

# Efemeriden van de planetoiden, vernoemd in de Hemelkalender 2025

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RA	Rectascensie
Decl.	Declinatie
$\Delta$	Afstand tot de Aarde
R	Afstand tot de Zon
E	Elongatie van de Zon
Mag	Visuele magnitude

## 1 Ceres

### 0h UTC (J2000)

Osculerende baanelementen

T 2025 Sep 1.0000 TT

MA 214.199270°

q 2.5459230                       $\omega$  73.278725°

a 2.7658085                       $\Omega$  80.250856°

e 0.0795013                      i 10.587807°

Datum			RA			Decl.			$\Delta$	r	Elong.	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2025	Jul	1	1	0	46.74	-	5	31 50.7	2.842	2.973	87.3	9.0
2025	Jul	2	1	1	35.53	-	5	30 4.6	2.828	2.973	88.1	9.0
2025	Jul	3	1	2	23.56	-	5	28 25.2	2.815	2.973	88.8	9.0
2025	Jul	4	1	3	10.79	-	5	26 52.6	2.801	2.972	89.5	8.9
2025	Jul	5	1	3	57.23	-	5	25 26.8	2.788	2.972	90.3	8.9
2025	Jul	6	1	4	42.86	-	5	24 7.8	2.774	2.972	91.0	8.9
2025	Jul	7	1	5	27.67	-	5	22 55.7	2.761	2.972	91.8	8.9

## 1 Ceres

Datum			RA			Decl.			$\Delta$	$r$	Elong.	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2025	Jul	8	1	6	11.65	-	5	21 50.5	2.747	2.971	92.6	8.9
2025	Jul	9	1	6	54.79	-	5	20 52.4	2.734	2.971	93.3	8.9
2025	Jul	10	1	7	37.07	-	5	20 1.2	2.720	2.971	94.1	8.9
2025	Jul	11	1	8	18.48	-	5	19 17.2	2.707	2.971	94.9	8.9
2025	Jul	12	1	8	59.01	-	5	18 40.3	2.693	2.970	95.6	8.9
2025	Jul	13	1	9	38.64	-	5	18 10.6	2.680	2.970	96.4	8.8
2025	Jul	14	1	10	17.36	-	5	17 48.1	2.666	2.970	97.2	8.8
2025	Jul	15	1	10	55.15	-	5	17 33.0	2.653	2.969	98.0	8.8
2025	Jul	16	1	11	32.01	-	5	17 25.2	2.639	2.969	98.8	8.8
2025	Jul	17	1	12	7.91	-	5	17 24.8	2.626	2.969	99.6	8.8
2025	Jul	18	1	12	42.83	-	5	17 31.9	2.613	2.969	100.3	8.8
2025	Jul	19	1	13	16.77	-	5	17 46.5	2.599	2.968	101.2	8.8
2025	Jul	20	1	13	49.70	-	5	18 8.6	2.586	2.968	102.0	8.8
2025	Jul	21	1	14	21.62	-	5	18 38.3	2.573	2.968	102.8	8.7
2025	Jul	22	1	14	52.49	-	5	19 15.7	2.560	2.967	103.6	8.7
2025	Jul	23	1	15	22.31	-	5	20 0.8	2.546	2.967	104.4	8.7
2025	Jul	24	1	15	51.07	-	5	20 53.5	2.533	2.967	105.2	8.7
2025	Jul	25	1	16	18.74	-	5	21 53.9	2.520	2.966	106.1	8.7
2025	Jul	26	1	16	45.31	-	5	23 2.0	2.507	2.966	106.9	8.7
2025	Jul	27	1	17	10.77	-	5	24 17.7	2.494	2.966	107.7	8.7
2025	Jul	28	1	17	35.11	-	5	25 41.2	2.482	2.965	108.6	8.6
2025	Jul	29	1	17	58.31	-	5	27 12.3	2.469	2.965	109.4	8.6
2025	Jul	30	1	18	20.36	-	5	28 51.1	2.456	2.965	110.3	8.6
2025	Jul	31	1	18	41.25	-	5	30 37.4	2.443	2.964	111.1	8.6
2025	Aug	1	1	19	0.96	-	5	32 31.4	2.431	2.964	112.0	8.6
2025	Aug	2	1	19	19.48	-	5	34 33.0	2.418	2.964	112.8	8.6
2025	Aug	3	1	19	36.81	-	5	36 42.1	2.406	2.963	113.7	8.5
2025	Aug	4	1	19	52.93	-	5	38 58.7	2.394	2.963	114.6	8.5
2025	Aug	5	1	20	7.82	-	5	41 22.8	2.381	2.963	115.5	8.5
2025	Aug	6	1	20	21.48	-	5	43 54.4	2.369	2.962	116.4	8.5
2025	Aug	7	1	20	33.89	-	5	46 33.3	2.357	2.962	117.2	8.5
2025	Aug	8	1	20	45.05	-	5	49 19.6	2.345	2.962	118.1	8.5
2025	Aug	9	1	20	54.94	-	5	52 13.2	2.334	2.961	119.0	8.5
2025	Aug	10	1	21	3.55	-	5	55 14.1	2.322	2.961	119.9	8.4
2025	Aug	11	1	21	10.87	-	5	58 22.1	2.310	2.961	120.8	8.4
2025	Aug	12	1	21	16.88	-	6	1 37.3	2.299	2.960	121.8	8.4
2025	Aug	13	1	21	21.59	-	6	4 59.6	2.288	2.960	122.7	8.4
2025	Aug	14	1	21	24.96	-	6	8 28.9	2.276	2.960	123.6	8.4
2025	Aug	15	1	21	27.01	-	6	12 5.2	2.265	2.959	124.5	8.4
2025	Aug	16	1	21	27.70	-	6	15 48.3	2.254	2.959	125.4	8.3
2025	Aug	17	1	21	27.04	-	6	19 38.1	2.243	2.959	126.4	8.3
2025	Aug	18	1	21	25.02	-	6	23 34.6	2.233	2.958	127.3	8.3
2025	Aug	19	1	21	21.62	-	6	27 37.5	2.222	2.958	128.3	8.3
2025	Aug	20	1	21	16.85	-	6	31 46.9	2.212	2.957	129.2	8.3
2025	Aug	21	1	21	10.69	-	6	36 2.4	2.202	2.957	130.2	8.2
2025	Aug	22	1	21	3.14	-	6	40 24.0	2.192	2.957	131.1	8.2
2025	Aug	23	1	20	54.21	-	6	44 51.4	2.182	2.956	132.1	8.2
2025	Aug	24	1	20	43.89	-	6	49 24.5	2.172	2.956	133.0	8.2
2025	Aug	25	1	20	32.19	-	6	54 3.1	2.162	2.955	134.0	8.2
2025	Aug	26	1	20	19.09	-	6	58 46.9	2.153	2.955	135.0	8.2
2025	Aug	27	1	20	4.62	-	7	3 35.7	2.144	2.955	136.0	8.1

## 1 Ceres

Datum			RA			Decl.			$\Delta$	$r$	Elong.	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2025	Aug	28	1	19	48.78	-	7	8 29.3	2.135	2.954	136.9	8.1
2025	Aug	29	1	19	31.56	-	7	13 27.5	2.126	2.954	137.9	8.1
2025	Aug	30	1	19	12.99	-	7	18 30.0	2.117	2.954	138.9	8.1
2025	Aug	31	1	18	53.06	-	7	23 36.5	2.109	2.953	139.9	8.1
2025	Sep	1	1	18	31.78	-	7	28 46.8	2.100	2.953	140.9	8.0
2025	Sep	2	1	18	9.18	-	7	34 0.6	2.092	2.952	141.8	8.0
2025	Sep	3	1	17	45.26	-	7	39 17.7	2.084	2.952	142.8	8.0
2025	Sep	4	1	17	20.03	-	7	44 37.7	2.077	2.951	143.8	8.0
2025	Sep	5	1	16	53.51	-	7	50 0.4	2.069	2.951	144.8	8.0
2025	Sep	6	1	16	25.72	-	7	55 25.5	2.062	2.951	145.8	8.0
2025	Sep	7	1	15	56.67	-	8	0 52.7	2.055	2.950	146.8	7.9
2025	Sep	8	1	15	26.37	-	8	6 21.7	2.048	2.950	147.7	7.9
2025	Sep	9	1	14	54.86	-	8	11 52.2	2.042	2.949	148.7	7.9
2025	Sep	10	1	14	22.15	-	8	17 23.9	2.036	2.949	149.7	7.9
2025	Sep	11	1	13	48.25	-	8	22 56.4	2.029	2.949	150.6	7.9
2025	Sep	12	1	13	13.20	-	8	28 29.5	2.024	2.948	151.6	7.8
2025	Sep	13	1	12	37.01	-	8	34 2.8	2.018	2.948	152.5	7.8
2025	Sep	14	1	11	59.71	-	8	39 35.9	2.013	2.947	153.5	7.8
2025	Sep	15	1	11	21.34	-	8	45 8.4	2.008	2.947	154.4	7.8
2025	Sep	16	1	10	41.92	-	8	50 40.1	2.003	2.946	155.3	7.8
2025	Sep	17	1	10	1.48	-	8	56 10.4	1.998	2.946	156.2	7.7
2025	Sep	18	1	9	20.07	-	9	1 39.1	1.994	2.945	157.1	7.7
2025	Sep	19	1	8	37.71	-	9	7 5.7	1.990	2.945	157.9	7.7
2025	Sep	20	1	7	54.45	-	9	12 29.7	1.986	2.945	158.8	7.7
2025	Sep	21	1	7	10.33	-	9	17 50.9	1.982	2.944	159.6	7.7
2025	Sep	22	1	6	25.39	-	9	23 8.7	1.979	2.944	160.3	7.7
2025	Sep	23	1	5	39.68	-	9	28 22.8	1.976	2.943	161.0	7.7
2025	Sep	24	1	4	53.25	-	9	33 32.8	1.973	2.943	161.7	7.6
2025	Sep	25	1	4	6.14	-	9	38 38.3	1.971	2.942	162.4	7.6
2025	Sep	26	1	3	18.40	-	9	43 38.8	1.969	2.942	162.9	7.6
2025	Sep	27	1	2	30.08	-	9	48 34.0	1.967	2.941	163.4	7.6
2025	Sep	28	1	1	41.23	-	9	53 23.5	1.965	2.941	163.9	7.6
2025	Sep	29	1	0	51.91	-	9	58 7.0	1.964	2.940	164.3	7.6
2025	Sep	30	1	0	2.17	-	10	2 44.0	1.962	2.940	164.5	7.6
2025	Okt	1	0	59	12.05	-	10	7 14.3	1.962	2.939	164.7	7.6
2025	Okt	2	0	58	21.61	-	10	11 37.4	1.961	2.939	164.9	7.6
2025	Okt	3	0	57	30.91	-	10	15 53.1	1.961	2.939	164.9	7.6
2025	Okt	4	0	56	40.00	-	10	20 1.1	1.961	2.938	164.8	7.6
2025	Okt	5	0	55	48.92	-	10	24 1.0	1.961	2.938	164.6	7.6
2025	Okt	6	0	54	57.75	-	10	27 52.5	1.962	2.937	164.4	7.6
2025	Okt	7	0	54	6.51	-	10	31 35.5	1.963	2.937	164.1	7.6
2025	Okt	8	0	53	15.28	-	10	35 9.6	1.964	2.936	163.7	7.6
2025	Okt	9	0	52	24.09	-	10	38 34.5	1.965	2.936	163.2	7.6
2025	Okt	10	0	51	33.01	-	10	41 50.1	1.967	2.935	162.6	7.6
2025	Okt	11	0	50	42.08	-	10	44 56.1	1.969	2.935	162.0	7.6
2025	Okt	12	0	49	51.35	-	10	47 52.3	1.971	2.934	161.3	7.6
2025	Okt	13	0	49	0.89	-	10	50 38.3	1.974	2.934	160.6	7.6
2025	Okt	14	0	48	10.73	-	10	53 14.1	1.976	2.933	159.9	7.7
2025	Okt	15	0	47	20.94	-	10	55 39.4	1.979	2.933	159.1	7.7
2025	Okt	16	0	46	31.57	-	10	57 54.0	1.983	2.932	158.2	7.7
2025	Okt	17	0	45	42.67	-	10	59 57.6	1.986	2.932	157.4	7.7

## 1 Ceres

Datum			RA			Decl.			$\Delta$	$r$	Elong.	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2025	Okt	18	0	44	54.29	-11	1	50.3	1.990	2.931	156.5	7.7
2025	Okt	19	0	44	6.49	-11	3	31.7	1.994	2.931	155.6	7.7
2025	Okt	20	0	43	19.31	-11	5	1.8	1.999	2.930	154.7	7.8
2025	Okt	21	0	42	32.80	-11	6	20.4	2.003	2.930	153.7	7.8
2025	Okt	22	0	41	47.02	-11	7	27.5	2.008	2.929	152.8	7.8
2025	Okt	23	0	41	2.00	-11	8	22.9	2.013	2.929	151.8	7.8
2025	Okt	24	0	40	17.80	-11	9	6.5	2.019	2.928	150.8	7.8
2025	Okt	25	0	39	34.46	-11	9	38.4	2.024	2.927	149.9	7.8
2025	Okt	26	0	38	52.01	-11	9	58.5	2.030	2.927	148.9	7.9
2025	Okt	27	0	38	10.50	-11	10	6.8	2.037	2.926	147.9	7.9
2025	Okt	28	0	37	29.96	-11	10	3.3	2.043	2.926	146.9	7.9
2025	Okt	29	0	36	50.44	-11	9	47.9	2.050	2.925	145.9	7.9
2025	Okt	30	0	36	11.96	-11	9	20.8	2.056	2.925	144.8	7.9
2025	Okt	31	0	35	34.56	-11	8	41.9	2.063	2.924	143.8	8.0
2025	Nov	1	0	34	58.26	-11	7	51.3	2.071	2.924	142.8	8.0
2025	Nov	2	0	34	23.10	-11	6	49.1	2.078	2.923	141.8	8.0
2025	Nov	3	0	33	49.10	-11	5	35.4	2.086	2.923	140.8	8.0
2025	Nov	4	0	33	16.28	-11	4	10.2	2.094	2.922	139.8	8.0
2025	Nov	5	0	32	44.67	-11	2	33.7	2.102	2.922	138.7	8.0
2025	Nov	6	0	32	14.27	-11	0	46.0	2.110	2.921	137.7	8.1
2025	Nov	7	0	31	45.12	-10	58	47.1	2.119	2.920	136.7	8.1
2025	Nov	8	0	31	17.23	-10	56	37.2	2.128	2.920	135.7	8.1
2025	Nov	9	0	30	50.62	-10	54	16.4	2.137	2.919	134.7	8.1
2025	Nov	10	0	30	25.30	-10	51	44.7	2.146	2.919	133.7	8.1
2025	Nov	11	0	30	1.28	-10	49	2.3	2.155	2.918	132.7	8.1
2025	Nov	12	0	29	38.59	-10	46	9.3	2.164	2.918	131.7	8.2
2025	Nov	13	0	29	17.24	-10	43	5.8	2.174	2.917	130.7	8.2
2025	Nov	14	0	28	57.23	-10	39	52.0	2.184	2.917	129.7	8.2
2025	Nov	15	0	28	38.57	-10	36	27.8	2.194	2.916	128.7	8.2
2025	Nov	16	0	28	21.29	-10	32	53.5	2.204	2.915	127.7	8.2
2025	Nov	17	0	28	5.38	-10	29	9.3	2.214	2.915	126.7	8.3
2025	Nov	18	0	27	50.85	-10	25	15.1	2.225	2.914	125.7	8.3
2025	Nov	19	0	27	37.71	-10	21	11.3	2.235	2.914	124.7	8.3
2025	Nov	20	0	27	25.96	-10	16	57.9	2.246	2.913	123.7	8.3
2025	Nov	21	0	27	15.61	-10	12	35.0	2.257	2.912	122.7	8.3
2025	Nov	22	0	27	6.65	-10	8	2.9	2.268	2.912	121.8	8.3
2025	Nov	23	0	26	59.09	-10	3	21.7	2.279	2.911	120.8	8.3
2025	Nov	24	0	26	52.92	-	9	58 31.6	2.290	2.911	119.8	8.4
2025	Nov	25	0	26	48.14	-	9	53 32.6	2.302	2.910	118.9	8.4
2025	Nov	26	0	26	44.75	-	9	48 25.1	2.313	2.910	117.9	8.4
2025	Nov	27	0	26	42.74	-	9	43 9.1	2.325	2.909	117.0	8.4
2025	Nov	28	0	26	42.10	-	9	37 44.9	2.337	2.908	116.0	8.4
2025	Nov	29	0	26	42.83	-	9	32 12.6	2.349	2.908	115.1	8.4
2025	Nov	30	0	26	44.93	-	9	26 32.4	2.361	2.907	114.2	8.5
2025	Dec	1	0	26	48.37	-	9	20 44.4	2.373	2.907	113.2	8.5
2025	Dec	2	0	26	53.16	-	9	14 48.9	2.385	2.906	112.3	8.5
2025	Dec	3	0	26	59.27	-	9	8 46.0	2.397	2.905	111.4	8.5
2025	Dec	4	0	27	6.70	-	9	2 35.8	2.409	2.905	110.5	8.5
2025	Dec	5	0	27	15.43	-	8	56 18.6	2.422	2.904	109.6	8.5
2025	Dec	6	0	27	25.46	-	8	49 54.4	2.434	2.904	108.7	8.5
2025	Dec	7	0	27	36.78	-	8	43 23.5	2.447	2.903	107.7	8.6

## 1 Ceres

Datum			RA			Decl.			$\Delta$	$r$	Elong.	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2025	Dec	8	0	27	49.36	-	8	36 45.9	2.459	2.902	106.8	8.6
2025	Dec	9	0	28	3.21	-	8	30 1.9	2.472	2.902	106.0	8.6
2025	Dec	10	0	28	18.30	-	8	23 11.4	2.485	2.901	105.1	8.6
2025	Dec	11	0	28	34.64	-	8	16 14.7	2.498	2.900	104.2	8.6
2025	Dec	12	0	28	52.21	-	8	9 11.8	2.511	2.900	103.3	8.6
2025	Dec	13	0	29	10.99	-	8	2 2.9	2.523	2.899	102.4	8.6
2025	Dec	14	0	29	30.98	-	7	54 48.2	2.536	2.899	101.5	8.7
2025	Dec	15	0	29	52.17	-	7	47 27.7	2.549	2.898	100.7	8.7
2025	Dec	16	0	30	14.53	-	7	40 1.5	2.562	2.897	99.8	8.7
2025	Dec	17	0	30	38.07	-	7	32 29.8	2.576	2.897	99.0	8.7
2025	Dec	18	0	31	2.77	-	7	24 52.8	2.589	2.896	98.1	8.7
2025	Dec	19	0	31	28.61	-	7	17 10.5	2.602	2.895	97.2	8.7
2025	Dec	20	0	31	55.59	-	7	9 23.0	2.615	2.895	96.4	8.7
2025	Dec	21	0	32	23.68	-	7	1 30.5	2.628	2.894	95.6	8.7
2025	Dec	22	0	32	52.88	-	6	53 33.2	2.642	2.894	94.7	8.7
2025	Dec	23	0	33	23.17	-	6	45 31.1	2.655	2.893	93.9	8.8
2025	Dec	24	0	33	54.53	-	6	37 24.3	2.668	2.892	93.0	8.8
2025	Dec	25	0	34	26.96	-	6	29 13.0	2.681	2.892	92.2	8.8
2025	Dec	26	0	35	0.43	-	6	20 57.3	2.695	2.891	91.4	8.8
2025	Dec	27	0	35	34.93	-	6	12 37.4	2.708	2.890	90.6	8.8
2025	Dec	28	0	36	10.45	-	6	4 13.3	2.721	2.890	89.8	8.8
2025	Dec	29	0	36	46.97	-	5	55 45.2	2.735	2.889	88.9	8.8
2025	Dec	30	0	37	24.47	-	5	47 13.2	2.748	2.888	88.1	8.8
2025	Dec	31	0	38	2.94	-	5	38 37.4	2.761	2.888	87.3	8.8
2026	Jan	1	0	38	42.37	-	5	29 57.9	2.774	2.887	86.5	8.9
2026	Jan	2	0	39	22.73	-	5	21 14.8	2.788	2.886	85.7	8.9
2026	Jan	3	0	40	4.02	-	5	12 28.3	2.801	2.886	85.0	8.9
2026	Jan	4	0	40	46.22	-	5	3 38.3	2.814	2.885	84.2	8.9
2026	Jan	5	0	41	29.31	-	4	54 45.1	2.827	2.884	83.4	8.9
2026	Jan	6	0	42	13.30	-	4	45 48.7	2.841	2.884	82.6	8.9
2026	Jan	7	0	42	58.15	-	4	36 49.1	2.854	2.883	81.8	8.9
2026	Jan	8	0	43	43.87	-	4	27 46.4	2.867	2.882	81.0	8.9
2026	Jan	9	0	44	30.43	-	4	18 40.8	2.880	2.882	80.3	8.9
2026	Jan	10	0	45	17.84	-	4	9 32.2	2.893	2.881	79.5	8.9
2026	Jan	11	0	46	6.08	-	4	0 20.8	2.906	2.880	78.7	8.9
2026	Jan	12	0	46	55.13	-	3	51 6.7	2.919	2.880	78.0	8.9
2026	Jan	13	0	47	44.99	-	3	41 49.9	2.932	2.879	77.2	9.0
2026	Jan	14	0	48	35.64	-	3	32 30.5	2.945	2.878	76.5	9.0
2026	Jan	15	0	49	27.08	-	3	23 8.5	2.958	2.878	75.7	9.0
2026	Jan	16	0	50	19.29	-	3	13 44.1	2.971	2.877	75.0	9.0
2026	Jan	17	0	51	12.27	-	3	4 17.4	2.984	2.876	74.2	54.6

