938728	2.25	7.9	1.6
01/18/2025	23	53	15.154	-02	07	18.58	30.3814419	29.8938464	2.25	7.9	1.6
01/19/2025	23	53	20.118	-02	06	44.37	30.3963413	29.8938201	2.25	7.9	1.6
01/20/2025	23	53	25.185	-02	06	09.50	30.4110871	29.8937938	2.25	7.9	1.6
01/21/2025	23	53	30.355	-02	05	33.99	30.4256748	29.8937675	2.24	7.9	1.6
01/22/2025	23	53	35.629	-02	04	57.84	30.4401003	29.8937412	2.24	7.9	1.5
01/23/2025	23	53	41.006	-02	04	21.04	30.4543591	29.8937149	2.24	7.9	1.5
01/24/2025	23	53	46.485	-02	03	43.61	30.4684470	29.8936885	2.24	7.9	1.5
01/25/2025	23	53	52.065	-02	03	05.55	30.4823598	29.8936622	2.24	7.9	1.5
01/26/2025	23	53	57.744	-02	02	26.88	30.4960932	29.8936359	2.24	7.9	1.5
01/27/2025	23	54	03.519	-02	01	47.61	30.5096428	29.8936096	2.24	7.9	1.5
01/28/2025	23	54	09.388	-02	01	07.77	30.5230046	29.8935833	2.24	7.9	1.4
01/29/2025	23	54	15.347	-02	00	27.37	30.5361744	29.8935570	2.24	7.9	1.4
01/30/2025	23	54	21.395	-01	59	46.43	30.5491481	29.8935307	2.24	7.9	1.4
01/31/2025	23	54	27.528	-01	59	04.96	30.5619216	29.8935043	2.23	7.9	1.4
02/01/2025	23	54	33.745	-01	58	22.98	30.5744912	29.8934780	2.23	7.9	1.3
02/02/2025	23	54	40.045	-01	57	40.49	30.5868531	29.8934517	2.23	7.9	1.3
02/03/2025	23	54	46.430	-01	56	57.49	30.5990040	29.8934254	2.23	7.9	1.3
02/04/2025	23	54	52.899	-01	56	13.97	30.6109403	29.8933991	2.23	7.9	1.3
02/05/2025	23	54	59.452	-01	55	29.95	30.6226591	29.8933728	2.23	7.9	1.2
02/06/2025	23	55	06.088	-01	54	45.42	30.6341574	29.8933465	2.23	7.9	1.2
02/07/2025	23	55	12.805	-01	54	00.40	30.6454323	29.8933202	2.23	7.9	1.2
02/08/2025	23	55	19.599	-01	53	14.92	30.6564812	29.8932939	2.23	7.9	1.2
02/09/2025	23	55	26.468	-01	52	29.00	30.6673014	29.8932676	2.23	7.9	1.1
02/10/2025	23	55	33.407	-01	51	42.65	30.6778904	29.8932413	2.23	7.9	1.1
02/11/2025	23	55	40.415	-01	50	55.90	30.6882457	29.8932150	2.23	7.9	1.1
02/12/2025	23	55	47.488	-01	50	08.76	30.6983648	29.8931887	2.22	7.9	1.1
02/13/2025	23	55	54.625	-01	49	21.25	30.7082451	29.8931624	2.22	7.9	1.0
02/14/2025	23	56	01.824	-01	48	33.37	30.7178844	29.8931361	2.22	7.9	1.0
02/15/2025	23	56	09.087	-01	47	45.12	30.7272801	29.8931098	2.22	7.9	1.0
02/16/2025	23	56	16.411	-01	46	56.50	30.7364297	29.8930835	2.22	7.9	1.0
02/17/2025	23	56	23.796	-01	46	07.53	30.7453308	29.8930572	2.22	7.9	0.9
02/18/2025	23	56	31.242	-01	45	18.21	30.7539811	29.8930309	2.22	7.9	0.9

Neptune - Apparent data

Date	Right Ascension	Declination	Earth Distance	Solar Distance	Equatorial Diameter	Mag.	Phase Angle
0 h TT	h m s	d m s	au	au	arc sec		deg.
02/19/2025	23 56 38.747	-01 44 28.53	30.7623780	29.8930047	2.22	7.9	0.9
02/20/2025	23 56 46.311	-01 43 38.52	30.7705194	29.8929784	2.22	7.9	0.9
02/21/2025	23 56 53.932	-01 42 48.17	30.7784027	29.8929521	2.22	7.9	0.8
02/22/2025	23 57 01.607	-01 41 57.52	30.7860259	29.8929258	2.22	7.9	0.8
02/23/2025	23 57 09.335	-01 41 06.56	30.7933865	29.8928995	2.22	7.9	0.8
02/24/2025	23 57 17.112	-01 40 15.33	30.8004825	29.8928732	2.22	8.0	0.7
02/25/2025	23 57 24.934	-01 39 23.83	30.8073117	29.8928470	2.22	8.0	0.7
02/26/2025	23 57 32.800	-01 38 32.11	30.8138719	29.8928207	2.22	8.0	0.7
02/27/2025	23 57 40.705	-01 37 40.16	30.8201613	29.8927944	2.22	8.0	0.6
02/28/2025	23 57 48.648	-01 36 48.02	30.8261780	29.8927681	2.22	8.0	0.6
03/01/2025	23 57 56.626	-01 35 55.68	30.8319202	29.8927419	2.21	8.0	0.6
03/02/2025	23 58 04.641	-01 35 03.15	30.8373865	29.8927156	2.21	8.0	0.6
03/03/2025	23 58 12.692	-01 34 10.43	30.8425755	29.8926894	2.21	8.0	0.5
03/04/2025	23 58 20.779	-01 33 17.52	30.8474863	29.8926631	2.21	8.0	0.5
03/05/2025	23 58 28.902	-01 32 24.42	30.8521179	29.8926368	2.21	8.0	0.5
03/06/2025	23 58 37.057	-01 31 31.16	30.8564696	29.8926106	2.21	8.0	0.4
03/07/2025	23 58 45.242	-01 30 37.75	30.8605408	29.8925843	2.21	8.0	0.4
03/08/2025	23 58 53.452	-01 29 44.22	30.8643310	29.8925581	2.21	8.0	0.4
03/09/2025	23 59 01.685	-01 28 50.59	30.8678399	29.8925318	2.21	8.0	0.3
03/10/2025	23 59 09.937	-01 27 56.88	30.8710670	29.8925056	2.21	8.0	0.3
03/11/2025	23 59 18.205	-01 27 03.12	30.8740120	29.8924793	2.21	8.0	0.3
03/12/2025	23 59 26.488	-01 26 09.30	30.8766745	29.8924531	2.21	8.0	0.2
03/13/2025	23 59 34.783	-01 25 15.44	30.8790543	29.8924269	2.21	8.0	0.2
03/14/2025	23 59 43.091	-01 24 21.55	30.8811511	29.8924006	2.21	8.0	0.2
03/15/2025	23 59 51.411	-01 23 27.63	30.8829646	29.8923744	2.21	8.0	0.2
03/16/2025	23 59 59.741	-01 22 33.68	30.8844945	29.8923482	2.21	8.0	0.1
03/17/2025	00 00 08.081	-01 21 39.72	30.8857406	29.8923219	2.21	8.0	0.1
03/18/2025	00 00 16.431	-01 20 45.73	30.8867027	29.8922957	2.21	8.0	0.1
03/19/2025	00 00 24.788	-01 19 51.75	30.8873806	29.8922695	2.21	8.0	0.0
03/20/2025	00 00 33.152	-01 18 57.76	30.8877741	29.8922433	2.21	8.0	0.0
03/21/2025	00 00 41.519	-01 18 03.79	30.8878831	29.8922171	2.21	8.0	0.1
03/22/2025	00 00 49.888	-01 17 09.86	30.8877076	29.8921909	2.21	8.0	0.1
03/23/2025	00 00 58.257	-01 16 15.98	30.8872475	29.8921647	2.21	8.0	0.1
03/24/2025	00 01 06.621	-01 15 22.17	30.8865028	29.8921385	2.21	8.0	0.1
03/25/2025	00 01 14.978	-01 14 28.45	30.8854736	29.8921123	2.21	8.0	0.2
03/26/2025	00 01 23.324	-01 13 34.84	30.8841601	29.8920861	2.21	8.0	0.2
03/27/2025	00 01 31.658	-01 12 41.37	30.8825626	29.8920599	2.21	8.0	0.2
03/28/2025	00 01 39.976	-01 11 48.03	30.8806814	29.8920337	2.21	8.0	0.3
03/29/2025	00 01 48.279	-01 10 54.84	30.8785170	29.8920075	2.21	8.0	0.3
03/30/2025	00 01 56.567	-01 10 01.80	30.8760702	29.8919813	2.21	8.0	0.3
03/31/2025	00 02 04.840	-01 09 08.89	30.8733420	29.8919552	2.21	8.0	0.4
04/01/2025	00 02 13.098	-01 08 16.13	30.8703334	29.8919290	2.21	8.0	0.4
04/02/2025	00 02 21.339	-01 07 23.53	30.8670460	29.8919028	2.21	8.0	0.4
04/03/2025	00 02 29.560	-01 06 31.11	30.8634812	29.8918767	2.21	8.0	0.5
04/04/2025	00 02 37.757	-01 05 38.89	30.8596405	29.8918505	2.21	8.0	0.5
04/05/2025	00 02 45.926	-01 04 46.89	30.8555258	29.8918243	2.21	8.0	0.5
04/06/2025	00 02 54.064	-01 03 55.14	30.8511386	29.8917982	2.21	8.0	0.6
04/07/2025	00 03 02.168	-01 03 03.66	30.8464808	29.8917720	2.21	8.0	0.6
04/08/2025	00 03 10.236	-01 02 12.45	30.8415540	29.8917459	2.21	8.0	0.6
04/09/2025	00 03 18.268	-01 01 21.53	30.8363600	29.8917197	2.21	8.0	0.6

