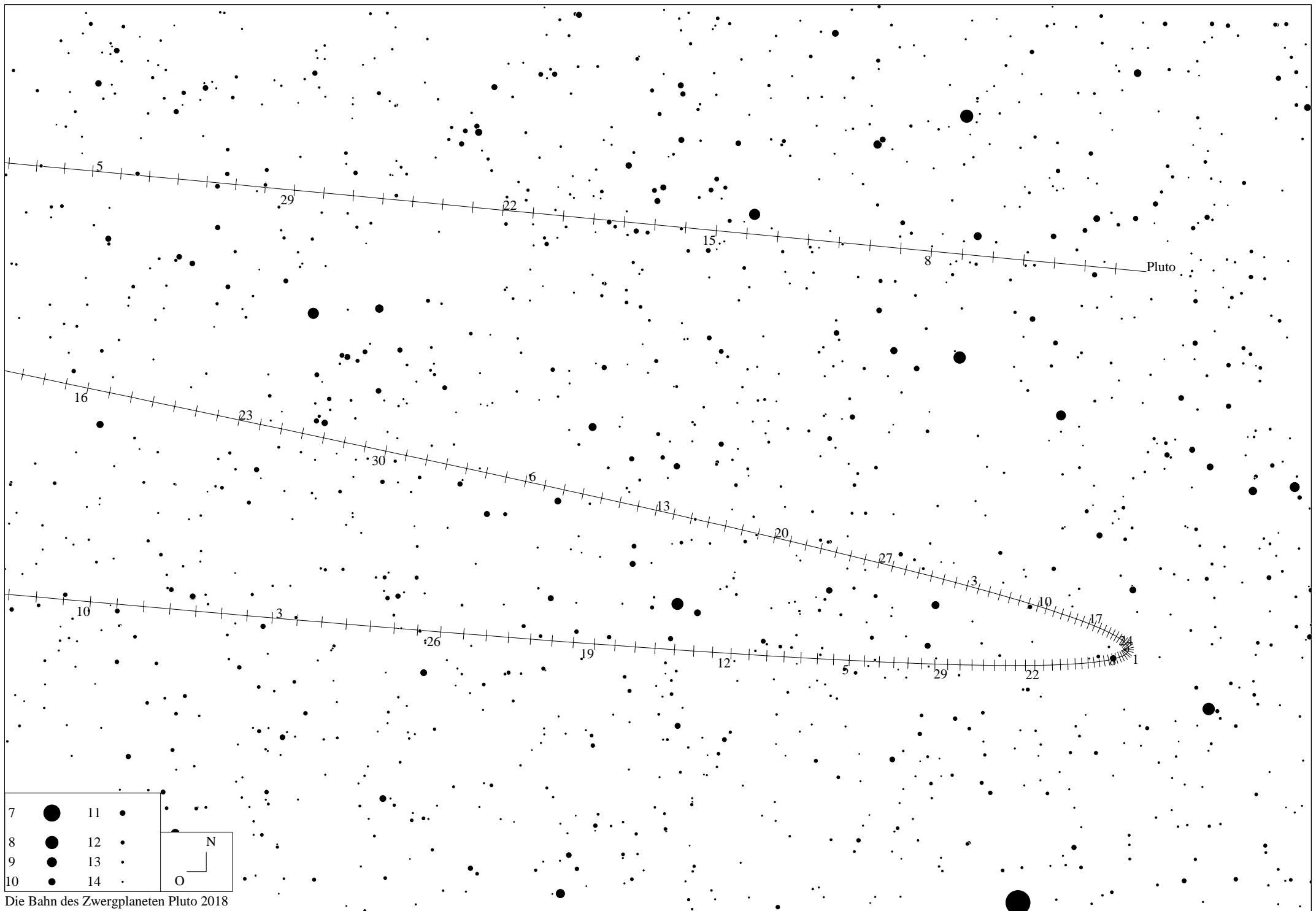
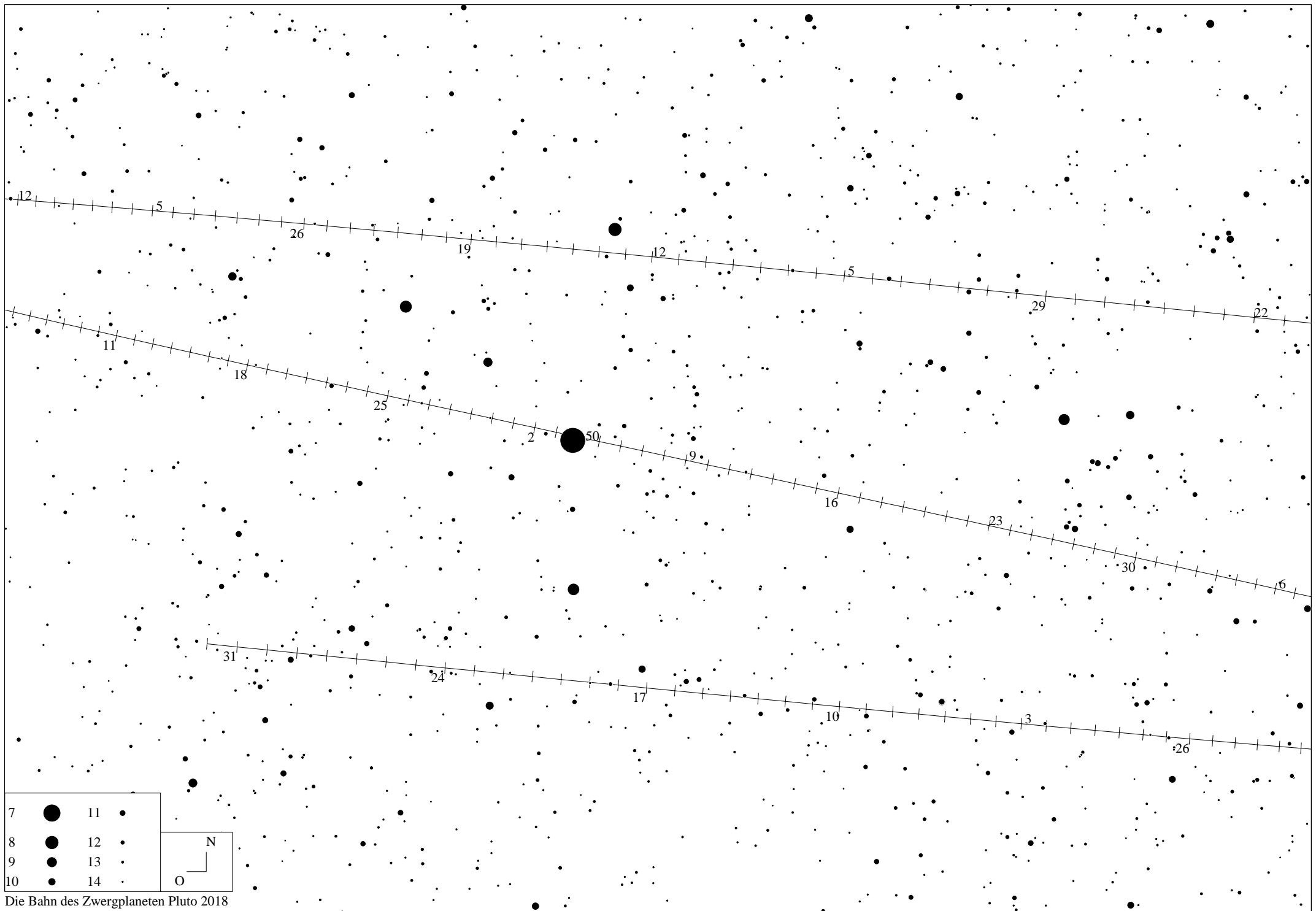


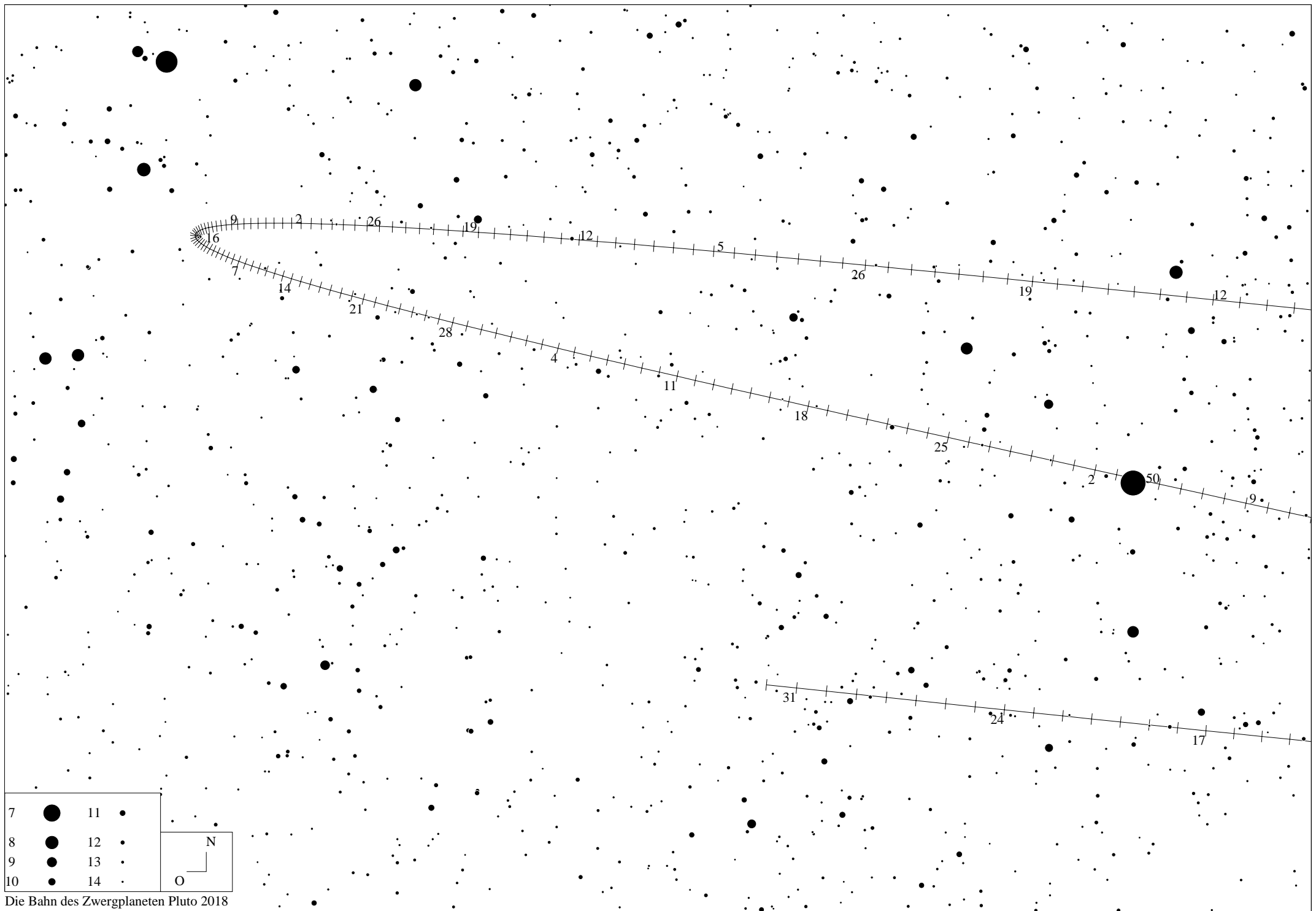
Die Bahn des Zwergplaneten Pluto 2018



Die Bahn des Zwergplaneten Pluto 2018



Die Bahn des Zwergplaneten Pluto 2018



Die Bahn des Zwergplaneten Pluto 2018

# EPHEMERIDE 2018 – PLUTO

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
1 Jan 2018	19h20m02.06s	-21 42' 23.2"	33.476	34.448	14.5	8.3	0.2	-59.56	7.73	5.11	84.9	Sgr
2 Jan 2018	19h20m10.76s	-21 42' 12.2"	33.476	34.451	14.5	7.3	0.2	-59.47	9.46	5.12	84.9	Sgr
3 Jan 2018	19h20m19.48s	-21 42' 01.2"	33.477	34.454	14.5	6.3	0.2	-59.36	11.18	5.13	84.9	Sgr
4 Jan 2018	19h20m28.21s	-21 41' 50.0"	33.478	34.456	14.5	5.3	0.2	-59.24	12.89	5.13	84.8	Sgr
5 Jan 2018	19h20m36.96s	-21 41' 38.8"	33.478	34.459	14.5	4.4	0.1	-59.09	14.59	5.14	84.8	Sgr
6 Jan 2018	19h20m45.71s	-21 41' 27.5"	33.479	34.460	14.5	3.4	0.1	-58.93	16.28	5.14	84.8	Sgr
7 Jan 2018	19h20m54.47s	-21 41' 16.2"	33.479	34.462	14.5	2.4	0.1	-58.76	17.95	5.15	84.8	Sgr
8 Jan 2018	19h21m03.23s	-21 41' 04.8"	33.480	34.463	14.5	1.4	0.0	-58.57	19.61	5.15	84.8	Sgr
9 Jan 2018	19h21m11.99s	-21 40' 53.4"	33.481	34.464	14.5	0.6	0.0	-58.36	21.24	5.15	84.7	Sgr
10 Jan 2018	19h21m20.76s	-21 40' 42.0"	33.481	34.465	14.5	0.7	0.0	-58.14	22.87	5.15	84.7	Sgr
11 Jan 2018	19h21m29.52s	-21 40' 30.4"	33.482	34.465	14.5	1.6	0.0	-57.90	24.47	5.15	84.7	Sgr
12 Jan 2018	19h21m38.28s	-21 40' 18.9"	33.483	34.465	14.5	2.6	0.1	-57.65	26.06	5.15	84.7	Sgr
13 Jan 2018	19h21m47.04s	-21 40' 07.3"	33.483	34.465	14.5	3.6	0.1	-57.38	27.62	5.14	84.7	Sgr
14 Jan 2018	19h21m55.79s	-21 39' 55.7"	33.484	34.464	14.5	4.6	0.1	-57.10	29.17	5.14	84.7	Sgr
15 Jan 2018	19h22m04.52s	-21 39' 44.1"	33.485	34.464	14.5	5.5	0.2	-56.80	30.69	5.13	84.7	Sgr
16 Jan 2018	19h22m13.25s	-21 39' 32.5"	33.485	34.462	14.5	6.5	0.2	-56.49	32.20	5.12	84.6	Sgr
17 Jan 2018	19h22m21.96s	-21 39' 20.8"	33.486	34.461	14.5	7.5	0.2	-56.17	33.68	5.11	84.6	Sgr
18 Jan 2018	19h22m30.65s	-21 39' 09.1"	33.487	34.459	14.5	8.5	0.2	-55.84	35.14	5.10	84.6	Sgr
19 Jan 2018	19h22m39.33s	-21 38' 57.5"	33.487	34.457	14.5	9.5	0.3	-55.49	36.58	5.09	84.6	Sgr
20 Jan 2018	19h22m47.98s	-21 38' 45.8"	33.488	34.455	14.5	10.5	0.3	-55.14	38.00	5.08	84.6	Sgr
21 Jan 2018	19h22m56.61s	-21 38' 34.1"	33.488	34.452	14.5	11.4	0.3	-54.77	39.39	5.06	84.6	Sgr
22 Jan 2018	19h23m05.21s	-21 38' 22.5"	33.489	34.450	14.5	12.4	0.4	-54.39	40.77	5.05	84.6	Sgr
23 Jan 2018	19h23m13.79s	-21 38' 10.8"	33.490	34.446	14.5	13.4	0.4	-54.00	42.12	5.03	84.6	Sgr
24 Jan 2018	19h23m22.34s	-21 37' 59.2"	33.490	34.443	14.5	14.4	0.4	-53.59	43.46	5.01	84.6	Sgr
25 Jan 2018	19h23m30.85s	-21 37' 47.6"	33.491	34.439	14.5	15.4	0.4	-53.18	44.77	4.99	84.6	Sgr
26 Jan 2018	19h23m39.34s	-21 37' 36.0"	33.492	34.435	14.5	16.4	0.5	-52.76	46.06	4.97	84.5	Sgr
27 Jan 2018	19h23m47.78s	-21 37' 24.5"	33.492	34.431	14.5	17.3	0.5	-52.33	47.33	4.95	84.5	Sgr
28 Jan 2018	19h23m56.19s	-21 37' 13.0"	33.493	34.426	14.5	18.3	0.5	-51.90	48.58	4.93	84.5	Sgr
29 Jan 2018	19h24m04.56s	-21 37' 01.5"	33.494	34.422	14.5	19.3	0.6	-51.45	49.81	4.91	84.5	Sgr
30 Jan 2018	19h24m12.89s	-21 36' 50.1"	33.494	34.416	14.5	20.3	0.6	-51.00	51.02	4.88	84.5	Sgr
31 Jan 2018	19h24m21.17s	-21 36' 38.7"	33.495	34.411	14.5	21.3	0.6	-50.53	52.21	4.85	84.5	Sgr
1 Feb 2018	19h24m29.42s	-21 36' 27.4"	33.496	34.405	14.5	22.2	0.6	-50.06	53.39	4.83	84.5	Sgr
2 Feb 2018	19h24m37.61s	-21 36' 16.1"	33.496	34.399	14.5	23.2	0.7	-49.59	54.54	4.80	84.5	Sgr
3 Feb 2018	19h24m45.76s	-21 36' 04.9"	33.497	34.393	14.5	24.2	0.7	-49.10	55.68	4.77	84.5	Sgr
4 Feb 2018	19h24m53.85s	-21 35' 53.8"	33.497	34.387	14.5	25.2	0.7	-48.61	56.80	4.74	84.5	Sgr
5 Feb 2018	19h25m01.90s	-21 35' 42.7"	33.498	34.380	14.5	26.2	0.7	-48.12	57.90	4.71	84.5	Sgr
6 Feb 2018	19h25m09.89s	-21 35' 31.7"	33.499	34.373	14.5	27.2	0.8	-47.61	58.99	4.68	84.5	Sgr
7 Feb 2018	19h25m17.82s	-21 35' 20.8"	33.499	34.366	14.5	28.1	0.8	-47.10	60.06	4.64	84.5	Sgr
8 Feb 2018	19h25m25.70s	-21 35' 10.0"	33.500	34.358	14.5	29.1	0.8	-46.59	61.12	4.61	84.6	Sgr
9 Feb 2018	19h25m33.52s	-21 34' 59.3"	33.501	34.351	14.5	30.1	0.8	-46.07	62.16	4.57	84.6	Sgr
10 Feb 2018	19h25m41.27s	-21 34' 48.6"	33.501	34.343	14.5	31.1	0.9	-45.55	63.18	4.54	84.6	Sgr
11 Feb 2018	19h25m48.97s	-21 34' 38.1"	33.502	34.334	14.5	32.1	0.9	-45.02	64.19	4.50	84.6	Sgr
12 Feb 2018	19h25m56.60s	-21 34' 27.7"	33.503	34.326	14.5	33.1	0.9	-44.48	65.19	4.46	84.6	Sgr
13 Feb 2018	19h26m04.16s	-21 34' 17.3"	33.503	34.317	14.5	34.0	0.9	-43.94	66.17	4.42	84.6	Sgr