## 2 Pallas

0h UTC (J2000)

Osculerende baanelementen

T 2025 Jul 1.0000 TT

MA 180.979607°

q 2.1314515                     $\omega$  310.914316°a 2.7701447                     $\Omega$  172.893412°

e 0.2305631                    i 34.924862°

Datum			RA			Decl.			$\Delta$	$r$	E	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
j	m	d	h	m	s	o	'	"	$\Delta$	$r$	Elong	Mag
2025	Jun	1	21	6	58.19	15	48	5.4	3.025	3.407	103.5	10.1
2025	Jun	2	21	7	0.87	15	53	7.9	3.013	3.407	104.2	10.1
2025	Jun	3	21	7	2.44	15	58	3.9	3.001	3.407	105.0	10.1
2025	Jun	4	21	7	2.89	16	2	53.1	2.989	3.407	105.8	10.0
2025	Jun	5	21	7	2.22	16	7	35.4	2.977	3.407	106.6	10.0
2025	Jun	6	21	7	0.43	16	12	10.7	2.965	3.408	107.3	10.0
2025	Jun	7	21	6	57.52	16	16	38.6	2.953	3.408	108.1	10.0
2025	Jun	8	21	6	53.48	16	20	58.9	2.941	3.408	108.9	10.0
2025	Jun	9	21	6	48.31	16	25	11.6	2.930	3.408	109.7	10.0
2025	Jun	10	21	6	42.01	16	29	16.3	2.918	3.408	110.4	10.0
2025	Jun	11	21	6	34.58	16	33	12.8	2.907	3.408	111.2	10.0
2025	Jun	12	21	6	26.02	16	37	1.0	2.895	3.408	112.0	10.0
2025	Jun	13	21	6	16.32	16	40	40.6	2.884	3.408	112.8	9.9
2025	Jun	14	21	6	5.49	16	44	11.4	2.873	3.408	113.6	9.9
2025	Jun	15	21	5	53.52	16	47	33.2	2.862	3.408	114.4	9.9
2025	Jun	16	21	5	40.42	16	50	45.7	2.851	3.409	115.1	9.9
2025	Jun	17	21	5	26.18	16	53	48.7	2.840	3.409	115.9	9.9
2025	Jun	18	21	5	10.81	16	56	42.0	2.829	3.409	116.7	9.9
2025	Jun	19	21	4	54.32	16	59	25.2	2.818	3.409	117.5	9.9
2025	Jun	20	21	4	36.69	17	1	58.3	2.808	3.409	118.3	9.9
2025	Jun	21	21	4	17.95	17	4	20.8	2.797	3.409	119.1	9.9
2025	Jun	22	21	3	58.08	17	6	32.6	2.787	3.409	119.9	9.8
2025	Jun	23	21	3	37.11	17	8	33.4	2.776	3.409	120.7	9.8
2025	Jun	24	21	3	15.04	17	10	23.0	2.766	3.409	121.5	9.8
2025	Jun	25	21	2	51.88	17	12	1.1	2.756	3.409	122.2	9.8
2025	Jun	26	21	2	27.64	17	13	27.5	2.746	3.409	123.0	9.8
2025	Jun	27	21	2	2.33	17	14	42.0	2.737	3.409	123.8	9.8
2025	Jun	28	21	1	35.97	17	15	44.3	2.727	3.409	124.6	9.8
2025	Jun	29	21	1	8.58	17	16	34.2	2.718	3.409	125.4	9.8
2025	Jun	30	21	0	40.17	17	17	11.6	2.709	3.409	126.2	9.7
2025	Jul	1	21	0	10.76	17	17	36.2	2.699	3.409	127.0	9.7
2025	Jul	2	20	59	40.36	17	17	47.9	2.690	3.409	127.7	9.7
2025	Jul	3	20	59	8.99	17	17	46.4	2.682	3.409	128.5	9.7
2025	Jul	4	20	58	36.68	17	17	31.7	2.673	3.409	129.3	9.7
2025	Jul	5	20	58	3.45	17	17	3.5	2.665	3.409	130.0	9.7
2025	Jul	6	20	57	29.30	17	16	21.7	2.656	3.409	130.8	9.7
2025	Jul	7	20	56	54.28	17	15	26.1	2.648	3.409	131.5	9.7
2025	Jul	8	20	56	18.40	17	14	16.6	2.640	3.408	132.3	9.6
2025	Jul	9	20	55	41.67	17	12	53.1	2.633	3.408	133.0	9.6

## 2 Pallas

Datum			RA			Decl.			$\Delta$	$r$	$E$	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2025	Jul	10	20	55	4.14	17	11	15.3	2.625	3.408	133.8	9.6
2025	Jul	11	20	54	25.82	17	9	23.2	2.618	3.408	134.5	9.6
2025	Jul	12	20	53	46.73	17	7	16.6	2.611	3.408	135.2	9.6
2025	Jul	13	20	53	6.91	17	4	55.5	2.604	3.408	135.9	9.6
2025	Jul	14	20	52	26.38	17	2	19.7	2.597	3.408	136.6	9.6
2025	Jul	15	20	51	45.17	16	59	29.1	2.590	3.408	137.3	9.6
2025	Jul	16	20	51	3.31	16	56	23.7	2.584	3.408	138.0	9.6
2025	Jul	17	20	50	20.83	16	53	3.2	2.578	3.408	138.6	9.5
2025	Jul	18	20	49	37.76	16	49	27.7	2.572	3.407	139.3	9.5
2025	Jul	19	20	48	54.13	16	45	37.1	2.566	3.407	139.9	9.5
2025	Jul	20	20	48	9.98	16	41	31.4	2.561	3.407	140.5	9.5
2025	Jul	21	20	47	25.34	16	37	10.4	2.556	3.407	141.1	9.5
2025	Jul	22	20	46	40.26	16	32	34.1	2.551	3.407	141.7	9.5
2025	Jul	23	20	45	54.77	16	27	42.7	2.546	3.407	142.3	9.5
2025	Jul	24	20	45	8.90	16	22	36.0	2.541	3.407	142.8	9.5
2025	Jul	25	20	44	22.71	16	17	14.2	2.537	3.406	143.4	9.5
2025	Jul	26	20	43	36.22	16	11	37.2	2.533	3.406	143.9	9.5
2025	Jul	27	20	42	49.50	16	5	45.3	2.529	3.406	144.3	9.4
2025	Jul	28	20	42	2.56	15	59	38.4	2.525	3.406	144.8	9.4
2025	Jul	29	20	41	15.47	15	53	16.7	2.522	3.406	145.2	9.4
2025	Jul	30	20	40	28.26	15	46	40.3	2.519	3.406	145.6	9.4
2025	Jul	31	20	39	40.96	15	39	49.4	2.516	3.405	146.0	9.4
2025	Aug	1	20	38	53.64	15	32	44.2	2.514	3.405	146.3	9.4
2025	Aug	2	20	38	6.32	15	25	24.8	2.511	3.405	146.6	9.4
2025	Aug	3	20	37	19.04	15	17	51.5	2.509	3.405	146.9	9.4
2025	Aug	4	20	36	31.86	15	10	4.4	2.507	3.404	147.2	9.4
2025	Aug	5	20	35	44.81	15	2	3.8	2.506	3.404	147.4	9.4
2025	Aug	6	20	34	57.93	14	53	49.8	2.504	3.404	147.5	9.4
2025	Aug	7	20	34	11.25	14	45	22.9	2.503	3.404	147.7	9.4
2025	Aug	8	20	33	24.83	14	36	43.1	2.503	3.404	147.8	9.4
2025	Aug	9	20	32	38.70	14	27	50.8	2.502	3.403	147.8	9.4
2025	Aug	10	20	31	52.90	14	18	46.2	2.502	3.403	147.9	9.4
2025	Aug	11	20	31	7.46	14	9	29.7	2.502	3.403	147.8	9.4
2025	Aug	12	20	30	22.42	14	0	1.4	2.502	3.402	147.8	9.4
2025	Aug	13	20	29	37.83	13	50	21.8	2.502	3.402	147.7	9.4
2025	Aug	14	20	28	53.71	13	40	31.1	2.503	3.402	147.6	9.4
2025	Aug	15	20	28	10.10	13	30	29.7	2.504	3.402	147.4	9.4
2025	Aug	16	20	27	27.05	13	20	17.8	2.506	3.401	147.2	9.4
2025	Aug	17	20	26	44.59	13	9	55.8	2.507	3.401	147.0	9.4
2025	Aug	18	20	26	2.75	12	59	24.0	2.509	3.401	146.7	9.4
2025	Aug	19	20	25	21.58	12	48	42.9	2.511	3.400	146.4	9.4
2025	Aug	20	20	24	41.10	12	37	52.8	2.513	3.400	146.1	9.4
2025	Aug	21	20	24	1.35	12	26	54.1	2.516	3.400	145.7	9.4
2025	Aug	22	20	23	22.38	12	15	47.1	2.519	3.399	145.3	9.4
2025	Aug	23	20	22	44.20	12	4	32.4	2.522	3.399	144.9	9.4
2025	Aug	24	20	22	6.86	11	53	10.3	2.525	3.399	144.4	9.4
2025	Aug	25	20	21	30.39	11	41	41.2	2.529	3.398	143.9	9.4
2025	Aug	26	20	20	54.80	11	30	5.6	2.533	3.398	143.4	9.4
2025	Aug	27	20	20	20.14	11	18	24.0	2.537	3.398	142.9	9.5
2025	Aug	28	20	19	46.43	11	6	36.7	2.541	3.397	142.3	9.5
2025	Aug	29	20	19	13.69	10	54	44.1	2.546	3.397	141.7	9.5

## 2 Pallas

Datum			RA			Decl.			$\Delta$	$r$	$E$	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2025	Aug	30	20	18	41.94	10	42	46.8	2.551	3.397	141.1	9.5
2025	Aug	31	20	18	11.22	10	30	45.1	2.556	3.396	140.5	9.5
2025	Sep	1	20	17	41.53	10	18	39.5	2.561	3.396	139.9	9.5
2025	Sep	2	20	17	12.90	10	6	30.4	2.567	3.395	139.2	9.5
2025	Sep	3	20	16	45.35	9	54	18.1	2.573	3.395	138.5	9.5
2025	Sep	4	20	16	18.90	9	42	3.2	2.579	3.395	137.8	9.5
2025	Sep	5	20	15	53.55	9	29	45.9	2.585	3.394	137.1	9.5
2025	Sep	6	20	15	29.32	9	17	26.8	2.592	3.394	136.4	9.6
2025	Sep	7	20	15	6.23	9	5	6.1	2.599	3.393	135.7	9.6
2025	Sep	8	20	14	44.28	8	52	44.3	2.606	3.393	134.9	9.6
2025	Sep	9	20	14	23.50	8	40	21.7	2.613	3.393	134.2	9.6
2025	Sep	10	20	14	3.88	8	27	58.7	2.620	3.392	133.4	9.6
2025	Sep	11	20	13	45.44	8	15	35.6	2.628	3.392	132.6	9.6
2025	Sep	12	20	13	28.18	8	3	12.8	2.636	3.391	131.9	9.6
2025	Sep	13	20	13	12.12	7	50	50.5	2.644	3.391	131.1	9.6
2025	Sep	14	20	12	57.26	7	38	29.2	2.652	3.390	130.3	9.7
2025	Sep	15	20	12	43.62	7	26	9.2	2.661	3.390	129.5	9.7
2025	Sep	16	20	12	31.20	7	13	50.8	2.669	3.389	128.6	9.7
2025	Sep	17	20	12	20.00	7	1	34.3	2.678	3.389	127.8	9.7
2025	Sep	18	20	12	10.03	6	49	20.0	2.687	3.388	127.0	9.7
2025	Sep	19	20	12	1.30	6	37	8.4	2.696	3.388	126.2	9.7
2025	Sep	20	20	11	53.82	6	24	59.6	2.706	3.387	125.3	9.7
2025	Sep	21	20	11	47.57	6	12	54.0	2.715	3.387	124.5	9.7
2025	Sep	22	20	11	42.57	6	0	52.0	2.725	3.386	123.7	9.8
2025	Sep	23	20	11	38.82	5	48	53.7	2.735	3.386	122.8	9.8
2025	Sep	24	20	11	36.31	5	36	59.4	2.745	3.385	122.0	9.8
2025	Sep	25	20	11	35.04	5	25	9.5	2.756	3.385	121.1	9.8
2025	Sep	26	20	11	35.01	5	13	24.2	2.766	3.384	120.3	9.8
2025	Sep	27	20	11	36.22	5	1	43.6	2.777	3.384	119.4	9.8
2025	Sep	28	20	11	38.67	4	50	8.2	2.787	3.383	118.6	9.8
2025	Sep	29	20	11	42.34	4	38	38.0	2.798	3.383	117.7	9.8
2025	Sep	30	20	11	47.23	4	27	13.3	2.809	3.382	116.9	9.9
2025	Okt	1	20	11	53.34	4	15	54.4	2.820	3.382	116.0	9.9
2025	Okt	2	20	12	0.65	4	4	41.3	2.832	3.381	115.2	9.9
2025	Okt	3	20	12	9.16	3	53	34.2	2.843	3.380	114.3	9.9
2025	Okt	4	20	12	18.87	3	42	33.4	2.855	3.380	113.4	9.9
2025	Okt	5	20	12	29.75	3	31	39.0	2.866	3.379	112.6	9.9
2025	Okt	6	20	12	41.81	3	20	51.2	2.878	3.379	111.7	9.9
2025	Okt	7	20	12	55.03	3	10	9.9	2.890	3.378	110.9	9.9
2025	Okt	8	20	13	9.41	2	59	35.5	2.902	3.377	110.0	9.9
2025	Okt	9	20	13	24.92	2	49	8.0	2.914	3.377	109.2	10.0
2025	Okt	10	20	13	41.58	2	38	47.5	2.927	3.376	108.3	10.0
2025	Okt	11	20	13	59.36	2	28	34.1	2.939	3.376	107.5	10.0
2025	Okt	12	20	14	18.26	2	18	28.0	2.951	3.375	106.6	10.0
2025	Okt	13	20	14	38.26	2	8	29.3	2.964	3.374	105.7	10.0
2025	Okt	14	20	14	59.37	1	58	37.9	2.977	3.374	104.9	10.0
2025	Okt	15	20	15	21.57	1	48	54.2	2.989	3.373	104.0	10.0
2025	Okt	16	20	15	44.86	1	39	18.0	3.002	3.372	103.2	10.0
2025	Okt	17	20	16	9.22	1	29	49.7	3.015	3.372	102.4	10.1
2025	Okt	18	20	16	34.64	1	20	29.1	3.028	3.371	101.5	10.1
2025	Okt	19	20	17	1.12	1	11	16.5	3.041	3.370	100.7	10.1



## 2 Pallas

Datum j m d	RA h m s	Decl. o ' "	$\Delta$ (AE)	r (AE)	E	Mag
2025 Okt 20	20 17 28.64	1 2 11.8	3.054	3.370	99.8	10.1
2025 Okt 21	20 17 57.20	0 53 15.2	3.067	3.369	99.0	10.1
2025 Okt 22	20 18 26.77	0 44 26.8	3.080	3.368	98.1	10.1
2025 Okt 23	20 18 57.36	0 35 46.4	3.093	3.368	97.3	10.1
2025 Okt 24	20 19 28.94	0 27 14.4	3.107	3.367	96.5	10.1
2025 Okt 25	20 20 1.50	0 18 50.6	3.120	3.366	95.6	10.1
2025 Okt 26	20 20 35.04	0 10 35.0	3.133	3.366	94.8	10.1
2025 Okt 27	20 21 9.53	0 2 27.9	3.147	3.365	94.0	10.2
2025 Okt 28	20 21 44.98	- 0 5 30.9	3.160	3.364	93.1	10.2
2025 Okt 29	20 22 21.35	- 0 13 21.4	3.174	3.363	92.3	10.2

## 4 Vesta

0h UTC (J2000)

Osculerende baanelementen

T 2025 Mrt 2.0000 TT

MA 315.045437°

q 2.1485977  $\omega$  151.603682°a 2.3612503  $\Omega$  103.703112°

e 0.0900593 i 7.143934°

Datum			RA			Decl.			$\Delta$	r	E	Mag	
j	m	d	h	m	s	o	'	"	(AE)	(AE)			
j	m	d	h	m	s	o	'	"	$\Delta$	r	Elong	Mag	
2025	Jan	1	13	56	54.92	-	4	46	18.5	2.382	2.275	71.7	8.1
2025	Jan	2	13	58	27.22	-	4	52	23.5	2.370	2.274	72.3	8.0
2025	Jan	3	13	59	59.08	-	4	58	22.6	2.357	2.273	73.0	8.0
2025	Jan	4	14	1	30.50	-	5	4	15.7	2.344	2.272	73.6	8.0
2025	Jan	5	14	3	1.45	-	5	10	2.8	2.332	2.271	74.2	8.0
2025	Jan	6	14	4	31.92	-	5	15	43.7	2.319	2.270	74.8	8.0
2025	Jan	7	14	6	1.92	-	5	21	18.6	2.306	2.269	75.5	8.0
2025	Jan	8	14	7	31.42	-	5	26	47.3	2.293	2.268	76.1	8.0
2025	Jan	9	14	9	0.41	-	5	32	9.8	2.281	2.267	76.7	8.0
2025	Jan	10	14	10	28.89	-	5	37	26.1	2.268	2.266	77.4	8.0
2025	Jan	11	14	11	56.85	-	5	42	36.0	2.255	2.265	78.0	7.9
2025	Jan	12	14	13	24.26	-	5	47	39.6	2.242	2.264	78.7	7.9
2025	Jan	13	14	14	51.13	-	5	52	36.8	2.229	2.263	79.3	7.9
2025	Jan	14	14	16	17.43	-	5	57	27.6	2.216	2.262	80.0	7.9
2025	Jan	15	14	17	43.16	-	6	2	11.9	2.203	2.261	80.6	7.9
2025	Jan	16	14	19	8.30	-	6	6	49.6	2.190	2.261	81.3	7.9
2025	Jan	17	14	20	32.83	-	6	11	20.6	2.177	2.260	81.9	7.9
2025	Jan	18	14	21	56.74	-	6	15	45.0	2.164	2.259	82.6	7.9
2025	Jan	19	14	23	20.02	-	6	20	2.6	2.151	2.258	83.2	7.9
2025	Jan	20	14	24	42.64	-	6	24	13.5	2.138	2.257	83.9	7.8
2025	Jan	21	14	26	4.59	-	6	28	17.4	2.125	2.256	84.6	7.8
2025	Jan	22	14	27	25.85	-	6	32	14.4	2.112	2.255	85.2	7.8
2025	Jan	23	14	28	46.40	-	6	36	4.4	2.099	2.254	85.9	7.8
2025	Jan	24	14	30	6.23	-	6	39	47.4	2.086	2.253	86.6	7.8
2025	Jan	25	14	31	25.31	-	6	43	23.2	2.073	2.252	87.3	7.8
2025	Jan	26	14	32	43.63	-	6	46	51.9	2.060	2.251	87.9	7.8
2025	Jan	27	14	34	1.16	-	6	50	13.4	2.047	2.250	88.6	7.7
2025	Jan	28	14	35	17.89	-	6	53	27.6	2.034	2.250	89.3	7.7
2025	Jan	29	14	36	33.80	-	6	56	34.6	2.021	2.249	90.0	7.7
2025	Jan	30	14	37	48.86	-	6	59	34.1	2.008	2.248	90.7	7.7
2025	Jan	31	14	39	3.06	-	7	2	26.4	1.995	2.247	91.4	7.7
2025	Feb	1	14	40	16.38	-	7	5	11.2	1.983	2.246	92.1	7.7
2025	Feb	2	14	41	28.79	-	7	7	48.6	1.970	2.245	92.8	7.7
2025	Feb	3	14	42	40.29	-	7	10	18.6	1.957	2.244	93.5	7.6
2025	Feb	4	14	43	50.85	-	7	12	41.1	1.944	2.243	94.2	7.6
2025	Feb	5	14	45	0.45	-	7	14	56.2	1.931	2.242	94.9	7.6
2025	Feb	6	14	46	9.08	-	7	17	3.8	1.918	2.242	95.7	7.6
2025	Feb	7	14	47	16.71	-	7	19	3.9	1.905	2.241	96.4	7.6
2025	Feb	8	14	48	23.34	-	7	20	56.6	1.892	2.240	97.1	7.6