## Neptune - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
04/10/2025	00	03	26.262	-01	00	30.89	30.8309005	29.8916936	2.21	8.0	0.7
04/11/2025	00	03	34.218	-00	59	40.55	30.8251773	29.8916674	2.22	8.0	0.7
04/12/2025	00	03	42.135	-00	58	50.50	30.8191921	29.8916413	2.22	8.0	0.7
04/13/2025	00	03	50.012	-00	58	00.76	30.8129467	29.8916152	2.22	8.0	0.8
04/14/2025	00	03	57.850	-00	57	11.31	30.8064429	29.8915890	2.22	8.0	0.8
04/15/2025	00	04	05.646	-00	56	22.18	30.7996825	29.8915629	2.22	8.0	0.8
04/16/2025	00	04	13.400	-00	55	33.36	30.7926672	29.8915368	2.22	7.9	0.8
04/17/2025	00	04	21.109	-00	54	44.87	30.7853989	29.8915107	2.22	7.9	0.9
04/18/2025	00	04	28.772	-00	53	56.73	30.7778794	29.8914846	2.22	7.9	0.9
04/19/2025	00	04	36.387	-00	53	08.94	30.7701107	29.8914584	2.22	7.9	0.9
04/20/2025	00	04	43.949	-00	52	21.53	30.7620947	29.8914323	2.22	7.9	1.0
04/21/2025	00	04	51.457	-00	51	34.52	30.7538333	29.8914062	2.22	7.9	1.0
04/22/2025	00	04	58.908	-00	50	47.91	30.7453286	29.8913801	2.22	7.9	1.0
04/23/2025	00	05	06.299	-00	50	01.74	30.7365826	29.8913540	2.22	7.9	1.0
04/24/2025	00	05	13.629	-00	49	16.00	30.7275977	29.8913279	2.22	7.9	1.1
04/25/2025	00	05	20.897	-00	48	30.71	30.7183761	29.8913018	2.22	7.9	1.1
04/26/2025	00	05	28.102	-00	47	45.86	30.7089203	29.8912757	2.22	7.9	1.1
04/27/2025	00	05	35.245	-00	47	01.46	30.6992330	29.8912496	2.22	7.9	1.1
04/28/2025	00	05	42.327	-00	46	17.49	30.6893170	29.8912235	2.23	7.9	1.2
04/29/2025	00	05	49.347	-00	45	33.97	30.6791753	29.8911974	2.23	7.9	1.2
04/30/2025	00	05	56.303	-00	44	50.91	30.6688112	29.8911713	2.23	7.9	1.2
05/01/2025	00	06	03.191	-00	44	08.32	30.6582281	29.8911453	2.23	7.9	1.3
05/02/2025	00	06	10.007	-00	43	26.24	30.6474293	29.8911192	2.23	7.9	1.3
05/03/2025	00	06	16.749	-00	42	44.68	30.6364183	29.8910931	2.23	7.9	1.3
05/04/2025	00	06	23.413	-00	42	03.66	30.6251985	29.8910670	2.23	7.9	1.3
05/05/2025	00	06	29.997	-00	41	23.20	30.6137734	29.8910409	2.23	7.9	1.3
05/06/2025	00	06	36.501	-00	40	43.29	30.6021463	29.8910149	2.23	7.9	1.4
05/07/2025	00	06	42.925	-00	40	03.95	30.5903207	29.8909888	2.23	7.9	1.4
05/08/2025	00	06	49.267	-00	39	25.17	30.5782999	29.8909627	2.23	7.9	1.4
05/09/2025	00	06	55.529	-00	38	46.94	30.5660872	29.8909367	2.23	7.9	1.4
05/10/2025	00	07	01.709	-00	38	09.29	30.5536860	29.8909106	2.24	7.9	1.5
05/11/2025	00	07	07.808	-00	37	32.19	30.5410997	29.8908845	2.24	7.9	1.5
05/12/2025	00	07	13.824	-00	36	55.66	30.5283315	29.8908585	2.24	7.9	1.5
05/13/2025	00	07	19.758	-00	36	19.70	30.5153848	29.8908324	2.24	7.9	1.5
05/14/2025	00	07	25.607	-00	35	44.32	30.5022629	29.8908064	2.24	7.9	1.5
05/15/2025	00	07	31.371	-00	35	09.53	30.4889692	29.8907803	2.24	7.9	1.6
05/16/2025	00	07	37.046	-00	34	35.34	30.4755069	29.8907543	2.24	7.9	1.6
05/17/2025	00	07	42.632	-00	34	01.76	30.4618795	29.8907282	2.24	7.9	1.6
05/18/2025	00	07	48.124	-00	33	28.81	30.4480903	29.8907022	2.24	7.9	1.6
05/19/2025	00	07	53.522	-00	32	56.51	30.4341429	29.8906761	2.24	7.9	1.6
05/20/2025	00	07	58.824	-00	32	24.87	30.4200406	29.8906501	2.24	7.9	1.6
05/21/2025	00	08	04.027	-00	31	53.89	30.4057870	29.8906240	2.25	7.9	1.7
05/22/2025	00	08	09.131	-00	31	23.58	30.3913858	29.8905980	2.25	7.9	1.7
05/23/2025	00	08	14.136	-00	30	53.94	30.3768408	29.8905719	2.25	7.9	1.7
05/24/2025	00	08	19.043	-00	30	24.97	30.3621557	29.8905459	2.25	7.9	1.7
05/25/2025	00	08	23.853	-00	29	56.66	30.3473347	29.8905199	2.25	7.9	1.7
05/26/2025	00	08	28.567	-00	29	29.00	30.3323821	29.8904938	2.25	7.9	1.7
05/27/2025	00	08	33.182	-00	29	02.00	30.3173020	29.8904678	2.25	7.9	1.8
05/28/2025	00	08	37.698	-00	28	35.67	30.3020992	29.8904417	2.25	7.9	1.8
05/29/2025	00	08	42.111	-00	28	10.04	30.2867781	29.8904157	2.25	7.9	1.8

## Neptune - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
05/30/2025	00	08	46.416	-00	27	45.13	30.2713435	29.8903897	2.26	7.9	1.8
05/31/2025	00	08	50.613	-00	27	20.95	30.2557999	29.8903636	2.26	7.9	1.8
06/01/2025	00	08	54.699	-00	26	57.51	30.2401520	29.8903376	2.26	7.9	1.8
06/02/2025	00	08	58.673	-00	26	34.81	30.2244042	29.8903116	2.26	7.9	1.8
06/03/2025	00	09	02.536	-00	26	12.87	30.2085612	29.8902856	2.26	7.9	1.8
06/04/2025	00	09	06.287	-00	25	51.66	30.1926272	29.8902595	2.26	7.9	1.9
06/05/2025	00	09	09.929	-00	25	31.19	30.1766068	29.8902335	2.26	7.9	1.9
06/06/2025	00	09	13.460	-00	25	11.45	30.1605042	29.8902075	2.26	7.9	1.9
06/07/2025	00	09	16.882	-00	24	52.44	30.1443239	29.8901815	2.27	7.9	1.9
06/08/2025	00	09	20.194	-00	24	34.16	30.1280701	29.8901554	2.27	7.9	1.9
06/09/2025	00	09	23.397	-00	24	16.61	30.1117470	29.8901294	2.27	7.9	1.9
06/10/2025	00	09	26.489	-00	23	59.78	30.0953590	29.8901034	2.27	7.9	1.9
06/11/2025	00	09	29.470	-00	23	43.70	30.0789102	29.8900774	2.27	7.9	1.9
06/12/2025	00	09	32.339	-00	23	28.35	30.0624050	29.8900514	2.27	7.9	1.9
06/13/2025	00	09	35.094	-00	23	13.76	30.0458474	29.8900254	2.27	7.9	1.9
06/14/2025	00	09	37.733	-00	22	59.92	30.0292417	29.8899994	2.27	7.9	1.9
06/15/2025	00	09	40.255	-00	22	46.87	30.0125922	29.8899733	2.28	7.9	1.9
06/16/2025	00	09	42.658	-00	22	34.59	29.9959030	29.8899473	2.28	7.9	1.9
06/17/2025	00	09	44.941	-00	22	23.10	29.9791785	29.8899213	2.28	7.9	1.9
06/18/2025	00	09	47.104	-00	22	12.40	29.9624231	29.8898953	2.28	7.9	1.9
06/19/2025	00	09	49.149	-00	22	02.48	29.9456410	29.8898693	2.28	7.9	2.0
06/20/2025	00	09	51.075	-00	21	53.33	29.9288370	29.8898433	2.28	7.9	2.0
06/21/2025	00	09	52.885	-00	21	44.96	29.9120157	29.8898173	2.28	7.9	2.0
06/22/2025	00	09	54.579	-00	21	37.34	29.8951818	29.8897913	2.28	7.9	2.0
06/23/2025	00	09	56.158	-00	21	30.47	29.8783402	29.8897653	2.29	7.9	2.0
06/24/2025	00	09	57.622	-00	21	24.36	29.8614960	29.8897393	2.29	7.9	2.0
06/25/2025	00	09	58.968	-00	21	19.02	29.8446543	29.8897133	2.29	7.9	2.0
06/26/2025	00	10	00.193	-00	21	14.46	29.8278202	29.8896873	2.29	7.9	2.0
06/27/2025	00	10	01.295	-00	21	10.71	29.8109988	29.8896613	2.29	7.9	2.0
06/28/2025	00	10	02.273	-00	21	07.76	29.7941953	29.8896353	2.29	7.9	2.0
06/29/2025	00	10	03.127	-00	21	05.63	29.7774147	29.8896093	2.29	7.9	2.0
06/30/2025	00	10	03.856	-00	21	04.29	29.7606620	29.8895833	2.29	7.9	1.9
07/01/2025	00	10	04.463	-00	21	03.76	29.7439418	29.8895574	2.30	7.9	1.9
07/02/2025	00	10	04.948	-00	21	04.01	29.7272592	29.8895314	2.30	7.9	1.9
07/03/2025	00	10	05.314	-00	21	05.04	29.7106187	29.8895054	2.30	7.9	1.9
07/04/2025	00	10	05.561	-00	21	06.84	29.6940250	29.8894794	2.30	7.9	1.9
07/05/2025	00	10	05.690	-00	21	09.40	29.6774826	29.8894534	2.30	7.9	1.9
07/06/2025	00	10	05.702	-00	21	12.70	29.6609962	29.8894274	2.30	7.9	1.9
07/07/2025	00	10	05.598	-00	21	16.76	29.6445701	29.8894014	2.30	7.9	1.9
07/08/2025	00	10	05.377	-00	21	21.57	29.6282088	29.8893754	2.30	7.9	1.9
07/09/2025	00	10	05.040	-00	21	27.12	29.6119167	29.8893495	2.31	7.9	1.9
07/10/2025	00	10	04.585	-00	21	33.43	29.5956980	29.8893235	2.31	7.9	1.9
07/11/2025	00	10	04.012	-00	21	40.49	29.5795572	29.8892975	2.31	7.9	1.9
07/12/2025	00	10	03.319	-00	21	48.32	29.5634984	29.8892715	2.31	7.9	1.9
07/13/2025	00	10	02.506	-00	21	56.91	29.5475259	29.8892455	2.31	7.9	1.9
07/14/2025	00	10	01.574	-00	22	06.27	29.5316441	29.8892195	2.31	7.9	1.8
07/15/2025	00	10	00.522	-00	22	16.40	29.5158571	29.8891936	2.31	7.9	1.8
07/16/2025	00	09	59.351	-00	22	27.27	29.5001694	29.8891676	2.31	7.9	1.8
07/17/2025	00	09	58.065	-00	22	38.89	29.4845854	29.8891416	2.32	7.9	1.8
07/18/2025	00	09	56.665	-00	22	51.23	29.4691096	29.8891156	2.32	7.9	1.8