14 Feb 2018	19h26m11.65s	-21 34' 07.1"	33.504	34.308	14.5	35.0	1.0	-43.40	67.15	4.38	84.6	Sgr
15 Feb 2018	19h26m19.07s	-21 33' 57.0"	33.505	34.299	14.5	36.0	1.0	-42.85	68.11	4.33	84.6	Sgr
16 Feb 2018	19h26m26.42s	-21 33' 47.0"	33.505	34.289	14.5	37.0	1.0	-42.30	69.05	4.29	84.6	Sgr
17 Feb 2018	19h26m33.69s	-21 33' 37.2"	33.506	34.279	14.5	38.0	1.0	-41.75	69.99	4.25	84.7	Sgr
18 Feb 2018	19h26m40.89s	-21 33' 27.5"	33.506	34.269	14.5	38.9	1.1	-41.19	70.91	4.20	84.7	Sgr
19 Feb 2018	19h26m48.01s	-21 33' 17.9"	33.507	34.259	14.5	39.9	1.1	-40.63	71.83	4.15	84.7	Sgr
20 Feb 2018	19h26m55.05s	-21 33' 08.4"	33.508	34.249	14.5	40.9	1.1	-40.07	72.73	4.11	84.7	Sgr
21 Feb 2018	19h27m02.01s	-21 32' 59.1"	33.508	34.238	14.5	41.9	1.1	-39.50	73.62	4.06	84.8	Sgr
22 Feb 2018	19h27m08.89s	-21 32' 50.0"	33.509	34.227	14.5	42.9	1.2	-38.93	74.51	4.01	84.8	Sgr
23 Feb 2018	19h27m15.68s	-21 32' 41.0"	33.510	34.216	14.5	43.8	1.2	-38.36	75.38	3.96	84.8	Sgr
24 Feb 2018	19h27m22.38s	-21 32' 32.1"	33.510	34.205	14.5	44.8	1.2	-37.79	76.25	3.91	84.8	Sgr
25 Feb 2018	19h27m29.00s	-21 32' 23.4"	33.511	34.193	14.5	45.8	1.2	-37.21	77.10	3.85	84.9	Sgr
26 Feb 2018	19h27m35.53s	-21 32' 14.9"	33.512	34.182	14.5	46.8	1.2	-36.63	77.95	3.80	84.9	Sgr
27 Feb 2018	19h27m41.97s	-21 32' 06.6"	33.512	34.170	14.5	47.8	1.3	-36.05	78.79	3.75	84.9	Sgr
28 Feb 2018	19h27m48.32s	-21 31' 58.4"	33.513	34.158	14.5	48.7	1.3	-35.47	79.62	3.69	85.0	Sgr
1 Mar 2018	19h27m54.58s	-21 31' 50.4"	33.514	34.145	14.5	49.7	1.3	-34.88	80.45	3.64	85.0	Sgr
2 Mar 2018	19h28m00.74s	-21 31' 42.5"	33.514	34.133	14.5	50.7	1.3	-34.30	81.27	3.58	85.1	Sgr
3 Mar 2018	19h28m06.80s	-21 31' 34.9"	33.515	34.120	14.5	51.7	1.3	-33.71	82.08	3.53	85.1	Sgr
4 Mar 2018	19h28m12.77s	-21 31' 27.4"	33.515	34.108	14.5	52.7	1.3	-33.12	82.89	3.47	85.2	Sgr
5 Mar 2018	19h28m18.65s	-21 31' 20.1"	33.516	34.095	14.5	53.6	1.4	-32.53	83.69	3.41	85.2	Sgr
6 Mar 2018	19h28m24.42s	-21 31' 13.1"	33.517	34.081	14.5	54.6	1.4	-31.94	84.48	3.35	85.3	Sgr
7 Mar 2018	19h28m30.10s	-21 31' 06.2"	33.517	34.068	14.5	55.6	1.4	-31.35	85.27	3.29	85.3	Sgr
8 Mar 2018	19h28m35.67s	-21 30' 59.5"	33.518	34.054	14.5	56.6	1.4	-30.75	86.05	3.23	85.4	Sgr
9 Mar 2018	19h28m41.14s	-21 30' 53.0"	33.519	34.041	14.5	57.6	1.4	-30.16	86.83	3.17	85.5	Sgr
10 Mar 2018	19h28m46.50s	-21 30' 46.8"	33.519	34.027	14.5	58.5	1.4	-29.57	87.60	3.11	85.5	Sgr
11 Mar 2018	19h28m51.76s	-21 30' 40.7"	33.520	34.013	14.5	59.5	1.5	-28.97	88.37	3.04	85.6	Sgr
12 Mar 2018	19h28m56.92s	-21 30' 34.9"	33.521	33.999	14.5	60.5	1.5	-28.38	89.14	2.98	85.7	Sgr
13 Mar 2018	19h29m01.96s	-21 30' 29.2"	33.521	33.985	14.5	61.5	1.5	-27.78	89.90	2.92	85.8	Sgr
14 Mar 2018	19h29m06.90s	-21 30' 23.8"	33.522	33.970	14.5	62.5	1.5	-27.18	90.66	2.85	85.9	Sgr
15 Mar 2018	19h29m11.72s	-21 30' 18.6"	33.523	33.956	14.5	63.4	1.5	-26.59	91.41	2.79	86.0	Sgr

# EPHEMERIDE 2018 – PLUTO

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
-----	--	-----	-	-----	---	-----	-----	-----	-----	-----	-----	-----
16 Mar 2018	19h29m16.44s	-21 30' 13.7"	33.523	33.941	14.5	64.4	1.5	-25.99	92.16	2.72	86.1	Sgr
17 Mar 2018	19h29m21.04s	-21 30' 09.0"	33.524	33.926	14.5	65.4	1.5	-25.39	92.91	2.65	86.2	Sgr
18 Mar 2018	19h29m25.52s	-21 30' 04.5"	33.525	33.911	14.5	66.4	1.6	-24.80	93.65	2.58	86.3	Sgr
19 Mar 2018	19h29m29.90s	-21 30' 00.3"	33.525	33.896	14.5	67.3	1.6	-24.20	94.39	2.52	86.4	Sgr
20 Mar 2018	19h29m34.15s	-21 29' 56.2"	33.526	33.881	14.5	68.3	1.6	-23.61	95.13	2.45	86.6	Sgr
21 Mar 2018	19h29m38.29s	-21 29' 52.5"	33.526	33.866	14.5	69.3	1.6	-23.01	95.87	2.38	86.7	Sgr
22 Mar 2018	19h29m42.32s	-21 29' 49.0"	33.527	33.850	14.5	70.3	1.6	-22.42	96.61	2.31	86.9	Sgr
23 Mar 2018	19h29m46.22s	-21 29' 45.7"	33.528	33.835	14.5	71.3	1.6	-21.82	97.34	2.24	87.0	Sgr
24 Mar 2018	19h29m50.01s	-21 29' 42.7"	33.528	33.819	14.5	72.2	1.6	-21.23	98.07	2.17	87.2	Sgr
25 Mar 2018	19h29m53.67s	-21 29' 39.9"	33.529	33.803	14.5	73.2	1.6	-20.64	98.80	2.10	87.4	Sgr
26 Mar 2018	19h29m57.22s	-21 29' 37.4"	33.530	33.788	14.5	74.2	1.6	-20.05	99.53	2.03	87.6	Sgr
27 Mar 2018	19h30m00.64s	-21 29' 35.1"	33.530	33.772	14.5	75.2	1.6	-19.46	100.26	1.95	87.9	Sgr
28 Mar 2018	19h30m03.95s	-21 29' 33.1"	33.531	33.756	14.5	76.1	1.7	-18.87	100.98	1.88	88.1	Sgr
29 Mar 2018	19h30m07.13s	-21 29' 31.4"	33.532	33.740	14.5	77.1	1.7	-18.28	101.71	1.81	88.4	Sgr
30 Mar 2018	19h30m10.19s	-21 29' 29.9"	33.532	33.724	14.5	78.1	1.7	-17.69	102.43	1.74	88.7	Sgr
31 Mar 2018	19h30m13.13s	-21 29' 28.7"	33.533	33.708	14.5	79.1	1.7	-17.11	103.16	1.67	89.0	Sgr