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Datum			RA			Decl.			$\Delta$	$r$	$E$	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2025	Feb	9	14	49	28.93	-	7	22 41.7	1.880	2.239	97.9	7.6
2025	Feb	10	14	50	33.47	-	7	24 19.4	1.867	2.238	98.6	7.5
2025	Feb	11	14	51	36.94	-	7	25 49.5	1.854	2.237	99.3	7.5
2025	Feb	12	14	52	39.32	-	7	27 12.0	1.841	2.236	100.1	7.5
2025	Feb	13	14	53	40.58	-	7	28 27.0	1.829	2.235	100.8	7.5
2025	Feb	14	14	54	40.70	-	7	29 34.3	1.816	2.235	101.6	7.5
2025	Feb	15	14	55	39.66	-	7	30 34.1	1.804	2.234	102.3	7.4
2025	Feb	16	14	56	37.43	-	7	31 26.2	1.791	2.233	103.1	7.4
2025	Feb	17	14	57	34.00	-	7	32 10.6	1.779	2.232	103.9	7.4
2025	Feb	18	14	58	29.32	-	7	32 47.3	1.766	2.231	104.6	7.4
2025	Feb	19	14	59	23.38	-	7	33 16.4	1.754	2.230	105.4	7.4
2025	Feb	20	15	0	16.16	-	7	33 37.7	1.741	2.230	106.2	7.4
2025	Feb	21	15	1	7.61	-	7	33 51.3	1.729	2.229	107.0	7.3
2025	Feb	22	15	1	57.73	-	7	33 57.3	1.717	2.228	107.8	7.3
2025	Feb	23	15	2	46.48	-	7	33 55.5	1.705	2.227	108.6	7.3
2025	Feb	24	15	3	33.83	-	7	33 45.9	1.693	2.226	109.4	7.3
2025	Feb	25	15	4	19.76	-	7	33 28.7	1.681	2.225	110.2	7.3
2025	Feb	26	15	5	4.24	-	7	33 3.9	1.669	2.225	111.0	7.2
2025	Feb	27	15	5	47.25	-	7	32 31.3	1.657	2.224	111.8	7.2
2025	Feb	28	15	6	28.75	-	7	31 51.2	1.645	2.223	112.6	7.2
2025	Mrt	1	15	7	8.74	-	7	31 3.5	1.633	2.222	113.5	7.2
2025	Mrt	2	15	7	47.17	-	7	30 8.3	1.622	2.221	114.3	7.2
2025	Mrt	3	15	8	24.04	-	7	29 5.7	1.610	2.220	115.1	7.1
2025	Mrt	4	15	8	59.31	-	7	27 55.7	1.598	2.220	116.0	7.1
2025	Mrt	5	15	9	32.98	-	7	26 38.4	1.587	2.219	116.8	7.1
2025	Mrt	6	15	10	5.01	-	7	25 14.0	1.576	2.218	117.7	7.1
2025	Mrt	7	15	10	35.39	-	7	23 42.3	1.565	2.217	118.6	7.0
2025	Mrt	8	15	11	4.11	-	7	22 3.7	1.553	2.217	119.4	7.0
2025	Mrt	9	15	11	31.13	-	7	20 18.0	1.542	2.216	120.3	7.0
2025	Mrt	10	15	11	56.44	-	7	18 25.5	1.531	2.215	121.2	7.0
2025	Mrt	11	15	12	20.03	-	7	16 26.1	1.521	2.214	122.1	7.0
2025	Mrt	12	15	12	41.87	-	7	14 20.0	1.510	2.213	123.0	6.9
2025	Mrt	13	15	13	1.93	-	7	12 7.2	1.499	2.213	123.9	6.9
2025	Mrt	14	15	13	20.21	-	7	9 47.9	1.489	2.212	124.8	6.9
2025	Mrt	15	15	13	36.68	-	7	7 22.1	1.478	2.211	125.7	6.9
2025	Mrt	16	15	13	51.32	-	7	4 49.9	1.468	2.210	126.6	6.8
2025	Mrt	17	15	14	4.12	-	7	2 11.5	1.458	2.210	127.5	6.8
2025	Mrt	18	15	14	15.05	-	6	59 26.9	1.448	2.209	128.4	6.8
2025	Mrt	19	15	14	24.11	-	6	56 36.3	1.438	2.208	129.4	6.8
2025	Mrt	20	15	14	31.26	-	6	53 39.8	1.428	2.207	130.3	6.7
2025	Mrt	21	15	14	36.51	-	6	50 37.5	1.419	2.207	131.3	6.7
2025	Mrt	22	15	14	39.82	-	6	47 29.6	1.409	2.206	132.2	6.7
2025	Mrt	23	15	14	41.21	-	6	44 16.2	1.400	2.205	133.2	6.7
2025	Mrt	24	15	14	40.64	-	6	40 57.6	1.391	2.204	134.1	6.6
2025	Mrt	25	15	14	38.11	-	6	37 33.9	1.382	2.204	135.1	6.6
2025	Mrt	26	15	14	33.63	-	6	34 5.3	1.373	2.203	136.1	6.6
2025	Mrt	27	15	14	27.17	-	6	30 32.0	1.364	2.202	137.1	6.6
2025	Mrt	28	15	14	18.74	-	6	26 54.3	1.356	2.201	138.0	6.5
2025	Mrt	29	15	14	8.35	-	6	23 12.4	1.347	2.201	139.0	6.5
2025	Mrt	30	15	13	55.99	-	6	19 26.5	1.339	2.200	140.0	6.5
2025	Mrt	31	15	13	41.69	-	6	15 37.1	1.331	2.199	141.0	6.5

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j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2025	Apr	1	15	13	25.44	-	6	11 44.3	1.323	2.199	142.0	6.4
2025	Apr	2	15	13	7.26	-	6	7 48.4	1.315	2.198	143.0	6.4
2025	Apr	3	15	12	47.17	-	6	3 49.7	1.308	2.197	144.1	6.4
2025	Apr	4	15	12	25.20	-	5	59 48.7	1.301	2.197	145.1	6.4
2025	Apr	5	15	12	1.35	-	5	55 45.4	1.294	2.196	146.1	6.3
2025	Apr	6	15	11	35.67	-	5	51 40.3	1.287	2.195	147.1	6.3
2025	Apr	7	15	11	8.16	-	5	47 33.7	1.280	2.195	148.1	6.3
2025	Apr	8	15	10	38.86	-	5	43 25.9	1.273	2.194	149.2	6.3
2025	Apr	9	15	10	7.79	-	5	39 17.2	1.267	2.193	150.2	6.2
2025	Apr	10	15	9	34.99	-	5	35 7.9	1.261	2.193	151.2	6.2
2025	Apr	11	15	9	0.50	-	5	30 58.4	1.255	2.192	152.2	6.2
2025	Apr	12	15	8	24.34	-	5	26 49.0	1.249	2.191	153.3	6.2
2025	Apr	13	15	7	46.55	-	5	22 40.0	1.244	2.191	154.3	6.1
2025	Apr	14	15	7	7.18	-	5	18 31.8	1.238	2.190	155.3	6.1
2025	Apr	15	15	6	26.27	-	5	14 24.8	1.233	2.189	156.3	6.1
2025	Apr	16	15	5	43.86	-	5	10 19.4	1.229	2.189	157.3	6.1
2025	Apr	17	15	5	0.01	-	5	6 15.8	1.224	2.188	158.3	6.0
2025	Apr	18	15	4	14.76	-	5	2 14.5	1.219	2.187	159.2	6.0
2025	Apr	19	15	3	28.17	-	4	58 15.9	1.215	2.187	160.2	6.0
2025	Apr	20	15	2	40.30	-	4	54 20.4	1.211	2.186	161.1	6.0
2025	Apr	21	15	1	51.20	-	4	50 28.3	1.208	2.186	162.0	5.9
2025	Apr	22	15	1	0.95	-	4	46 40.1	1.204	2.185	162.9	5.9
2025	Apr	23	15	0	9.61	-	4	42 56.3	1.201	2.184	163.7	5.9
2025	Apr	24	14	59	17.24	-	4	39 17.1	1.198	2.184	164.5	5.9
2025	Apr	25	14	58	23.93	-	4	35 43.1	1.195	2.183	165.3	5.8
2025	Apr	26	14	57	29.74	-	4	32 14.7	1.193	2.183	166.0	5.8
2025	Apr	27	14	56	34.77	-	4	28 52.3	1.190	2.182	166.6	5.8
2025	Apr	28	14	55	39.09	-	4	25 36.4	1.188	2.181	167.1	5.8
2025	Apr	29	14	54	42.79	-	4	22 27.3	1.187	2.181	167.6	5.8
2025	Apr	30	14	53	45.95	-	4	19 25.5	1.185	2.180	167.9	5.8
2025	Mei	1	14	52	48.67	-	4	16 31.4	1.184	2.180	168.2	5.8
2025	Mei	2	14	51	51.03	-	4	13 45.3	1.183	2.179	168.3	5.7
2025	Mei	3	14	50	53.12	-	4	11 7.6	1.182	2.179	168.3	5.7
2025	Mei	4	14	49	55.03	-	4	8 38.7	1.181	2.178	168.2	5.7
2025	Mei	5	14	48	56.84	-	4	6 18.7	1.181	2.177	167.9	5.7
2025	Mei	6	14	47	58.65	-	4	4 8.2	1.181	2.177	167.6	5.8
2025	Mei	7	14	47	0.52	-	4	2 7.2	1.181	2.176	167.1	5.8
2025	Mei	8	14	46	2.55	-	4	0 16.1	1.181	2.176	166.6	5.8
2025	Mei	9	14	45	4.82	-	3	58 35.2	1.182	2.175	166.0	5.8
2025	Mei	10	14	44	7.41	-	3	57 4.6	1.183	2.175	165.3	5.8
2025	Mei	11	14	43	10.40	-	3	55 44.6	1.184	2.174	164.5	5.8
2025	Mei	12	14	42	13.86	-	3	54 35.4	1.185	2.174	163.7	5.8
2025	Mei	13	14	41	17.88	-	3	53 37.1	1.187	2.173	162.9	5.9
2025	Mei	14	14	40	22.53	-	3	52 50.0	1.189	2.173	162.0	5.9
2025	Mei	15	14	39	27.88	-	3	52 14.3	1.191	2.172	161.1	5.9
2025	Mei	16	14	38	34.01	-	3	51 49.9	1.193	2.172	160.2	5.9
2025	Mei	17	14	37	40.98	-	3	51 37.2	1.196	2.171	159.2	5.9
2025	Mei	18	14	36	48.86	-	3	51 36.2	1.199	2.171	158.3	6.0
2025	Mei	19	14	35	57.73	-	3	51 46.9	1.202	2.170	157.3	6.0
2025	Mei	20	14	35	7.65	-	3	52 9.6	1.205	2.170	156.3	6.0
2025	Mei	21	14	34	18.67	-	3	52 44.3	1.208	2.169	155.3	6.0

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2025	Mei	22	14	33	30.87	-	3	53 31.1	1.212	2.169	154.3	6.1
2025	Mei	23	14	32	44.30	-	3	54 30.0	1.216	2.168	153.3	6.1
2025	Mei	24	14	31	59.03	-	3	55 41.0	1.220	2.168	152.3	6.1
2025	Mei	25	14	31	15.10	-	3	57 4.4	1.224	2.167	151.3	6.1
2025	Mei	26	14	30	32.58	-	3	58 39.9	1.228	2.167	150.2	6.2
2025	Mei	27	14	29	51.52	-	4	0 27.7	1.233	2.166	149.2	6.2
2025	Mei	28	14	29	11.97	-	4	2 27.7	1.238	2.166	148.2	6.2
2025	Mei	29	14	28	33.97	-	4	4 39.9	1.243	2.166	147.2	6.2
2025	Mei	30	14	27	57.58	-	4	7 4.2	1.248	2.165	146.2	6.2
2025	Mei	31	14	27	22.81	-	4	9 40.6	1.254	2.165	145.2	6.3
2025	Jun	1	14	26	49.71	-	4	12 28.8	1.259	2.164	144.2	6.3
2025	Jun	2	14	26	18.31	-	4	15 28.9	1.265	2.164	143.2	6.3
2025	Jun	3	14	25	48.64	-	4	18 40.6	1.271	2.164	142.2	6.3
2025	Jun	4	14	25	20.72	-	4	22 3.8	1.277	2.163	141.2	6.4
2025	Jun	5	14	24	54.56	-	4	25 38.4	1.284	2.163	140.2	6.4
2025	Jun	6	14	24	30.19	-	4	29 24.2	1.290	2.162	139.2	6.4
2025	Jun	7	14	24	7.61	-	4	33 21.0	1.297	2.162	138.2	6.4
2025	Jun	8	14	23	46.86	-	4	37 28.6	1.304	2.162	137.3	6.5
2025	Jun	9	14	23	27.92	-	4	41 47.0	1.310	2.161	136.3	6.5
2025	Jun	10	14	23	10.81	-	4	46 15.8	1.318	2.161	135.3	6.5
2025	Jun	11	14	22	55.54	-	4	50 54.9	1.325	2.160	134.4	6.5
2025	Jun	12	14	22	42.11	-	4	55 44.1	1.332	2.160	133.4	6.5
2025	Jun	13	14	22	30.53	-	5	0 43.2	1.340	2.160	132.5	6.6
2025	Jun	14	14	22	20.78	-	5	5 52.0	1.347	2.159	131.6	6.6
2025	Jun	15	14	22	12.88	-	5	11 10.4	1.355	2.159	130.6	6.6
2025	Jun	16	14	22	6.83	-	5	16 38.2	1.363	2.159	129.7	6.6
2025	Jun	17	14	22	2.61	-	5	22 15.1	1.371	2.158	128.8	6.7
2025	Jun	18	14	22	0.23	-	5	28 1.0	1.380	2.158	127.9	6.7
2025	Jun	19	14	21	59.69	-	5	33 55.8	1.388	2.158	127.0	6.7
2025	Jun	20	14	22	0.98	-	5	39 59.2	1.396	2.157	126.1	6.7
2025	Jun	21	14	22	4.09	-	5	46 11.0	1.405	2.157	125.2	6.7
2025	Jun	22	14	22	9.03	-	5	52 31.1	1.414	2.157	124.3	6.8
2025	Jun	23	14	22	15.79	-	5	58 59.4	1.422	2.156	123.5	6.8
2025	Jun	24	14	22	24.35	-	6	5 35.5	1.431	2.156	122.6	6.8
2025	Jun	25	14	22	34.72	-	6	12 19.4	1.440	2.156	121.7	6.8
2025	Jun	26	14	22	46.88	-	6	19 10.9	1.449	2.156	120.9	6.8
2025	Jun	27	14	23	0.82	-	6	26 9.6	1.458	2.155	120.1	6.9
2025	Jun	28	14	23	16.52	-	6	33 15.5	1.468	2.155	119.2	6.9
2025	Jun	29	14	23	33.98	-	6	40 28.3	1.477	2.155	118.4	6.9
2025	Jun	30	14	23	53.18	-	6	47 47.8	1.487	2.155	117.6	6.9
2025	Jul	1	14	24	14.10	-	6	55 13.8	1.496	2.154	116.7	6.9
2025	Jul	2	14	24	36.71	-	7	2 46.1	1.506	2.154	115.9	7.0
2025	Jul	3	14	25	1.01	-	7	10 24.4	1.515	2.154	115.1	7.0
2025	Jul	4	14	25	26.97	-	7	18 8.5	1.525	2.154	114.3	7.0
2025	Jul	5	14	25	54.58	-	7	25 58.3	1.535	2.153	113.5	7.0
2025	Jul	6	14	26	23.80	-	7	33 53.5	1.545	2.153	112.8	7.0
2025	Jul	7	14	26	54.63	-	7	41 53.9	1.555	2.153	112.0	7.1
2025	Jul	8	14	27	27.05	-	7	49 59.4	1.565	2.153	111.2	7.1
2025	Jul	9	14	28	1.02	-	7	58 9.7	1.575	2.152	110.4	7.1
2025	Jul	10	14	28	36.54	-	8	6 24.6	1.585	2.152	109.7	7.1
2025	Jul	11	14	29	13.58	-	8	14 44.1	1.596	2.152	108.9	7.1

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Datum			RA			Decl.			$\Delta$	$r$	$E$	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2025	Jul	12	14	29	52.12	-	8	23 7.8	1.606	2.152	108.2	7.1
2025	Jul	13	14	30	32.15	-	8	31 35.7	1.616	2.152	107.4	7.2
2025	Jul	14	14	31	13.64	-	8	40 7.5	1.627	2.151	106.7	7.2
2025	Jul	15	14	31	56.58	-	8	48 43.2	1.637	2.151	106.0	7.2
2025	Jul	16	14	32	40.95	-	8	57 22.5	1.648	2.151	105.2	7.2
2025	Jul	17	14	33	26.74	-	9	6 5.3	1.658	2.151	104.5	7.2
2025	Jul	18	14	34	13.92	-	9	14 51.4	1.669	2.151	103.8	7.2
2025	Jul	19	14	35	2.49	-	9	23 40.8	1.679	2.151	103.1	7.3
2025	Jul	20	14	35	52.43	-	9	32 33.2	1.690	2.150	102.4	7.3
2025	Jul	21	14	36	43.73	-	9	41 28.6	1.701	2.150	101.7	7.3
2025	Jul	22	14	37	36.37	-	9	50 26.8	1.711	2.150	101.0	7.3
2025	Jul	23	14	38	30.33	-	9	59 27.6	1.722	2.150	100.3	7.3
2025	Jul	24	14	39	25.61	-	10	8 30.9	1.733	2.150	99.6	7.3
2025	Jul	25	14	40	22.18	-	10	17 36.5	1.744	2.150	98.9	7.4
2025	Jul	26	14	41	20.03	-	10	26 44.3	1.755	2.150	98.2	7.4
2025	Jul	27	14	42	19.15	-	10	35 54.2	1.766	2.150	97.6	7.4
2025	Jul	28	14	43	19.51	-	10	45 5.9	1.777	2.149	96.9	7.4
2025	Jul	29	14	44	21.10	-	10	54 19.3	1.788	2.149	96.2	7.4
2025	Jul	30	14	45	23.90	-	11	3 34.3	1.799	2.149	95.6	7.4

## 6 Hebe

0h UTC (J2000)

Osculerende baanelementen

T 2025 Aug 1.0000 TT

MA 323.356843°

q 1.9349997       $\omega$  239.681784°a 2.4257389       $\Omega$  138.614183°

e 0.2023050      i 14.735798°

Datum			RA			Decl.			$\Delta$	r	E	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2025	Jul	1	22	37	31.51	-	6	50 20.4	1.432	2.138	120.7	9.2
2025	Jul	2	22	38	8.06	-	6	54 1.4	1.421	2.136	121.5	9.1
2025	Jul	3	22	38	43.24	-	6	57 58.3	1.409	2.134	122.4	9.1
2025	Jul	4	22	39	17.05	-	7	2 11.2	1.398	2.132	123.2	9.1
2025	Jul	5	22	39	49.46	-	7	6 40.3	1.387	2.130	124.1	9.1
2025	Jul	6	22	40	20.46	-	7	11 25.8	1.376	2.128	124.9	9.0
2025	Jul	7	22	40	50.03	-	7	16 28.0	1.365	2.126	125.8	9.0
2025	Jul	8	22	41	18.14	-	7	21 47.0	1.354	2.124	126.7	9.0
2025	Jul	9	22	41	44.79	-	7	27 23.0	1.343	2.122	127.6	9.0
2025	Jul	10	22	42	9.95	-	7	33 16.3	1.332	2.120	128.5	8.9
2025	Jul	11	22	42	33.61	-	7	39 26.9	1.322	2.118	129.4	8.9
2025	Jul	12	22	42	55.74	-	7	45 55.1	1.311	2.116	130.3	8.9
2025	Jul	13	22	43	16.32	-	7	52 41.1	1.301	2.114	131.2	8.8
2025	Jul	14	22	43	35.35	-	7	59 44.9	1.291	2.112	132.1	8.8
2025	Jul	15	22	43	52.79	-	8	7 6.8	1.281	2.110	133.1	8.8
2025	Jul	16	22	44	8.62	-	8	14 46.9	1.271	2.108	134.0	8.8
2025	Jul	17	22	44	22.84	-	8	22 45.3	1.261	2.106	135.0	8.7
2025	Jul	18	22	44	35.43	-	8	31 2.1	1.252	2.104	135.9	8.7
2025	Jul	19	22	44	46.36	-	8	39 37.3	1.242	2.102	136.9	8.7
2025	Jul	20	22	44	55.62	-	8	48 31.1	1.233	2.100	137.8	8.6
2025	Jul	21	22	45	3.21	-	8	57 43.4	1.224	2.098	138.8	8.6
2025	Jul	22	22	45	9.11	-	9	7 14.3	1.215	2.096	139.8	8.6
2025	Jul	23	22	45	13.31	-	9	17 3.7	1.206	2.094	140.8	8.6
2025	Jul	24	22	45	15.81	-	9	27 11.4	1.198	2.093	141.8	8.5
2025	Jul	25	22	45	16.61	-	9	37 37.5	1.189	2.091	142.8	8.5
2025	Jul	26	22	45	15.71	-	9	48 21.7	1.181	2.089	143.8	8.5
2025	Jul	27	22	45	13.11	-	9	59 23.8	1.173	2.087	144.9	8.4
2025	Jul	28	22	45	8.81	-	10	10 43.6	1.165	2.085	145.9	8.4
2025	Jul	29	22	45	2.83	-	10	22 20.8	1.157	2.083	146.9	8.4
2025	Jul	30	22	44	55.17	-	10	34 15.2	1.150	2.081	148.0	8.3
2025	Jul	31	22	44	45.85	-	10	46 26.4	1.142	2.079	149.0	8.3
2025	Aug	1	22	44	34.87	-	10	58 54.0	1.135	2.078	150.1	8.3
2025	Aug	2	22	44	22.24	-	11	11 37.8	1.128	2.076	151.2	8.2
2025	Aug	3	22	44	8.00	-	11	24 37.1	1.122	2.074	152.2	8.2
2025	Aug	4	22	43	52.15	-	11	37 51.7	1.115	2.072	153.3	8.2
2025	Aug	5	22	43	34.71	-	11	51 20.9	1.109	2.070	154.4	8.1
2025	Aug	6	22	43	15.72	-	12	5 4.4	1.103	2.069	155.5	8.1
2025	Aug	7	22	42	55.18	-	12	19 1.4	1.097	2.067	156.5	8.1
2025	Aug	8	22	42	33.13	-	12	33 11.5	1.091	2.065	157.6	8.1

