

Geocentric Ephemeris for Near Giant Planet: 2019

00:00 UTC (Coordinated Universal Time)

Date (0 UT)	Calculate R.A. h m s	Calculate Declination ° ' "	Distance to Earth a.u.	Distance to Sun a.u.
Jan 01	09 53 06.06	-04 11 27.31	5.56276	6.19929
Jan 02	09 52 49.17	-04 11 25.39	5.55165	6.20067
Jan 03	09 52 31.78	-04 11 08.48	5.54066	6.20205
Jan 04	09 52 13.88	-04 10 47.62	5.52986	6.20342
Jan 05	09 51 55.42	-04 10 19.42	5.51925	6.20479
Jan 06	09 51 36.41	-04 09 47.22	5.50885	6.20616
Jan 07	09 51 16.87	-04 09 09.89	5.49865	6.20752
Jan 08	09 50 56.79	-04 08 27.41	5.48867	6.20887
Jan 09	09 50 36.20	-04 07 39.76	5.47891	6.21022
Jan 10	09 50 15.10	-04 06 49.96	5.46936	6.21157
Jan 11	09 49 53.51	-04 05 48.99	5.46004	6.21292
Jan 12	09 49 31.42	-04 04 45.85	5.45095	6.21426
Jan 13	09 49 08.87	-04 03 37.57	5.44210	6.21559
Jan 14	09 48 45.86	-04 02 24.12	5.43349	6.21692
Jan 15	09 48 22.40	-04 01 05.55	5.42511	6.21825
Jan 16	09 47 58.51	-03 59 41.84	5.41699	6.21958
Jan 17	09 47 34.19	-03 58 13.06	5.40911	6.22090
Jan 18	09 47 09.47	-03 56 39.16	5.40149	6.22221
Jan 19	09 46 44.35	-03 55 00.23	5.39413	6.22352
Jan 20	09 46 18.84	-03 53 16.25	5.38702	6.22483
Jan 21	09 45 52.98	-03 51 27.30	5.38018	6.22614
Jan 22	09 45 26.76	-03 49 33.37	5.37361	6.22744
Jan 23	09 45 00.20	-03 47 34.49	5.36731	6.22873
Jan 24	09 44 33.31	-03 45 30.72	5.36127	6.23003
Jan 25	09 44 06.11	-03 43 22.08	5.35552	6.23131
Jan 26	09 43 38.62	-03 41 08.59	5.35005	6.23260
Jan 27	09 43 10.84	-03 38 50.33	5.34486	6.23388
Jan 28	09 42 42.80	-03 36 27.31	5.33995	6.23516
Jan 29	09 42 14.67	-03 33 59.73	5.33534	6.23643
Jan 30	09 41 45.97	-03 31 27.82	5.33101	6.23770
Jan 31	09 41 17.13	-03 28 53.98	5.32701	6.23896
Feb 01	09 40 48.27	-03 26 08.78	5.32325	6.24022
Feb 02	09 40 19.14	-03 23 22.83	5.31968	6.24148
Feb 03	09 39 49.85	-03 20 32.53	5.31668	6.24273
Feb 04	09 39 20.42	-03 17 37.91	5.31386	6.24398
Feb 05	09 38 50.86	-03 14 39.08	5.31133	6.24523
Feb 06	09 38 21.49	-03 11 36.09	5.30912	6.24647
Feb 07	09 37 51.43	-03 08 29.08	5.30722	6.24770
Feb 08	09 37 21.61	-03 05 18.11	5.30595	6.24894
Feb 09	09 36 51.73	-03 02 03.27	5.30434	6.25016
Feb 10	09 36 21.86	-02 58 44.68	5.30337	6.25139
Feb 11	09 35 51.90	-02 55 22.45	5.30271	6.25261
Feb 12	09 35 21.97	-02 51 56.63	5.30237	6.25383
Feb 13	09 34 52.08	-02 48 27.39	5.30234	6.25504
Feb 14	09 34 22.23	-02 44 54.80	5.30262	6.25625
Feb 15	09 33 53.24	-02 40 45.03	5.30322	6.25745
Feb 16	09 33 22.73	-02 37 40.05	5.30413	6.25865
Feb 17	09 32 53.12	-02 33 58.13	5.30535	6.25985
Feb 18	09 32 23.61	-02 30 13.31	5.30688	6.26104
Feb 19	09 31 54.24	-02 26 25.71	5.30873	6.26223
Feb 20	09 31 25.03	-02 22 35.47	5.31089	6.26342
Feb 21	09 30 55.97	-02 18 42.67	5.31336	6.26460

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Date (0 UT)	Calculate R.A. h m s	Calculate Declination ° ' "	Distance to Earth a.u.	Distance to Sun a.u.