1 Apr 2018	19h30m15.95s	-21 29' 27.7"	33.534	33.692	14.5	80.0	1.7	-16.52	103.88	1.59	89.3	Sgr
2 Apr 2018	19h30m18.64s	-21 29' 27.0"	33.534	33.676	14.5	81.0	1.7	-15.94	104.60	1.52	89.7	Sgr
3 Apr 2018	19h30m21.21s	-21 29' 26.6"	33.535	33.659	14.5	82.0	1.7	-15.36	105.33	1.45	90.1	Sgr
4 Apr 2018	19h30m23.66s	-21 29' 26.5"	33.535	33.643	14.5	83.0	1.7	-14.78	106.05	1.38	90.6	Sgr
5 Apr 2018	19h30m25.98s	-21 29' 26.6"	33.536	33.627	14.5	83.9	1.7	-14.20	106.78	1.30	91.1	Sgr
6 Apr 2018	19h30m28.18s	-21 29' 27.0"	33.537	33.610	14.4	84.9	1.7	-13.63	107.50	1.23	91.7	Sgr
7 Apr 2018	19h30m30.25s	-21 29' 27.7"	33.537	33.594	14.4	85.9	1.7	-13.05	108.23	1.16	92.4	Sgr
8 Apr 2018	19h30m32.19s	-21 29' 28.6"	33.538	33.578	14.4	86.9	1.7	-12.48	108.95	1.08	93.2	Sgr
9 Apr 2018	19h30m34.01s	-21 29' 29.8"	33.539	33.561	14.4	87.9	1.7	-11.91	109.68	1.01	94.1	Sgr
10 Apr 2018	19h30m35.70s	-21 29' 31.3"	33.539	33.545	14.4	88.8	1.7	-11.35	110.41	0.94	95.1	Sgr
11 Apr 2018	19h30m37.26s	-21 29' 33.1"	33.540	33.528	14.4	89.8	1.7	-10.78	111.14	0.86	96.3	Sgr
12 Apr 2018	19h30m38.70s	-21 29' 35.2"	33.541	33.512	14.4	90.8	1.7	-10.22	111.87	0.79	97.7	Sgr
13 Apr 2018	19h30m40.01s	-21 29' 37.5"	33.541	33.496	14.4	91.8	1.7	-9.66	112.60	0.72	99.5	Sgr
14 Apr 2018	19h30m41.19s	-21 29' 40.1"	33.542	33.479	14.4	92.7	1.7	-9.11	113.33	0.65	101.6	Sgr
15 Apr 2018	19h30m42.25s	-21 29' 43.0"	33.543	33.463	14.4	93.7	1.7	-8.55	114.07	0.58	104.2	Sgr
16 Apr 2018	19h30m43.17s	-21 29' 46.2"	33.543	33.446	14.4	94.7	1.7	-8.00	114.81	0.51	107.5	Sgr
17 Apr 2018	19h30m43.97s	-21 29' 49.7"	33.544	33.430	14.4	95.7	1.7	-7.46	115.55	0.44	111.9	Sgr
18 Apr 2018	19h30m44.64s	-21 29' 53.4"	33.545	33.414	14.4	96.6	1.7	-6.91	116.29	0.38	117.8	Sgr
19 Apr 2018	19h30m45.19s	-21 29' 57.4"	33.545	33.397	14.4	97.6	1.7	-6.37	117.03	0.32	125.9	Sgr
20 Apr 2018	19h30m45.61s	-21 30' 01.7"	33.546	33.381	14.4	98.6	1.7	-5.83	117.78	0.27	137.2	Sgr
21 Apr 2018	19h30m45.89s	-21 30' 06.3"	33.546	33.365	14.4	99.6	1.7	-5.30	118.52	0.24	152.4	Sgr
22 Apr 2018	19h30m46.06s	-21 30' 11.2"	33.547	33.349	14.4	100.5	1.7	-4.77	119.27	0.23	170.7	Sgr
23 Apr 2018	19h30m46.10s	-21 30' 16.3"	33.548	33.333	14.4	101.5	1.7	-4.24	120.03	0.24	189.1	Sgr
24 Apr 2018	19h30m46.01s	-21 30' 21.8"	33.548	33.317	14.4	102.5	1.7	-3.72	120.78	0.27	204.3	Sgr
25 Apr 2018	19h30m45.79s	-21 30' 27.5"	33.549	33.301	14.4	103.5	1.7	-3.20	121.54	0.32	215.6	Sgr
26 Apr 2018	19h30m45.46s	-21 30' 33.5"	33.550	33.285	14.4	104.4	1.7	-2.68	122.30	0.37	223.8	Sgr
27 Apr 2018	19h30m44.99s	-21 30' 39.7"	33.550	33.269	14.4	105.4	1.7	-2.17	123.07	0.43	229.7	Sgr
28 Apr 2018	19h30m44.41s	-21 30' 46.2"	33.551	33.253	14.4	106.4	1.6	-1.67	123.84	0.50	234.1	Sgr
29 Apr 2018	19h30m43.70s	-21 30' 53.1"	33.552	33.237	14.4	107.4	1.6	-1.16	124.61	0.56	237.5	Sgr
30 Apr 2018	19h30m42.87s	-21 31' 00.1"	33.552	33.222	14.4	108.3	1.6	-0.67	125.38	0.63	240.1	Sgr
1 Mai 2018	19h30m41.92s	-21 31' 07.5"	33.553	33.206	14.4	109.3	1.6	-0.17	126.16	0.70	242.2	Sgr
2 Mai 2018	19h30m40.84s	-21 31' 15.1"	33.554	33.191	14.4	110.3	1.6	0.31	126.94	0.77	244.0	Sgr
3 Mai 2018	19h30m39.65s	-21 31' 23.0"	33.554	33.175	14.4	111.3	1.6	0.80	127.72	0.83	245.4	Sgr
4 Mai 2018	19h30m38.33s	-21 31' 31.2"	33.555	33.160	14.4	112.2	1.6	1.28	128.51	0.90	246.6	Sgr
5 Mai 2018	19h30m36.90s	-21 31' 39.6"	33.555	33.145	14.4	113.2	1.6	1.75	129.30	0.97	247.7	Sgr
6 Mai 2018	19h30m35.35s	-21 31' 48.3"	33.556	33.130	14.4	114.2	1.6	2.22	130.10	1.04	248.6	Sgr
7 Mai 2018	19h30m33.67s	-21 31' 57.2"	33.557	33.115	14.4	115.2	1.6	2.68	130.90	1.11	249.4	Sgr
8 Mai 2018	19h30m31.88s	-21 32' 06.5"	33.557	33.101	14.4	116.1	1.5	3.14	131.70	1.18	250.1	Sgr
9 Mai 2018	19h30m29.98s	-21 32' 15.9"	33.558	33.086	14.4	117.1	1.5	3.59	132.51	1.24	250.7	Sgr
10 Mai 2018	19h30m27.95s	-21 32' 25.7"	33.559	33.071	14.4	118.1	1.5	4.04	133.32	1.31	251.2	Sgr
11 Mai 2018	19h30m25.81s	-21 32' 35.7"	33.559	33.057	14.4	119.1	1.5	4.48	134.14	1.38	251.7	Sgr
12 Mai 2018	19h30m23.56s	-21 32' 45.9"	33.560	33.043	14.4	120.0	1.5	4.91	134.96	1.45	252.2	Sgr
13 Mai 2018	19h30m21.19s	-21 32' 56.4"	33.561	33.029	14.4	121.0	1.5	5.34	135.78	1.51	252.6	Sgr
14 Mai 2018	19h30m18.71s	-21 33' 07.2"	33.561	33.015	14.4	122.0	1.5	5.77	136.61	1.58	252.9	Sgr
15 Mai 2018	19h30m16.12s	-21 33' 18.2"	33.562	33.001	14.4	123.0	1.4	6.18	137.44	1.64	253.3	Sgr
16 Mai 2018	19h30m13.42s	-21 33' 29.4"	33.563	32.988	14.4	123.9	1.4	6.59	138.28	1.71	253.6	Sgr
17 Mai 2018	19h30m10.61s	-21 33' 40.9"	33.563	32.974	14.4	124.9	1.4	6.99	139.12	1.77	253.8	Sgr