## 6 Hebe

Datum			RA			Decl.			$\Delta$	$r$	$E$	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2025	Aug	9	22	42	9.60	-12	47	34.0	1.085	2.063	158.7	8.0
2025	Aug	10	22	41	44.62	-13	2	8.2	1.080	2.061	159.8	8.0
2025	Aug	11	22	41	18.22	-13	16	53.6	1.075	2.060	160.9	8.0
2025	Aug	12	22	40	50.44	-13	31	49.3	1.070	2.058	161.9	7.9
2025	Aug	13	22	40	21.31	-13	46	54.7	1.066	2.056	163.0	7.9
2025	Aug	14	22	39	50.87	-14	2	8.9	1.061	2.054	164.1	7.9
2025	Aug	15	22	39	19.17	-14	17	31.1	1.057	2.053	165.1	7.8
2025	Aug	16	22	38	46.26	-14	33	0.5	1.054	2.051	166.1	7.8
2025	Aug	17	22	38	12.20	-14	48	36.1	1.050	2.049	167.1	7.8
2025	Aug	18	22	37	37.03	-15	4	17.1	1.046	2.048	168.1	7.7
2025	Aug	19	22	37	0.82	-15	20	2.4	1.043	2.046	169.0	7.7
2025	Aug	20	22	36	23.63	-15	35	51.1	1.040	2.044	169.8	7.7
2025	Aug	21	22	35	45.54	-15	51	42.1	1.038	2.043	170.6	7.6
2025	Aug	22	22	35	6.62	-16	7	34.3	1.035	2.041	171.3	7.6
2025	Aug	23	22	34	26.94	-16	23	26.7	1.033	2.039	171.9	7.6
2025	Aug	24	22	33	46.59	-16	39	18.3	1.031	2.038	172.3	7.6
2025	Aug	25	22	33	5.64	-16	55	7.9	1.030	2.036	172.5	7.6
2025	Aug	26	22	32	24.18	-17	10	54.4	1.028	2.034	172.5	7.6
2025	Aug	27	22	31	42.30	-17	26	36.8	1.027	2.033	172.4	7.6
2025	Aug	28	22	31	0.07	-17	42	14.1	1.026	2.031	172.0	7.6
2025	Aug	29	22	30	17.59	-17	57	45.1	1.025	2.030	171.5	7.6
2025	Aug	30	22	29	34.95	-18	13	8.9	1.025	2.028	170.8	7.6
2025	Aug	31	22	28	52.22	-18	28	24.4	1.025	2.027	170.1	7.6
2025	Sep	1	22	28	9.51	-18	43	30.8	1.025	2.025	169.2	7.6
2025	Sep	2	22	27	26.89	-18	58	26.9	1.025	2.023	168.3	7.7
2025	Sep	3	22	26	44.45	-19	13	11.9	1.025	2.022	167.4	7.7
2025	Sep	4	22	26	2.29	-19	27	45.0	1.026	2.020	166.4	7.7
2025	Sep	5	22	25	20.48	-19	42	5.2	1.027	2.019	165.3	7.7
2025	Sep	6	22	24	39.10	-19	56	11.8	1.028	2.017	164.3	7.7
2025	Sep	7	22	23	58.25	-20	10	4.0	1.030	2.016	163.2	7.8
2025	Sep	8	22	23	18.00	-20	23	41.0	1.032	2.014	162.1	7.8
2025	Sep	9	22	22	38.43	-20	37	2.2	1.034	2.013	161.1	7.8
2025	Sep	10	22	21	59.62	-20	50	6.9	1.036	2.012	160.0	7.8
2025	Sep	11	22	21	21.65	-21	2	54.5	1.038	2.010	158.9	7.9
2025	Sep	12	22	20	44.59	-21	15	24.3	1.041	2.009	157.7	7.9
2025	Sep	13	22	20	8.52	-21	27	35.8	1.043	2.007	156.6	7.9
2025	Sep	14	22	19	33.51	-21	39	28.4	1.046	2.006	155.5	7.9
2025	Sep	15	22	18	59.64	-21	51	1.7	1.050	2.004	154.4	8.0
2025	Sep	16	22	18	26.99	-22	2	15.1	1.053	2.003	153.3	8.0
2025	Sep	17	22	17	55.62	-22	13	8.3	1.057	2.002	152.2	8.0
2025	Sep	18	22	17	25.61	-22	23	40.7	1.061	2.000	151.1	8.0
2025	Sep	19	22	16	57.03	-22	33	52.1	1.065	1.999	150.0	8.1
2025	Sep	20	22	16	29.93	-22	43	42.2	1.069	1.998	148.9	8.1
2025	Sep	21	22	16	4.39	-22	53	10.6	1.073	1.996	147.9	8.1
2025	Sep	22	22	15	40.46	-23	2	17.1	1.078	1.995	146.8	8.1
2025	Sep	23	22	15	18.19	-23	11	1.6	1.083	1.994	145.7	8.2
2025	Sep	24	22	14	57.64	-23	19	23.9	1.088	1.992	144.6	8.2
2025	Sep	25	22	14	38.86	-23	27	24.0	1.093	1.991	143.6	8.2
2025	Sep	26	22	14	21.88	-23	35	1.7	1.098	1.990	142.5	8.2
2025	Sep	27	22	14	6.74	-23	42	17.0	1.104	1.989	141.5	8.3
2025	Sep	28	22	13	53.49	-23	49	9.9	1.109	1.987	140.4	8.3



## 6 Hebe

Datum			RA			Decl.			$\Delta$	$r$	$E$	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2025	Sep	29	22	13	42.14	-23	55	40.5	1.115	1.986	139.4	8.3
2025	Sep	30	22	13	32.74	-24	1	48.9	1.121	1.985	138.4	8.3
2025	Okt	1	22	13	25.29	-24	7	35.1	1.127	1.984	137.4	8.4
2025	Okt	2	22	13	19.83	-24	12	59.4	1.134	1.983	136.4	8.4
2025	Okt	3	22	13	16.36	-24	18	1.7	1.140	1.981	135.4	8.4
2025	Okt	4	22	13	14.90	-24	22	42.3	1.147	1.980	134.4	8.4
2025	Okt	5	22	13	15.46	-24	27	1.4	1.154	1.979	133.4	8.5
2025	Okt	6	22	13	18.04	-24	30	59.2	1.160	1.978	132.5	8.5
2025	Okt	7	22	13	22.64	-24	34	36.0	1.167	1.977	131.5	8.5
2025	Okt	8	22	13	29.27	-24	37	51.8	1.174	1.976	130.6	8.5
2025	Okt	9	22	13	37.92	-24	40	47.0	1.182	1.975	129.6	8.5
2025	Okt	10	22	13	48.59	-24	43	21.8	1.189	1.974	128.7	8.6
2025	Okt	11	22	14	1.29	-24	45	36.4	1.197	1.973	127.7	8.6
2025	Okt	12	22	14	16.00	-24	47	31.0	1.204	1.972	126.8	8.6
2025	Okt	13	22	14	32.72	-24	49	5.8	1.212	1.971	125.9	8.6
2025	Okt	14	22	14	51.45	-24	50	21.1	1.220	1.969	125.0	8.7
2025	Okt	15	22	15	12.18	-24	51	17.0	1.228	1.968	124.1	8.7
2025	Okt	16	22	15	34.90	-24	51	53.8	1.236	1.967	123.2	8.7
2025	Okt	17	22	15	59.61	-24	52	11.7	1.244	1.967	122.4	8.7
2025	Okt	18	22	16	26.29	-24	52	11.1	1.252	1.966	121.5	8.7
2025	Okt	19	22	16	54.93	-24	51	52.0	1.260	1.965	120.6	8.8
2025	Okt	20	22	17	25.51	-24	51	14.8	1.269	1.964	119.8	8.8
2025	Okt	21	22	17	58.02	-24	50	19.8	1.277	1.963	118.9	8.8
2025	Okt	22	22	18	32.44	-24	49	7.1	1.286	1.962	118.1	8.8
2025	Okt	23	22	19	8.76	-24	47	37.1	1.294	1.961	117.3	8.8
2025	Okt	24	22	19	46.94	-24	45	50.1	1.303	1.960	116.5	8.9
2025	Okt	25	22	20	26.97	-24	43	46.3	1.312	1.959	115.6	8.9
2025	Okt	26	22	21	8.82	-24	41	25.9	1.321	1.958	114.8	8.9
2025	Okt	27	22	21	52.46	-24	38	49.3	1.329	1.958	114.0	8.9
2025	Okt	28	22	22	37.88	-24	35	56.8	1.338	1.957	113.2	8.9
2025	Okt	29	22	23	25.04	-24	32	48.6	1.347	1.956	112.5	9.0
2025	Okt	30	22	24	13.91	-24	29	25.0	1.357	1.955	111.7	9.0
2025	Okt	31	22	25	4.47	-24	25	46.2	1.366	1.954	110.9	9.0
2025	Nov	1	22	25	56.69	-24	21	52.6	1.375	1.954	110.2	9.0
2025	Nov	2	22	26	50.53	-24	17	44.4	1.384	1.953	109.4	9.0
2025	Nov	3	22	27	45.96	-24	13	21.9	1.394	1.952	108.6	9.0
2025	Nov	4	22	28	42.95	-24	8	45.3	1.403	1.951	107.9	9.1
2025	Nov	5	22	29	41.47	-24	3	54.9	1.412	1.951	107.2	9.1
2025	Nov	6	22	30	41.49	-23	58	51.0	1.422	1.950	106.4	9.1
2025	Nov	7	22	31	42.98	-23	53	33.6	1.431	1.949	105.7	9.1
2025	Nov	8	22	32	45.92	-23	48	3.2	1.441	1.949	105.0	9.1
2025	Nov	9	22	33	50.27	-23	42	19.7	1.450	1.948	104.3	9.2
2025	Nov	10	22	34	56.01	-23	36	23.6	1.460	1.947	103.6	9.2
2025	Nov	11	22	36	3.11	-23	30	14.8	1.470	1.947	102.9	9.2
2025	Nov	12	22	37	11.56	-23	23	53.6	1.479	1.946	102.2	9.2
2025	Nov	13	22	38	21.32	-23	17	20.3	1.489	1.946	101.5	9.2
2025	Nov	14	22	39	32.37	-23	10	34.8	1.499	1.945	100.8	9.2
2025	Nov	15	22	40	44.70	-23	3	37.6	1.509	1.944	100.1	9.2
2025	Nov	16	22	41	58.27	-22	56	28.7	1.519	1.944	99.5	9.3
2025	Nov	17	22	43	13.06	-22	49	8.3	1.528	1.943	98.8	9.3
2025	Nov	18	22	44	29.05	-22	41	36.6	1.538	1.943	98.1	9.3

## 6 Hebe

Datum			RA			Decl.			$\Delta$	$r$	$E$	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2025	Nov	19	22	45	46.21	-22	33	53.8	1.548	1.942	97.5	9.3
2025	Nov	20	22	47	4.52	-22	26	0.0	1.558	1.942	96.8	9.3
2025	Nov	21	22	48	23.95	-22	17	55.6	1.568	1.941	96.2	9.3
2025	Nov	22	22	49	44.48	-22	9	40.6	1.578	1.941	95.5	9.4
2025	Nov	23	22	51	6.08	-22	1	15.2	1.588	1.941	94.9	9.4
2025	Nov	24	22	52	28.74	-21	52	39.7	1.598	1.940	94.3	9.4
2025	Nov	25	22	53	52.41	-21	43	54.2	1.608	1.940	93.6	9.4
2025	Nov	26	22	55	17.09	-21	34	58.9	1.618	1.939	93.0	9.4
2025	Nov	27	22	56	42.75	-21	25	54.0	1.628	1.939	92.4	9.4
2025	Nov	28	22	58	9.35	-21	16	39.7	1.638	1.939	91.8	9.4

## 8 Flora

0h UTC (J2000)

Osculerende baanelementen

T 2025 Mrt 12.0000 TT

MA 122.236542°

q 1.8565365             $\omega$  285.424493°a 2.2010132             $\Omega$  110.845456°

e 0.1565082            i 5.890301°

Datum			RA			Decl.			$\Delta$	r	E	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
j	m	d	h	m	s	o	'	"	$\Delta$	r	Elong	Mag
2025	Jan	1	12	2	30.77	5	4	38.3	1.905	2.316	101.9	11.0
2025	Jan	2	12	3	12.66	5	3	48.8	1.894	2.318	102.7	11.0
2025	Jan	3	12	3	53.15	5	3	10.2	1.883	2.320	103.6	10.9
2025	Jan	4	12	4	32.24	5	2	42.4	1.872	2.321	104.4	10.9
2025	Jan	5	12	5	9.91	5	2	25.8	1.861	2.323	105.3	10.9
2025	Jan	6	12	5	46.13	5	2	20.2	1.850	2.324	106.2	10.9
2025	Jan	7	12	6	20.88	5	2	25.9	1.839	2.326	107.1	10.9
2025	Jan	8	12	6	54.16	5	2	42.8	1.828	2.328	108.0	10.9
2025	Jan	9	12	7	25.94	5	3	11.2	1.817	2.329	108.8	10.9
2025	Jan	10	12	7	56.20	5	3	51.0	1.807	2.331	109.8	10.8
2025	Jan	11	12	8	24.93	5	4	42.3	1.796	2.332	110.7	10.8
2025	Jan	12	12	8	52.10	5	5	45.3	1.786	2.334	111.6	10.8
2025	Jan	13	12	9	17.70	5	6	59.9	1.775	2.336	112.5	10.8
2025	Jan	14	12	9	41.71	5	8	26.4	1.765	2.337	113.4	10.8
2025	Jan	15	12	10	4.11	5	10	4.7	1.755	2.339	114.4	10.8
2025	Jan	16	12	10	24.88	5	11	55.0	1.744	2.340	115.3	10.7
2025	Jan	17	12	10	44.00	5	13	57.3	1.734	2.342	116.2	10.7
2025	Jan	18	12	11	1.44	5	16	11.6	1.724	2.343	117.2	10.7
2025	Jan	19	12	11	17.20	5	18	38.1	1.714	2.345	118.2	10.7
2025	Jan	20	12	11	31.24	5	21	16.8	1.704	2.346	119.1	10.7
2025	Jan	21	12	11	43.56	5	24	7.7	1.694	2.348	120.1	10.6
2025	Jan	22	12	11	54.13	5	27	10.9	1.685	2.350	121.1	10.6
2025	Jan	23	12	12	2.94	5	30	26.3	1.675	2.351	122.1	10.6
2025	Jan	24	12	12	9.97	5	33	54.0	1.666	2.353	123.1	10.6
2025	Jan	25	12	12	15.20	5	37	33.9	1.656	2.354	124.1	10.6
2025	Jan	26	12	12	18.63	5	41	26.1	1.647	2.356	125.1	10.6
2025	Jan	27	12	12	20.25	5	45	30.4	1.638	2.357	126.1	10.5
2025	Jan	28	12	12	20.03	5	49	46.9	1.629	2.359	127.2	10.5
2025	Jan	29	12	12	17.97	5	54	15.4	1.620	2.360	128.2	10.5
2025	Jan	30	12	12	14.07	5	58	55.8	1.612	2.362	129.3	10.5
2025	Jan	31	12	12	8.32	6	3	48.0	1.603	2.363	130.3	10.5
2025	Feb	1	12	12	0.72	6	8	51.9	1.595	2.365	131.4	10.4
2025	Feb	2	12	11	51.27	6	14	7.2	1.587	2.366	132.4	10.4
2025	Feb	3	12	11	39.98	6	19	33.8	1.579	2.368	133.5	10.4
2025	Feb	4	12	11	26.84	6	25	11.5	1.571	2.369	134.6	10.4
2025	Feb	5	12	11	11.86	6	31	0.1	1.563	2.371	135.7	10.4
2025	Feb	6	12	10	55.05	6	36	59.3	1.555	2.372	136.8	10.3
2025	Feb	7	12	10	36.41	6	43	8.9	1.548	2.373	137.9	10.3
2025	Feb	8	12	10	15.97	6	49	28.6	1.541	2.375	139.0	10.3

## 8 Flora

Datum			RA			Decl.			$\Delta$	$r$	$E$	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2025	Feb	9	12	9	53.72	6	55	58.2	1.534	2.376	140.1	10.3
2025	Feb	10	12	9	29.69	7	2	37.4	1.527	2.378	141.2	10.2
2025	Feb	11	12	9	3.89	7	9	25.8	1.520	2.379	142.3	10.2
2025	Feb	12	12	8	36.32	7	16	23.2	1.514	2.381	143.4	10.2
2025	Feb	13	12	8	7.02	7	23	29.3	1.508	2.382	144.6	10.2
2025	Feb	14	12	7	36.00	7	30	43.6	1.502	2.384	145.7	10.2
2025	Feb	15	12	7	3.29	7	38	5.9	1.496	2.385	146.8	10.1
2025	Feb	16	12	6	28.90	7	45	35.7	1.491	2.386	148.0	10.1
2025	Feb	17	12	5	52.87	7	53	12.7	1.485	2.388	149.1	10.1
2025	Feb	18	12	5	15.22	8	0	56.3	1.480	2.389	150.3	10.1
2025	Feb	19	12	4	36.00	8	8	46.3	1.475	2.391	151.4	10.0
2025	Feb	20	12	3	55.23	8	16	42.0	1.471	2.392	152.6	10.0
2025	Feb	21	12	3	12.95	8	24	43.0	1.466	2.393	153.7	10.0
2025	Feb	22	12	2	29.21	8	32	48.9	1.462	2.395	154.9	10.0
2025	Feb	23	12	1	44.05	8	40	59.0	1.458	2.396	156.0	10.0
2025	Feb	24	12	0	57.52	8	49	12.8	1.454	2.397	157.1	9.9
2025	Feb	25	12	0	9.67	8	57	29.8	1.451	2.399	158.3	9.9
2025	Feb	26	11	59	20.55	9	5	49.3	1.448	2.400	159.4	9.9
2025	Feb	27	11	58	30.23	9	14	10.8	1.445	2.402	160.5	9.9
2025	Feb	28	11	57	38.76	9	22	33.7	1.442	2.403	161.6	9.8
2025	Mrt	1	11	56	46.21	9	30	57.2	1.440	2.404	162.7	9.8
2025	Mrt	2	11	55	52.65	9	39	20.8	1.438	2.406	163.8	9.8
2025	Mrt	3	11	54	58.15	9	47	43.9	1.436	2.407	164.8	9.8
2025	Mrt	4	11	54	2.77	9	56	5.7	1.435	2.408	165.8	9.8
2025	Mrt	5	11	53	6.60	10	4	25.6	1.433	2.410	166.8	9.7
2025	Mrt	6	11	52	9.70	10	12	43.0	1.432	2.411	167.7	9.7
2025	Mrt	7	11	51	12.16	10	20	57.4	1.432	2.412	168.6	9.7
2025	Mrt	8	11	50	14.04	10	29	8.0	1.431	2.413	169.3	9.7
2025	Mrt	9	11	49	15.42	10	37	14.3	1.431	2.415	170.0	9.7
2025	Mrt	10	11	48	16.37	10	45	15.7	1.431	2.416	170.6	9.7
2025	Mrt	11	11	47	16.99	10	53	11.7	1.431	2.417	171.0	9.7
2025	Mrt	12	11	46	17.32	11	1	1.6	1.432	2.419	171.2	9.7
2025	Mrt	13	11	45	17.47	11	8	45.0	1.433	2.420	171.2	9.7
2025	Mrt	14	11	44	17.49	11	16	21.4	1.434	2.421	171.1	9.7
2025	Mrt	15	11	43	17.47	11	23	50.2	1.436	2.422	170.8	9.7
2025	Mrt	16	11	42	17.48	11	31	10.9	1.437	2.424	170.3	9.7
2025	Mrt	17	11	41	17.60	11	38	23.0	1.439	2.425	169.8	9.7
2025	Mrt	18	11	40	17.90	11	45	26.2	1.442	2.426	169.0	9.7
2025	Mrt	19	11	39	18.46	11	52	19.8	1.444	2.427	168.3	9.7
2025	Mrt	20	11	38	19.36	11	59	3.6	1.447	2.429	167.4	9.8
2025	Mrt	21	11	37	20.66	12	5	37.1	1.450	2.430	166.5	9.8
2025	Mrt	22	11	36	22.44	12	11	59.8	1.454	2.431	165.5	9.8
2025	Mrt	23	11	35	24.78	12	18	11.5	1.457	2.432	164.5	9.8
2025	Mrt	24	11	34	27.74	12	24	11.7	1.461	2.434	163.4	9.9
2025	Mrt	25	11	33	31.40	12	30	0.1	1.466	2.435	162.4	9.9
2025	Mrt	26	11	32	35.82	12	35	36.5	1.470	2.436	161.3	9.9
2025	Mrt	27	11	31	41.07	12	41	0.4	1.475	2.437	160.2	9.9
2025	Mrt	28	11	30	47.23	12	46	11.6	1.480	2.438	159.1	10.0
2025	Mrt	29	11	29	54.35	12	51	9.9	1.485	2.440	158.0	10.0
2025	Mrt	30	11	29	2.49	12	55	55.1	1.490	2.441	156.9	10.0
2025	Mrt	31	11	28	11.73	13	0	26.8	1.496	2.442	155.8	10.1