## Neptune - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
07/19/2025	00	09	55.153	-00	23	04.29	29.4537466	29.8890896	2.32	7.9	1.8
07/20/2025	00	09	53.531	-00	23	18.04	29.4385012	29.8890637	2.32	7.9	1.8
07/21/2025	00	09	51.799	-00	23	32.50	29.4233779	29.8890377	2.32	7.9	1.8
07/22/2025	00	09	49.956	-00	23	47.65	29.4083818	29.8890117	2.32	7.8	1.7
07/23/2025	00	09	48.001	-00	24	03.51	29.3935175	29.8889857	2.32	7.8	1.7
07/24/2025	00	09	45.933	-00	24	20.08	29.3787900	29.8889598	2.32	7.8	1.7
07/25/2025	00	09	43.751	-00	24	37.37	29.3642039	29.8889338	2.33	7.8	1.7
07/26/2025	00	09	41.455	-00	24	55.38	29.3497639	29.8889078	2.33	7.8	1.7
07/27/2025	00	09	39.046	-00	25	14.11	29.3354747	29.8888818	2.33	7.8	1.7
07/28/2025	00	09	36.526	-00	25	33.53	29.3213406	29.8888559	2.33	7.8	1.6
07/29/2025	00	09	33.897	-00	25	53.63	29.3073660	29.8888299	2.33	7.8	1.6
07/30/2025	00	09	31.163	-00	26	14.39	29.2935550	29.8888039	2.33	7.8	1.6
07/31/2025	00	09	28.324	-00	26	35.80	29.2799119	29.8887780	2.33	7.8	1.6
08/01/2025	00	09	25.384	-00	26	57.85	29.2664405	29.8887520	2.33	7.8	1.6
08/02/2025	00	09	22.344	-00	27	20.51	29.2531449	29.8887260	2.33	7.8	1.5
08/03/2025	00	09	19.205	-00	27	43.79	29.2400288	29.8887001	2.34	7.8	1.5
08/04/2025	00	09	15.969	-00	28	07.67	29.2270959	29.8886741	2.34	7.8	1.5
08/05/2025	00	09	12.636	-00	28	32.14	29.2143500	29.8886481	2.34	7.8	1.5
08/06/2025	00	09	09.207	-00	28	57.20	29.2017947	29.8886222	2.34	7.8	1.5
08/07/2025	00	09	05.682	-00	29	22.86	29.1894334	29.8885962	2.34	7.8	1.4
08/08/2025	00	09	02.061	-00	29	49.10	29.1772696	29.8885702	2.34	7.8	1.4
08/09/2025	00	08	58.344	-00	30	15.93	29.1653066	29.8885443	2.34	7.8	1.4
08/10/2025	00	08	54.532	-00	30	43.34	29.1535479	29.8885183	2.34	7.8	1.4
08/11/2025	00	08	50.626	-00	31	11.33	29.1419968	29.8884923	2.34	7.8	1.3
08/12/2025	00	08	46.627	-00	31	39.88	29.1306566	29.8884664	2.34	7.8	1.3
08/13/2025	00	08	42.540	-00	32	08.98	29.1195307	29.8884404	2.35	7.8	1.3
08/14/2025	00	08	38.367	-00	32	38.59	29.1086227	29.8884144	2.35	7.8	1.3
08/15/2025	00	08	34.112	-00	33	08.71	29.0979360	29.8883885	2.35	7.8	1.2
08/16/2025	00	08	29.776	-00	33	39.30	29.0874741	29.8883625	2.35	7.8	1.2
08/17/2025	00	08	25.362	-00	34	10.37	29.0772407	29.8883366	2.35	7.8	1.2
08/18/2025	00	08	20.869	-00	34	41.91	29.0672394	29.8883106	2.35	7.8	1.2
08/19/2025	00	08	16.298	-00	35	13.92	29.0574738	29.8882847	2.35	7.8	1.1
08/20/2025	00	08	11.649	-00	35	46.39	29.0479475	29.8882587	2.35	7.8	1.1
08/21/2025	00	08	06.921	-00	36	19.34	29.0386638	29.8882327	2.35	7.8	1.1
08/22/2025	00	08	02.115	-00	36	52.74	29.0296262	29.8882068	2.35	7.8	1.1
08/23/2025	00	07	57.234	-00	37	26.60	29.0208378	29.8881808	2.35	7.8	1.0
08/24/2025	00	07	52.278	-00	38	00.89	29.0123019	29.8881549	2.35	7.8	1.0
08/25/2025	00	07	47.252	-00	38	35.60	29.0040212	29.8881289	2.35	7.8	1.0
08/26/2025	00	07	42.159	-00	39	10.70	28.9959986	29.8881030	2.36	7.8	0.9
08/27/2025	00	07	37.002	-00	39	46.16	28.9882367	29.8880770	2.36	7.8	0.9
08/28/2025	00	07	31.785	-00	40	21.98	28.9807380	29.8880511	2.36	7.8	0.9
08/29/2025	00	07	26.509	-00	40	58.12	28.9735049	29.8880251	2.36	7.8	0.8
08/30/2025	00	07	21.178	-00	41	34.57	28.9665396	29.8879992	2.36	7.8	0.8
08/31/2025	00	07	15.793	-00	42	11.33	28.9598443	29.8879733	2.36	7.8	0.8
09/01/2025	00	07	10.356	-00	42	48.37	28.9534209	29.8879473	2.36	7.8	0.7
09/02/2025	00	07	04.868	-00	43	25.69	28.9472713	29.8879214	2.36	7.8	0.7
09/03/2025	00	06	59.331	-00	44	03.28	28.9413975	29.8878955	2.36	7.8	0.7
09/04/2025	00	06	53.746	-00	44	41.13	28.9358009	29.8878695	2.36	7.8	0.7
09/05/2025	00	06	48.113	-00	45	19.23	28.9304834	29.8878436	2.36	7.8	0.6
09/06/2025	00	06	42.434	-00	45	57.59	28.9254463	29.8878177	2.36	7.8	0.6

## Neptune - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
09/07/2025	00	06	36.710	-00	46	36.19	28.9206912	29.8877917	2.36	7.8	0.6
09/08/2025	00	06	30.944	-00	47	15.01	28.9162195	29.8877658	2.36	7.8	0.5
09/09/2025	00	06	25.138	-00	47	54.03	28.9120326	29.8877399	2.36	7.8	0.5
09/10/2025	00	06	19.298	-00	48	33.23	28.9081320	29.8877140	2.36	7.8	0.5
09/11/2025	00	06	13.428	-00	49	12.57	28.9045192	29.8876881	2.36	7.8	0.4
09/12/2025	00	06	07.530	-00	49	52.04	28.9011957	29.8876621	2.36	7.8	0.4
09/13/2025	00	06	01.607	-00	50	31.62	28.8981632	29.8876362	2.36	7.8	0.4
09/14/2025	00	05	55.660	-00	51	11.30	28.8954232	29.8876103	2.36	7.8	0.3
09/15/2025	00	05	49.690	-00	51	51.08	28.8929772	29.8875844	2.36	7.8	0.3
09/16/2025	00	05	43.697	-00	52	30.95	28.8908265	29.8875585	2.36	7.8	0.3
09/17/2025	00	05	37.682	-00	53	10.92	28.8889727	29.8875326	2.36	7.8	0.2
09/18/2025	00	05	31.646	-00	53	50.96	28.8874167	29.8875067	2.36	7.8	0.2
09/19/2025	00	05	25.592	-00	54	31.08	28.8861597	29.8874808	2.36	7.8	0.2
09/20/2025	00	05	19.521	-00	55	11.24	28.8852025	29.8874549	2.36	7.8	0.1
09/21/2025	00	05	13.437	-00	55	51.43	28.8845459	29.8874291	2.36	7.8	0.1
09/22/2025	00	05	07.345	-00	56	31.62	28.8841903	29.8874032	2.36	7.8	0.1
09/23/2025	00	05	01.247	-00	57	11.79	28.8841362	29.8873773	2.36	7.8	0.1
09/24/2025	00	04	55.148	-00	57	51.92	28.8843837	29.8873514	2.36	7.8	0.0
09/25/2025	00	04	49.051	-00	58	31.97	28.8849329	29.8873255	2.36	7.8	0.1
09/26/2025	00	04	42.958	-00	59	11.94	28.8857837	29.8872997	2.36	7.8	0.1
09/27/2025	00	04	36.872	-00	59	51.81	28.8869359	29.8872738	2.36	7.8	0.1
09/28/2025	00	04	30.796	-01	00	31.55	28.8883890	29.8872479	2.36	7.8	0.2
09/29/2025	00	04	24.732	-01	01	11.17	28.8901426	29.8872221	2.36	7.8	0.2
09/30/2025	00	04	18.679	-01	01	50.65	28.8921960	29.8871962	2.36	7.8	0.2
10/01/2025	00	04	12.641	-01	02	29.97	28.8945486	29.8871704	2.36	7.8	0.3
10/02/2025	00	04	06.619	-01	03	09.15	28.8971995	29.8871445	2.36	7.8	0.3
10/03/2025	00	04	00.613	-01	03	48.15	28.9001478	29.8871187	2.36	7.8	0.3
10/04/2025	00	03	54.626	-01	04	26.98	28.9033924	29.8870928	2.36	7.8	0.3
10/05/2025	00	03	48.659	-01	05	05.62	28.9069322	29.8870670	2.36	7.8	0.4
10/06/2025	00	03	42.716	-01	05	44.05	28.9107662	29.8870412	2.36	7.8	0.4
10/07/2025	00	03	36.800	-01	06	22.25	28.9148932	29.8870153	2.36	7.8	0.4
10/08/2025	00	03	30.917	-01	07	00.18	28.9193122	29.8869895	2.36	7.8	0.5
10/09/2025	00	03	25.071	-01	07	37.83	28.9240221	29.8869637	2.36	7.8	0.5
10/10/2025	00	03	19.263	-01	08	15.16	28.9290218	29.8869378	2.36	7.8	0.5
10/11/2025	00	03	13.497	-01	08	52.18	28.9343105	29.8869120	2.36	7.8	0.6
10/12/2025	00	03	07.771	-01	09	28.88	28.9398870	29.8868862	2.36	7.8	0.6
10/13/2025	00	03	02.087	-01	10	05.26	28.9457503	29.8868604	2.36	7.8	0.6
10/14/2025	00	02	56.445	-01	10	41.31	28.9518991	29.8868346	2.36	7.8	0.7
10/15/2025	00	02	50.845	-01	11	17.03	28.9583320	29.8868088	2.36	7.8	0.7
10/16/2025	00	02	45.290	-01	11	52.42	28.9650476	29.8867830	2.36	7.8	0.7
10/17/2025	00	02	39.782	-01	12	27.44	28.9720441	29.8867572	2.36	7.8	0.8
10/18/2025	00	02	34.325	-01	13	02.08	28.9793196	29.8867314	2.36	7.8	0.8
10/19/2025	00	02	28.922	-01	13	36.32	28.9868721	29.8867056	2.36	7.8	0.8
10/20/2025	00	02	23.576	-01	14	10.14	28.9946995	29.8866798	2.36	7.8	0.9
10/21/2025	00	02	18.292	-01	14	43.51	29.0027992	29.8866540	2.35	7.8	0.9
10/22/2025	00	02	13.071	-01	15	16.41	29.0111690	29.8866283	2.35	7.8	0.9
10/23/2025	00	02	07.918	-01	15	48.83	29.0198060	29.8866025	2.35	7.8	0.9
10/24/2025	00	02	02.834	-01	16	20.74	29.0287075	29.8865767	2.35	7.8	1.0
10/25/2025	00	01	57.821	-01	16	52.15	29.0378706	29.8865510	2.35	7.8	1.0
10/26/2025	00	01	52.881	-01	17	23.03	29.0472923	29.8865252	2.35	7.8	1.0