18 Mai 2018	19h30m07.69s	-21 33' 52.6"	33.564	32.961	14.4	125.9	1.4	7.39	139.97	1.83	254.1	Sgr
19 Mai 2018	19h30m04.66s	-21 34' 04.5"	33.565	32.948	14.4	126.9	1.4	7.78	140.82	1.90	254.3	Sgr
20 Mai 2018	19h30m01.53s	-21 34' 16.7"	33.565	32.935	14.4	127.8	1.4	8.16	141.67	1.96	254.6	Sgr
21 Mai 2018	19h29m58.30s	-21 34' 29.1"	33.566	32.922	14.4	128.8	1.3	8.54	142.53	2.02	254.8	Sgr
22 Mai 2018	19h29m54.96s	-21 34' 41.7"	33.566	32.910	14.4	129.8	1.3	8.90	143.40	2.08	255.0	Sgr
23 Mai 2018	19h29m51.52s	-21 34' 54.6"	33.567	32.897	14.4	130.8	1.3	9.27	144.27	2.14	255.1	Sgr
24 Mai 2018	19h29m47.98s	-21 35' 07.7"	33.568	32.885	14.4	131.7	1.3	9.62	145.14	2.19	255.3	Sgr
25 Mai 2018	19h29m44.35s	-21 35' 20.9"	33.568	32.873	14.4	132.7	1.3	9.96	146.02	2.25	255.5	Sgr
26 Mai 2018	19h29m40.62s	-21 35' 34.4"	33.569	32.861	14.4	133.7	1.3	10.30	146.90	2.31	255.6	Sgr
27 Mai 2018	19h29m36.79s	-21 35' 48.1"	33.570	32.850	14.4	134.7	1.2	10.63	147.78	2.36	255.7	Sgr
28 Mai 2018	19h29m32.87s	-21 36' 02.1"	33.570	32.838	14.4	135.6	1.2	10.95	148.67	2.42	255.9	Sgr

# EPHEMERIDE 2018 – PLUTO

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
----	--	-----	-	-----	---	-----	-----	-----	-----	-----	-----	-----
29 Mai 2018	19h29m28.86s	-21 36' 16.2"	33.571	32.827	14.4	136.6	1.2	11.27	149.57	2.47	256.0	Sgr
30 Mai 2018	19h29m24.76s	-21 36' 30.5"	33.572	32.816	14.4	137.6	1.2	11.57	150.47	2.52	256.1	Sgr
31 Mai 2018	19h29m20.57s	-21 36' 45.0"	33.572	32.805	14.4	138.6	1.1	11.87	151.37	2.58	256.2	Sgr
1 Jun 2018	19h29m16.29s	-21 36' 59.6"	33.573	32.795	14.4	139.5	1.1	12.16	152.28	2.63	256.3	Sgr
2 Jun 2018	19h29m11.93s	-21 37' 14.5"	33.574	32.785	14.4	140.5	1.1	12.44	153.19	2.68	256.4	Sgr
3 Jun 2018	19h29m07.48s	-21 37' 29.6"	33.574	32.775	14.4	141.5	1.1	12.71	154.11	2.73	256.5	Sgr
4 Jun 2018	19h29m02.94s	-21 37' 44.8"	33.575	32.765	14.4	142.5	1.1	12.97	155.02	2.77	256.6	Sgr
5 Jun 2018	19h28m58.33s	-21 38' 00.2"	33.576	32.755	14.4	143.5	1.0	13.22	155.95	2.82	256.7	Sgr
6 Jun 2018	19h28m53.64s	-21 38' 15.8"	33.576	32.746	14.4	144.4	1.0	13.46	156.88	2.87	256.8	Sgr
7 Jun 2018	19h28m48.87s	-21 38' 31.5"	33.577	32.736	14.4	145.4	1.0	13.70	157.81	2.91	256.8	Sgr
8 Jun 2018	19h28m44.02s	-21 38' 47.4"	33.577	32.728	14.4	146.4	1.0	13.92	158.74	2.96	256.9	Sgr
9 Jun 2018	19h28m39.10s	-21 39' 03.5"	33.578	32.719	14.4	147.4	0.9	14.14	159.68	3.00	257.0	Sgr
10 Jun 2018	19h28m34.10s	-21 39' 19.7"	33.579	32.710	14.4	148.3	0.9	14.35	160.62	3.04	257.0	Sgr
11 Jun 2018	19h28m29.04s	-21 39' 36.0"	33.579	32.702	14.4	149.3	0.9	14.54	161.57	3.08	257.1	Sgr
12 Jun 2018	19h28m23.90s	-21 39' 52.5"	33.580	32.694	14.4	150.3	0.9	14.73	162.51	3.12	257.2	Sgr
13 Jun 2018	19h28m18.70s	-21 40' 09.2"	33.581	32.687	14.4	151.3	0.8	14.91	163.46	3.16	257.2	Sgr
14 Jun 2018	19h28m13.43s	-21 40' 25.9"	33.581	32.679	14.4	152.2	0.8	15.07	164.42	3.20	257.3	Sgr
15 Jun 2018	19h28m08.10s	-21 40' 42.8"	33.582	32.672	14.4	153.2	0.8	15.23	165.38	3.24	257.3	Sgr
16 Jun 2018	19h28m02.71s	-21 40' 59.9"	33.583	32.665	14.4	154.2	0.8	15.38	166.34	3.27	257.4	Sgr
17 Jun 2018	19h27m57.26s	-21 41' 17.0"	33.583	32.659	14.4	155.2	0.7	15.52	167.30	3.30	257.4	Sgr
18 Jun 2018	19h27m51.76s	-21 41' 34.3"	33.584	32.652	14.4	156.1	0.7	15.64	168.26	3.34	257.5	Sgr
19 Jun 2018	19h27m46.20s	-21 41' 51.6"	33.585	32.646	14.4	157.1	0.7	15.76	169.23	3.37	257.5	Sgr
20 Jun 2018	19h27m40.59s	-21 42' 09.1"	33.585	32.640	14.4	158.1	0.6	15.87	170.20	3.40	257.6	Sgr
21 Jun 2018	19h27m34.93s	-21 42' 26.7"	33.586	32.635	14.4	159.1	0.6	15.96	171.17	3.42	257.6	Sgr
22 Jun 2018	19h27m29.22s	-21 42' 44.3"	33.587	32.629	14.4	160.1	0.6	16.05	172.14	3.45	257.7	Sgr
23 Jun 2018	19h27m23.47s	-21 43' 02.1"	33.587	32.624	14.4	161.0	0.6	16.12	173.11	3.48	257.7	Sgr
24 Jun 2018	19h27m17.67s	-21 43' 19.9"	33.588	32.620	14.4	162.0	0.5	16.19	174.09	3.50	257.7	Sgr
25 Jun 2018	19h27m11.84s	-21 43' 37.9"	33.588	32.615	14.4	163.0	0.5	16.24	175.06	3.52	257.8	Sgr
26 Jun 2018	19h27m05.96s	-21 43' 55.8"	33.589	32.611	14.4	164.0	0.5	16.28	176.04	3.55	257.8	Sgr
27 Jun 2018	19h27m00.05s	-21 44' 13.9"	33.590	32.607	14.4	164.9	0.5	16.32	177.02	3.57	257.8	Sgr
28 Jun 2018	19h26m54.10s	-21 44' 32.0"	33.590	32.604	14.4	165.9	0.4	16.34	177.99	3.59	257.8	Sgr
29 Jun 2018	19h26m48.12s	-21 44' 50.2"	33.591	32.600	14.4	166.9	0.4	16.35	178.97	3.60	257.9	Sgr
30 Jun 2018	19h26m42.11s	-21 45' 08.5"	33.592	32.597	14.4	167.9	0.4	16.35	179.95	3.62	257.9	Sgr
1 Jul 2018	19h26m36.07s	-21 45' 26.8"	33.592	32.594	14.4	168.8	0.3	16.34	180.93	3.64	257.9	Sgr