## 8 Flora

Datum			RA			Decl.			$\Delta$	$r$	$E$	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2025	Apr	1	11	27	22.11	13	4	45.0	1.502	2.443	154.7	10.1
2025	Apr	2	11	26	33.70	13	8	49.4	1.508	2.444	153.6	10.1
2025	Apr	3	11	25	46.53	13	12	40.1	1.515	2.445	152.5	10.1
2025	Apr	4	11	25	0.67	13	16	16.9	1.522	2.447	151.3	10.2
2025	Apr	5	11	24	16.14	13	19	39.7	1.528	2.448	150.2	10.2
2025	Apr	6	11	23	32.99	13	22	48.6	1.536	2.449	149.1	10.2
2025	Apr	7	11	22	51.26	13	25	43.5	1.543	2.450	148.0	10.2
2025	Apr	8	11	22	10.98	13	28	24.5	1.551	2.451	146.9	10.3
2025	Apr	9	11	21	32.17	13	30	51.6	1.558	2.452	145.8	10.3
2025	Apr	10	11	20	54.87	13	33	4.7	1.566	2.453	144.7	10.3
2025	Apr	11	11	20	19.11	13	35	4.1	1.575	2.454	143.6	10.3
2025	Apr	12	11	19	44.89	13	36	49.8	1.583	2.456	142.6	10.4
2025	Apr	13	11	19	12.25	13	38	21.8	1.592	2.457	141.5	10.4
2025	Apr	14	11	18	41.21	13	39	40.3	1.600	2.458	140.4	10.4
2025	Apr	15	11	18	11.77	13	40	45.4	1.609	2.459	139.3	10.4
2025	Apr	16	11	17	43.95	13	41	37.1	1.618	2.460	138.3	10.5
2025	Apr	17	11	17	17.76	13	42	15.7	1.628	2.461	137.2	10.5
2025	Apr	18	11	16	53.22	13	42	41.1	1.637	2.462	136.2	10.5
2025	Apr	19	11	16	30.33	13	42	53.7	1.647	2.463	135.2	10.5
2025	Apr	20	11	16	9.11	13	42	53.4	1.657	2.464	134.1	10.6
2025	Apr	21	11	15	49.54	13	42	40.4	1.667	2.465	133.1	10.6
2025	Apr	22	11	15	31.65	13	42	14.9	1.677	2.466	132.1	10.6
2025	Apr	23	11	15	15.43	13	41	37.1	1.687	2.467	131.1	10.6
2025	Apr	24	11	15	0.88	13	40	47.0	1.698	2.468	130.1	10.7
2025	Apr	25	11	14	48.01	13	39	44.8	1.708	2.469	129.1	10.7
2025	Apr	26	11	14	36.81	13	38	30.6	1.719	2.470	128.1	10.7
2025	Apr	27	11	14	27.29	13	37	4.7	1.730	2.471	127.1	10.7
2025	Apr	28	11	14	19.43	13	35	27.1	1.741	2.472	126.1	10.8
2025	Apr	29	11	14	13.24	13	33	38.1	1.752	2.473	125.2	10.8
2025	Apr	30	11	14	8.70	13	31	37.8	1.763	2.474	124.2	10.8
2025	Mei	1	11	14	5.81	13	29	26.5	1.775	2.475	123.3	10.8
2025	Mei	2	11	14	4.55	13	27	4.2	1.786	2.476	122.3	10.8
2025	Mei	3	11	14	4.91	13	24	31.3	1.798	2.477	121.4	10.9
2025	Mei	4	11	14	6.87	13	21	47.8	1.810	2.478	120.5	10.9
2025	Mei	5	11	14	10.43	13	18	54.1	1.821	2.479	119.5	10.9
2025	Mei	6	11	14	15.55	13	15	50.4	1.833	2.480	118.6	10.9
2025	Mei	7	11	14	22.22	13	12	36.8	1.845	2.481	117.7	10.9
2025	Mei	8	11	14	30.43	13	9	13.5	1.857	2.482	116.8	11.0
2025	Mei	9	11	14	40.16	13	5	40.7	1.870	2.483	115.9	11.0
2025	Mei	10	11	14	51.38	13	1	58.6	1.882	2.484	115.0	11.0
2025	Mei	11	11	15	4.07	12	58	7.5	1.894	2.485	114.2	11.0
2025	Mei	12	11	15	18.22	12	54	7.4	1.907	2.486	113.3	11.0
2025	Mei	13	11	15	33.81	12	49	58.6	1.919	2.486	112.4	11.1
2025	Mei	14	11	15	50.81	12	45	41.3	1.932	2.487	111.5	11.1
2025	Mei	15	11	16	9.21	12	41	15.5	1.944	2.488	110.7	11.1
2025	Mei	16	11	16	28.99	12	36	41.5	1.957	2.489	109.8	11.1
2025	Mei	17	11	16	50.13	12	31	59.5	1.970	2.490	109.0	11.1
2025	Mei	18	11	17	12.60	12	27	9.5	1.983	2.491	108.2	11.2
2025	Mei	19	11	17	36.40	12	22	11.7	1.996	2.492	107.3	11.2
2025	Mei	20	11	18	1.49	12	17	6.3	2.009	2.493	106.5	11.2
2025	Mei	21	11	18	27.87	12	11	53.3	2.022	2.493	105.7	11.2

## 8 Flora

Datum j m d	RA h m s	Decl. o ' "	$\Delta$ (AE)	r (AE)	E	Mag
2025 Mei 22	11 18 55.52	12 6 33.0	2.035	2.494	104.9	11.2
2025 Mei 23	11 19 24.42	12 1 5.5	2.048	2.495	104.1	11.3
2025 Mei 24	11 19 54.54	11 55 30.8	2.061	2.496	103.3	11.3
2025 Mei 25	11 20 25.88	11 49 49.1	2.074	2.497	102.5	11.3
2025 Mei 26	11 20 58.42	11 44 0.6	2.087	2.498	101.7	11.3
2025 Mei 27	11 21 32.13	11 38 5.3	2.101	2.498	100.9	11.3
2025 Mei 28	11 22 7.00	11 32 3.4	2.114	2.499	100.1	11.3
2025 Mei 29	11 22 43.01	11 25 55.0	2.127	2.500	99.3	11.3
2025 Mei 30	11 23 20.14	11 19 40.3	2.140	2.501	98.6	11.4
2025 Mei 31	11 23 58.37	11 13 19.4	2.154	2.502	97.8	11.4

## 16 Psyche

0h UTC (J2000)

Osculerende baanelementen

T 2025 Nov 1.0000 TT

MA 36.712057°

q 2.5305384  $\omega$  229.734478°a 2.9231243  $\Omega$  150.011825°

e 0.1343035 i 3.097269°

Datum			RA			Decl.			$\Delta$	r	E	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
j	m	d	h	m	s	o	'	"	$\Delta$	r	Elong	Mag
2025	Okt	1	5	22	25.99	19	22	18.2	2.133	2.602	106.6	11.0
2025	Okt	2	5	22	59.06	19	21	30.4	2.121	2.602	107.4	11.0
2025	Okt	3	5	23	30.65	19	20	40.6	2.110	2.603	108.3	11.0
2025	Okt	4	5	24	0.75	19	19	48.9	2.099	2.604	109.1	10.9
2025	Okt	5	5	24	29.34	19	18	55.3	2.088	2.605	110.0	10.9
2025	Okt	6	5	24	56.40	19	17	59.9	2.076	2.606	110.9	10.9
2025	Okt	7	5	25	21.93	19	17	2.8	2.065	2.607	111.8	10.9
2025	Okt	8	5	25	45.89	19	16	4.1	2.054	2.608	112.7	10.9
2025	Okt	9	5	26	8.28	19	15	3.7	2.044	2.609	113.6	10.9
2025	Okt	10	5	26	29.07	19	14	1.7	2.033	2.610	114.5	10.8
2025	Okt	11	5	26	48.26	19	12	58.3	2.022	2.611	115.4	10.8
2025	Okt	12	5	27	5.81	19	11	53.3	2.011	2.611	116.3	10.8
2025	Okt	13	5	27	21.71	19	10	47.0	2.001	2.612	117.2	10.8
2025	Okt	14	5	27	35.95	19	9	39.4	1.990	2.613	118.1	10.8
2025	Okt	15	5	27	48.51	19	8	30.5	1.980	2.614	119.1	10.8
2025	Okt	16	5	27	59.37	19	7	20.4	1.970	2.615	120.0	10.7
2025	Okt	17	5	28	8.53	19	6	9.1	1.960	2.616	121.0	10.7
2025	Okt	18	5	28	15.97	19	4	56.7	1.950	2.617	121.9	10.7
2025	Okt	19	5	28	21.67	19	3	43.3	1.940	2.618	122.9	10.7
2025	Okt	20	5	28	25.64	19	2	29.0	1.930	2.619	123.9	10.7
2025	Okt	21	5	28	27.87	19	1	13.8	1.920	2.620	124.9	10.7
2025	Okt	22	5	28	28.34	18	59	57.7	1.911	2.621	125.8	10.6
2025	Okt	23	5	28	27.06	18	58	40.9	1.901	2.622	126.8	10.6
2025	Okt	24	5	28	24.03	18	57	23.3	1.892	2.623	127.8	10.6
2025	Okt	25	5	28	19.23	18	56	5.1	1.883	2.624	128.9	10.6
2025	Okt	26	5	28	12.68	18	54	46.3	1.874	2.625	129.9	10.6
2025	Okt	27	5	28	4.38	18	53	26.9	1.865	2.626	130.9	10.5
2025	Okt	28	5	27	54.33	18	52	7.0	1.856	2.627	131.9	10.5
2025	Okt	29	5	27	42.53	18	50	46.6	1.848	2.628	133.0	10.5
2025	Okt	30	5	27	29.00	18	49	25.9	1.840	2.629	134.0	10.5
2025	Okt	31	5	27	13.73	18	48	4.8	1.832	2.630	135.1	10.5
2025	Nov	1	5	26	56.76	18	46	43.4	1.824	2.631	136.1	10.5
2025	Nov	2	5	26	38.07	18	45	21.7	1.816	2.632	137.2	10.4
2025	Nov	3	5	26	17.70	18	43	59.8	1.808	2.633	138.3	10.4
2025	Nov	4	5	25	55.65	18	42	37.6	1.801	2.634	139.4	10.4
2025	Nov	5	5	25	31.94	18	41	15.4	1.793	2.635	140.4	10.4
2025	Nov	6	5	25	6.58	18	39	52.9	1.786	2.636	141.5	10.4
2025	Nov	7	5	24	39.59	18	38	30.4	1.780	2.637	142.6	10.3
2025	Nov	8	5	24	11.00	18	37	7.9	1.773	2.638	143.7	10.3

## 16 Psyche

Datum			RA			Decl.			$\Delta$	$r$	$E$	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2025	Nov	9	5	23	40.81	18	35	45.3	1.766	2.639	144.9	10.3
2025	Nov	10	5	23	9.06	18	34	22.8	1.760	2.640	146.0	10.3
2025	Nov	11	5	22	35.77	18	33	0.3	1.754	2.641	147.1	10.3
2025	Nov	12	5	22	0.97	18	31	37.9	1.748	2.642	148.2	10.2
2025	Nov	13	5	21	24.69	18	30	15.7	1.743	2.643	149.4	10.2
2025	Nov	14	5	20	46.97	18	28	53.8	1.738	2.644	150.5	10.2
2025	Nov	15	5	20	7.83	18	27	32.1	1.732	2.645	151.6	10.2
2025	Nov	16	5	19	27.34	18	26	10.7	1.728	2.646	152.8	10.2
2025	Nov	17	5	18	45.51	18	24	49.8	1.723	2.647	153.9	10.1
2025	Nov	18	5	18	2.41	18	23	29.3	1.719	2.648	155.1	10.1
2025	Nov	19	5	17	18.09	18	22	9.2	1.714	2.649	156.3	10.1
2025	Nov	20	5	16	32.59	18	20	49.8	1.711	2.650	157.4	10.1
2025	Nov	21	5	15	45.96	18	19	31.0	1.707	2.651	158.6	10.0
2025	Nov	22	5	14	58.27	18	18	12.8	1.704	2.653	159.8	10.0
2025	Nov	23	5	14	9.57	18	16	55.5	1.701	2.654	160.9	10.0
2025	Nov	24	5	13	19.93	18	15	38.9	1.698	2.655	162.1	10.0
2025	Nov	25	5	12	29.40	18	14	23.2	1.695	2.656	163.3	10.0
2025	Nov	26	5	11	38.05	18	13	8.5	1.693	2.657	164.4	9.9
2025	Nov	27	5	10	45.94	18	11	54.7	1.691	2.658	165.6	9.9
2025	Nov	28	5	9	53.14	18	10	42.1	1.689	2.659	166.7	9.9
2025	Nov	29	5	8	59.73	18	9	30.6	1.688	2.660	167.9	9.9
2025	Nov	30	5	8	5.75	18	8	20.3	1.686	2.661	169.0	9.8
2025	Dec	1	5	7	11.30	18	7	11.4	1.686	2.662	170.1	9.8
2025	Dec	2	5	6	16.42	18	6	3.7	1.685	2.663	171.1	9.8
2025	Dec	3	5	5	21.20	18	4	57.6	1.685	2.665	172.1	9.8
2025	Dec	4	5	4	25.70	18	3	52.9	1.685	2.666	173.1	9.7
2025	Dec	5	5	3	29.98	18	2	49.8	1.685	2.667	173.9	9.7
2025	Dec	6	5	2	34.12	18	1	48.4	1.685	2.668	174.6	9.7
2025	Dec	7	5	1	38.18	18	0	48.7	1.686	2.669	175.1	9.7
2025	Dec	8	5	0	42.22	17	59	50.8	1.687	2.670	175.3	9.7
2025	Dec	9	4	59	46.32	17	58	54.9	1.689	2.671	175.2	9.7
2025	Dec	10	4	58	50.55	17	58	1.0	1.690	2.672	174.7	9.7
2025	Dec	11	4	57	54.97	17	57	9.2	1.692	2.674	174.1	9.7
2025	Dec	12	4	56	59.67	17	56	19.7	1.694	2.675	173.3	9.8
2025	Dec	13	4	56	4.69	17	55	32.4	1.697	2.676	172.3	9.8
2025	Dec	14	4	55	10.13	17	54	47.6	1.700	2.677	171.3	9.8
2025	Dec	15	4	54	16.03	17	54	5.3	1.703	2.678	170.3	9.8
2025	Dec	16	4	53	22.49	17	53	25.7	1.706	2.679	169.2	9.9
2025	Dec	17	4	52	29.55	17	52	48.7	1.710	2.681	168.1	9.9
2025	Dec	18	4	51	37.29	17	52	14.6	1.714	2.682	166.9	9.9
2025	Dec	19	4	50	45.78	17	51	43.4	1.718	2.683	165.8	10.0
2025	Dec	20	4	49	55.07	17	51	15.2	1.723	2.684	164.6	10.0
2025	Dec	21	4	49	5.24	17	50	50.1	1.727	2.685	163.5	10.0
2025	Dec	22	4	48	16.33	17	50	28.2	1.732	2.686	162.3	10.0
2025	Dec	23	4	47	28.40	17	50	9.6	1.738	2.688	161.1	10.1
2025	Dec	24	4	46	41.52	17	49	54.3	1.743	2.689	160.0	10.1
2025	Dec	25	4	45	55.73	17	49	42.3	1.749	2.690	158.8	10.1
2025	Dec	26	4	45	11.09	17	49	33.9	1.755	2.691	157.6	10.1
2025	Dec	27	4	44	27.64	17	49	29.0	1.762	2.692	156.5	10.2
2025	Dec	28	4	43	45.43	17	49	27.7	1.768	2.693	155.3	10.2
2025	Dec	29	4	43	4.49	17	49	30.0	1.775	2.695	154.2	10.2



## 16 Psyche

Datum			RA			Decl.			$\Delta$	$r$	E	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2025	Dec	30	4	42	24.88	17	49	36.0	1.782	2.696	153.0	10.2
2025	Dec	31	4	41	46.61	17	49	45.7	1.790	2.697	151.9	10.3
2026	Jan	1	4	41	9.73	17	49	59.2	1.797	2.698	150.7	10.3
2026	Jan	2	4	40	34.26	17	50	16.5	1.805	2.699	149.6	10.3
2026	Jan	3	4	40	0.24	17	50	37.6	1.813	2.701	148.4	10.3
2026	Jan	4	4	39	27.68	17	51	2.5	1.822	2.702	147.3	10.4
2026	Jan	5	4	38	56.61	17	51	31.2	1.830	2.703	146.2	10.4
2026	Jan	6	4	38	27.06	17	52	3.9	1.839	2.704	145.1	10.4
2026	Jan	7	4	37	59.04	17	52	40.4	1.848	2.705	143.9	10.4
2026	Jan	8	4	37	32.57	17	53	20.9	1.857	2.707	142.8	10.5
2026	Jan	9	4	37	7.67	17	54	5.3	1.866	2.708	141.7	10.5
2026	Jan	10	4	36	44.37	17	54	53.6	1.876	2.709	140.6	10.5
2026	Jan	11	4	36	22.67	17	55	45.9	1.886	2.710	139.5	10.5
2026	Jan	12	4	36	2.59	17	56	42.1	1.896	2.712	138.4	10.6
2026	Jan	13	4	35	44.14	17	57	42.2	1.906	2.713	137.4	10.6
2026	Jan	14	4	35	27.33	17	58	46.2	1.917	2.714	136.3	10.6
2026	Jan	15	4	35	12.18	17	59	54.1	1.927	2.715	135.2	10.6
2026	Jan	16	4	34	58.68	18	1	5.9	1.938	2.716	134.2	10.7
2026	Jan	17	4	34	46.85	18	2	21.5	1.949	2.718	133.1	10.7
2026	Jan	18	4	34	36.69	18	3	40.9	1.960	2.719	132.1	10.7
2026	Jan	19	4	34	28.21	18	5	4.1	1.971	2.720	131.0	10.7
2026	Jan	20	4	34	21.39	18	6	30.9	1.983	2.721	130.0	10.7
2026	Jan	21	4	34	16.25	18	8	1.4	1.994	2.723	128.9	10.8
2026	Jan	22	4	34	12.78	18	9	35.5	2.006	2.724	127.9	10.8
2026	Jan	23	4	34	10.97	18	11	13.1	2.018	2.725	126.9	10.8
2026	Jan	24	4	34	10.83	18	12	54.2	2.030	2.726	125.9	10.8
2026	Jan	25	4	34	12.33	18	14	38.7	2.042	2.728	124.9	10.8
2026	Jan	26	4	34	15.48	18	16	26.4	2.055	2.729	123.9	10.9
2026	Jan	27	4	34	20.27	18	18	17.4	2.067	2.730	122.9	10.9
2026	Jan	28	4	34	26.67	18	20	11.6	2.080	2.731	121.9	10.9
2026	Jan	29	4	34	34.68	18	22	8.8	2.092	2.733	121.0	10.9
2026	Jan	30	4	34	44.28	18	24	8.9	2.105	2.734	120.0	11.0
2026	Jan	31	4	34	55.46	18	26	12.0	2.118	2.735	119.0	11.0
2026	Feb	1	4	35	8.20	18	28	17.8	2.131	2.737	118.1	11.0
2026	Feb	2	4	35	22.49	18	30	26.4	2.144	2.738	117.1	11.0
2026	Feb	3	4	35	38.31	18	32	37.6	2.158	2.739	116.2	11.0
2026	Feb	4	4	35	55.65	18	34	51.3	2.171	2.740	115.2	11.0
2026	Feb	5	4	36	14.49	18	37	7.5	2.184	2.742	114.3	11.1
2026	Feb	6	4	36	34.82	18	39	26.1	2.198	2.743	113.4	11.1
2026	Feb	7	4	36	56.62	18	41	47.0	2.212	2.744	112.5	11.1
2026	Feb	8	4	37	19.88	18	44	10.0	2.225	2.745	111.5	11.1
2026	Feb	9	4	37	44.59	18	46	35.2	2.239	2.747	110.6	11.1
2026	Feb	10	4	38	10.73	18	49	2.4	2.253	2.748	109.7	11.2
2026	Feb	11	4	38	38.28	18	51	31.5	2.267	2.749	108.8	11.2
2026	Feb	12	4	39	7.23	18	54	2.4	2.281	2.751	107.9	11.2
2026	Feb	13	4	39	37.56	18	56	35.1	2.295	2.752	107.1	11.2
2026	Feb	14	4	40	9.26	18	59	9.4	2.310	2.753	106.2	11.2
2026	Feb	15	4	40	42.32	19	1	45.2	2.324	2.755	105.3	11.2
2026	Feb	16	4	41	16.71	19	4	22.5	2.338	2.756	104.4	11.3
2026	Feb	17	4	41	52.43	19	7	1.0	2.352	2.757	103.6	11.3
2026	Feb	18	4	42	29.44	19	9	40.9	2.367	2.758	102.7	11.3

## 16 Psyche

Datum			RA			Decl.			$\Delta$	$r$	$E$	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2026	Feb	19	4	43	7.75	19	12	21.8	2.381	2.760	101.9	11.3
2026	Feb	20	4	43	47.32	19	15	3.8	2.396	2.761	101.0	11.3
2026	Feb	21	4	44	28.15	19	17	46.6	2.410	2.762	100.2	11.3
2026	Feb	22	4	45	10.20	19	20	30.3	2.425	2.764	99.3	11.4
2026	Feb	23	4	45	53.47	19	23	14.7	2.440	2.765	98.5	11.4
2026	Feb	24	4	46	37.93	19	25	59.7	2.454	2.766	97.7	11.4
2026	Feb	25	4	47	23.57	19	28	45.1	2.469	2.768	96.9	11.4
2026	Feb	26	4	48	10.36	19	31	31.0	2.484	2.769	96.0	11.4
2026	Feb	27	4	48	58.28	19	34	17.1	2.498	2.770	95.2	11.4
2026	Feb	28	4	49	47.31	19	37	3.4	2.513	2.771	94.4	11.5

## 29 Amphitrite

0h UTC (J2000)