Feb 22	09 30 27.10	-02 14 47.43	5.31614	6.26578
Feb 23	09 29 58.42	-02 10 49.86	5.31923	6.26695
Feb 24	09 29 29.95	-02 06 50.06	5.32262	6.26812
Feb 25	09 29 01.71	-02 02 48.17	5.32633	6.26928
Feb 26	09 28 33.72	-01 58 44.29	5.33065	6.27044
Feb 27	09 28 05.99	-01 54 38.54	5.33465	6.27160
Feb 28	09 27 38.53	-01 50 31.06	5.33928	6.27276
Mar 01	09 27 11.37	-01 46 21.97	5.34420	6.27391
Mar 02	09 26 44.52	-01 42 11.37	5.34943	6.27505
Mar 03	09 26 18.00	-01 37 59.44	5.35495	6.27619
Mar 04	09 25 51.82	-01 33 46.27	5.36077	6.27733
Mar 05	09 25 26.00	-01 29 31.99	5.36689	6.27846
Mar 06	09 25 00.55	-01 25 16.75	5.37330	6.27959
Mar 07	09 24 35.48	-01 21 00.51	5.38000	6.28072
Mar 08	09 24 10.82	-01 16 43.86	5.38698	6.28184
Mar 09	09 23 46.58	-01 12 26.46	5.39425	6.28296
Mar 10	09 23 22.77	-01 08 08.64	5.40180	6.28407
Mar 11	09 22 59.39	-01 03 50.43	5.40964	6.28518
Mar 12	09 22 36.47	-00 59 32.04	5.41774	6.28629
Mar 13	09 22 14.08	-00 55 13.57	5.42612	6.28739
Mar 14	09 21 52.03	-00 50 55.13	5.43476	6.28849
Mar 15	09 21 30.54	-00 46 36.85	5.44367	6.28958
Mar 16	09 21 09.55	-00 42 18.86	5.45284	6.29067
Mar 17	09 20 49.07	-00 38 01.25	5.46226	6.29176
Mar 18	09 20 29.10	-00 33 44.16	5.47193	6.29284
Mar 19	09 20 03.22	-00 29 27.68	5.48186	6.29392
Mar 20	09 19 50.74	-00 25 11.92	5.49202	6.29499
Mar 21	09 19 32.37	-00 20 56.98	5.50243	6.29606
Mar 22	09 19 14.54	-00 16 42.97	5.51308	6.29713
Mar 23	09 18 57.27	-00 12 29.97	5.52395	6.29819
Mar 24	09 18 40.56	-00 08 18.07	5.53506	6.29925
Mar 25	09 18 24.41	-00 04 07.37	5.54639	6.30031
Mar 26	09 18 08.83	+00 00 02.03	5.55734	6.30136
Mar 27	09 17 53.84	+00 04 10.03	5.56971	6.30240
Mar 28	09 17 39.43	+00 08 16.54	5.58170	6.30345
Mar 29	09 17 25.61	+00 12 21.47	5.59389	6.30449
Mar 30	09 17 12.40	+00 16 24.73	5.60629	6.30552
Mar 31	09 16 59.77	+00 20 26.22	5.61889	6.30655
Apr 01	09 16 47.76	+00 24 25.86	5.63168	6.30758
Apr 02	09 16 36.37	+00 28 23.55	5.64467	6.30860
Apr 03	09 16 25.59	+00 32 19.23	5.65784	6.30962
Apr 04	09 16 15.42	+00 36 12.79	5.67120	6.31064
Apr 05	09 16 05.89	+00 40 04.16	5.68473	6.31165
Apr 06	09 15 56.97	+00 43 53.27	5.69844	6.31266
Apr 07	09 15 48.69	+00 47 40.04	5.71231	6.31366
Apr 08	09 15 41.03	+00 51 24.40	5.72635	6.31466
Apr 09	09 15 34.01	+00 55 06.26	5.74054	6.31566
Apr 10	09 15 27.62	+00 58 45.59	5.75489	6.31664
Apr 11	09 15 22.08	+01 02 21.22	5.76938	6.31764
Apr 12	09 15 16.73	+01 05 56.34	5.78401	6.31862
Apr 13	09 15 11.80	+01 09 30.02	5.79881	6.31960
Apr 14	09 15 08.37	+01 12 56.13	5.81369	6.32058

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Date (0 UT)	Calculate R.A. h m s	Calculate Declination ° ' "	Distance to Earth a.u.	Distance to Sun a.u.