2 Jul 2018	19h26m30.01s	-21 45' 45.1"	33.593	32.592	14.4	169.8	0.3	16.32	181.91	3.65	257.9	Sgr
3 Jul 2018	19h26m23.92s	-21 46' 03.5"	33.594	32.590	14.4	170.8	0.3	16.29	182.89	3.67	258.0	Sgr
4 Jul 2018	19h26m17.80s	-21 46' 22.0"	33.594	32.588	14.4	171.8	0.2	16.25	183.86	3.68	258.0	Sgr
5 Jul 2018	19h26m11.67s	-21 46' 40.4"	33.595	32.586	14.4	172.8	0.2	16.19	184.84	3.69	258.0	Sgr
6 Jul 2018	19h26m05.52s	-21 46' 58.9"	33.596	32.585	14.4	173.7	0.2	16.13	185.81	3.70	258.0	Sgr
7 Jul 2018	19h25m59.36s	-21 47' 17.4"	33.596	32.584	14.4	174.7	0.2	16.06	186.79	3.71	258.0	Sgr
8 Jul 2018	19h25m53.18s	-21 47' 36.0"	33.597	32.583	14.4	175.7	0.1	15.97	187.76	3.71	258.1	Sgr
9 Jul 2018	19h25m46.99s	-21 47' 54.5"	33.598	32.582	14.4	176.7	0.1	15.88	188.73	3.72	258.1	Sgr
10 Jul 2018	19h25m40.79s	-21 48' 13.0"	33.598	32.582	14.4	177.6	0.1	15.77	189.70	3.72	258.1	Sgr
11 Jul 2018	19h25m34.58s	-21 48' 31.6"	33.599	32.582	14.4	178.6	0.0	15.66	190.67	3.72	258.1	Sgr
12 Jul 2018	19h25m28.37s	-21 48' 50.1"	33.599	32.583	14.4	179.6	0.0	15.53	191.64	3.72	258.1	Sgr
13 Jul 2018	19h25m22.16s	-21 49' 08.7"	33.600	32.584	14.4	179.4	0.0	15.40	192.60	3.72	258.1	Sgr
14 Jul 2018	19h25m15.95s	-21 49' 27.2"	33.601	32.585	14.4	178.4	0.0	15.25	193.57	3.72	258.1	Sgr
15 Jul 2018	19h25m09.75s	-21 49' 45.7"	33.601	32.586	14.4	177.5	0.1	15.09	194.53	3.72	258.1	Sgr
16 Jul 2018	19h25m03.55s	-21 50' 04.2"	33.602	32.587	14.4	176.5	0.1	14.93	195.48	3.71	258.1	Sgr
17 Jul 2018	19h24m57.36s	-21 50' 22.6"	33.603	32.589	14.4	175.5	0.1	14.75	196.44	3.71	258.1	Sgr
18 Jul 2018	19h24m51.18s	-21 50' 41.0"	33.603	32.591	14.4	174.5	0.2	14.56	197.39	3.70	258.1	Sgr
19 Jul 2018	19h24m45.02s	-21 50' 59.4"	33.604	32.594	14.4	173.5	0.2	14.37	198.34	3.69	258.1	Sgr
20 Jul 2018	19h24m38.87s	-21 51' 17.8"	33.605	32.597	14.4	172.6	0.2	14.16	199.28	3.68	258.1	Sgr
21 Jul 2018	19h24m32.73s	-21 51' 36.1"	33.605	32.600	14.4	171.6	0.3	13.95	200.22	3.67	258.1	Sgr
22 Jul 2018	19h24m26.62s	-21 51' 54.3"	33.606	32.603	14.4	170.6	0.3	13.72	201.16	3.65	258.1	Sgr
23 Jul 2018	19h24m20.53s	-21 52' 12.5"	33.607	32.607	14.4	169.6	0.3	13.49	202.10	3.64	258.1	Sgr
24 Jul 2018	19h24m14.47s	-21 52' 30.6"	33.607	32.611	14.4	168.7	0.3	13.24	203.03	3.62	258.1	Sgr
25 Jul 2018	19h24m08.43s	-21 52' 48.7"	33.608	32.615	14.4	167.7	0.4	12.99	203.96	3.61	258.1	Sgr
26 Jul 2018	19h24m02.42s	-21 53' 06.7"	33.609	32.619	14.4	166.7	0.4	12.73	204.88	3.59	258.1	Sgr
27 Jul 2018	19h23m56.45s	-21 53' 24.6"	33.609	32.624	14.4	165.7	0.4	12.46	205.80	3.57	258.1	Sgr
28 Jul 2018	19h23m50.50s	-21 53' 42.4"	33.610	32.629	14.4	164.7	0.5	12.18	206.71	3.55	258.1	Sgr
29 Jul 2018	19h23m44.60s	-21 54' 00.2"	33.610	32.634	14.4	163.8	0.5	11.89	207.63	3.53	258.1	Sgr
30 Jul 2018	19h23m38.72s	-21 54' 17.9"	33.611	32.640	14.4	162.8	0.5	11.59	208.53	3.50	258.1	Sgr
31 Jul 2018	19h23m32.89s	-21 54' 35.5"	33.612	32.646	14.4	161.8	0.5	11.28	209.44	3.48	258.0	Sgr
1 Aug 2018	19h23m27.10s	-21 54' 52.9"	33.612	32.652	14.4	160.8	0.6	10.97	210.34	3.45	258.0	Sgr
2 Aug 2018	19h23m21.36s	-21 55' 10.3"	33.613	32.658	14.4	159.8	0.6	10.64	211.23	3.43	258.0	Sgr
3 Aug 2018	19h23m15.65s	-21 55' 27.6"	33.614	32.665	14.4	158.9	0.6	10.31	212.12	3.40	258.0	Sgr
4 Aug 2018	19h23m10.00s	-21 55' 44.8"	33.614	32.672	14.4	157.9	0.7	9.97	213.01	3.37	258.0	Sgr
5 Aug 2018	19h23m04.40s	-21 56' 01.9"	33.615	32.679	14.4	156.9	0.7	9.63	213.89	3.34	257.9	Sgr
6 Aug 2018	19h22m58.85s	-21 56' 18.8"	33.616	32.687	14.4	155.9	0.7	9.27	214.77	3.31	257.9	Sgr
7 Aug 2018	19h22m53.35s	-21 56' 35.6"	33.616	32.695	14.4	154.9	0.7	8.91	215.64	3.27	257.9	Sgr
8 Aug 2018	19h22m47.91s	-21 56' 52.3"	33.617	32.703	14.4	154.0	0.8	8.54	216.51	3.24	257.9	Sgr
9 Aug 2018	19h22m42.53s	-21 57' 08.9"	33.618	32.711	14.4	153.0	0.8	8.16	217.38	3.20	257.8	Sgr
10 Aug 2018	19h22m37.21s	-21 57' 25.4"	33.618	32.720	14.4	152.0	0.8	7.77	218.24	3.17	257.8	Sgr

# EPHEMERIDE 2018 – PLUTO

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
----	--	-----	-	-----	---	-----	-----	-----	-----	-----	-----	-----
11 Aug 2018	19h22m31.95s	-21 57' 41.7"	33.619	32.729	14.4	151.0	0.8	7.38	219.09	3.13	257.7	Sgr
12 Aug 2018	19h22m26.76s	-21 57' 57.8"	33.620	32.738	14.4	150.0	0.9	6.98	219.95	3.09	257.7	Sgr
13 Aug 2018	19h22m21.64s	-21 58' 13.9"	33.620	32.747	14.4	149.1	0.9	6.58	220.79	3.05	257.6	Sgr
14 Aug 2018	19h22m16.58s	-21 58' 29.7"	33.621	32.757	14.4	148.1	0.9	6.16	221.63	3.00	257.6	Sgr
15 Aug 2018	19h22m11.60s	-21 58' 45.5"	33.621	32.766	14.4	147.1	0.9	5.74	222.47	2.96	257.5	Sgr