Osculerende baanelementen

T 2025 Jan 12.0000 TT

MA 69.478209°

q 2.3662805       $\omega$  61.935082°a 2.5541235       $\Omega$  356.256777°

e 0.0735450      i 6.077547°

Datum			RA			Decl.			$\Delta$	r	E	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
j	m	d	h	m	s	o	'	"	$\Delta$	r	Elong	Mag
2024	Dec	1	10	10	37.04	17	14	4.8	2.092	2.469	100.4	10.7
2024	Dec	2	10	11	19.68	17	11	5.0	2.080	2.470	101.2	10.6
2024	Dec	3	10	12	0.95	17	8	11.9	2.068	2.471	102.1	10.6
2024	Dec	4	10	12	40.84	17	5	25.9	2.056	2.471	102.9	10.6
2024	Dec	5	10	13	19.33	17	2	46.8	2.045	2.472	103.8	10.6
2024	Dec	6	10	13	56.39	17	0	14.9	2.033	2.473	104.6	10.6
2024	Dec	7	10	14	32.02	16	57	50.2	2.021	2.474	105.5	10.6
2024	Dec	8	10	15	6.19	16	55	32.8	2.009	2.474	106.4	10.5
2024	Dec	9	10	15	38.89	16	53	22.9	1.997	2.475	107.2	10.5
2024	Dec	10	10	16	10.10	16	51	20.4	1.986	2.476	108.1	10.5
2024	Dec	11	10	16	39.81	16	49	25.4	1.974	2.476	109.0	10.5
2024	Dec	12	10	17	8.00	16	47	38.1	1.963	2.477	109.9	10.5
2024	Dec	13	10	17	34.65	16	45	58.5	1.951	2.478	110.8	10.5
2024	Dec	14	10	17	59.74	16	44	26.6	1.940	2.479	111.7	10.5
2024	Dec	15	10	18	23.27	16	43	2.6	1.928	2.479	112.6	10.4
2024	Dec	16	10	18	45.20	16	41	46.5	1.917	2.480	113.6	10.4
2024	Dec	17	10	19	5.52	16	40	38.4	1.906	2.481	114.5	10.4
2024	Dec	18	10	19	24.21	16	39	38.4	1.895	2.482	115.4	10.4
2024	Dec	19	10	19	41.26	16	38	46.5	1.884	2.482	116.4	10.4
2024	Dec	20	10	19	56.63	16	38	2.9	1.873	2.483	117.3	10.3
2024	Dec	21	10	20	10.32	16	37	27.4	1.862	2.484	118.3	10.3
2024	Dec	22	10	20	22.31	16	37	0.3	1.851	2.485	119.2	10.3
2024	Dec	23	10	20	32.57	16	36	41.5	1.841	2.485	120.2	10.3
2024	Dec	24	10	20	41.10	16	36	31.1	1.830	2.486	121.2	10.3
2024	Dec	25	10	20	47.87	16	36	29.0	1.820	2.487	122.2	10.3
2024	Dec	26	10	20	52.87	16	36	35.4	1.810	2.488	123.2	10.2
2024	Dec	27	10	20	56.10	16	36	50.1	1.800	2.489	124.2	10.2
2024	Dec	28	10	20	57.53	16	37	13.2	1.790	2.489	125.2	10.2
2024	Dec	29	10	20	57.16	16	37	44.7	1.780	2.490	126.2	10.2
2024	Dec	30	10	20	54.97	16	38	24.4	1.770	2.491	127.2	10.2
2024	Dec	31	10	20	50.96	16	39	12.4	1.760	2.492	128.2	10.1
2025	Jan	1	10	20	45.13	16	40	8.5	1.751	2.492	129.3	10.1
2025	Jan	2	10	20	37.47	16	41	12.8	1.742	2.493	130.3	10.1
2025	Jan	3	10	20	27.97	16	42	24.9	1.732	2.494	131.4	10.1
2025	Jan	4	10	20	16.64	16	43	45.0	1.723	2.495	132.4	10.1
2025	Jan	5	10	20	3.49	16	45	12.8	1.715	2.495	133.5	10.0
2025	Jan	6	10	19	48.51	16	46	48.1	1.706	2.496	134.6	10.0
2025	Jan	7	10	19	31.71	16	48	30.8	1.697	2.497	135.6	10.0
2025	Jan	8	10	19	13.09	16	50	20.8	1.689	2.498	136.7	10.0

## 29 Amphitrite

Datum			RA			Decl.			$\Delta$	$r$	$E$	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2025	Jan	9	10	18	52.67	16	52	17.9	1.681	2.499	137.8	10.0
2025	Jan	10	10	18	30.46	16	54	21.8	1.673	2.499	138.9	9.9
2025	Jan	11	10	18	6.47	16	56	32.5	1.665	2.500	140.0	9.9
2025	Jan	12	10	17	40.70	16	58	49.6	1.658	2.501	141.1	9.9
2025	Jan	13	10	17	13.18	17	1	13.0	1.650	2.502	142.3	9.9
2025	Jan	14	10	16	43.91	17	3	42.5	1.643	2.502	143.4	9.8
2025	Jan	15	10	16	12.92	17	6	17.8	1.636	2.503	144.5	9.8
2025	Jan	16	10	15	40.22	17	8	58.7	1.629	2.504	145.7	9.8
2025	Jan	17	10	15	5.83	17	11	45.0	1.623	2.505	146.8	9.8
2025	Jan	18	10	14	29.78	17	14	36.3	1.617	2.505	148.0	9.8
2025	Jan	19	10	13	52.10	17	17	32.5	1.611	2.506	149.1	9.7
2025	Jan	20	10	13	12.81	17	20	33.2	1.605	2.507	150.3	9.7
2025	Jan	21	10	12	31.95	17	23	38.1	1.599	2.508	151.4	9.7
2025	Jan	22	10	11	49.55	17	26	46.8	1.594	2.509	152.6	9.7
2025	Jan	23	10	11	5.64	17	29	59.2	1.588	2.509	153.8	9.6
2025	Jan	24	10	10	20.28	17	33	14.7	1.584	2.510	154.9	9.6
2025	Jan	25	10	9	33.50	17	36	33.0	1.579	2.511	156.1	9.6
2025	Jan	26	10	8	45.36	17	39	53.9	1.574	2.512	157.3	9.6
2025	Jan	27	10	7	55.90	17	43	16.8	1.570	2.513	158.5	9.5
2025	Jan	28	10	7	5.18	17	46	41.4	1.566	2.513	159.7	9.5
2025	Jan	29	10	6	13.25	17	50	7.3	1.563	2.514	160.8	9.5
2025	Jan	30	10	5	20.19	17	53	34.0	1.559	2.515	162.0	9.5
2025	Jan	31	10	4	26.04	17	57	1.2	1.556	2.516	163.2	9.4
2025	Feb	1	10	3	30.88	18	0	28.5	1.554	2.516	164.4	9.4
2025	Feb	2	10	2	34.77	18	3	55.3	1.551	2.517	165.5	9.4
2025	Feb	3	10	1	37.80	18	7	21.3	1.549	2.518	166.7	9.4
2025	Feb	4	10	0	40.02	18	10	46.0	1.547	2.519	167.8	9.4
2025	Feb	5	9	59	41.52	18	14	9.1	1.545	2.520	168.9	9.3
2025	Feb	6	9	58	42.36	18	17	30.1	1.544	2.520	170.0	9.3
2025	Feb	7	9	57	42.63	18	20	48.7	1.542	2.521	171.0	9.3
2025	Feb	8	9	56	42.39	18	24	4.4	1.541	2.522	172.0	9.3
2025	Feb	9	9	55	41.72	18	27	16.9	1.541	2.523	172.9	9.2
2025	Feb	10	9	54	40.71	18	30	25.9	1.541	2.524	173.6	9.2
2025	Feb	11	9	53	39.41	18	33	31.1	1.540	2.524	174.2	9.2
2025	Feb	12	9	52	37.92	18	36	32.0	1.541	2.525	174.6	9.2
2025	Feb	13	9	51	36.30	18	39	28.3	1.541	2.526	174.6	9.2
2025	Feb	14	9	50	34.64	18	42	19.8	1.542	2.527	174.4	9.2
2025	Feb	15	9	49	33.00	18	45	6.2	1.543	2.528	173.9	9.2
2025	Feb	16	9	48	31.47	18	47	47.1	1.545	2.528	173.3	9.2
2025	Feb	17	9	47	30.13	18	50	22.3	1.546	2.529	172.5	9.3
2025	Feb	18	9	46	29.05	18	52	51.5	1.548	2.530	171.5	9.3
2025	Feb	19	9	45	28.31	18	55	14.5	1.550	2.531	170.5	9.3
2025	Feb	20	9	44	27.98	18	57	31.1	1.553	2.531	169.5	9.3
2025	Feb	21	9	43	28.14	18	59	40.9	1.556	2.532	168.4	9.4
2025	Feb	22	9	42	28.87	19	1	43.8	1.559	2.533	167.3	9.4
2025	Feb	23	9	41	30.24	19	3	39.6	1.562	2.534	166.2	9.4
2025	Feb	24	9	40	32.33	19	5	28.1	1.566	2.535	165.0	9.4
2025	Feb	25	9	39	35.20	19	7	9.0	1.570	2.535	163.9	9.5
2025	Feb	26	9	38	38.92	19	8	42.3	1.574	2.536	162.7	9.5
2025	Feb	27	9	37	43.57	19	10	7.8	1.578	2.537	161.5	9.5
2025	Feb	28	9	36	49.22	19	11	25.4	1.583	2.538	160.4	9.6

## 29 Amphitrite

Datum			RA			Decl.			$\Delta$	$r$	$E$	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2025	Mrt	1	9	35	55.93	19	12	34.9	1.588	2.539	159.2	9.6
2025	Mrt	2	9	35	3.76	19	13	36.1	1.593	2.539	158.1	9.6
2025	Mrt	3	9	34	12.77	19	14	29.2	1.598	2.540	156.9	9.6
2025	Mrt	4	9	33	23.02	19	15	13.8	1.604	2.541	155.7	9.7
2025	Mrt	5	9	32	34.57	19	15	50.1	1.610	2.542	154.6	9.7
2025	Mrt	6	9	31	47.45	19	16	18.0	1.616	2.543	153.4	9.7
2025	Mrt	7	9	31	1.72	19	16	37.4	1.623	2.543	152.3	9.7
2025	Mrt	8	9	30	17.42	19	16	48.4	1.629	2.544	151.1	9.8
2025	Mrt	9	9	29	34.59	19	16	51.0	1.636	2.545	150.0	9.8
2025	Mrt	10	9	28	53.25	19	16	45.3	1.644	2.546	148.9	9.8
2025	Mrt	11	9	28	13.45	19	16	31.2	1.651	2.547	147.7	9.8
2025	Mrt	12	9	27	35.21	19	16	8.8	1.658	2.547	146.6	9.9
2025	Mrt	13	9	26	58.56	19	15	38.2	1.666	2.548	145.5	9.9
2025	Mrt	14	9	26	23.52	19	14	59.4	1.674	2.549	144.4	9.9
2025	Mrt	15	9	25	50.12	19	14	12.6	1.682	2.550	143.3	9.9
2025	Mrt	16	9	25	18.38	19	13	17.7	1.691	2.551	142.2	10.0
2025	Mrt	17	9	24	48.31	19	12	14.9	1.700	2.551	141.1	10.0
2025	Mrt	18	9	24	19.93	19	11	4.3	1.708	2.552	140.0	10.0
2025	Mrt	19	9	23	53.26	19	9	45.9	1.717	2.553	138.9	10.0
2025	Mrt	20	9	23	28.30	19	8	19.7	1.727	2.554	137.8	10.1
2025	Mrt	21	9	23	5.07	19	6	46.0	1.736	2.554	136.8	10.1
2025	Mrt	22	9	22	43.58	19	5	4.7	1.745	2.555	135.7	10.1
2025	Mrt	23	9	22	23.83	19	3	16.0	1.755	2.556	134.7	10.1
2025	Mrt	24	9	22	5.83	19	1	19.9	1.765	2.557	133.6	10.1
2025	Mrt	25	9	21	49.58	18	59	16.5	1.775	2.558	132.6	10.2
2025	Mrt	26	9	21	35.08	18	57	6.0	1.785	2.558	131.6	10.2
2025	Mrt	27	9	21	22.35	18	54	48.3	1.796	2.559	130.5	10.2
2025	Mrt	28	9	21	11.37	18	52	23.6	1.806	2.560	129.5	10.2
2025	Mrt	29	9	21	2.14	18	49	51.9	1.817	2.561	128.5	10.3
2025	Mrt	30	9	20	54.66	18	47	13.4	1.828	2.562	127.5	10.3
2025	Mrt	31	9	20	48.93	18	44	28.0	1.839	2.562	126.5	10.3
2025	Apr	1	9	20	44.94	18	41	36.0	1.850	2.563	125.5	10.3
2025	Apr	2	9	20	42.67	18	38	37.3	1.861	2.564	124.6	10.3
2025	Apr	3	9	20	42.12	18	35	32.2	1.872	2.565	123.6	10.4
2025	Apr	4	9	20	43.26	18	32	20.6	1.884	2.566	122.6	10.4
2025	Apr	5	9	20	46.09	18	29	2.8	1.896	2.566	121.7	10.4
2025	Apr	6	9	20	50.58	18	25	38.7	1.907	2.567	120.7	10.4
2025	Apr	7	9	20	56.72	18	22	8.6	1.919	2.568	119.8	10.4
2025	Apr	8	9	21	4.49	18	18	32.4	1.931	2.569	118.9	10.5
2025	Apr	9	9	21	13.86	18	14	50.4	1.943	2.569	117.9	10.5
2025	Apr	10	9	21	24.82	18	11	2.6	1.955	2.570	117.0	10.5
2025	Apr	11	9	21	37.35	18	7	9.0	1.967	2.571	116.1	10.5
2025	Apr	12	9	21	51.43	18	3	9.9	1.980	2.572	115.2	10.5
2025	Apr	13	9	22	7.03	17	59	5.2	1.992	2.573	114.3	10.6
2025	Apr	14	9	22	24.14	17	54	55.1	2.005	2.573	113.4	10.6
2025	Apr	15	9	22	42.74	17	50	39.6	2.017	2.574	112.5	10.6
2025	Apr	16	9	23	2.80	17	46	18.8	2.030	2.575	111.6	10.6
2025	Apr	17	9	23	24.30	17	41	52.7	2.043	2.576	110.8	10.6
2025	Apr	18	9	23	47.22	17	37	21.5	2.055	2.576	109.9	10.7
2025	Apr	19	9	24	11.55	17	32	45.1	2.068	2.577	109.0	10.7
2025	Apr	20	9	24	37.26	17	28	3.7	2.081	2.578	108.2	10.7

29 Amphitrite

Datum			RA			Decl.			$\Delta$	$r$	$E$	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2025	Apr	21	9	25	4.33	17	23	17.3	2.094	2.579	107.3	10.7
2025	Apr	22	9	25	32.74	17	18	26.0	2.107	2.580	106.5	10.7
2025	Apr	23	9	26	2.48	17	13	29.7	2.120	2.580	105.7	10.7
2025	Apr	24	9	26	33.52	17	8	28.6	2.134	2.581	104.8	10.8
2025	Apr	25	9	27	5.84	17	3	22.6	2.147	2.582	104.0	10.8
2025	Apr	26	9	27	39.43	16	58	11.9	2.160	2.583	103.2	10.8
2025	Apr	27	9	28	14.26	16	52	56.4	2.173	2.583	102.4	10.8
2025	Apr	28	9	28	50.32	16	47	36.2	2.187	2.584	101.6	10.8
2025	Apr	29	9	29	27.58	16	42	11.3	2.200	2.585	100.8	10.8
2025	Apr	30	9	30	6.02	16	36	41.8	2.213	2.586	100.0	10.9
2025	Mei	1	9	30	45.62	16	31	7.7	2.227	2.587	99.2	10.9
2025	Mei	2	9	31	26.35	16	25	29.1	2.240	2.587	98.4	10.9
2025	Mei	3	9	32	8.20	16	19	46.0	2.254	2.588	97.6	10.9
2025	Mei	4	9	32	51.14	16	13	58.5	2.267	2.589	96.8	10.9
2025	Mei	5	9	33	35.14	16	8	6.7	2.281	2.590	96.1	10.9
2025	Mei	6	9	34	20.19	16	2	10.5	2.295	2.590	95.3	10.9
2025	Mei	7	9	35	6.26	15	56	10.1	2.308	2.591	94.5	11.0
2025	Mei	8	9	35	53.33	15	50	5.5	2.322	2.592	93.8	11.0
2025	Mei	9	9	36	41.38	15	43	56.8	2.335	2.593	93.0	11.0
2025	Mei	10	9	37	30.39	15	37	43.9	2.349	2.593	92.3	11.0
2025	Mei	11	9	38	20.34	15	31	26.9	2.362	2.594	91.5	11.0
2025	Mei	12	9	39	11.21	15	25	5.9	2.376	2.595	90.8	11.0
2025	Mei	13	9	40	2.98	15	18	40.9	2.390	2.596	90.1	11.0
2025	Mei	14	9	40	55.63	15	12	11.9	2.403	2.597	89.3	11.1
2025	Mei	15	9	41	49.14	15	5	39.0	2.417	2.597	88.6	11.1
2025	Mei	16	9	42	43.50	14	59	2.1	2.431	2.598	87.9	11.1
2025	Mei	17	9	43	38.69	14	52	21.4	2.444	2.599	87.2	11.1
2025	Mei	18	9	44	34.70	14	45	36.8	2.458	2.600	86.5	11.1
2025	Mei	19	9	45	31.50	14	38	48.4	2.471	2.600	85.8	11.1
2025	Mei	20	9	46	29.08	14	31	56.2	2.485	2.601	85.1	11.1
2025	Mei	21	9	47	27.44	14	25	0.1	2.499	2.602	84.4	11.1
2025	Mei	22	9	48	26.54	14	18	0.3	2.512	2.603	83.7	11.2
2025	Mei	23	9	49	26.39	14	10	56.8	2.526	2.603	83.0	11.2
2025	Mei	24	9	50	26.96	14	3	49.4	2.539	2.604	82.3	11.2
2025	Mei	25	9	51	28.25	13	56	38.4	2.553	2.605	81.6	11.2
2025	Mei	26	9	52	30.23	13	49	23.6	2.566	2.606	80.9	11.2
2025	Mei	27	9	53	32.90	13	42	5.1	2.580	2.606	80.2	11.2
2025	Mei	28	9	54	36.23	13	34	43.0	2.593	2.607	79.5	11.2
2025	Mei	29	9	55	40.22	13	27	17.3	2.606	2.608	78.9	11.2
2025	Mei	30	9	56	44.84	13	19	48.0	2.620	2.609	78.2	11.2

## 89 Julia

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q 2.0820932  $\omega$  45.178807°a 2.5511323  $\Omega$  311.519779°

e 0.1838553 i 16.123055°

Datum			RA			Decl.			$\Delta$	r	E	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
j	m	d	h	m	s	o	'	"	$\Delta$	r	Elong	Mag
2025	Jul	1	21	52	41.94	-15	45	21.2	1.379	2.211	134.1	9.8
2025	Jul	2	21	52	28.58	-15	38	36.3	1.370	2.209	135.0	9.7
2025	Jul	3	21	52	13.23	-15	31	53.6	1.360	2.207	136.0	9.7
2025	Jul	4	21	51	55.88	-15	25	13.3	1.351	2.206	137.0	9.7
2025	Jul	5	21	51	36.54	-15	18	35.1	1.341	2.204	138.0	9.7
2025	Jul	6	21	51	15.19	-15	11	59.3	1.332	2.203	139.0	9.6
2025	Jul	7	21	50	51.85	-15	5	25.6	1.323	2.201	140.0	9.6
2025	Jul	8	21	50	26.52	-14	58	54.2	1.314	2.200	141.0	9.6
2025	Jul	9	21	49	59.20	-14	52	24.9	1.306	2.198	142.0	9.5
2025	Jul	10	21	49	29.91	-14	45	57.8	1.297	2.197	143.1	9.5
2025	Jul	11	21	48	58.66	-14	39	32.8	1.289	2.195	144.1	9.5
2025	Jul	12	21	48	25.44	-14	33	10.0	1.281	2.194	145.2	9.5
2025	Jul	13	21	47	50.29	-14	26	49.3	1.273	2.192	146.2	9.4
2025	Jul	14	21	47	13.20	-14	20	30.7	1.266	2.191	147.3	9.4
2025	Jul	15	21	46	34.21	-14	14	14.3	1.258	2.189	148.4	9.4
2025	Jul	16	21	45	53.33	-14	7	59.9	1.251	2.188	149.4	9.3
2025	Jul	17	21	45	10.59	-14	1	47.6	1.244	2.186	150.5	9.3
2025	Jul	18	21	44	26.01	-13	55	37.5	1.237	2.185	151.6	9.3
2025	Jul	19	21	43	39.63	-13	49	29.3	1.230	2.183	152.7	9.3
2025	Jul	20	21	42	51.47	-13	43	23.3	1.224	2.182	153.8	9.2
2025	Jul	21	21	42	1.59	-13	37	19.2	1.217	2.181	154.9	9.2
2025	Jul	22	21	41	10.03	-13	31	17.2	1.211	2.179	156.0	9.2
2025	Jul	23	21	40	16.83	-13	25	17.0	1.206	2.178	157.2	9.1
2025	Jul	24	21	39	22.05	-13	19	18.8	1.200	2.176	158.3	9.1
2025	Jul	25	21	38	25.75	-13	13	22.3	1.195	2.175	159.4	9.1
2025	Jul	26	21	37	27.99	-13	7	27.7	1.189	2.174	160.6	9.0
2025	Jul	27	21	36	28.84	-13	1	34.7	1.185	2.172	161.7	9.0
2025	Jul	28	21	35	28.36	-12	55	43.4	1.180	2.171	162.9	9.0
2025	Jul	29	21	34	26.63	-12	49	53.7	1.175	2.170	164.0	8.9
2025	Jul	30	21	33	23.73	-12	44	5.5	1.171	2.168	165.1	8.9
2025	Jul	31	21	32	19.72	-12	38	18.8	1.167	2.167	166.3	8.9
2025	Aug	1	21	31	14.70	-12	32	33.6	1.164	2.166	167.4	8.8
2025	Aug	2	21	30	8.73	-12	26	49.8	1.160	2.164	168.6	8.8
2025	Aug	3	21	29	1.91	-12	21	7.4	1.157	2.163	169.7	8.8
2025	Aug	4	21	27	54.32	-12	15	26.3	1.154	2.162	170.8	8.7
2025	Aug	5	21	26	46.04	-12	9	46.5	1.151	2.160	171.9	8.7
2025	Aug	6	21	25	37.17	-12	4	8.1	1.149	2.159	172.9	8.7
2025	Aug	7	21	24	27.78	-11	58	31.0	1.147	2.158	173.9	8.6
2025	Aug	8	21	23	17.99	-11	52	55.2	1.145	2.156	174.8	8.6