Apr 15	09 15 05.13	+01 16 21.30	5.82872	6.32155
Apr 16	09 15 02.52	+01 19 44.57	5.84387	6.32252
Apr 17	09 15 00.54	+01 23 04.40	5.85913	6.32348
Apr 18	09 14 59.18	+01 26 21.27	5.87452	6.32444
Apr 19	09 14 58.45	+01 29 35.13	5.89000	6.32540
Apr 20	09 14 58.33	+01 32 45.95	5.90560	6.32635
Apr 21	09 14 58.83	+01 35 53.68	5.92129	6.32730
Apr 22	09 14 59.95	+01 38 58.30	5.93707	6.32825
Apr 23	09 15 01.67	+01 41 59.77	5.95295	6.32919
Apr 24	09 15 04.01	+01 44 58.06	5.96891	6.33012
Apr 25	09 15 06.96	+01 47 53.12	5.98496	6.33106
Apr 26	09 15 10.52	+01 50 44.98	6.00108	6.33199
Apr 27	09 15 14.68	+01 53 33.45	6.01727	6.33291
Apr 28	09 15 19.44	+01 56 18.66	6.03354	6.33383
Apr 29	09 15 24.80	+01 59 00.53	6.04986	6.33475
Apr 30	09 15 30.75	+02 01 39.07	6.06625	6.33566
May 01	09 15 37.28	+02 04 14.12	6.08268	6.33657
May 02	09 15 44.41	+02 07 03.79	6.09917	6.33748
May 03	09 15 52.13	+02 09 14.01	6.11570	6.33838
May 04	09 16 00.43	+02 11 38.77	6.13227	6.33928
May 05	09 16 09.31	+02 14 00.04	6.14888	6.34017
May 06	09 16 18.77	+02 16 17.80	6.16552	6.34106
May 07	09 16 28.78	+02 18 32.06	6.18217	6.34194
May 08	09 16 39.36	+02 20 42.76	6.19886	6.34283
May 09	09 16 50.50	+02 22 49.94	6.21556	6.34371
May 10	09 17 02.19	+02 24 53.54	6.23227	6.34458
May 11	09 17 14.43	+02 26 53.59	6.24899	6.34545
May 12	09 17 27.21	+02 28 49.70	6.26571	6.34632
May 13	09 17 40.53	+02 30 42.98	6.28243	6.34718
May 14	09 17 54.36	+02 32 32.33	6.29914	6.34804
May 15	09 18 08.72	+02 34 18.11	6.31585	6.34890
May 16	09 18 23.65	+02 36 00.09	6.33268	6.34990
May 17	09 18 38.74	+02 37 40.40	6.34922	6.35059
May 18	09 18 54.89	+02 39 14.11	6.36585	6.35144
May 19	09 19 11.28	+02 40 45.68	6.38248	6.35228
May 20	09 19 28.16	+02 42 13.71	6.39908	6.35311
May 21	09 19 45.52	+02 43 38.21	6.41564	6.35394
May 22	09 20 03.38	+02 44 59.17	6.43217	6.35477
May 23	09 20 21.71	+02 46 16.59	6.44866	6.35560
May 24	09 20 40.52	+02 47 30.50	6.46511	6.35642
May 25	09 21 01.44	+02 48 39.61	6.48139	6.35723
May 26	09 21 19.51	+02 49 47.73	6.49786	6.35804
May 27	09 21 39.70	+02 50 51.09	6.51416	6.35885
May 28	09 22 00.33	+02 51 50.93	6.53040	6.35966
May 29	09 22 21.42	+02 52 47.25	6.54658	6.36046
May 30	09 22 42.95	+02 53 40.09	6.56269	6.36125
May 31	09 23 04.90	+02 54 29.46	6.57873	6.36205
Jun 01	09 23 27.28	+02 55 15.33	6.59471	6.36283
Jun 02	09 23 50.09	+02 55 57.74	6.61060	6.36362
Jun 03	09 24 13.32	+02 56 36.69	6.62642	6.36440
Jun 04	09 24 36.96	+02 57 12.18	6.64216	6.36518
Jun 05	09 25 01.01	+02 57 44.25	6.65780	6.36595

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Jun 06	09 25 25.44	+02 58 12.90	6.67336	6.36672