Neptune - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
10/27/2025	00	01	48.014	-01	17	53.38	29.0569694	29.8864994	2.35	7.8	1.1
10/28/2025	00	01	43.223	-01	18	23.20	29.0668987	29.8864737	2.35	7.8	1.1
10/29/2025	00	01	38.508	-01	18	52.48	29.0770768	29.8864479	2.35	7.8	1.1
10/30/2025	00	01	33.869	-01	19	21.22	29.0875004	29.8864222	2.35	7.8	1.1
10/31/2025	00	01	29.309	-01	19	49.40	29.0981659	29.8863965	2.35	7.8	1.2
11/01/2025	00	01	24.828	-01	20	17.02	29.1090698	29.8863707	2.35	7.8	1.2
11/02/2025	00	01	20.429	-01	20	44.06	29.1202085	29.8863450	2.35	7.8	1.2
11/03/2025	00	01	16.115	-01	21	10.52	29.1315785	29.8863193	2.34	7.8	1.2
11/04/2025	00	01	11.889	-01	21	36.35	29.1431762	29.8862935	2.34	7.8	1.3
11/05/2025	00	01	07.756	-01	22	01.55	29.1549980	29.8862678	2.34	7.8	1.3
11/06/2025	00	01	03.718	-01	22	26.09	29.1670405	29.8862421	2.34	7.8	1.3
11/07/2025	00	00	59.777	-01	22	49.95	29.1793004	29.8862164	2.34	7.8	1.3
11/08/2025	00	00	55.934	-01	23	13.15	29.1917743	29.8861907	2.34	7.8	1.4
11/09/2025	00	00	52.186	-01	23	35.69	29.2044588	29.8861650	2.34	7.8	1.4
11/10/2025	00	00	48.534	-01	23	57.57	29.2173504	29.8861393	2.34	7.8	1.4
11/11/2025	00	00	44.978	-01	24	18.80	29.2304455	29.8861136	2.34	7.8	1.4
11/12/2025	00	00	41.517	-01	24	39.37	29.2437405	29.8860879	2.34	7.8	1.4
11/13/2025	00	00	38.155	-01	24	59.26	29.2572314	29.8860622	2.33	7.8	1.5
11/14/2025	00	00	34.893	-01	25	18.47	29.2709143	29.8860365	2.33	7.8	1.5
11/15/2025	00	00	31.734	-01	25	36.98	29.2847849	29.8860109	2.33	7.8	1.5
11/16/2025	00	00	28.682	-01	25	54.76	29.2988390	29.8859852	2.33	7.8	1.5
11/17/2025	00	00	25.738	-01	26	11.81	29.3130721	29.8859595	2.33	7.8	1.6
11/18/2025	00	00	22.904	-01	26	28.11	29.3274796	29.8859338	2.33	7.8	1.6
11/19/2025	00	00	20.184	-01	26	43.64	29.3420571	29.8859082	2.33	7.8	1.6
11/20/2025	00	00	17.578	-01	26	58.39	29.3567996	29.8858825	2.33	7.8	1.6
11/21/2025	00	00	15.088	-01	27	12.37	29.3717023	29.8858569	2.32	7.8	1.6
11/22/2025	00	00	12.714	-01	27	25.57	29.3867604	29.8858312	2.32	7.8	1.6
11/23/2025	00	00	10.457	-01	27	37.98	29.4019688	29.8858056	2.32	7.8	1.7
11/24/2025	00	00	08.316	-01	27	49.60	29.4173224	29.8857799	2.32	7.9	1.7
11/25/2025	00	00	06.292	-01	28	00.45	29.4328161	29.8857543	2.32	7.9	1.7
11/26/2025	00	00	04.384	-01	28	10.51	29.4484448	29.8857287	2.32	7.9	1.7
11/27/2025	00	00	02.593	-01	28	19.80	29.4642033	29.8857030	2.32	7.9	1.7
11/28/2025	00	00	00.920	-01	28	28.30	29.4800864	29.8856774	2.32	7.9	1.7
11/29/2025	23	59	59.365	-01	28	36.01	29.4960888	29.8856518	2.32	7.9	1.7
11/30/2025	23	59	57.930	-01	28	42.92	29.5122054	29.8856262	2.31	7.9	1.8
12/01/2025	23	59	56.616	-01	28	49.02	29.5284311	29.8856006	2.31	7.9	1.8
12/02/2025	23	59	55.428	-01	28	54.30	29.5447608	29.8855750	2.31	7.9	1.8
12/03/2025	23	59	54.366	-01	28	58.73	29.5611894	29.8855494	2.31	7.9	1.8
12/04/2025	23	59	53.433	-01	29	02.32	29.5777122	29.8855238	2.31	7.9	1.8
12/05/2025	23	59	52.628	-01	29	05.06	29.5943244	29.8854982	2.31	7.9	1.8
12/06/2025	23	59	51.950	-01	29	06.96	29.6110212	29.8854726	2.31	7.9	1.8
12/07/2025	23	59	51.396	-01	29	08.04	29.6277979	29.8854470	2.30	7.9	1.8
12/08/2025	23	59	50.965	-01	29	08.32	29.6446498	29.8854214	2.30	7.9	1.8
12/09/2025	23	59	50.656	-01	29	07.80	29.6615720	29.8853959	2.30	7.9	1.8
12/10/2025	23	59	50.469	-01	29	06.48	29.6785595	29.8853703	2.30	7.9	1.8
12/11/2025	23	59	50.405	-01	29	04.34	29.6956074	29.8853448	2.30	7.9	1.8
12/12/2025	23	59	50.465	-01	29	01.39	29.7127104	29.8853192	2.30	7.9	1.9
12/13/2025	23	59	50.653	-01	28	57.61	29.7298633	29.8852936	2.30	7.9	1.9
12/14/2025	23	59	50.969	-01	28	52.99	29.7470606	29.8852681	2.30	7.9	1.9
12/15/2025	23	59	51.414	-01	28	47.52	29.7642971	29.8852426	2.29	7.9	1.9

Neptune - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
12/16/2025	23	59	51.990	-01	28	41.20	29.7815671	29.8852170	2.29	7.9	1.9
12/17/2025	23	59	52.696	-01	28	34.02	29.7988652	29.8851915	2.29	7.9	1.9
12/18/2025	23	59	53.534	-01	28	25.99	29.8161858	29.8851660	2.29	7.9	1.9
12/19/2025	23	59	54.502	-01	28	17.11	29.8335233	29.8851404	2.29	7.9	1.9
12/20/2025	23	59	55.599	-01	28	07.39	29.8508721	29.8851149	2.29	7.9	1.9
12/21/2025	23	59	56.826	-01	27	56.83	29.8682264	29.8850894	2.29	7.9	1.9
12/22/2025	23	59	58.180	-01	27	45.44	29.8855807	29.8850639	2.29	7.9	1.9
12/23/2025	23	59	59.660	-01	27	33.24	29.9029294	29.8850384	2.28	7.9	1.9
12/24/2025	00	00	01.266	-01	27	20.23	29.9202667	29.8850129	2.28	7.9	1.9
12/25/2025	00	00	02.996	-01	27	06.41	29.9375871	29.8849874	2.28	7.9	1.9
12/26/2025	00	00	04.851	-01	26	51.78	29.9548851	29.8849619	2.28	7.9	1.9
12/27/2025	00	00	06.830	-01	26	36.36	29.9721553	29.8849364	2.28	7.9	1.9
12/28/2025	00	00	08.935	-01	26	20.12	29.9893921	29.8849109	2.28	7.9	1.9
12/29/2025	00	00	11.166	-01	26	03.08	30.0065904	29.8848855	2.28	7.9	1.9
12/30/2025	00	00	13.525	-01	25	45.21	30.0237450	29.8848600	2.27	7.9	1.8
12/31/2025	00	00	16.013	-01	25	26.52	30.0408509	29.8848345	2.27	7.9	1.8
01/01/2026	00	00	18.628	-01	25	07.01	30.0579033	29.8848091	2.27	7.9	1.8
01/02/2026	00	00	21.370	-01	24	46.70	30.0748973	29.8847836	2.27	7.9	1.8