Datum			RA			Decl.			$\Delta$	$r$	$E$	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2025	Aug	9	21	22	7.86	-11	47	20.8	1.143	2.155	175.5	8.6
2025	Aug	10	21	20	57.49	-11	41	47.7	1.142	2.154	176.0	8.6
2025	Aug	11	21	19	46.99	-11	36	15.9	1.140	2.153	176.2	8.5
2025	Aug	12	21	18	36.42	-11	30	45.6	1.139	2.151	176.0	8.5
2025	Aug	13	21	17	25.90	-11	25	16.6	1.139	2.150	175.4	8.6
2025	Aug	14	21	16	15.51	-11	19	49.1	1.138	2.149	174.7	8.6
2025	Aug	15	21	15	5.35	-11	14	23.0	1.138	2.148	173.7	8.6
2025	Aug	16	21	13	55.51	-11	8	58.4	1.138	2.147	172.7	8.6
2025	Aug	17	21	12	46.10	-11	3	35.3	1.139	2.145	171.7	8.7
2025	Aug	18	21	11	37.19	-10	58	13.8	1.139	2.144	170.6	8.7
2025	Aug	19	21	10	28.90	-10	52	53.7	1.140	2.143	169.5	8.7
2025	Aug	20	21	9	21.32	-10	47	35.1	1.141	2.142	168.3	8.8
2025	Aug	21	21	8	14.55	-10	42	18.0	1.142	2.141	167.2	8.8
2025	Aug	22	21	7	8.67	-10	37	2.3	1.144	2.140	166.0	8.8
2025	Aug	23	21	6	3.79	-10	31	48.1	1.146	2.139	164.9	8.8
2025	Aug	24	21	4	59.98	-10	26	35.2	1.148	2.137	163.7	8.9
2025	Aug	25	21	3	57.34	-10	21	23.8	1.150	2.136	162.6	8.9
2025	Aug	26	21	2	55.95	-10	16	13.7	1.153	2.135	161.4	8.9
2025	Aug	27	21	1	55.89	-10	11	4.9	1.156	2.134	160.2	8.9
2025	Aug	28	21	0	57.23	-10	5	57.4	1.159	2.133	159.1	9.0
2025	Aug	29	21	0	0.05	-10	0	51.2	1.162	2.132	157.9	9.0
2025	Aug	30	20	59	4.41	-9	55	46.2	1.165	2.131	156.8	9.0
2025	Aug	31	20	58	10.37	-9	50	42.5	1.169	2.130	155.6	9.0
2025	Sep	1	20	57	18.01	-9	45	39.9	1.173	2.129	154.5	9.1
2025	Sep	2	20	56	27.36	-9	40	38.5	1.177	2.128	153.4	9.1
2025	Sep	3	20	55	38.49	-9	35	38.2	1.182	2.127	152.2	9.1
2025	Sep	4	20	54	51.44	-9	30	39.1	1.186	2.126	151.1	9.1
2025	Sep	5	20	54	6.25	-9	25	41.0	1.191	2.125	150.0	9.2
2025	Sep	6	20	53	22.97	-9	20	43.9	1.196	2.124	148.9	9.2
2025	Sep	7	20	52	41.63	-9	15	47.9	1.201	2.123	147.8	9.2
2025	Sep	8	20	52	2.25	-9	10	52.9	1.206	2.122	146.7	9.2
2025	Sep	9	20	51	24.87	-9	5	58.9	1.212	2.121	145.6	9.3
2025	Sep	10	20	50	49.52	-9	1	5.8	1.218	2.120	144.5	9.3
2025	Sep	11	20	50	16.22	-8	56	13.6	1.224	2.119	143.5	9.3
2025	Sep	12	20	49	44.99	-8	51	22.3	1.230	2.118	142.4	9.3
2025	Sep	13	20	49	15.86	-8	46	31.8	1.236	2.117	141.3	9.4
2025	Sep	14	20	48	48.83	-8	41	42.0	1.242	2.116	140.3	9.4
2025	Sep	15	20	48	23.94	-8	36	52.9	1.249	2.115	139.3	9.4
2025	Sep	16	20	48	1.18	-8	32	4.3	1.256	2.115	138.2	9.4
2025	Sep	17	20	47	40.59	-8	27	16.2	1.263	2.114	137.2	9.5
2025	Sep	18	20	47	22.16	-8	22	28.5	1.270	2.113	136.2	9.5
2025	Sep	19	20	47	5.90	-8	17	41.0	1.277	2.112	135.2	9.5
2025	Sep	20	20	46	51.83	-8	12	53.6	1.284	2.111	134.2	9.5
2025	Sep	21	20	46	39.94	-8	8	6.3	1.292	2.110	133.2	9.6
2025	Sep	22	20	46	30.23	-8	3	18.8	1.300	2.109	132.2	9.6
2025	Sep	23	20	46	22.69	-7	58	31.1	1.308	2.109	131.2	9.6
2025	Sep	24	20	46	17.33	-7	53	43.1	1.316	2.108	130.3	9.6
2025	Sep	25	20	46	14.14	-7	48	54.6	1.324	2.107	129.3	9.6
2025	Sep	26	20	46	13.09	-7	44	5.5	1.332	2.106	128.3	9.7
2025	Sep	27	20	46	14.19	-7	39	15.6	1.340	2.106	127.4	9.7
2025	Sep	28	20	46	17.41	-7	34	25.0	1.349	2.105	126.5	9.7



Datum			RA			Decl.			$\Delta$	$r$	$E$	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2025	Sep	29	20	46	22.74	-	7	29 33.4	1.357	2.104	125.5	9.7
2025	Sep	30	20	46	30.16	-	7	24 40.8	1.366	2.103	124.6	9.8
2025	Okt	1	20	46	39.65	-	7	19 47.1	1.375	2.103	123.7	9.8
2025	Okt	2	20	46	51.19	-	7	14 52.1	1.384	2.102	122.8	9.8
2025	Okt	3	20	47	4.76	-	7	9 55.8	1.393	2.101	121.9	9.8
2025	Okt	4	20	47	20.32	-	7	4 58.0	1.402	2.101	121.0	9.8
2025	Okt	5	20	47	37.87	-	6	59 58.7	1.411	2.100	120.2	9.9
2025	Okt	6	20	47	57.36	-	6	54 57.8	1.420	2.099	119.3	9.9
2025	Okt	7	20	48	18.78	-	6	49 55.1	1.430	2.099	118.4	9.9
2025	Okt	8	20	48	42.09	-	6	44 50.7	1.439	2.098	117.6	9.9
2025	Okt	9	20	49	7.28	-	6	39 44.4	1.449	2.097	116.7	9.9
2025	Okt	10	20	49	34.32	-	6	34 36.2	1.458	2.097	115.9	10.0
2025	Okt	11	20	50	3.18	-	6	29 25.9	1.468	2.096	115.1	10.0
2025	Okt	12	20	50	33.84	-	6	24 13.5	1.478	2.096	114.2	10.0
2025	Okt	13	20	51	6.29	-	6	18 58.8	1.488	2.095	113.4	10.0
2025	Okt	14	20	51	40.48	-	6	13 41.7	1.498	2.095	112.6	10.0
2025	Okt	15	20	52	16.42	-	6	8 22.1	1.508	2.094	111.8	10.1
2025	Okt	16	20	52	54.06	-	6	3 0.0	1.518	2.093	111.0	10.1
2025	Okt	17	20	53	33.39	-	5	57 35.1	1.528	2.093	110.2	10.1
2025	Okt	18	20	54	14.39	-	5	52 7.4	1.538	2.092	109.4	10.1
2025	Okt	19	20	54	57.02	-	5	46 36.7	1.548	2.092	108.6	10.1
2025	Okt	20	20	55	41.27	-	5	41 3.0	1.559	2.091	107.9	10.1
2025	Okt	21	20	56	27.11	-	5	35 26.1	1.569	2.091	107.1	10.2
2025	Okt	22	20	57	14.52	-	5	29 46.0	1.580	2.090	106.3	10.2
2025	Okt	23	20	58	3.46	-	5	24 2.5	1.590	2.090	105.6	10.2
2025	Okt	24	20	58	53.91	-	5	18 15.6	1.601	2.090	104.8	10.2
2025	Okt	25	20	59	45.85	-	5	12 25.1	1.611	2.089	104.1	10.2
2025	Okt	26	21	0	39.25	-	5	6 31.0	1.622	2.089	103.3	10.2
2025	Okt	27	21	1	34.07	-	5	0 33.3	1.632	2.088	102.6	10.3
2025	Okt	28	21	2	30.31	-	4	54 31.7	1.643	2.088	101.9	10.3
2025	Okt	29	21	3	27.91	-	4	48 26.4	1.654	2.088	101.2	10.3
2025	Okt	30	21	4	26.87	-	4	42 17.1	1.664	2.087	100.5	10.3
2025	Okt	31	21	5	27.15	-	4	36 4.0	1.675	2.087	99.7	10.3
2025	Nov	1	21	6	28.73	-	4	29 46.8	1.686	2.087	99.0	10.3
2025	Nov	2	21	7	31.57	-	4	23 25.6	1.697	2.086	98.3	10.4
2025	Nov	3	21	8	35.66	-	4	17 0.3	1.708	2.086	97.6	10.4
2025	Nov	4	21	9	40.96	-	4	10 30.9	1.718	2.086	97.0	10.4
2025	Nov	5	21	10	47.45	-	4	3 57.3	1.729	2.085	96.3	10.4
2025	Nov	6	21	11	55.12	-	3	57 19.6	1.740	2.085	95.6	10.4
2025	Nov	7	21	13	3.92	-	3	50 37.7	1.751	2.085	94.9	10.4
2025	Nov	8	21	14	13.85	-	3	43 51.6	1.762	2.085	94.2	10.4
2025	Nov	9	21	15	24.88	-	3	37 1.1	1.773	2.084	93.6	10.5
2025	Nov	10	21	16	37.00	-	3	30 6.4	1.784	2.084	92.9	10.5
2025	Nov	11	21	17	50.18	-	3	23 7.2	1.795	2.084	92.3	10.5
2025	Nov	12	21	19	4.41	-	3	16 3.6	1.806	2.084	91.6	10.5
2025	Nov	13	21	20	19.67	-	3	8 55.6	1.817	2.083	91.0	10.5
2025	Nov	14	21	21	35.94	-	3	1 43.0	1.828	2.083	90.3	10.5
2025	Nov	15	21	22	53.21	-	2	54 25.8	1.839	2.083	89.7	10.5
2025	Nov	16	21	24	11.45	-	2	47 4.0	1.850	2.083	89.0	10.6
2025	Nov	17	21	25	30.65	-	2	39 37.5	1.861	2.083	88.4	10.6
2025	Nov	18	21	26	50.78	-	2	32 6.3	1.872	2.083	87.8	10.6

## 89 Julia

Datum			RA			Decl.			$\Delta$	$r$	$E$	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2025	Nov	19	21	28	11.84	-	2	24 30.3	1.883	2.083	87.1	10.6
2025	Nov	20	21	29	33.80	-	2	16 49.6	1.894	2.082	86.5	10.6
2025	Nov	21	21	30	56.65	-	2	9 4.2	1.905	2.082	85.9	10.6
2025	Nov	22	21	32	20.36	-	2	1 13.9	1.916	2.082	85.3	10.6
2025	Nov	23	21	33	44.92	-	1	53 18.7	1.927	2.082	84.7	10.6
2025	Nov	24	21	35	10.31	-	1	45 18.8	1.938	2.082	84.1	10.6
2025	Nov	25	21	36	36.51	-	1	37 14.0	1.949	2.082	83.4	10.7
2025	Nov	26	21	38	3.51	-	1	29 4.4	1.960	2.082	82.8	10.7
2025	Nov	27	21	39	31.28	-	1	20 49.9	1.971	2.082	82.2	10.7
2025	Nov	28	21	40	59.82	-	1	12 30.6	1.982	2.082	81.7	10.7

## 433 Eros

0h UTC (J2000)

Osculerende baanelementen

T 2025 Nov 1.0000 TT

MA 299.355845°

q 1.1331996       $\omega$  178.930688°a 1.4580993       $\Omega$  304.271144°

e 0.2228241      i 10.828434°

Datum			RA			Decl.			$\Delta$	r	E	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
j	m	d	h	m	s	o	'	"	$\Delta$	r	Elong	Mag
2025	Okt	1	1	58	30.76	42	7	44.2	0.566	1.462	136.0	11.3
2025	Okt	2	1	57	38.61	42	26	6.0	0.560	1.459	136.6	11.2
2025	Okt	3	1	56	42.37	42	44	7.4	0.554	1.456	137.1	11.2
2025	Okt	4	1	55	42.03	43	1	46.7	0.548	1.453	137.7	11.1
2025	Okt	5	1	54	37.58	43	19	2.6	0.542	1.450	138.2	11.1
2025	Okt	6	1	53	29.00	43	35	53.5	0.536	1.447	138.7	11.1
2025	Okt	7	1	52	16.31	43	52	17.8	0.531	1.443	139.2	11.0
2025	Okt	8	1	50	59.51	44	8	13.7	0.525	1.440	139.6	11.0
2025	Okt	9	1	49	38.61	44	23	39.6	0.520	1.437	140.1	11.0
2025	Okt	10	1	48	13.67	44	38	33.6	0.515	1.434	140.5	10.9
2025	Okt	11	1	46	44.72	44	52	54.0	0.509	1.430	140.9	10.9
2025	Okt	12	1	45	11.83	45	6	38.8	0.504	1.427	141.3	10.9
2025	Okt	13	1	43	35.10	45	19	46.2	0.500	1.424	141.7	10.8
2025	Okt	14	1	41	54.63	45	32	14.4	0.495	1.421	142.1	10.8
2025	Okt	15	1	40	10.55	45	44	1.5	0.490	1.418	142.4	10.8
2025	Okt	16	1	38	23.02	45	55	5.7	0.486	1.414	142.7	10.8
2025	Okt	17	1	36	32.22	46	5	25.5	0.481	1.411	143.0	10.7
2025	Okt	18	1	34	38.34	46	14	59.0	0.477	1.408	143.2	10.7
2025	Okt	19	1	32	41.62	46	23	44.8	0.473	1.405	143.5	10.7
2025	Okt	20	1	30	42.28	46	31	41.5	0.469	1.401	143.7	10.6
2025	Okt	21	1	28	40.61	46	38	47.6	0.465	1.398	143.8	10.6
2025	Okt	22	1	26	36.86	46	45	2.1	0.461	1.395	144.0	10.6
2025	Okt	23	1	24	31.35	46	50	23.9	0.457	1.392	144.1	10.6
2025	Okt	24	1	22	24.39	46	54	52.1	0.454	1.388	144.1	10.6
2025	Okt	25	1	20	16.30	46	58	25.8	0.450	1.385	144.2	10.5
2025	Okt	26	1	18	7.42	47	1	4.6	0.447	1.382	144.2	10.5
2025	Okt	27	1	15	58.09	47	2	48.1	0.444	1.379	144.1	10.5
2025	Okt	28	1	13	48.67	47	3	35.8	0.441	1.375	144.0	10.5
2025	Okt	29	1	11	39.52	47	3	27.9	0.438	1.372	143.9	10.5
2025	Okt	30	1	9	30.98	47	2	24.4	0.435	1.369	143.8	10.5
2025	Okt	31	1	7	23.42	47	0	25.6	0.433	1.366	143.6	10.4
2025	Nov	1	1	5	17.18	46	57	31.8	0.430	1.362	143.4	10.4
2025	Nov	2	1	3	12.60	46	53	43.8	0.428	1.359	143.2	10.4
2025	Nov	3	1	1	10.03	46	49	2.2	0.425	1.356	142.9	10.4
2025	Nov	4	0	59	9.78	46	43	27.9	0.423	1.353	142.6	10.4
2025	Nov	5	0	57	12.16	46	37	1.9	0.421	1.349	142.3	10.4
2025	Nov	6	0	55	17.47	46	29	45.2	0.419	1.346	141.9	10.4
2025	Nov	7	0	53	25.99	46	21	39.0	0.417	1.343	141.6	10.4
2025	Nov	8	0	51	38.00	46	12	44.6	0.415	1.340	141.1	10.4

Datum			RA			Decl.			$\Delta$	$r$	$E$	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2025	Nov	9	0	49	53.77	46	3	3.3	0.413	1.336	140.7	10.4
2025	Nov	10	0	48	13.55	45	52	36.7	0.412	1.333	140.3	10.4
2025	Nov	11	0	46	37.59	45	41	26.4	0.410	1.330	139.8	10.4
2025	Nov	12	0	45	6.12	45	29	34.2	0.409	1.327	139.3	10.4
2025	Nov	13	0	43	39.36	45	17	1.9	0.407	1.324	138.7	10.4
2025	Nov	14	0	42	17.51	45	3	51.7	0.406	1.320	138.2	10.4
2025	Nov	15	0	41	0.75	44	50	5.6	0.405	1.317	137.7	10.4
2025	Nov	16	0	39	49.24	44	35	45.6	0.404	1.314	137.1	10.4
2025	Nov	17	0	38	43.14	44	20	54.1	0.403	1.311	136.5	10.4
2025	Nov	18	0	37	42.57	44	5	33.2	0.402	1.308	135.9	10.4
2025	Nov	19	0	36	47.64	43	49	45.2	0.401	1.305	135.3	10.4
2025	Nov	20	0	35	58.44	43	33	32.5	0.401	1.302	134.7	10.4
2025	Nov	21	0	35	15.04	43	16	57.1	0.400	1.298	134.0	10.4
2025	Nov	22	0	34	37.49	43	0	1.4	0.400	1.295	133.4	10.4
2025	Nov	23	0	34	5.84	42	42	47.5	0.399	1.292	132.8	10.4
2025	Nov	24	0	33	40.11	42	25	17.6	0.399	1.289	132.1	10.4
2025	Nov	25	0	33	20.30	42	7	33.8	0.398	1.286	131.5	10.4
2025	Nov	26	0	33	6.40	41	49	38.1	0.398	1.283	130.8	10.4
2025	Nov	27	0	32	58.40	41	31	32.3	0.398	1.280	130.1	10.4
2025	Nov	28	0	32	56.25	41	13	18.3	0.398	1.277	129.5	10.4
2025	Nov	29	0	32	59.93	40	54	57.9	0.398	1.274	128.8	10.4
2025	Nov	30	0	33	9.36	40	36	32.7	0.398	1.271	128.2	10.4
2025	Dec	1	0	33	24.49	40	18	4.1	0.398	1.268	127.5	10.5
2025	Dec	2	0	33	45.23	39	59	33.6	0.398	1.265	126.8	10.5
2025	Dec	3	0	34	11.52	39	41	2.4	0.398	1.262	126.2	10.5
2025	Dec	4	0	34	43.27	39	22	31.6	0.398	1.259	125.5	10.5
2025	Dec	5	0	35	20.39	39	4	2.3	0.398	1.256	124.9	10.5
2025	Dec	6	0	36	2.80	38	45	35.4	0.399	1.254	124.2	10.5
2025	Dec	7	0	36	50.42	38	27	11.8	0.399	1.251	123.6	10.5
2025	Dec	8	0	37	43.16	38	8	52.3	0.399	1.248	122.9	10.5
2025	Dec	9	0	38	40.96	37	50	37.8	0.400	1.245	122.3	10.5
2025	Dec	10	0	39	43.73	37	32	29.0	0.400	1.242	121.6	10.5
2025	Dec	11	0	40	51.41	37	14	26.6	0.400	1.239	121.0	10.6
2025	Dec	12	0	42	3.92	36	56	31.3	0.401	1.237	120.4	10.6
2025	Dec	13	0	43	21.19	36	38	43.7	0.401	1.234	119.7	10.6
2025	Dec	14	0	44	43.14	36	21	4.6	0.402	1.231	119.1	10.6
2025	Dec	15	0	46	9.70	36	3	34.3	0.403	1.229	118.5	10.6
2025	Dec	16	0	47	40.79	35	46	13.4	0.403	1.226	117.9	10.6
2025	Dec	17	0	49	16.34	35	29	2.3	0.404	1.223	117.3	10.6
2025	Dec	18	0	50	56.26	35	12	1.5	0.404	1.221	116.7	10.6
2025	Dec	19	0	52	40.48	34	55	11.1	0.405	1.218	116.2	10.6
2025	Dec	20	0	54	28.93	34	38	31.5	0.406	1.216	115.6	10.6
2025	Dec	21	0	56	21.51	34	22	2.9	0.407	1.213	115.0	10.7
2025	Dec	22	0	58	18.15	34	5	45.4	0.407	1.211	114.4	10.7
2025	Dec	23	1	0	18.78	33	49	39.2	0.408	1.208	113.9	10.7
2025	Dec	24	1	2	23.30	33	33	44.2	0.409	1.206	113.3	10.7
2025	Dec	25	1	4	31.63	33	18	0.5	0.410	1.203	112.8	10.7
2025	Dec	26	1	6	43.69	33	2	27.9	0.411	1.201	112.3	10.7
2025	Dec	27	1	8	59.40	32	47	6.3	0.411	1.199	111.8	10.7
2025	Dec	28	1	11	18.67	32	31	55.6	0.412	1.196	111.2	10.7
2025	Dec	29	1	13	41.41	32	16	55.4	0.413	1.194	110.7	10.7