16 Aug 2018	19h22m06.69s	-21 59' 01.1"	33.622	32.777	14.4	146.1	1.0	5.32	223.31	2.92	257.5	Sgr
17 Aug 2018	19h22m01.86s	-21 59' 16.5"	33.623	32.787	14.4	145.1	1.0	4.89	224.14	2.87	257.4	Sgr
18 Aug 2018	19h21m57.10s	-21 59' 31.7"	33.623	32.797	14.4	144.2	1.0	4.45	224.96	2.82	257.3	Sgr
19 Aug 2018	19h21m52.43s	-21 59' 46.8"	33.624	32.808	14.4	143.2	1.0	4.00	225.78	2.78	257.3	Sgr
20 Aug 2018	19h21m47.83s	-22 00' 01.7"	33.625	32.819	14.4	142.2	1.1	3.55	226.60	2.73	257.2	Sgr
21 Aug 2018	19h21m43.32s	-22 00' 16.5"	33.625	32.831	14.4	141.2	1.1	3.10	227.42	2.68	257.1	Sgr
22 Aug 2018	19h21m38.89s	-22 00' 31.1"	33.626	32.842	14.4	140.2	1.1	2.63	228.22	2.63	257.0	Sgr
23 Aug 2018	19h21m34.54s	-22 00' 45.5"	33.627	32.854	14.4	139.3	1.1	2.17	229.03	2.58	256.9	Sgr
24 Aug 2018	19h21m30.29s	-22 00' 59.7"	33.627	32.866	14.4	138.3	1.1	1.69	229.83	2.53	256.9	Sgr
25 Aug 2018	19h21m26.12s	-22 01' 13.8"	33.628	32.878	14.4	137.3	1.2	1.21	230.63	2.47	256.7	Sgr
26 Aug 2018	19h21m22.04s	-22 01' 27.6"	33.629	32.890	14.4	136.3	1.2	0.73	231.42	2.42	256.6	Sgr
27 Aug 2018	19h21m18.06s	-22 01' 41.3"	33.629	32.903	14.4	135.3	1.2	0.24	232.21	2.36	256.5	Sgr
28 Aug 2018	19h21m14.17s	-22 01' 54.8"	33.630	32.916	14.4	134.4	1.2	-0.25	233.00	2.31	256.4	Sgr
29 Aug 2018	19h21m10.37s	-22 02' 08.1"	33.631	32.929	14.4	133.4	1.3	-0.75	233.78	2.25	256.3	Sgr
30 Aug 2018	19h21m06.67s	-22 02' 21.2"	33.631	32.942	14.4	132.4	1.3	-1.26	234.56	2.19	256.1	Sgr
31 Aug 2018	19h21m03.07s	-22 02' 34.1"	33.632	32.955	14.4	131.4	1.3	-1.76	235.34	2.14	256.0	Sgr
1 Sep 2018	19h20m59.56s	-22 02' 46.8"	33.632	32.969	14.4	130.4	1.3	-2.28	236.11	2.08	255.8	Sgr
2 Sep 2018	19h20m56.16s	-22 02' 59.3"	33.633	32.983	14.4	129.5	1.3	-2.79	236.88	2.02	255.6	Sgr
3 Sep 2018	19h20m52.86s	-22 03' 11.5"	33.634	32.997	14.4	128.5	1.3	-3.31	237.65	1.96	255.4	Sgr
4 Sep 2018	19h20m49.66s	-22 03' 23.6"	33.634	33.011	14.4	127.5	1.4	-3.84	238.41	1.90	255.2	Sgr
5 Sep 2018	19h20m46.56s	-22 03' 35.5"	33.635	33.025	14.4	126.5	1.4	-4.37	239.18	1.83	255.0	Sgr
6 Sep 2018	19h20m43.58s	-22 03' 47.1"	33.636	33.040	14.4	125.5	1.4	-4.90	239.93	1.77	254.8	Sgr
7 Sep 2018	19h20m40.70s	-22 03' 58.6"	33.636	33.054	14.4	124.6	1.4	-5.44	240.69	1.71	254.5	Sgr
8 Sep 2018	19h20m37.93s	-22 04' 09.8"	33.637	33.069	14.4	123.6	1.4	-5.98	241.44	1.64	254.2	Sgr
9 Sep 2018	19h20m35.27s	-22 04' 20.8"	33.638	33.084	14.4	122.6	1.4	-6.52	242.19	1.58	253.9	Sgr
10 Sep 2018	19h20m32.72s	-22 04' 31.6"	33.638	33.100	14.4	121.6	1.5	-7.07	242.94	1.51	253.5	Sgr
11 Sep 2018	19h20m30.29s	-22 04' 42.1"	33.639	33.115	14.4	120.6	1.5	-7.62	243.69	1.44	253.1	Sgr
12 Sep 2018	19h20m27.97s	-22 04' 52.5"	33.640	33.130	14.4	119.6	1.5	-8.18	244.43	1.38	252.7	Sgr
13 Sep 2018	19h20m25.77s	-22 05' 02.6"	33.640	33.146	14.4	118.7	1.5	-8.73	245.18	1.31	252.2	Sgr
14 Sep 2018	19h20m23.68s	-22 05' 12.5"	33.641	33.162	14.4	117.7	1.5	-9.29	245.92	1.24	251.7	Sgr
15 Sep 2018	19h20m21.71s	-22 05' 22.1"	33.642	33.178	14.4	116.7	1.5	-9.86	246.66	1.17	251.0	Sgr
16 Sep 2018	19h20m19.86s	-22 05' 31.5"	33.642	33.194	14.4	115.7	1.5	-10.42	247.40	1.10	250.4	Sgr
17 Sep 2018	19h20m18.13s	-22 05' 40.7"	33.643	33.210	14.4	114.7	1.6	-10.99	248.13	1.03	249.6	Sgr
18 Sep 2018	19h20m16.51s	-22 05' 49.6"	33.644	33.226	14.4	113.8	1.6	-11.56	248.87	0.97	248.7	Sgr
19 Sep 2018	19h20m15.02s	-22 05' 58.3"	33.644	33.243	14.4	112.8	1.6	-12.14	249.60	0.90	247.6	Sgr
20 Sep 2018	19h20m13.65s	-22 06' 06.8"	33.645	33.259	14.4	111.8	1.6	-12.71	250.33	0.83	246.4	Sgr
21 Sep 2018	19h20m12.40s	-22 06' 15.1"	33.645	33.276	14.4	110.8	1.6	-13.29	251.07	0.76	244.9	Sgr
22 Sep 2018	19h20m11.27s	-22 06' 23.0"	33.646	33.292	14.4	109.8	1.6	-13.87	251.80	0.69	243.1	Sgr
23 Sep 2018	19h20m10.26s	-22 06' 30.8"	33.647	33.309	14.4	108.8	1.6	-14.45	252.53	0.62	240.9	Sgr
24 Sep 2018	19h20m09.38s	-22 06' 38.3"	33.647	33.326	14.4	107.9	1.6	-15.04	253.26	0.55	238.2	Sgr
25 Sep 2018	19h20m08.62s	-22 06' 45.6"	33.648	33.343	14.4	106.9	1.6	-15.62	253.99	0.49	234.7	Sgr
26 Sep 2018	19h20m07.99s	-22 06' 52.6"	33.649	33.360	14.4	105.9	1.6	-16.21	254.72	0.42	230.2	Sgr
27 Sep 2018	19h20m07.48s	-22 06' 59.4"	33.649	33.377	14.4	104.9	1.6	-16.80	255.45	0.36	224.0	Sgr
28 Sep 2018	19h20m07.09s	-22 07' 05.9"	33.650	33.395	14.4	103.9	1.7	-17.39	256.18	0.31	215.5	Sgr
29 Sep 2018	19h20m06.83s	-22 07' 12.2"	33.651	33.412	14.4	102.9	1.7	-17.99	256.91	0.26	203.7	Sgr
30 Sep 2018	19h20m06.70s	-22 07' 18.2"	33.651	33.429	14.4	102.0	1.7	-18.58	257.64	0.23	187.9	Sgr
1 Okt 2018	19h20m06.69s	-22 07' 24.0"	33.652	33.447	14.4	101.0	1.7	-19.18	258.37	0.22	169.1	Sgr