Pluto - Apparent data

Date 0 h TT	Earth			Solar	Equatorial	Mag.	Phase Angle deg.
	Right Ascension	Declination	Distance	Distance	Diameter		
	h m s	d m s	au	au	arc sec		
12/31/2024	20 16 07.710	-23 07 12.55	36.0836017	35.1703755	0.09	14.6	0.6
01/01/2025	20 16 15.534	-23 06 50.86	36.0904274	35.1710574	0.09	14.6	0.5
01/02/2025	20 16 23.396	-23 06 29.14	36.0969748	35.1717392	0.09	14.6	0.5
01/03/2025	20 16 31.294	-23 06 07.38	36.1032424	35.1724211	0.09	14.6	0.5
01/04/2025	20 16 39.224	-23 05 45.58	36.1092285	35.1731030	0.09	14.6	0.5
01/05/2025	20 16 47.186	-23 05 23.74	36.1149318	35.1737849	0.09	14.6	0.4
01/06/2025	20 16 55.179	-23 05 01.85	36.1203511	35.1744669	0.09	14.6	0.4
01/07/2025	20 17 03.202	-23 04 39.91	36.1254855	35.1751489	0.09	14.6	0.4
01/08/2025	20 17 11.256	-23 04 17.91	36.1303340	35.1758308	0.09	14.6	0.4
01/09/2025	20 17 19.341	-23 03 55.88	36.1348960	35.1765129	0.09	14.6	0.3
01/10/2025	20 17 27.456	-23 03 33.83	36.1391708	35.1771949	0.09	14.6	0.3
01/11/2025	20 17 35.598	-23 03 11.78	36.1431577	35.1778770	0.09	14.6	0.3
01/12/2025	20 17 43.764	-23 02 49.74	36.1468562	35.1785590	0.09	14.6	0.3
01/13/2025	20 17 51.949	-23 02 27.74	36.1502658	35.1792411	0.09	14.6	0.2
01/14/2025	20 18 00.150	-23 02 05.79	36.1533858	35.1799233	0.09	14.6	0.2
01/15/2025	20 18 08.364	-23 01 43.87	36.1562157	35.1806054	0.09	14.6	0.2
01/16/2025	20 18 16.587	-23 01 22.01	36.1587549	35.1812876	0.09	14.6	0.2
01/17/2025	20 18 24.819	-23 01 00.18	36.1610028	35.1819698	0.09	14.6	0.1
01/18/2025	20 18 33.057	-23 00 38.40	36.1629589	35.1826520	0.09	14.6	0.1
01/19/2025	20 18 41.302	-23 00 16.65	36.1646225	35.1833342	0.09	14.6	0.1
01/20/2025	20 18 49.553	-22 59 54.93	36.1659934	35.1840165	0.09	14.6	0.1
01/21/2025	20 18 57.810	-22 59 33.26	36.1670709	35.1846988	0.09	14.6	0.1
01/22/2025	20 19 06.070	-22 59 11.64	36.1678549	35.1853811	0.09	14.6	0.1
01/23/2025	20 19 14.334	-22 58 50.07	36.1683450	35.1860634	0.09	14.6	0.1
01/24/2025	20 19 22.599	-22 58 28.57	36.1685412	35.1867457	0.09	14.6	0.1
01/25/2025	20 19 30.865	-22 58 07.15	36.1684433	35.1874281	0.09	14.6	0.1
01/26/2025	20 19 39.127	-22 57 45.82	36.1680514	35.1881105	0.09	14.6	0.2
01/27/2025	20 19 47.384	-22 57 24.61	36.1673656	35.1887929	0.09	14.6	0.2
01/28/2025	20 19 55.632	-22 57 03.52	36.1663861	35.1894754	0.09	14.6	0.2
01/29/2025	20 20 03.866	-22 56 42.57	36.1651135	35.1901578	0.09	14.6	0.2
01/30/2025	20 20 12.083	-22 56 21.76	36.1635482	35.1908403	0.09	14.6	0.3
01/31/2025	20 20 20.280	-22 56 01.08	36.1616910	35.1915228	0.09	14.6	0.3
02/01/2025	20 20 28.455	-22 55 40.54	36.1595430	35.1922053	0.09	14.6	0.3
02/02/2025	20 20 36.607	-22 55 20.13	36.1571052	35.1928879	0.09	14.6	0.3
02/03/2025	20 20 44.736	-22 54 59.84	36.1543791	35.1935705	0.09	14.6	0.4
02/04/2025	20 20 52.842	-22 54 39.67	36.1513660	35.1942531	0.09	14.6	0.4
02/05/2025	20 21 00.927	-22 54 19.64	36.1480676	35.1949357	0.09	14.6	0.4
02/06/2025	20 21 08.987	-22 53 59.76	36.1444857	35.1956183	0.09	14.6	0.4
02/07/2025	20 21 17.022	-22 53 40.04	36.1406219	35.1963010	0.09	14.6	0.5
02/08/2025	20 21 25.028	-22 53 20.51	36.1364780	35.1969837	0.09	14.6	0.5
02/09/2025	20 21 33.002	-22 53 01.19	36.1320557	35.1976664	0.09	14.6	0.5
02/10/2025	20 21 40.939	-22 52 42.08	36.1273570	35.1983491	0.09	14.6	0.5
02/11/2025	20 21 48.837	-22 52 23.19	36.1223834	35.1990319	0.09	14.6	0.6
02/12/2025	20 21 56.692	-22 52 04.51	36.1171367	35.1997146	0.09	14.6	0.6
02/13/2025	20 22 04.504	-22 51 46.05	36.1116188	35.2003974	0.09	14.6	0.6
02/14/2025	20 22 12.270	-22 51 27.81	36.1058314	35.2010803	0.09	14.6	0.6
02/15/2025	20 22 19.990	-22 51 09.77	36.0997761	35.2017631	0.09	14.6	0.7
02/16/2025	20 22 27.664	-22 50 51.94	36.0934550	35.2024460	0.09	14.6	0.7
02/17/2025	20 22 35.292	-22 50 34.31	36.0868697	35.2031289	0.09	14.6	0.7
02/18/2025	20 22 42.872	-22 50 16.90	36.0800223	35.2038118	0.09	14.6	0.7

Pluto - Apparent data

Date 0 h TT	Earth			Solar	Equatorial	Mag.	Phase Angle deg.
	Right Ascension	Declination	Distance	Distance	Diameter		
	h m s	d m s	au	au	arc sec		
02/19/2025	20 22 50.403	-22 49 59.72	36.0729148	35.2044947	0.09	14.6	0.8
02/20/2025	20 22 57.886	-22 49 42.76	36.0655491	35.2051777	0.09	14.6	0.8
02/21/2025	20 23 05.317	-22 49 26.05	36.0579274	35.2058607	0.09	14.6	0.8
02/22/2025	20 23 12.696	-22 49 09.59	36.0500520	35.2065437	0.09	14.6	0.8
02/23/2025	20 23 20.019	-22 48 53.41	36.0419252	35.2072267	0.09	14.6	0.9
02/24/2025	20 23 27.284	-22 48 37.50	36.0335494	35.2079097	0.09	14.6	0.9
02/25/2025	20 23 34.487	-22 48 21.89	36.0249270	35.2085928	0.09	14.6	0.9
02/26/2025	20 23 41.625	-22 48 06.58	36.0160609	35.2092759	0.09	14.6	0.9
02/27/2025	20 23 48.694	-22 47 51.57	36.0069537	35.2099590	0.09	14.6	1.0
02/28/2025	20 23 55.692	-22 47 36.86	35.9976085	35.2106422	0.09	14.6	1.0
03/01/2025	20 24 02.618	-22 47 22.44	35.9880285	35.2113253	0.09	14.6	1.0
03/02/2025	20 24 09.472	-22 47 08.30	35.9782171	35.2120085	0.09	14.6	1.0
03/03/2025	20 24 16.256	-22 46 54.43	35.9681777	35.2126917	0.09	14.6	1.0
03/04/2025	20 24 22.970	-22 46 40.84	35.9579141	35.2133749	0.09	14.6	1.1
03/05/2025	20 24 29.614	-22 46 27.54	35.9474299	35.2140582	0.09	14.6	1.1
03/06/2025	20 24 36.186	-22 46 14.57	35.9367290	35.2147415	0.09	14.6	1.1
03/07/2025	20 24 42.683	-22 46 01.92	35.9258149	35.2154248	0.09	14.6	1.1
03/08/2025	20 24 49.103	-22 45 49.62	35.9146916	35.2161081	0.09	14.6	1.1
03/09/2025	20 24 55.442	-22 45 37.68	35.9033626	35.2167914	0.09	14.6	1.2
03/10/2025	20 25 01.696	-22 45 26.10	35.8918316	35.2174748	0.09	14.6	1.2
03/11/2025	20 25 07.864	-22 45 14.88	35.8801023	35.2181582	0.09	14.6	1.2
03/12/2025	20 25 13.945	-22 45 04.02	35.8681783	35.2188416	0.09	14.6	1.2
03/13/2025	20 25 19.936	-22 44 53.50	35.8560631	35.2195250	0.09	14.6	1.2
03/14/2025	20 25 25.839	-22 44 43.34	35.8437604	35.2202085	0.09	14.6	1.3
03/15/2025	20 25 31.653	-22 44 33.51	35.8312737	35.2208920	0.09	14.6	1.3
03/16/2025	20 25 37.377	-22 44 24.03	35.8186067	35.2215755	0.09	14.6	1.3
03/17/2025	20 25 43.013	-22 44 14.88	35.8057630	35.2222590	0.09	14.6	1.3
03/18/2025	20 25 48.559	-22 44 06.09	35.7927463	35.2229425	0.09	14.6	1.3
03/19/2025	20 25 54.016	-22 43 57.65	35.7795602	35.2236261	0.09	14.6	1.3
03/20/2025	20 25 59.382	-22 43 49.57	35.7662086	35.2243097	0.09	14.6	1.4
03/21/2025	20 26 04.655	-22 43 41.87	35.7526953	35.2249933	0.09	14.6	1.4
03/22/2025	20 26 09.835	-22 43 34.55	35.7390241	35.2256769	0.09	14.6	1.4
03/23/2025	20 26 14.919	-22 43 27.62	35.7251990	35.2263606	0.09	14.6	1.4
03/24/2025	20 26 19.904	-22 43 21.10	35.7112241	35.2270443	0.09	14.6	1.4
03/25/2025	20 26 24.788	-22 43 14.99	35.6971035	35.2277280	0.09	14.5	1.4
03/26/2025	20 26 29.567	-22 43 09.29	35.6828414	35.2284117	0.09	14.5	1.4
03/27/2025	20 26 34.241	-22 43 04.00	35.6684421	35.2290954	0.09	14.5	1.5
03/28/2025	20 26 38.807	-22 42 59.11	35.6539102	35.2297792	0.09	14.5	1.5
03/29/2025	20 26 43.266	-22 42 54.60	35.6392504	35.2304630	0.09	14.5	1.5
03/30/2025	20 26 47.619	-22 42 50.47	35.6244674	35.2311468	0.09	14.5	1.5
03/31/2025	20 26 51.868	-22 42 46.70	35.6095663	35.2318306	0.09	14.5	1.5
04/01/2025	20 26 56.015	-22 42 43.32	35.5945519	35.2325144	0.09	14.5	1.5
04/02/2025	20 27 00.059	-22 42 40.34	35.5794295	35.2331983	0.09	14.5	1.5
04/03/2025	20 27 03.997	-22 42 37.77	35.5642039	35.2338822	0.09	14.5	1.5
04/04/2025	20 27 07.828	-22 42 35.63	35.5488802	35.2345661	0.09	14.5	1.6
04/05/2025	20 27 11.548	-22 42 33.94	35.5334632	35.2352500	0.09	14.5	1.6
04/06/2025	20 27 15.155	-22 42 32.68	35.5179577	35.2359340	0.09	14.5	1.6
04/07/2025	20 27 18.647	-22 42 31.86	35.5023684	35.2366179	0.09	14.5	1.6
04/08/2025	20 27 22.023	-22 42 31.47	35.4867000	35.2373019	0.09	14.5	1.6
04/09/2025	20 27 25.284	-22 42 31.50	35.4709572	35.2379859	0.09	14.5	1.6