Datum			RA			Decl.			$\Delta$	$r$	$E$	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2025	Dec	30	1	16	7.53	32	2	5.5	0.414	1.192	110.2	10.8
2025	Dec	31	1	18	36.95	31	47	25.5	0.415	1.190	109.7	10.8
2026	Jan	1	1	21	9.58	31	32	55.0	0.416	1.187	109.3	10.8
2026	Jan	2	1	23	45.34	31	18	33.6	0.417	1.185	108.8	10.8
2026	Jan	3	1	26	24.15	31	4	21.0	0.418	1.183	108.3	10.8
2026	Jan	4	1	29	5.93	30	50	16.5	0.419	1.181	107.9	10.8
2026	Jan	5	1	31	50.61	30	36	20.0	0.420	1.179	107.4	10.8
2026	Jan	6	1	34	38.13	30	22	30.8	0.421	1.177	107.0	10.8
2026	Jan	7	1	37	28.43	30	8	48.7	0.422	1.175	106.5	10.8
2026	Jan	8	1	40	21.45	29	55	13.4	0.423	1.173	106.1	10.9
2026	Jan	9	1	43	17.12	29	41	44.4	0.424	1.171	105.7	10.9
2026	Jan	10	1	46	15.39	29	28	21.4	0.425	1.169	105.3	10.9
2026	Jan	11	1	49	16.21	29	15	4.1	0.426	1.168	104.9	10.9
2026	Jan	12	1	52	19.53	29	1	52.1	0.427	1.166	104.5	10.9
2026	Jan	13	1	55	25.27	28	48	45.1	0.428	1.164	104.1	10.9
2026	Jan	14	1	58	33.39	28	35	42.8	0.429	1.162	103.7	10.9
2026	Jan	15	2	1	43.84	28	22	44.8	0.430	1.161	103.3	10.9
2026	Jan	16	2	4	56.55	28	9	50.8	0.432	1.159	102.9	10.9
2026	Jan	17	2	8	11.47	27	57	0.3	0.433	1.158	102.6	10.9
2026	Jan	18	2	11	28.54	27	44	13.1	0.434	1.156	102.2	11.0
2026	Jan	19	2	14	47.70	27	31	28.8	0.435	1.155	101.9	11.0
2026	Jan	20	2	18	8.89	27	18	47.0	0.436	1.153	101.5	11.0
2026	Jan	21	2	21	32.06	27	6	7.3	0.438	1.152	101.2	11.0
2026	Jan	22	2	24	57.14	26	53	29.4	0.439	1.151	100.9	11.0
2026	Jan	23	2	28	24.06	26	40	52.8	0.440	1.149	100.5	11.0
2026	Jan	24	2	31	52.76	26	28	17.1	0.442	1.148	100.2	11.0
2026	Jan	25	2	35	23.18	26	15	42.0	0.443	1.147	99.9	11.0
2026	Jan	26	2	38	55.23	26	3	6.9	0.444	1.146	99.6	11.0
2026	Jan	27	2	42	28.86	25	50	31.6	0.446	1.145	99.3	11.0
2026	Jan	28	2	46	3.99	25	37	55.5	0.447	1.144	99.0	11.1
2026	Jan	29	2	49	40.54	25	25	18.3	0.449	1.143	98.8	11.1
2026	Jan	30	2	53	18.46	25	12	39.6	0.450	1.142	98.5	11.1
2026	Jan	31	2	56	57.66	24	59	59.1	0.451	1.141	98.2	11.1
2026	Feb	1	3	0	38.09	24	47	16.4	0.453	1.140	98.0	11.1
2026	Feb	2	3	4	19.69	24	34	31.2	0.454	1.139	97.7	11.1
2026	Feb	3	3	8	2.38	24	21	43.3	0.456	1.138	97.5	11.1
2026	Feb	4	3	11	46.13	24	8	52.4	0.458	1.138	97.2	11.1
2026	Feb	5	3	15	30.87	23	55	58.3	0.459	1.137	97.0	11.1
2026	Feb	6	3	19	16.55	23	43	0.9	0.461	1.136	96.8	11.1
2026	Feb	7	3	23	3.13	23	30	0.1	0.463	1.136	96.5	11.1
2026	Feb	8	3	26	50.56	23	16	55.6	0.464	1.135	96.3	11.2
2026	Feb	9	3	30	38.79	23	3	47.4	0.466	1.135	96.1	11.2
2026	Feb	10	3	34	27.78	22	50	35.4	0.468	1.135	95.9	11.2
2026	Feb	11	3	38	17.47	22	37	19.4	0.470	1.134	95.7	11.2
2026	Feb	12	3	42	7.83	22	23	59.5	0.471	1.134	95.5	11.2
2026	Feb	13	3	45	58.80	22	10	35.4	0.473	1.134	95.3	11.2
2026	Feb	14	3	49	50.36	21	57	7.3	0.475	1.133	95.1	11.2
2026	Feb	15	3	53	42.44	21	43	34.9	0.477	1.133	94.9	11.2
2026	Feb	16	3	57	35.00	21	29	58.2	0.479	1.133	94.8	11.2
2026	Feb	17	4	1	28.01	21	16	17.3	0.481	1.133	94.6	11.3
2026	Feb	18	4	5	21.42	21	2	32.0	0.483	1.133	94.4	11.3

## 433 Eros

Datum			RA			Decl.			$\Delta$	$r$	$E$	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2026	Feb	19	4	9	15.18	20	48	42.4	0.485	1.133	94.3	11.3
2026	Feb	20	4	13	9.25	20	34	48.3	0.488	1.133	94.1	11.3
2026	Feb	21	4	17	3.57	20	20	49.8	0.490	1.134	94.0	11.3
2026	Feb	22	4	20	58.10	20	6	46.7	0.492	1.134	93.8	11.3
2026	Feb	23	4	24	52.80	19	52	39.2	0.494	1.134	93.7	11.3
2026	Feb	24	4	28	47.60	19	38	27.1	0.497	1.134	93.6	11.3
2026	Feb	25	4	32	42.46	19	24	10.5	0.499	1.135	93.4	11.3
2026	Feb	26	4	36	37.33	19	9	49.5	0.501	1.135	93.3	11.4
2026	Feb	27	4	40	32.15	18	55	24.0	0.504	1.136	93.2	11.4
2026	Feb	28	4	44	26.90	18	40	54.1	0.506	1.136	93.1	11.4

## 471 Papagena

0h UTC (J2000)

Osculerende baanelementen

T 2025 Nov 1.0000 TT

MA 2.644939°

q 2.2269226  $\omega$  315.900540°a 2.8885342  $\Omega$  83.771150°

e 0.2290475 i 15.019069°

Datum			RA			Decl.			$\Delta$	r	E	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
j	m	d	h	m	s	o	'	"	$\Delta$	r	Elong	Mag
2025	Okt	1	3	44	39.29	1	27	29.0	1.441	2.229	130.9	9.9
2025	Okt	2	3	44	36.91	1	26	33.0	1.433	2.229	131.9	9.8
2025	Okt	3	3	44	32.58	1	25	38.1	1.425	2.229	132.8	9.8
2025	Okt	4	3	44	26.31	1	24	44.6	1.417	2.228	133.7	9.8
2025	Okt	5	3	44	18.09	1	23	52.9	1.409	2.228	134.6	9.8
2025	Okt	6	3	44	7.92	1	23	3.1	1.402	2.228	135.5	9.7
2025	Okt	7	3	43	55.82	1	22	15.5	1.394	2.228	136.5	9.7
2025	Okt	8	3	43	41.76	1	21	30.5	1.387	2.228	137.4	9.7
2025	Okt	9	3	43	25.77	1	20	48.3	1.380	2.228	138.3	9.7
2025	Okt	10	3	43	7.84	1	20	9.2	1.373	2.227	139.3	9.7
2025	Okt	11	3	42	47.99	1	19	33.6	1.366	2.227	140.2	9.6
2025	Okt	12	3	42	26.20	1	19	1.6	1.360	2.227	141.2	9.6
2025	Okt	13	3	42	2.51	1	18	33.6	1.353	2.227	142.1	9.6
2025	Okt	14	3	41	36.92	1	18	10.0	1.347	2.227	143.1	9.6
2025	Okt	15	3	41	9.46	1	17	51.2	1.341	2.227	144.1	9.5
2025	Okt	16	3	40	40.13	1	17	37.4	1.335	2.227	145.0	9.5
2025	Okt	17	3	40	8.98	1	17	29.0	1.330	2.227	146.0	9.5
2025	Okt	18	3	39	36.03	1	17	26.3	1.324	2.227	146.9	9.5
2025	Okt	19	3	39	1.30	1	17	29.8	1.319	2.227	147.9	9.5
2025	Okt	20	3	38	24.85	1	17	39.8	1.314	2.227	148.9	9.4
2025	Okt	21	3	37	46.71	1	17	56.6	1.309	2.227	149.8	9.4
2025	Okt	22	3	37	6.92	1	18	20.6	1.305	2.227	150.8	9.4
2025	Okt	23	3	36	25.53	1	18	52.1	1.300	2.227	151.7	9.4
2025	Okt	24	3	35	42.59	1	19	31.4	1.296	2.227	152.6	9.4
2025	Okt	25	3	34	58.16	1	20	18.9	1.292	2.227	153.5	9.3
2025	Okt	26	3	34	12.29	1	21	14.9	1.289	2.227	154.5	9.3
2025	Okt	27	3	33	25.04	1	22	19.7	1.285	2.227	155.4	9.3
2025	Okt	28	3	32	36.48	1	23	33.5	1.282	2.227	156.2	9.3
2025	Okt	29	3	31	46.66	1	24	56.7	1.279	2.228	157.1	9.3
2025	Okt	30	3	30	55.66	1	26	29.5	1.276	2.228	157.9	9.2
2025	Okt	31	3	30	3.54	1	28	12.1	1.273	2.228	158.7	9.2
2025	Nov	1	3	29	10.39	1	30	4.8	1.271	2.228	159.5	9.2
2025	Nov	2	3	28	16.26	1	32	7.8	1.269	2.228	160.2	9.2
2025	Nov	3	3	27	21.23	1	34	21.2	1.267	2.228	160.9	9.2
2025	Nov	4	3	26	25.39	1	36	45.3	1.266	2.229	161.6	9.1
2025	Nov	5	3	25	28.79	1	39	20.1	1.264	2.229	162.1	9.1
2025	Nov	6	3	24	31.53	1	42	5.9	1.263	2.229	162.7	9.1
2025	Nov	7	3	23	33.67	1	45	2.7	1.262	2.229	163.1	9.1
2025	Nov	8	3	22	35.30	1	48	10.7	1.262	2.230	163.5	9.1

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Datum			RA			Decl.			$\Delta$	$r$	$E$	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2025	Nov	9	3	21	36.48	1	51	30.0	1.261	2.230	163.8	9.1
2025	Nov	10	3	20	37.32	1	55	0.6	1.261	2.230	164.1	9.1
2025	Nov	11	3	19	37.88	1	58	42.8	1.262	2.231	164.2	9.1
2025	Nov	12	3	18	38.25	2	2	36.5	1.262	2.231	164.2	9.1
2025	Nov	13	3	17	38.52	2	6	41.8	1.263	2.231	164.2	9.1
2025	Nov	14	3	16	38.78	2	10	58.9	1.264	2.232	164.0	9.1
2025	Nov	15	3	15	39.12	2	15	27.7	1.265	2.232	163.8	9.1
2025	Nov	16	3	14	39.62	2	20	8.3	1.266	2.232	163.5	9.1
2025	Nov	17	3	13	40.37	2	25	0.6	1.268	2.233	163.1	9.1
2025	Nov	18	3	12	41.47	2	30	4.7	1.270	2.233	162.6	9.1
2025	Nov	19	3	11	42.99	2	35	20.5	1.272	2.234	162.1	9.2
2025	Nov	20	3	10	45.03	2	40	48.1	1.275	2.234	161.5	9.2
2025	Nov	21	3	9	47.67	2	46	27.2	1.277	2.234	160.9	9.2
2025	Nov	22	3	8	51.00	2	52	17.8	1.280	2.235	160.2	9.2
2025	Nov	23	3	7	55.09	2	58	19.8	1.284	2.235	159.4	9.2
2025	Nov	24	3	7	0.03	3	4	33.1	1.287	2.236	158.6	9.2
2025	Nov	25	3	6	5.89	3	10	57.6	1.291	2.236	157.8	9.3
2025	Nov	26	3	5	12.74	3	17	33.0	1.295	2.237	157.0	9.3
2025	Nov	27	3	4	20.66	3	24	19.3	1.299	2.237	156.1	9.3
2025	Nov	28	3	3	29.72	3	31	16.1	1.304	2.238	155.2	9.3
2025	Nov	29	3	2	39.97	3	38	23.4	1.308	2.238	154.3	9.4
2025	Nov	30	3	1	51.49	3	45	40.8	1.313	2.239	153.3	9.4
2025	Dec	1	3	1	4.32	3	53	8.2	1.319	2.240	152.4	9.4
2025	Dec	2	3	0	18.52	4	0	45.3	1.324	2.240	151.4	9.4
2025	Dec	3	2	59	34.14	4	8	31.9	1.330	2.241	150.5	9.4
2025	Dec	4	2	58	51.22	4	16	27.7	1.336	2.241	149.5	9.5
2025	Dec	5	2	58	9.82	4	24	32.5	1.342	2.242	148.5	9.5
2025	Dec	6	2	57	29.96	4	32	46.0	1.348	2.243	147.5	9.5
2025	Dec	7	2	56	51.68	4	41	7.9	1.355	2.243	146.5	9.5
2025	Dec	8	2	56	15.03	4	49	38.1	1.361	2.244	145.6	9.6
2025	Dec	9	2	55	40.03	4	58	16.3	1.368	2.245	144.6	9.6
2025	Dec	10	2	55	6.72	5	7	2.3	1.375	2.245	143.6	9.6
2025	Dec	11	2	54	35.12	5	15	55.8	1.383	2.246	142.6	9.6
2025	Dec	12	2	54	5.28	5	24	56.6	1.390	2.247	141.6	9.7
2025	Dec	13	2	53	37.21	5	34	4.6	1.398	2.247	140.6	9.7
2025	Dec	14	2	53	10.94	5	43	19.3	1.406	2.248	139.6	9.7
2025	Dec	15	2	52	46.48	5	52	40.8	1.414	2.249	138.6	9.7
2025	Dec	16	2	52	23.87	6	2	8.6	1.423	2.250	137.6	9.8
2025	Dec	17	2	52	3.12	6	11	42.6	1.431	2.251	136.6	9.8
2025	Dec	18	2	51	44.24	6	21	22.5	1.440	2.251	135.6	9.8
2025	Dec	19	2	51	27.25	6	31	8.1	1.449	2.252	134.7	9.8
2025	Dec	20	2	51	12.15	6	40	59.2	1.458	2.253	133.7	9.9
2025	Dec	21	2	50	58.96	6	50	55.5	1.467	2.254	132.7	9.9
2025	Dec	22	2	50	47.67	7	0	56.9	1.477	2.255	131.7	9.9
2025	Dec	23	2	50	38.30	7	11	3.0	1.486	2.255	130.8	9.9
2025	Dec	24	2	50	30.84	7	21	13.7	1.496	2.256	129.8	10.0
2025	Dec	25	2	50	25.29	7	31	28.7	1.506	2.257	128.9	10.0
2025	Dec	26	2	50	21.65	7	41	47.7	1.516	2.258	127.9	10.0
2025	Dec	27	2	50	19.91	7	52	10.6	1.526	2.259	127.0	10.0
2025	Dec	28	2	50	20.06	8	2	37.2	1.537	2.260	126.1	10.1
2025	Dec	29	2	50	22.09	8	13	7.1	1.547	2.261	125.1	10.1



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Datum			RA			Decl.			$\Delta$	$r$	$E$	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2025	Dec	30	2	50	25.99	8	23	40.3	1.558	2.262	124.2	10.1
2025	Dec	31	2	50	31.76	8	34	16.4	1.568	2.263	123.3	10.1
2026	Jan	1	2	50	39.36	8	44	55.2	1.579	2.264	122.4	10.1
2026	Jan	2	2	50	48.79	8	55	36.7	1.590	2.265	121.5	10.2
2026	Jan	3	2	51	0.02	9	6	20.4	1.601	2.266	120.6	10.2
2026	Jan	4	2	51	13.05	9	17	6.4	1.613	2.267	119.7	10.2
2026	Jan	5	2	51	27.86	9	27	54.3	1.624	2.268	118.8	10.2
2026	Jan	6	2	51	44.42	9	38	44.1	1.636	2.269	117.9	10.3
2026	Jan	7	2	52	2.73	9	49	35.6	1.647	2.270	117.0	10.3
2026	Jan	8	2	52	22.76	10	0	28.6	1.659	2.271	116.2	10.3
2026	Jan	9	2	52	44.51	10	11	23.0	1.671	2.272	115.3	10.3
2026	Jan	10	2	53	7.95	10	22	18.7	1.682	2.273	114.4	10.3
2026	Jan	11	2	53	33.07	10	33	15.4	1.694	2.274	113.6	10.4
2026	Jan	12	2	53	59.86	10	44	13.2	1.706	2.275	112.7	10.4
2026	Jan	13	2	54	28.29	10	55	11.7	1.719	2.276	111.9	10.4
2026	Jan	14	2	54	58.36	11	6	11.0	1.731	2.277	111.0	10.4
2026	Jan	15	2	55	30.03	11	17	10.9	1.743	2.279	110.2	10.4
2026	Jan	16	2	56	3.31	11	28	11.2	1.756	2.280	109.4	10.5
2026	Jan	17	2	56	38.16	11	39	11.8	1.768	2.281	108.6	10.5
2026	Jan	18	2	57	14.57	11	50	12.5	1.781	2.282	107.8	10.5
2026	Jan	19	2	57	52.52	12	1	13.4	1.793	2.283	106.9	10.5
2026	Jan	20	2	58	31.99	12	12	14.1	1.806	2.284	106.1	10.5
2026	Jan	21	2	59	12.97	12	23	14.7	1.819	2.286	105.3	10.6
2026	Jan	22	2	59	55.43	12	34	14.9	1.832	2.287	104.5	10.6
2026	Jan	23	3	0	39.35	12	45	14.7	1.845	2.288	103.8	10.6
2026	Jan	24	3	1	24.71	12	56	13.9	1.858	2.289	103.0	10.6
2026	Jan	25	3	2	11.49	13	7	12.4	1.871	2.290	102.2	10.6
2026	Jan	26	3	2	59.66	13	18	10.0	1.884	2.292	101.4	10.7
2026	Jan	27	3	3	49.21	13	29	6.7	1.897	2.293	100.6	10.7
2026	Jan	28	3	4	40.11	13	40	2.3	1.910	2.294	99.9	10.7
2026	Jan	29	3	5	32.35	13	50	56.7	1.923	2.296	99.1	10.7
2026	Jan	30	3	6	25.89	14	1	49.8	1.937	2.297	98.4	10.7
2026	Jan	31	3	7	20.71	14	12	41.5	1.950	2.298	97.6	10.7
2026	Feb	1	3	8	16.80	14	23	31.6	1.963	2.300	96.9	10.8
2026	Feb	2	3	9	14.14	14	34	20.2	1.977	2.301	96.1	10.8
2026	Feb	3	3	10	12.70	14	45	7.0	1.990	2.302	95.4	10.8
2026	Feb	4	3	11	12.47	14	55	52.1	2.003	2.304	94.7	10.8
2026	Feb	5	3	12	13.44	15	6	35.3	2.017	2.305	93.9	10.8
2026	Feb	6	3	13	15.58	15	17	16.5	2.030	2.306	93.2	10.8
2026	Feb	7	3	14	18.88	15	27	55.8	2.044	2.308	92.5	10.9
2026	Feb	8	3	15	23.32	15	38	32.9	2.057	2.309	91.8	10.9
2026	Feb	9	3	16	28.89	15	49	7.8	2.071	2.310	91.1	10.9
2026	Feb	10	3	17	35.57	15	59	40.5	2.085	2.312	90.4	10.9
2026	Feb	11	3	18	43.35	16	10	10.8	2.098	2.313	89.7	10.9
2026	Feb	12	3	19	52.22	16	20	38.8	2.112	2.315	89.0	10.9
2026	Feb	13	3	21	2.16	16	31	4.2	2.125	2.316	88.3	11.0
2026	Feb	14	3	22	13.15	16	41	27.1	2.139	2.318	87.6	11.0
2026	Feb	15	3	23	25.18	16	51	47.3	2.153	2.319	86.9	11.0
2026	Feb	16	3	24	38.23	17	2	4.8	2.166	2.321	86.2	11.0
2026	Feb	17	3	25	52.30	17	12	19.5	2.180	2.322	85.5	11.0
2026	Feb	18	3	27	7.36	17	22	31.3	2.194	2.324	84.8	11.0

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Datum			RA			Decl.			$\Delta$	$r$	$E$	Mag
j	m	d	h	m	s	o	'	"	(AE)	(AE)		
2026	Feb	19	3	28	23.41	17	32	40.1	2.208	2.325	84.2	11.0
2026	Feb	20	3	29	40.42	17	42	45.9	2.221	2.327	83.5	11.0
2026	Feb	21	3	30	58.38	17	52	48.6	2.235	2.328	82.8	11.1
2026	Feb	22	3	32	17.27	18	2	48.0	2.249	2.330	82.2	11.1
2026	Feb	23	3	33	37.09	18	12	44.2	2.262	2.331	81.5	11.1
2026	Feb	24	3	34	57.80	18	22	37.0	2.276	2.333	80.8	11.1
2026	Feb	25	3	36	19.40	18	32	26.3	2.290	2.334	80.2	11.1
2026	Feb	26	3	37	41.88	18	42	12.1	2.303	2.336	79.5	11.1
2026	Feb	27	3	39	5.20	18	51	54.4	2.317	2.337	78.9	11.1
2026	Feb	28	3	40	29.37	19	1	32.9	2.331	2.339	78.2	11.2