2 Okt 2018	19h20m06.81s	-22 07' 29.6"	33.653	33.464	14.4	100.0	1.7	-19.77	259.10	0.24	150.9	Sgr
3 Okt 2018	19h20m07.06s	-22 07' 34.9"	33.653	33.482	14.4	99.0	1.7	-20.37	259.84	0.28	136.2	Sgr
4 Okt 2018	19h20m07.44s	-22 07' 39.9"	33.654	33.499	14.5	98.0	1.7	-20.97	260.57	0.33	125.4	Sgr
5 Okt 2018	19h20m07.94s	-22 07' 44.7"	33.655	33.517	14.5	97.1	1.7	-21.57	261.31	0.39	117.7	Sgr
6 Okt 2018	19h20m08.57s	-22 07' 49.3"	33.655	33.535	14.5	96.1	1.7	-22.17	262.05	0.45	112.0	Sgr
7 Okt 2018	19h20m09.33s	-22 07' 53.5"	33.656	33.553	14.5	95.1	1.7	-22.77	262.79	0.52	107.8	Sgr
8 Okt 2018	19h20m10.22s	-22 07' 57.6"	33.656	33.570	14.5	94.1	1.7	-23.37	263.53	0.59	104.6	Sgr
9 Okt 2018	19h20m11.24s	-22 08' 01.4"	33.657	33.588	14.5	93.1	1.7	-23.98	264.27	0.66	102.0	Sgr
10 Okt 2018	19h20m12.39s	-22 08' 04.9"	33.658	33.606	14.5	92.1	1.7	-24.58	265.02	0.73	100.0	Sgr
11 Okt 2018	19h20m13.67s	-22 08' 08.2"	33.658	33.624	14.5	91.1	1.7	-25.18	265.77	0.80	98.3	Sgr
12 Okt 2018	19h20m15.08s	-22 08' 11.2"	33.659	33.641	14.5	90.2	1.7	-25.79	266.52	0.88	96.9	Sgr
13 Okt 2018	19h20m16.61s	-22 08' 14.0"	33.660	33.659	14.5	89.2	1.7	-26.39	267.27	0.95	95.8	Sgr
14 Okt 2018	19h20m18.28s	-22 08' 16.5"	33.660	33.677	14.5	88.2	1.7	-26.99	268.03	1.02	94.8	Sgr
15 Okt 2018	19h20m20.07s	-22 08' 18.8"	33.661	33.695	14.5	87.2	1.7	-27.60	268.79	1.10	93.9	Sgr
16 Okt 2018	19h20m21.99s	-22 08' 20.8"	33.662	33.713	14.5	86.2	1.7	-28.20	269.55	1.17	93.1	Sgr
17 Okt 2018	19h20m24.04s	-22 08' 22.5"	33.662	33.730	14.5	85.2	1.7	-28.80	270.32	1.24	92.5	Sgr
18 Okt 2018	19h20m26.21s	-22 08' 24.1"	33.663	33.748	14.5	84.3	1.7	-29.40	271.10	1.32	91.9	Sgr
19 Okt 2018	19h20m28.52s	-22 08' 25.3"	33.664	33.766	14.5	83.3	1.7	-30.01	271.87	1.39	91.4	Sgr
20 Okt 2018	19h20m30.95s	-22 08' 26.3"	33.664	33.783	14.5	82.3	1.7	-30.61	272.65	1.46	90.9	Sgr
21 Okt 2018	19h20m33.50s	-22 08' 27.1"	33.665	33.801	14.5	81.3	1.7	-31.21	273.44	1.54	90.5	Sgr
22 Okt 2018	19h20m36.18s	-22 08' 27.6"	33.666	33.819	14.5	80.3	1.7	-31.81	274.23	1.61	90.1	Sgr
23 Okt 2018	19h20m38.98s	-22 08' 27.9"	33.666	33.836	14.5	79.3	1.7	-32.41	275.03	1.68	89.7	Sgr



# EPHEMERIDE 2018 – PLUTO

Datum	RA	Deklination	r	delta	mag	Elong	Phase	Höhe	Az.	Gesch.	PA	Stb
-----	--	-----	-	-----	---	-----	-----	-----	-----	-----	-----	-----
24 Okt 2018	19h20m41.91s	-22 08' 27.9"	33.667	33.854	14.5	78.4	1.7	-33.00	275.83	1.76	89.4	Sgr
25 Okt 2018	19h20m44.96s	-22 08' 27.6"	33.668	33.871	14.5	77.4	1.7	-33.60	276.64	1.83	89.1	Sgr
26 Okt 2018	19h20m48.13s	-22 08' 27.2"	33.668	33.888	14.5	76.4	1.6	-34.19	277.46	1.90	88.8	Sgr
27 Okt 2018	19h20m51.43s	-22 08' 26.4"	33.669	33.906	14.5	75.4	1.6	-34.79	278.28	1.97	88.6	Sgr
28 Okt 2018	19h20m54.85s	-22 08' 25.5"	33.669	33.923	14.5	74.4	1.6	-35.38	279.11	2.04	88.4	Sgr
29 Okt 2018	19h20m58.39s	-22 08' 24.3"	33.670	33.940	14.5	73.4	1.6	-35.97	279.94	2.11	88.1	Sgr
30 Okt 2018	19h21m02.05s	-22 08' 22.8"	33.671	33.957	14.5	72.5	1.6	-36.56	280.79	2.18	87.9	Sgr
31 Okt 2018	19h21m05.83s	-22 08' 21.1"	33.671	33.974	14.5	71.5	1.6	-37.14	281.64	2.25	87.8	Sgr
1 Nov 2018	19h21m09.73s	-22 08' 19.1"	33.672	33.991	14.5	70.5	1.6	-37.73	282.50	2.32	87.6	Sgr
2 Nov 2018	19h21m13.75s	-22 08' 17.0"	33.673	34.007	14.5	69.5	1.6	-38.31	283.36	2.39	87.4	Sgr
3 Nov 2018	19h21m17.88s	-22 08' 14.5"	33.673	34.024	14.5	68.5	1.6	-38.89	284.24	2.46	87.3	Sgr
4 Nov 2018	19h21m22.14s	-22 08' 11.9"	33.674	34.041	14.5	67.5	1.6	-39.47	285.13	2.53	87.1	Sgr
5 Nov 2018	19h21m26.51s	-22 08' 09.0"	33.675	34.057	14.5	66.5	1.5	-40.04	286.02	2.60	87.0	Sgr
6 Nov 2018	19h21m30.99s	-22 08' 05.8"	33.675	34.073	14.5	65.6	1.5	-40.61	286.93	2.67	86.8	Sgr
7 Nov 2018	19h21m35.59s	-22 08' 02.5"	33.676	34.090	14.5	64.6	1.5	-41.18	287.84	2.73	86.7	Sgr
8 Nov 2018	19h21m40.31s	-22 07' 58.9"	33.677	34.106	14.5	63.6	1.5	-41.74	288.77	2.80	86.6	Sgr
9 Nov 2018	19h21m45.13s	-22 07' 55.0"	33.677	34.122	14.5	62.6	1.5	-42.30	289.71	2.86	86.5	Sgr
10 Nov 2018	19h21m50.07s	-22 07' 50.9"	33.678	34.138	14.5	61.6	1.5	-42.86	290.66	2.93	86.4	Sgr
11 Nov 2018	19h21m55.12s	-22 07' 46.6"	33.679	34.153	14.5	60.6	1.5	-43.41	291.62	2.99	86.3	Sgr
12 Nov 2018	19h22m00.27s	-22 07' 42.1"	33.679	34.169	14.5	59.6	1.5	-43.96	292.59	3.06	86.2	Sgr
13 Nov 2018	19h22m05.54s	-22 07' 37.4"	33.680	34.184	14.5	58.7	1.4	-44.51	293.58	3.12	86.1	Sgr
14 Nov 2018	19h22m10.91s	-22 07' 32.4"	33.681	34.199	14.5	57.7	1.4	-45.05	294.58	3.18	86.0	Sgr
15 Nov 2018	19h22m16.38s	-22 07' 27.2"	33.681	34.214	14.5	56.7	1.4	-45.59	295.59	3.24	85.9	Sgr