Jun 07	09 25 50.27	+02 58 38.14	6.68882	6.36748
Jun 08	09 26 15.49	+02 59 00.00	6.70419	6.36825
Jun 09	09 26 41.09	+02 59 18.48	6.71945	6.36900
Jun 10	09 27 07.06	+02 59 33.62	6.73461	6.36976
Jun 11	09 27 33.41	+02 59 45.33	6.74973	6.37057
Jun 12	09 28 00.08	+02 59 53.96	6.76461	6.37125
Jun 13	09 28 27.12	+02 59 59.21	6.77944	6.37200
Jun 14	09 28 54.50	+03 00 01.20	6.79415	6.37273
Jun 15	09 29 22.23	+02 59 59.95	6.80875	6.37347
Jun 16	09 29 50.29	+02 59 55.80	6.82323	6.37420
Jun 17	09 30 18.69	+02 59 47.84	6.83758	6.37493
Jun 18	09 30 47.40	+02 59 37.06	6.85182	6.37565
Jun 19	09 31 16.44	+02 59 23.07	6.86592	6.37637
Jun 20	09 31 45.78	+02 59 05.94	6.87989	6.37708
Jun 21	09 32 15.43	+02 58 45.72	6.89373	6.37779
Jun 22	09 32 45.46	+02 58 21.99	6.90744	6.37850
Jun 23	09 33 15.64	+02 57 56.00	6.92101	6.37920
Jun 24	09 33 46.18	+02 57 26.55	6.93444	6.37990
Jun 25	09 34 17.00	+02 56 54.06	6.94772	6.38060
Jun 26	09 34 48.11	+02 56 18.55	6.96086	6.38129
Jun 27	09 35 19.71	+02 55 39.87	6.97384	6.38198
Jun 28	09 35 51.15	+02 54 58.54	6.98670	6.38266
Jun 29	09 36 23.08	+02 54 14.08	6.99939	6.38334
Jun 30	09 36 55.26	+02 53 26.67	7.01192	6.38402
Jul 01	09 37 27.69	+02 52 36.36	7.02430	6.38469
Jul 02	09 38 00.38	+02 51 43.14	7.03651	6.38536
Jul 03	09 38 33.31	+02 50 47.04	7.04856	6.38602
Jul 04	09 39 06.48	+02 49 48.08	7.06045	6.38668
Jul 05	09 39 39.89	+02 48 46.29	7.07216	6.38734
Jul 06	09 40 13.51	+02 47 41.93	7.08371	6.38799
Jul 07	09 40 47.35	+02 46 34.39	7.09508	6.38864
Jul 08	09 41 21.40	+02 45 24.31	7.10628	6.38929
Jul 09	09 41 55.67	+02 44 11.55	7.11728	6.38991
Jul 10	09 42 30.14	+02 42 56.07	7.12814	6.39057
Jul 11	09 43 04.81	+02 41 37.94	7.13880	6.39120
Jul 12	09 43 39.66	+02 40 17.21	7.14928	6.39183
Jul 13	09 44 14.69	+02 38 53.88	7.15958	6.39245
Jul 14	09 44 49.91	+02 37 27.98	7.16969	6.39308
Jul 15	09 45 25.31	+02 35 59.53	7.17962	6.39369
Jul 16	09 46 00.88	+02 34 28.57	7.18936	6.39431
Jul 17	09 46 36.62	+02 32 55.13	7.19891	6.39492
Jul 18	09 47 12.71	+02 31 19.22	7.20828	6.39552
Jul 19	09 47 48.56	+02 29 40.88	7.21745	6.39613
Jul 20	09 48 24.77	+02 28 00.12	7.22642	6.39672
Jul 21	09 49 01.12	+02 26 16.96	7.23520	6.39732
Jul 22	09 49 37.62	+02 24 31.45	7.24378	6.39790
Jul 23	09 50 14.26	+02 22 43.57	7.25218	6.39850
Jul 24	09 50 50.99	+02 20 50.75	7.26035	6.39908
Jul 25	09 51 27.98	+02 19 00.85	7.26835	6.39966
Jul 26	09 52 05.03	+02 17 06.07	7.27614	6.40024
Jul 27	09 52 42.20	+02 15 09.04	7.28372	6.40081
Jul 28	09 53 23.74	+02 12 45.65	7.29093	6.40138

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Jul 29	09 53 56.91	+02 11 08.33	7.29826	6.40195