Pluto - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth Distance au	Solar Distance au	Equatorial Diameter arc sec	Mag.	Phase Angle deg.
	h	m	s	d	m	s					
04/10/2025	20	27	28.428	-22	42	31.95	35.4551445	35.2386700	0.09	14.5	1.6
04/11/2025	20	27	31.458	-22	42	32.80	35.4392664	35.2393540	0.09	14.5	1.6
04/12/2025	20	27	34.373	-22	42	34.06	35.4233275	35.2400381	0.09	14.5	1.6
04/13/2025	20	27	37.175	-22	42	35.72	35.4073324	35.2407222	0.09	14.5	1.6
04/14/2025	20	27	39.864	-22	42	37.77	35.3912855	35.2414063	0.09	14.5	1.6
04/15/2025	20	27	42.440	-22	42	40.23	35.3751913	35.2420904	0.09	14.5	1.6
04/16/2025	20	27	44.904	-22	42	43.10	35.3590545	35.2427746	0.09	14.5	1.6
04/17/2025	20	27	47.254	-22	42	46.38	35.3428795	35.2434587	0.09	14.5	1.6
04/18/2025	20	27	49.490	-22	42	50.09	35.3266710	35.2441429	0.09	14.5	1.6
04/19/2025	20	27	51.611	-22	42	54.23	35.3104335	35.2448271	0.09	14.5	1.6
04/20/2025	20	27	53.614	-22	42	58.80	35.2941718	35.2455113	0.09	14.5	1.6
04/21/2025	20	27	55.499	-22	43	03.81	35.2778906	35.2461956	0.09	14.5	1.6
04/22/2025	20	27	57.263	-22	43	09.26	35.2615946	35.2468799	0.09	14.5	1.6
04/23/2025	20	27	58.905	-22	43	15.14	35.2452888	35.2475641	0.09	14.5	1.6
04/24/2025	20	28	00.424	-22	43	21.44	35.2289780	35.2482484	0.09	14.5	1.6
04/25/2025	20	28	01.820	-22	43	28.16	35.2126674	35.2489328	0.09	14.5	1.6
04/26/2025	20	28	03.096	-22	43	35.26	35.1963620	35.2496171	0.09	14.5	1.6
04/27/2025	20	28	04.254	-22	43	42.75	35.1800673	35.2503015	0.09	14.5	1.6
04/28/2025	20	28	05.295	-22	43	50.63	35.1637885	35.2509858	0.09	14.5	1.6
04/29/2025	20	28	06.223	-22	43	58.89	35.1475310	35.2516702	0.09	14.5	1.6
04/30/2025	20	28	07.036	-22	44	07.56	35.1313003	35.2523547	0.09	14.5	1.6
05/01/2025	20	28	07.732	-22	44	16.65	35.1151014	35.2530391	0.09	14.5	1.6
05/02/2025	20	28	08.310	-22	44	26.17	35.0989398	35.2537235	0.09	14.5	1.6
05/03/2025	20	28	08.766	-22	44	36.13	35.0828202	35.2544080	0.09	14.5	1.6
05/04/2025	20	28	09.100	-22	44	46.51	35.0667477	35.2550925	0.09	14.5	1.6
05/05/2025	20	28	09.312	-22	44	57.30	35.0507271	35.2557770	0.09	14.5	1.6
05/06/2025	20	28	09.402	-22	45	08.50	35.0347630	35.2564615	0.09	14.5	1.6
05/07/2025	20	28	09.371	-22	45	20.08	35.0188601	35.2571461	0.09	14.5	1.6
05/08/2025	20	28	09.221	-22	45	32.05	35.0030229	35.2578306	0.09	14.5	1.6
05/09/2025	20	28	08.954	-22	45	44.38	34.9872560	35.2585152	0.09	14.5	1.6
05/10/2025	20	28	08.570	-22	45	57.08	34.9715638	35.2591998	0.09	14.5	1.6
05/11/2025	20	28	08.073	-22	46	10.14	34.9559507	35.2598844	0.09	14.5	1.6
05/12/2025	20	28	07.462	-22	46	23.55	34.9404212	35.2605691	0.09	14.5	1.6
05/13/2025	20	28	06.739	-22	46	37.32	34.9249795	35.2612537	0.09	14.5	1.6
05/14/2025	20	28	05.905	-22	46	51.46	34.9096301	35.2619384	0.09	14.5	1.6
05/15/2025	20	28	04.958	-22	47	05.96	34.8943772	35.2626231	0.09	14.5	1.5
05/16/2025	20	28	03.900	-22	47	20.83	34.8792252	35.2633078	0.09	14.5	1.5
05/17/2025	20	28	02.729	-22	47	36.07	34.8641785	35.2639925	0.09	14.5	1.5
05/18/2025	20	28	01.445	-22	47	51.68	34.8492415	35.2646772	0.09	14.5	1.5
05/19/2025	20	28	00.046	-22	48	07.66	34.8344184	35.2653620	0.09	14.5	1.5
05/20/2025	20	27	58.532	-22	48	24.01	34.8197138	35.2660468	0.09	14.5	1.5
05/21/2025	20	27	56.903	-22	48	40.70	34.8051321	35.2667315	0.09	14.5	1.5
05/22/2025	20	27	55.161	-22	48	57.72	34.7906779	35.2674164	0.09	14.5	1.5
05/23/2025	20	27	53.307	-22	49	15.06	34.7763557	35.2681012	0.09	14.5	1.5
05/24/2025	20	27	51.344	-22	49	32.70	34.7621703	35.2687860	0.09	14.5	1.4
05/25/2025	20	27	49.275	-22	49	50.63	34.7481263	35.2694709	0.09	14.5	1.4
05/26/2025	20	27	47.104	-22	50	08.85	34.7342285	35.2701558	0.09	14.5	1.4
05/27/2025	20	27	44.832	-22	50	27.37	34.7204816	35.2708407	0.09	14.5	1.4
05/28/2025	20	27	42.459	-22	50	46.20	34.7068902	35.2715256	0.09	14.5	1.4
05/29/2025	20	27	39.983	-22	51	05.35	34.6934588	35.2722105	0.09	14.5	1.4

Pluto - Apparent data

Date 0 h TT	Earth			Solar	Equatorial	Mag.	Phase Angle deg.
	Right Ascension	Declination	Distance	Distance	Diameter		
	h m s	d m s	au	au	arc sec		
05/30/2025	20 27 37.402	-22 51 24.83	34.6801917	35.2728955	0.09	14.5	1.4
05/31/2025	20 27 34.717	-22 51 44.63	34.6670931	35.2735804	0.09	14.5	1.3
06/01/2025	20 27 31.927	-22 52 04.73	34.6541671	35.2742654	0.09	14.5	1.3
06/02/2025	20 27 29.033	-22 52 25.12	34.6414175	35.2749504	0.09	14.5	1.3
06/03/2025	20 27 26.037	-22 52 45.78	34.6288480	35.2756354	0.09	14.5	1.3
06/04/2025	20 27 22.941	-22 53 06.70	34.6164622	35.2763205	0.09	14.5	1.3
06/05/2025	20 27 19.749	-22 53 27.85	34.6042638	35.2770055	0.09	14.5	1.3
06/06/2025	20 27 16.463	-22 53 49.24	34.5922561	35.2776906	0.09	14.5	1.2
06/07/2025	20 27 13.085	-22 54 10.86	34.5804426	35.2783757	0.09	14.5	1.2
06/08/2025	20 27 09.618	-22 54 32.70	34.5688267	35.2790608	0.09	14.5	1.2
06/09/2025	20 27 06.064	-22 54 54.75	34.5574115	35.2797459	0.09	14.5	1.2
06/10/2025	20 27 02.423	-22 55 17.02	34.5462004	35.2804310	0.09	14.5	1.2
06/11/2025	20 26 58.698	-22 55 39.51	34.5351965	35.2811162	0.09	14.5	1.1
06/12/2025	20 26 54.888	-22 56 02.22	34.5244030	35.2818014	0.09	14.5	1.1
06/13/2025	20 26 50.994	-22 56 25.14	34.5138229	35.2824866	0.09	14.5	1.1
06/14/2025	20 26 47.015	-22 56 48.29	34.5034594	35.2831718	0.09	14.5	1.1
06/15/2025	20 26 42.952	-22 57 11.64	34.4933157	35.2838570	0.09	14.5	1.1
06/16/2025	20 26 38.806	-22 57 35.20	34.4833948	35.2845423	0.10	14.5	1.0
06/17/2025	20 26 34.575	-22 57 58.95	34.4736999	35.2852275	0.10	14.5	1.0
06/18/2025	20 26 30.264	-22 58 22.86	34.4642342	35.2859128	0.10	14.5	1.0
06/19/2025	20 26 25.873	-22 58 46.93	34.4550008	35.2865981	0.10	14.5	1.0
06/20/2025	20 26 21.407	-22 59 11.14	34.4460029	35.2872834	0.10	14.5	1.0
06/21/2025	20 26 16.870	-22 59 35.46	34.4372438	35.2879687	0.10	14.5	0.9
06/22/2025	20 26 12.264	-22 59 59.90	34.4287268	35.2886541	0.10	14.5	0.9
06/23/2025	20 26 07.594	-23 00 24.46	34.4204549	35.2893394	0.10	14.5	0.9
06/24/2025	20 26 02.859	-23 00 49.15	34.4124313	35.2900248	0.10	14.5	0.9
06/25/2025	20 25 58.061	-23 01 13.97	34.4046589	35.2907102	0.10	14.5	0.8
06/26/2025	20 25 53.199	-23 01 38.93	34.3971406	35.2913956	0.10	14.5	0.8
06/27/2025	20 25 48.272	-23 02 04.02	34.3898790	35.2920811	0.10	14.5	0.8
06/28/2025	20 25 43.280	-23 02 29.24	34.3828765	35.2927665	0.10	14.5	0.8
06/29/2025	20 25 38.225	-23 02 54.56	34.3761353	35.2934520	0.10	14.5	0.7
06/30/2025	20 25 33.109	-23 03 19.96	34.3696576	35.2941375	0.10	14.5	0.7
07/01/2025	20 25 27.936	-23 03 45.43	34.3634452	35.2948229	0.10	14.5	0.7
07/02/2025	20 25 22.708	-23 04 10.95	34.3575001	35.2955085	0.10	14.5	0.7
07/03/2025	20 25 17.429	-23 04 36.51	34.3518238	35.2961940	0.10	14.5	0.6
07/04/2025	20 25 12.103	-23 05 02.10	34.3464180	35.2968795	0.10	14.5	0.6
07/05/2025	20 25 06.732	-23 05 27.71	34.3412843	35.2975651	0.10	14.5	0.6
07/06/2025	20 25 01.320	-23 05 53.33	34.3364241	35.2982507	0.10	14.5	0.5
07/07/2025	20 24 55.867	-23 06 18.97	34.3318388	35.2989363	0.10	14.5	0.5
07/08/2025	20 24 50.377	-23 06 44.63	34.3275296	35.2996219	0.10	14.5	0.5
07/09/2025	20 24 44.850	-23 07 10.30	34.3234979	35.3003075	0.10	14.5	0.5
07/10/2025	20 24 39.287	-23 07 35.98	34.3197449	35.3009932	0.10	14.5	0.4
07/11/2025	20 24 33.689	-23 08 01.68	34.3162716	35.3016789	0.10	14.5	0.4
07/12/2025	20 24 28.056	-23 08 27.38	34.3130793	35.3023645	0.10	14.5	0.4
07/13/2025	20 24 22.389	-23 08 53.08	34.3101691	35.3030502	0.10	14.5	0.4
07/14/2025	20 24 16.689	-23 09 18.77	34.3075421	35.3037360	0.10	14.5	0.3
07/15/2025	20 24 10.958	-23 09 44.42	34.3051994	35.3044217	0.10	14.5	0.3
07/16/2025	20 24 05.199	-23 10 10.01	34.3031424	35.3051074	0.10	14.5	0.3
07/17/2025	20 23 59.416	-23 10 35.54	34.3013719	35.3057932	0.10	14.5	0.3
07/18/2025	20 23 53.614	-23 11 00.98	34.2998894	35.3064790	0.10	14.5	0.2