16 Nov 2018	19h22m21.96s	-22 07' 21.8"	33.682	34.229	14.5	55.7	1.4	-46.12	296.62	3.30	85.9	Sgr
17 Nov 2018	19h22m27.64s	-22 07' 16.2"	33.682	34.244	14.5	54.7	1.4	-46.65	297.67	3.36	85.8	Sgr
18 Nov 2018	19h22m33.42s	-22 07' 10.3"	33.683	34.259	14.5	53.7	1.4	-47.17	298.72	3.42	85.7	Sgr
19 Nov 2018	19h22m39.30s	-22 07' 04.3"	33.684	34.273	14.5	52.7	1.3	-47.68	299.80	3.48	85.6	Sgr
20 Nov 2018	19h22m45.27s	-22 06' 58.0"	33.684	34.287	14.5	51.8	1.3	-48.19	300.89	3.54	85.6	Sgr
21 Nov 2018	19h22m51.35s	-22 06' 51.5"	33.685	34.301	14.5	50.8	1.3	-48.70	301.99	3.59	85.5	Sgr
22 Nov 2018	19h22m57.52s	-22 06' 44.9"	33.686	34.315	14.5	49.8	1.3	-49.19	303.12	3.65	85.4	Sgr
23 Nov 2018	19h23m03.78s	-22 06' 38.0"	33.686	34.329	14.5	48.8	1.3	-49.68	304.26	3.70	85.4	Sgr
24 Nov 2018	19h23m10.13s	-22 06' 30.9"	33.687	34.342	14.5	47.8	1.2	-50.17	305.41	3.76	85.3	Sgr
25 Nov 2018	19h23m16.57s	-22 06' 23.6"	33.688	34.355	14.5	46.8	1.2	-50.64	306.59	3.81	85.3	Sgr
26 Nov 2018	19h23m23.11s	-22 06' 16.1"	33.688	34.368	14.5	45.8	1.2	-51.11	307.79	3.86	85.2	Sgr
27 Nov 2018	19h23m29.73s	-22 06' 08.4"	33.689	34.381	14.5	44.9	1.2	-51.57	309.00	3.91	85.2	Sgr
28 Nov 2018	19h23m36.44s	-22 06' 00.6"	33.690	34.394	14.5	43.9	1.2	-52.03	310.24	3.96	85.1	Sgr
29 Nov 2018	19h23m43.23s	-22 05' 52.5"	33.690	34.406	14.5	42.9	1.1	-52.47	311.49	4.01	85.1	Sgr
30 Nov 2018	19h23m50.11s	-22 05' 44.3"	33.691	34.419	14.5	41.9	1.1	-52.91	312.76	4.06	85.0	Sgr
1 Dez 2018	19h23m57.06s	-22 05' 35.8"	33.692	34.431	14.5	40.9	1.1	-53.33	314.06	4.11	85.0	Sgr
2 Dez 2018	19h24m04.10s	-22 05' 27.2"	33.692	34.442	14.5	39.9	1.1	-53.75	315.38	4.16	84.9	Sgr
3 Dez 2018	19h24m11.22s	-22 05' 18.4"	33.693	34.454	14.5	38.9	1.1	-54.16	316.71	4.20	84.9	Sgr
4 Dez 2018	19h24m18.42s	-22 05' 09.5"	33.694	34.465	14.5	38.0	1.0	-54.55	318.07	4.25	84.8	Sgr
5 Dez 2018	19h24m25.69s	-22 05' 00.3"	33.694	34.476	14.5	37.0	1.0	-54.94	319.45	4.29	84.8	Sgr
6 Dez 2018	19h24m33.03s	-22 04' 51.0"	33.695	34.487	14.5	36.0	1.0	-55.31	320.86	4.33	84.8	Sgr
7 Dez 2018	19h24m40.45s	-22 04' 41.5"	33.695	34.498	14.5	35.0	1.0	-55.68	322.28	4.38	84.7	Sgr
8 Dez 2018	19h24m47.94s	-22 04' 31.9"	33.696	34.508	14.5	34.0	0.9	-56.03	323.73	4.42	84.7	Sgr
9 Dez 2018	19h24m55.49s	-22 04' 22.1"	33.697	34.518	14.5	33.0	0.9	-56.37	325.19	4.46	84.7	Sgr
10 Dez 2018	19h25m03.11s	-22 04' 12.1"	33.697	34.528	14.5	32.0	0.9	-56.69	326.68	4.49	84.6	Sgr
11 Dez 2018	19h25m10.80s	-22 04' 02.0"	33.698	34.538	14.5	31.0	0.9	-57.01	328.20	4.53	84.6	Sgr
12 Dez 2018	19h25m18.55s	-22 03' 51.7"	33.699	34.547	14.5	30.1	0.8	-57.31	329.73	4.57	84.6	Sgr
13 Dez 2018	19h25m26.35s	-22 03' 41.3"	33.699	34.556	14.5	29.1	0.8	-57.60	331.28	4.60	84.5	Sgr
14 Dez 2018	19h25m34.22s	-22 03' 30.8"	33.700	34.565	14.5	28.1	0.8	-57.87	332.86	4.64	84.5	Sgr
15 Dez 2018	19h25m42.14s	-22 03' 20.1"	33.701	34.574	14.5	27.1	0.8	-58.13	334.45	4.67	84.5	Sgr
16 Dez 2018	19h25m50.12s	-22 03' 09.2"	33.701	34.582	14.5	26.1	0.7	-58.37	336.06	4.70	84.4	Sgr
17 Dez 2018	19h25m58.15s	-22 02' 58.3"	33.702	34.590	14.5	25.1	0.7	-58.60	337.69	4.73	84.4	Sgr
18 Dez 2018	19h26m06.23s	-22 02' 47.2"	33.703	34.598	14.5	24.1	0.7	-58.81	339.34	4.76	84.4	Sgr
19 Dez 2018	19h26m14.36s	-22 02' 36.0"	33.703	34.606	14.5	23.2	0.7	-59.00	341.01	4.79	84.4	Sgr
20 Dez 2018	19h26m22.53s	-22 02' 24.6"	33.704	34.613	14.5	22.2	0.6	-59.18	342.69	4.81	84.3	Sgr
21 Dez 2018	19h26m30.75s	-22 02' 13.1"	33.705	34.620	14.5	21.2	0.6	-59.35	344.39	4.84	84.3	Sgr
22 Dez 2018	19h26m39.01s	-22 02' 01.6"	33.705	34.627	14.5	20.2	0.6	-59.49	346.10	4.86	84.3	Sgr
23 Dez 2018	19h26m47.31s	-22 01' 49.9"	33.706	34.633	14.5	19.2	0.6	-59.62	347.82	4.89	84.3	Sgr
24 Dez 2018	19h26m55.65s	-22 01' 38.1"	33.707	34.639	14.5	18.2	0.5	-59.73	349.55	4.91	84.2	Sgr
25 Dez 2018	19h27m04.03s	-22 01' 26.2"	33.707	34.645	14.5	17.2	0.5	-59.83	351.29	4.93	84.2	Sgr
26 Dez 2018	19h27m12.45s	-22 01' 14.2"	33.708	34.651	14.5	16.3	0.5	-59.90	353.04	4.95	84.2	Sgr
27 Dez 2018	19h27m20.89s	-22 01' 02.1"	33.708	34.656	14.5	15.3	0.4	-59.96	354.80	4.97	84.2	Sgr
28 Dez 2018	19h27m29.37s	-22 00' 49.9"	33.709	34.661	14.5	14.3	0.4	-60.00	356.56	4.99	84.2	Sgr
29 Dez 2018	19h27m37.88s	-22 00' 37.6"	33.710	34.666	14.5	13.3	0.4	-60.03	358.32	5.01	84.1	Sgr
30 Dez 2018	19h27m46.42s	-22 00' 25.3"	33.710	34.671	14.5	12.3	0.4	-60.03	0.08	5.02	84.1	Sgr
31 Dez 2018	19h27m54.98s	-22 00' 12.8"	33.711	34.675	14.5	11.3	0.3	-60.02	1.85	5.04	84.1	Sgr
1 Jan 2019	19h28m03.57s	-22 00' 00.3"	33.712	34.679	14.5	10.3	0.3	-59.99	3.61	5.05	84.1	Sgr