Jul 30	09 54 34.39	+02 09 04.74	7.30521	6.40251
Jul 31	09 55 11.98	+02 06 58.99	7.31196	6.40306
Aug 01	09 55 49.67	+02 04 51.13	7.31849	6.40361
Aug 02	09 56 27.45	+02 02 41.18	7.32481	6.40416
Aug 03	09 57 05.31	+02 00 29.22	7.33091	6.40471
Aug 04	09 57 43.26	+01 58 15.20	7.33680	6.40525
Aug 05	09 58 21.28	+01 55 59.22	7.34247	6.40578
Aug 06	09 58 59.37	+01 53 41.29	7.34792	6.40632
Aug 07	09 59 37.52	+01 51 21.44	7.35316	6.40685
Aug 08	10 00 15.73	+01 48 59.71	7.35817	6.40737
Aug 09	10 00 54.00	+01 46 36.11	7.36297	6.40789
Aug 10	10 01 32.33	+01 44 10.70	7.36754	6.40841
Aug 11	10 02 10.69	+01 41 43.50	7.37189	6.40892
Aug 12	10 02 49.10	+01 39 14.54	7.37603	6.40943
Aug 13	10 03 27.53	+01 36 43.86	7.37994	6.40994
Aug 14	10 04 06.02	+01 34 11.44	7.38363	6.41044
Aug 15	10 04 44.53	+01 31 37.37	7.38709	6.41094
Aug 16	10 05 23.07	+01 29 01.65	7.39033	6.41143
Aug 17	10 06 02.47	+01 26 57.98	7.39335	6.41192
Aug 18	10 06 40.19	+01 23 45.38	7.39614	6.41241
Aug 19	10 07 18.77	+01 21 04.81	7.39871	6.41289
Aug 20	10 07 57.37	+01 18 22.86	7.40106	6.41337
Aug 21	10 08 35.97	+01 15 39.31	7.40317	6.41385
Aug 22	10 09 14.57	+01 12 54.27	7.40506	6.41432
Aug 23	10 09 51.09	+01 10 09.55	7.40673	6.41478
Aug 24	10 10 31.75	+01 07 19.51	7.40865	6.41525
Aug 25	10 11 10.33	+01 04 30.58	7.40936	6.41571
Aug 26	10 11 48.91	+01 01 39.89	7.41033	6.41616
Aug 27	10 12 27.43	+00 58 47.89	7.41107	6.41661
Aug 28	10 13 05.94	+00 55 54.63	7.41159	6.41706
Aug 29	10 13 44.43	+00 53 00.00	7.41187	6.41651
Aug 30	10 14 22.88	+00 50 04.17	7.41191	6.41795
Aug 31	10 15 01.28	+00 47 07.16	7.41173	6.41838
Sep 01	10 15 39.64	+00 44 08.98	7.41131	6.41882
Sep 02	10 16 17.94	+00 41 09.69	7.41067	6.41924
Sep 03	10 16 56.20	+00 38 13.17	7.40978	6.41967
Sep 04	10 17 34.97	+00 35 07.88	7.40867	6.42009
Sep 05	10 18 12.49	+00 32 05.43	7.40733	6.42051
Sep 06	10 18 50.53	+00 29 02.01	7.40575	6.42092
Sep 07	10 19 28.50	+00 25 57.66	7.40395	6.42133
Sep 08	10 20 06.39	+00 22 52.39	7.40191	6.42173
Sep 09	10 20 44.20	+00 19 46.24	7.39965	6.42214
Sep 10	10 21 21.91	+00 16 39.28	7.39716	6.42253
Sep 11	10 21 59.53	+00 13 31.50	7.39444	6.42293
Sep 12	10 22 37.04	+00 10 22.96	7.39149	6.42332
Sep 13	10 23 14.47	+00 07 13.65	7.38831	6.42370
Sep 14	10 23 51.78	+00 04 03.66	7.38488	6.42409
Sep 15	10 24 30.90	+00 00 41.81	7.38133	6.42447
Sep 16	10 25 06.07	-00 02 18.34	7.37743	6.42484
Sep 17	10 25 43.04	-00 08 42.79	7.37335	6.42573
Sep 18	10 26 19.89	-00 08 42.79	7.36904	6.42558

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Sep 19	10 26 56.61	-00 11 55.85	7.36451	6.42594
Sep 20	10 27 33.20	-00 15 09.41	7.35975	6.42630