Pluto - Apparent data

Date 0 h TT	Earth			Solar	Equatorial	Mag.	Phase Angle deg.
	Right Ascension	Declination	Distance	Distance	Diameter		
	h m s	d m s	au	au	arc sec		
07/19/2025	20 23 47.795	-23 11 26.32	34.2986958	35.3071648	0.10	14.5	0.2
07/20/2025	20 23 41.964	-23 11 51.58	34.2977922	35.3078506	0.10	14.5	0.2
07/21/2025	20 23 36.123	-23 12 16.74	34.2971797	35.3085364	0.10	14.5	0.2
07/22/2025	20 23 30.273	-23 12 41.83	34.2968590	35.3092223	0.10	14.5	0.2
07/23/2025	20 23 24.414	-23 13 06.84	34.2968308	35.3099082	0.10	14.5	0.1
07/24/2025	20 23 18.545	-23 13 31.77	34.2970957	35.3105940	0.10	14.5	0.1
07/25/2025	20 23 12.668	-23 13 56.62	34.2976539	35.3112800	0.10	14.5	0.1
07/26/2025	20 23 06.784	-23 14 21.37	34.2985056	35.3119659	0.10	14.5	0.1
07/27/2025	20 23 00.894	-23 14 46.00	34.2996508	35.3126518	0.10	14.5	0.1
07/28/2025	20 22 55.001	-23 15 10.50	34.3010891	35.3133378	0.10	14.5	0.1
07/29/2025	20 22 49.111	-23 15 34.83	34.3028202	35.3140237	0.10	14.5	0.1
07/30/2025	20 22 43.225	-23 15 59.00	34.3048436	35.3147097	0.10	14.5	0.2
07/31/2025	20 22 37.349	-23 16 22.99	34.3071587	35.3153957	0.10	14.5	0.2
08/01/2025	20 22 31.485	-23 16 46.79	34.3097647	35.3160818	0.10	14.5	0.2
08/02/2025	20 22 25.636	-23 17 10.41	34.3126610	35.3167678	0.10	14.5	0.2
08/03/2025	20 22 19.805	-23 17 33.83	34.3158465	35.3174539	0.10	14.5	0.3
08/04/2025	20 22 13.994	-23 17 57.07	34.3193204	35.3181399	0.10	14.5	0.3
08/05/2025	20 22 08.204	-23 18 20.11	34.3230816	35.3188260	0.10	14.5	0.3
08/06/2025	20 22 02.437	-23 18 42.97	34.3271292	35.3195121	0.10	14.5	0.3
08/07/2025	20 21 56.693	-23 19 05.64	34.3314619	35.3201983	0.10	14.5	0.4
08/08/2025	20 21 50.974	-23 19 28.12	34.3360786	35.3208844	0.10	14.5	0.4
08/09/2025	20 21 45.279	-23 19 50.40	34.3409781	35.3215706	0.10	14.5	0.4
08/10/2025	20 21 39.609	-23 20 12.47	34.3461593	35.3222568	0.10	14.5	0.4
08/11/2025	20 21 33.967	-23 20 34.31	34.3516210	35.3229430	0.10	14.5	0.5
08/12/2025	20 21 28.354	-23 20 55.91	34.3573621	35.3236292	0.10	14.5	0.5
08/13/2025	20 21 22.775	-23 21 17.25	34.3633815	35.3243154	0.10	14.5	0.5
08/14/2025	20 21 17.234	-23 21 38.31	34.3696779	35.3250017	0.10	14.5	0.5
08/15/2025	20 21 11.736	-23 21 59.10	34.3762504	35.3256879	0.10	14.5	0.6
08/16/2025	20 21 06.283	-23 22 19.60	34.3830976	35.3263742	0.10	14.5	0.6
08/17/2025	20 21 00.877	-23 22 39.84	34.3902182	35.3270605	0.10	14.5	0.6
08/18/2025	20 20 55.521	-23 22 59.80	34.3976108	35.3277469	0.10	14.5	0.6
08/19/2025	20 20 50.214	-23 23 19.51	34.4052738	35.3284332	0.10	14.5	0.7
08/20/2025	20 20 44.957	-23 23 38.97	34.4132055	35.3291196	0.10	14.5	0.7
08/21/2025	20 20 39.749	-23 23 58.16	34.4214040	35.3298060	0.10	14.5	0.7
08/22/2025	20 20 34.591	-23 24 17.08	34.4298671	35.3304924	0.10	14.5	0.7
08/23/2025	20 20 29.485	-23 24 35.71	34.4385925	35.3311788	0.10	14.5	0.8
08/24/2025	20 20 24.433	-23 24 54.04	34.4475779	35.3318652	0.10	14.5	0.8
08/25/2025	20 20 19.439	-23 25 12.05	34.4568205	35.3325517	0.10	14.5	0.8
08/26/2025	20 20 14.506	-23 25 29.73	34.4663178	35.3332381	0.10	14.5	0.8
08/27/2025	20 20 09.638	-23 25 47.07	34.4760668	35.3339246	0.10	14.5	0.9
08/28/2025	20 20 04.837	-23 26 04.06	34.4860646	35.3346111	0.10	14.5	0.9
08/29/2025	20 20 00.107	-23 26 20.71	34.4963083	35.3352977	0.09	14.5	0.9
08/30/2025	20 19 55.450	-23 26 37.01	34.5067948	35.3359842	0.09	14.5	0.9
08/31/2025	20 19 50.868	-23 26 52.97	34.5175209	35.3366708	0.09	14.5	1.0
09/01/2025	20 19 46.361	-23 27 08.58	34.5284835	35.3373574	0.09	14.5	1.0
09/02/2025	20 19 41.932	-23 27 23.86	34.5396793	35.3380440	0.09	14.5	1.0
09/03/2025	20 19 37.580	-23 27 38.81	34.5511052	35.3387306	0.09	14.5	1.0
09/04/2025	20 19 33.306	-23 27 53.42	34.5627578	35.3394173	0.09	14.5	1.0
09/05/2025	20 19 29.110	-23 28 07.69	34.5746338	35.3401040	0.09	14.5	1.1
09/06/2025	20 19 24.992	-23 28 21.62	34.5867298	35.3407906	0.09	14.5	1.1

Pluto - Apparent data

Date 0 h TT	Earth			Distance	Solar	Equatorial	Mag.	Phase Angle deg.
	Right Ascension	Declination		Distance	Distance	Diameter		
	h m s	d m s		au	au	arc sec		
09/07/2025	20 19 20.953	-23 28 35.20		34.5990428	35.3414774	0.09	14.5	1.1
09/08/2025	20 19 16.994	-23 28 48.41		34.6115693	35.3421641	0.09	14.5	1.1
09/09/2025	20 19 13.119	-23 29 01.24		34.6243062	35.3428508	0.09	14.5	1.1
09/10/2025	20 19 09.331	-23 29 13.66		34.6372504	35.3435376	0.09	14.5	1.2
09/11/2025	20 19 05.634	-23 29 25.68		34.6503987	35.3442244	0.09	14.5	1.2
09/12/2025	20 19 02.032	-23 29 37.31		34.6637480	35.3449112	0.09	14.5	1.2
09/13/2025	20 18 58.527	-23 29 48.54		34.6772949	35.3455980	0.09	14.5	1.2
09/14/2025	20 18 55.118	-23 29 59.39		34.6910361	35.3462849	0.09	14.5	1.2
09/15/2025	20 18 51.806	-23 30 09.87		34.7049682	35.3469717	0.09	14.5	1.3
09/16/2025	20 18 48.590	-23 30 20.00		34.7190875	35.3476586	0.09	14.5	1.3
09/17/2025	20 18 45.470	-23 30 29.75		34.7333903	35.3483455	0.09	14.5	1.3
09/18/2025	20 18 42.445	-23 30 39.14		34.7478725	35.3490325	0.09	14.5	1.3
09/19/2025	20 18 39.516	-23 30 48.15		34.7625301	35.3497194	0.09	14.5	1.3
09/20/2025	20 18 36.685	-23 30 56.76		34.7773589	35.3504064	0.09	14.5	1.3
09/21/2025	20 18 33.955	-23 31 04.97		34.7923544	35.3510933	0.09	14.5	1.4
09/22/2025	20 18 31.327	-23 31 12.76		34.8075124	35.3517804	0.09	14.5	1.4
09/23/2025	20 18 28.805	-23 31 20.13		34.8228281	35.3524674	0.09	14.5	1.4
09/24/2025	20 18 26.392	-23 31 27.07		34.8382971	35.3531544	0.09	14.5	1.4
09/25/2025	20 18 24.088	-23 31 33.59		34.8539146	35.3538415	0.09	14.5	1.4
09/26/2025	20 18 21.896	-23 31 39.69		34.8696760	35.3545286	0.09	14.5	1.4
09/27/2025	20 18 19.817	-23 31 45.37		34.8855765	35.3552157	0.09	14.5	1.4
09/28/2025	20 18 17.851	-23 31 50.64		34.9016113	35.3559028	0.09	14.5	1.5
09/29/2025	20 18 16.000	-23 31 55.51		34.9177757	35.3565900	0.09	14.5	1.5
09/30/2025	20 18 14.262	-23 31 59.98		34.9340648	35.3572771	0.09	14.5	1.5
10/01/2025	20 18 12.637	-23 32 04.06		34.9504740	35.3579643	0.09	14.5	1.5
10/02/2025	20 18 11.125	-23 32 07.74		34.9669984	35.3586515	0.09	14.5	1.5
10/03/2025	20 18 09.725	-23 32 11.03		34.9836332	35.3593387	0.09	14.5	1.5
10/04/2025	20 18 08.436	-23 32 13.92		35.0003738	35.3600260	0.09	14.5	1.5
10/05/2025	20 18 07.259	-23 32 16.41		35.0172154	35.3607133	0.09	14.5	1.5
10/06/2025	20 18 06.196	-23 32 18.47		35.0341536	35.3614005	0.09	14.5	1.5
10/07/2025	20 18 05.249	-23 32 20.10		35.0511839	35.3620878	0.09	14.5	1.5
10/08/2025	20 18 04.420	-23 32 21.29		35.0683017	35.3627752	0.09	14.5	1.5
10/09/2025	20 18 03.714	-23 32 22.04		35.0855027	35.3634625	0.09	14.5	1.5
10/10/2025	20 18 03.131	-23 32 22.36		35.1027825	35.3641499	0.09	14.5	1.6
10/11/2025	20 18 02.672	-23 32 22.27		35.1201366	35.3648373	0.09	14.5	1.6
10/12/2025	20 18 02.335	-23 32 21.80		35.1375605	35.3655247	0.09	14.5	1.6
10/13/2025	20 18 02.119	-23 32 20.94		35.1550495	35.3662121	0.09	14.5	1.6
10/14/2025	20 18 02.021	-23 32 19.70		35.1725988	35.3668996	0.09	14.5	1.6
10/15/2025	20 18 02.041	-23 32 18.08		35.1902034	35.3675870	0.09	14.5	1.6
10/16/2025	20 18 02.178	-23 32 16.07		35.2078582	35.3682745	0.09	14.5	1.6
10/17/2025	20 18 02.433	-23 32 13.66		35.2255582	35.3689620	0.09	14.5	1.6
10/18/2025	20 18 02.807	-23 32 10.85		35.2432980	35.3696496	0.09	14.5	1.6
10/19/2025	20 18 03.301	-23 32 07.62		35.2610724	35.3703371	0.09	14.5	1.6
10/20/2025	20 18 03.918	-23 32 03.97		35.2788761	35.3710247	0.09	14.5	1.6
10/21/2025	20 18 04.659	-23 31 59.90		35.2967036	35.3717123	0.09	14.5	1.6
10/22/2025	20 18 05.525	-23 31 55.42		35.3145495	35.3723999	0.09	14.5	1.6
10/23/2025	20 18 06.516	-23 31 50.52		35.3324084	35.3730875	0.09	14.5	1.6
10/24/2025	20 18 07.634	-23 31 45.22		35.3502750	35.3737752	0.09	14.5	1.6
10/25/2025	20 18 08.877	-23 31 39.52		35.3681437	35.3744628	0.09	14.5	1.6
10/26/2025	20 18 10.245	-23 31 33.44		35.3860094	35.3751505	0.09	14.5	1.6