Sep 21	10 28 09.66	-00 18 23.47	7.35477	6.42666
Sep 22	10 28 45.97	-00 21 37.98	7.34957	6.42701
Sep 23	10 29 22.14	-00 24 52.88	7.34414	6.42736
Sep 24	10 29 58.15	-00 28 08.17	7.33849	6.42770
Sep 25	10 30 34.01	-00 31 23.78	7.33263	6.42804
Sep 26	10 31 09.71	-00 34 39.68	7.32653	6.42838
Sep 27	10 31 45.24	-00 37 55.84	7.32021	6.42871
Sep 28	10 32 20.60	-00 41 12.19	7.31368	6.42904
Sep 29	10 32 55.77	-00 44 28.70	7.30692	6.42936
Sep 30	10 33 30.82	-00 47 45.64	7.29995	6.42968
Oct 01	10 34 05.58	-00 51 02.13	7.29276	6.43000
Oct 02	10 34 40.17	-00 54 18.81	7.28536	6.43031
Oct 03	10 35 14.59	-00 57 35.57	7.27774	6.43093
Oct 04	10 35 48.79	-01 00 52.25	7.26991	6.43093
Oct 05	10 36 22.78	-01 04 08.85	7.26188	6.43129
Oct 06	10 36 56.55	-01 07 25.32	7.25363	6.43153
Oct 07	10 37 30.11	-01 10 41.60	7.24518	6.43182
Oct 08	10 38 03.44	-01 13 57.68	7.23652	6.43211
Oct 09	10 38 36.54	-01 17 13.49	7.22766	6.43240
Oct 10	10 39 09.41	-01 20 29.01	7.21860	6.43268
Oct 11	10 39 42.06	-01 23 44.53	7.20934	6.43296
Oct 12	10 40 14.40	-01 26 58.91	7.19988	6.43323
Oct 13	10 40 46.55	-01 30 13.42	7.19022	6.43350
Oct 14	10 41 18.44	-01 33 27.37	7.18037	6.43377
Oct 15	10 41 50.11	-01 36 41.16	7.17033	6.43403
Oct 16	10 42 21.50	-01 39 54.00	7.15969	6.43429
Oct 17	10 42 52.51	-01 43 06.14	7.14966	6.43455
Oct 18	10 43 25.36	-01 46 30.41	7.13905	6.43480
Oct 19	10 43 53.88	-01 49 29.01	7.12825	6.43505
Oct 20	10 44 24.13	-01 52 39.41	7.11726	6.43529
Oct 21	10 44 54.10	-01 55 49.05	7.10609	6.43553
Oct 22	10 45 23.78	-01 58 57.97	7.09474	6.43577
Oct 23	10 45 53.15	-02 02 06.02	7.08320	6.43600
Oct 24	10 46 22.23	-02 05 13.18	7.07150	6.43623
Oct 25	10 46 50.97	-02 08 19.41	7.05961	6.43645
Oct 26	10 47 19.40	-02 11 24.66	7.04755	6.43667
Oct 27	10 47 47.50	-02 14 28.87	7.03532	6.43689
Oct 28	10 48 15.28	-02 17 31.99	7.02293	6.43710
Oct 29	10 48 42.71	-02 20 33.97	7.01036	6.43731
Oct 30	10 49 09.80	-02 23 34.77	6.99764	6.43752
Oct 31	10 49 36.54	-02 26 34.32	6.98476	6.43772
Nov 01	10 50 02.92	-02 29 32.58	6.97171	6.43792
Nov 02	10 50 28.94	-02 32 29.48	6.95852	6.43811
Nov 03	10 50 54.60	-02 35 25.01	6.94518	6.43830
Nov 04	10 51 19.88	-02 38 19.08	6.93168	6.43849
Nov 05	10 51 44.78	-02 41 11.66	6.91805	6.43867
Nov 06	10 52 09.30	-02 44 02.71	6.90427	6.43885
Nov 07	10 52 33.44	-02 46 52.17	6.89036	6.43903
Nov 08	10 52 57.18	-02 49 40.00	6.87631	6.43920
Nov 09	10 53 20.52	-02 52 26.13	6.86213	6.43936

Geocentric Ephemeris for Near Giant Planet: 2019

00:00 UTC (Coordinated Universal Time)

Date (0 UT)	Calculate R.A. h m s	Calculate Declination ° ' "	Distance to Earth a.u.	Distance to Sun a.u.