Pluto - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth Distance au	Solar Distance au	Equatorial Diameter arc sec	Mag.	Phase Angle deg.
	h	m	s	d	m	s					
10/27/2025	20	18	11.737	-23	31	26.99	35.4038665	35.3758382	0.09	14.5	1.6
10/28/2025	20	18	13.351	-23	31	20.16	35.4217099	35.3765260	0.09	14.5	1.6
10/29/2025	20	18	15.087	-23	31	12.97	35.4395342	35.3772137	0.09	14.5	1.6
10/30/2025	20	18	16.942	-23	31	05.41	35.4573343	35.3779015	0.09	14.5	1.6
10/31/2025	20	18	18.915	-23	30	57.50	35.4751050	35.3785893	0.09	14.5	1.6
11/01/2025	20	18	21.006	-23	30	49.22	35.4928414	35.3792771	0.09	14.5	1.6
11/02/2025	20	18	23.213	-23	30	40.56	35.5105384	35.3799649	0.09	14.5	1.6
11/03/2025	20	18	25.539	-23	30	31.52	35.5281913	35.3806528	0.09	14.5	1.6
11/04/2025	20	18	27.984	-23	30	22.08	35.5457953	35.3813407	0.09	14.6	1.6
11/05/2025	20	18	30.552	-23	30	12.25	35.5633459	35.3820285	0.09	14.6	1.6
11/06/2025	20	18	33.243	-23	30	02.04	35.5808384	35.3827165	0.09	14.6	1.6
11/07/2025	20	18	36.057	-23	29	51.46	35.5982685	35.3834044	0.09	14.6	1.5
11/08/2025	20	18	38.993	-23	29	40.55	35.6156315	35.3840924	0.09	14.6	1.5
11/09/2025	20	18	42.047	-23	29	29.30	35.6329228	35.3847803	0.09	14.6	1.5
11/10/2025	20	18	45.216	-23	29	17.75	35.6501377	35.3854683	0.09	14.6	1.5
11/11/2025	20	18	48.498	-23	29	05.88	35.6672714	35.3861563	0.09	14.6	1.5
11/12/2025	20	18	51.890	-23	28	53.69	35.6843189	35.3868444	0.09	14.6	1.5
11/13/2025	20	18	55.393	-23	28	41.18	35.7012753	35.3875324	0.09	14.6	1.5
11/14/2025	20	18	59.007	-23	28	28.33	35.7181355	35.3882205	0.09	14.6	1.5
11/15/2025	20	19	02.732	-23	28	15.14	35.7348945	35.3889086	0.09	14.6	1.5
11/16/2025	20	19	06.569	-23	28	01.62	35.7515472	35.3895967	0.09	14.6	1.5
11/17/2025	20	19	10.519	-23	27	47.75	35.7680885	35.3902849	0.09	14.6	1.5
11/18/2025	20	19	14.581	-23	27	33.55	35.7845136	35.3909730	0.09	14.6	1.5
11/19/2025	20	19	18.756	-23	27	19.02	35.8008172	35.3916612	0.09	14.6	1.4
11/20/2025	20	19	23.044	-23	27	04.17	35.8169946	35.3923494	0.09	14.6	1.4
11/21/2025	20	19	27.442	-23	26	49.01	35.8330407	35.3930376	0.09	14.6	1.4
11/22/2025	20	19	31.950	-23	26	33.56	35.8489508	35.3937259	0.09	14.6	1.4
11/23/2025	20	19	36.566	-23	26	17.82	35.8647200	35.3944141	0.09	14.6	1.4
11/24/2025	20	19	41.287	-23	26	01.81	35.8803438	35.3951024	0.09	14.6	1.4
11/25/2025	20	19	46.110	-23	25	45.53	35.8958174	35.3957907	0.09	14.6	1.4
11/26/2025	20	19	51.035	-23	25	28.99	35.9111365	35.3964790	0.09	14.6	1.3
11/27/2025	20	19	56.057	-23	25	12.19	35.9262966	35.3971674	0.09	14.6	1.3
11/28/2025	20	20	01.176	-23	24	55.13	35.9412933	35.3978557	0.09	14.6	1.3
11/29/2025	20	20	06.391	-23	24	37.80	35.9561227	35.3985441	0.09	14.6	1.3
11/30/2025	20	20	11.700	-23	24	20.20	35.9707807	35.3992325	0.09	14.6	1.3
12/01/2025	20	20	17.105	-23	24	02.33	35.9852633	35.3999210	0.09	14.6	1.3
12/02/2025	20	20	22.606	-23	23	44.18	35.9995669	35.4006094	0.09	14.6	1.2
12/03/2025	20	20	28.204	-23	23	25.76	36.0136879	35.4012979	0.09	14.6	1.2
12/04/2025	20	20	33.899	-23	23	07.09	36.0276228	35.4019864	0.09	14.6	1.2
12/05/2025	20	20	39.690	-23	22	48.18	36.0413680	35.4026749	0.09	14.6	1.2
12/06/2025	20	20	45.573	-23	22	29.06	36.0549202	35.4033634	0.09	14.6	1.2
12/07/2025	20	20	51.544	-23	22	09.74	36.0682758	35.4040520	0.09	14.6	1.2
12/08/2025	20	20	57.599	-23	21	50.25	36.0814313	35.4047405	0.09	14.6	1.1
12/09/2025	20	21	03.735	-23	21	30.57	36.0943830	35.4054291	0.09	14.6	1.1
12/10/2025	20	21	09.949	-23	21	10.69	36.1071272	35.4061178	0.09	14.6	1.1
12/11/2025	20	21	16.242	-23	20	50.62	36.1196601	35.4068064	0.09	14.6	1.1
12/12/2025	20	21	22.613	-23	20	30.34	36.1319781	35.4074950	0.09	14.6	1.1
12/13/2025	20	21	29.063	-23	20	09.86	36.1440774	35.4081837	0.09	14.6	1.0
12/14/2025	20	21	35.591	-23	19	49.17	36.1559544	35.4088724	0.09	14.6	1.0
12/15/2025	20	21	42.198	-23	19	28.28	36.1676054	35.4095611	0.09	14.6	1.0

Pluto - Apparent data

Date 0 h TT	Right Ascension			Declination			Earth	Solar	Equatorial	Mag.	Phase Angle deg.
	h	m	s	d	m	s	Distance au	Distance au	Diameter arc sec		
12/16/2025	20	21	48.881	-23	19	07.21	36.1790269	35.4102499	0.09	14.6	1.0
12/17/2025	20	21	55.641	-23	18	45.95	36.1902155	35.4109386	0.09	14.6	1.0
12/18/2025	20	22	02.475	-23	18	24.53	36.2011678	35.4116274	0.09	14.6	0.9
12/19/2025	20	22	09.382	-23	18	02.95	36.2118804	35.4123162	0.09	14.6	0.9
12/20/2025	20	22	16.359	-23	17	41.23	36.2223502	35.4130050	0.09	14.6	0.9
12/21/2025	20	22	23.403	-23	17	19.39	36.2325742	35.4136939	0.09	14.6	0.9
12/22/2025	20	22	30.511	-23	16	57.42	36.2425492	35.4143827	0.09	14.6	0.8
12/23/2025	20	22	37.680	-23	16	35.35	36.2522727	35.4150716	0.09	14.6	0.8
12/24/2025	20	22	44.908	-23	16	13.17	36.2617417	35.4157605	0.09	14.6	0.8
12/25/2025	20	22	52.191	-23	15	50.88	36.2709538	35.4164494	0.09	14.6	0.8
12/26/2025	20	22	59.528	-23	15	28.48	36.2799067	35.4171384	0.09	14.6	0.7
12/27/2025	20	23	06.917	-23	15	05.97	36.2885979	35.4178273	0.09	14.6	0.7
12/28/2025	20	23	14.360	-23	14	43.35	36.2970256	35.4185163	0.09	14.6	0.7
12/29/2025	20	23	21.854	-23	14	20.61	36.3051877	35.4192053	0.09	14.6	0.7
12/30/2025	20	23	29.401	-23	13	57.76	36.3130824	35.4198943	0.09	14.6	0.6
12/31/2025	20	23	37.001	-23	13	34.82	36.3207082	35.4205834	0.09	14.6	0.6
01/01/2026	20	23	44.651	-23	13	11.79	36.3280634	35.4212724	0.09	14.6	0.6
01/02/2026	20	23	52.350	-23	12	48.71	36.3351467	35.4219615	0.09	14.6	0.6



Table of percent illumination versus phase angle.

Phase	%Illum.	Phase
0.00000	100.0	360.00000
5.00000	99.8	355.00000
10.00000	99.2	350.00000
15.00000	98.3	345.00000
20.00000	97.0	340.00000
25.00000	95.3	335.00000
30.00000	93.3	330.00000
35.00000	91.0	325.00000
36.86990	90.0	323.13010
40.00000	88.3	320.00000
45.00000	85.4	315.00000
45.57300	85.0	314.42700
50.00000	82.1	310.00000
53.13010	80.0	306.86990
55.00000	78.7	305.00000
60.00000	75.0	300.00000
65.00000	71.1	295.00000
66.42182	70.0	293.57818
70.00000	67.1	290.00000
72.54240	65.0	287.45760
75.00000	62.9	285.00000
78.46304	60.0	281.53696
80.00000	58.7	280.00000
84.26083	55.0	275.73917
85.00000	54.4	275.00000
90.00000	50.0	270.00000
95.00000	45.6	265.00000
95.73917	45.0	264.26083
100.00000	41.3	260.00000
101.53696	40.0	258.46304
105.00000	37.1	255.00000
107.45760	35.0	252.54240
110.00000	32.9	250.00000
113.57818	30.0	246.42182
115.00000	28.9	245.00000
120.00000	25.0	240.00000
125.00000	21.3	235.00000
126.86990	20.0	233.13010
130.00000	17.9	230.00000
134.42700	15.0	225.57300
135.00000	14.6	225.00000
140.00000	11.7	220.00000
143.13010	10.0	216.86990
145.00000	9.0	215.00000
150.00000	6.7	210.00000
155.00000	4.7	205.00000
160.00000	3.0	200.00000
165.00000	1.7	195.00000
170.00000	0.8	190.00000
175.00000	0.2	185.00000
180.00000	0.0	180.00000