Nov 10	10 53 32.52	-02 54 01.93	6.84782	6.43953
Nov 11	10 54 06.00	-02 57 53.19	6.83338	6.43969
Nov 12	10 54 28.11	-03 00 34.02	6.81883	6.43984
Nov 13	10 54 49.81	-03 03 12.98	6.80415	6.43999
Nov 14	10 55 11.08	-03 05 50.01	6.78935	6.44014
Nov 15	10 55 31.93	-03 08 25.09	6.77445	6.44029
Nov 16	10 55 52.34	-03 10 58.14	6.75943	6.44043
Nov 17	10 56 12.31	-03 13 29.12	6.74430	6.44056
Nov 18	10 56 31.93	-03 15 57.98	6.72907	6.44070
Nov 19	10 56 50.94	-03 18 23.00	6.71374	6.44082
Nov 20	10 57 09.33	-03 20 55.50	6.69835	6.44095
Nov 21	10 57 27.65	-03 23 11.27	6.68280	6.44107
Nov 22	10 57 45.33	-03 25 31.07	6.66719	6.44119
Nov 23	10 58 02.52	-03 27 48.47	6.65149	6.44130
Nov 24	10 58 19.24	-03 30 03.41	6.63571	6.44141
Nov 25	10 58 35.46	-03 32 15.30	6.61986	6.44152
Nov 26	10 58 51.19	-03 34 25.64	6.60392	6.44162
Nov 27	10 59 06.41	-03 36 32.75	6.58793	6.44172
Nov 28	10 59 21.13	-03 38 37.29	6.57186	6.44181
Nov 29	10 59 35.34	-03 40 03.00	6.55574	6.44190
Nov 30	10 59 49.03	-03 42 37.92	6.53955	6.44199
Dec 01	11 00 02.20	-03 44 33.94	6.52332	6.44207
Dec 02	11 00 14.84	-03 46 27.06	6.50700	6.44215
Dec 03	11 00 27.28	-03 48 47.53	6.49071	6.44222
Dec 04	11 00 38.54	-03 50 04.32	6.47437	6.44229
Dec 05	11 00 48.80	-03 52 18.12	6.45815	6.44236
Dec 06	11 01 00.08	-03 53 29.36	6.44156	6.44243
Dec 07	11 01 10.04	-03 55 07.02	6.42512	6.44249
Dec 08	11 01 19.44	-03 56 41.52	6.40866	6.44254
Dec 09	11 01 28.30	-03 58 12.76	6.39218	6.44259
Dec 10	11 01 36.59	-03 59 40.69	6.37569	6.44264
Dec 11	11 01 44.33	-04 01 05.22	6.35920	6.44269
Dec 12	11 01 51.50	-04 02 26.34	6.34270	6.44273
Dec 13	11 01 58.32	-04 03 45.45	6.32621	6.44276
Dec 14	11 02 04.13	-04 04 58.12	6.30972	6.44280
Dec 15	11 02 09.59	-04 06 08.68	6.29325	6.44282
Dec 16	11 02 15.77	-04 07 23.93	6.27679	6.44285
Dec 17	11 02 18.33	-04 08 33.90	6.26044	6.44287
Dec 18	11 02 22.47	-04 09 18.39	6.24394	6.44289
Dec 19	11 02 25.59	-04 10 14.13	6.22756	6.44290
Dec 20	11 02 28.11	-04 11 06.03	6.21122	6.44291
Dec 21	11 02 30.04	-04 11 54.04	6.19491	6.44292
Dec 22	11 02 31.37	-04 12 38.10	6.17865	6.44292
Dec 23	11 02 32.12	-04 13 18.19	6.16245	6.44292
Dec 24	11 02 32.22	-04 13 54.19	6.14629	6.44291
Dec 25	11 02 31.73	-04 14 26.11	6.13021	6.44290
Dec 26	11 02 30.64	-04 14 53.90	6.11418	6.44289
Dec 27	11 02 28.94	-04 15 17.49	6.09824	6.44287
Dec 28	11 02 27.89	-04 15 37.67	6.08244	6.44285
Dec 29	11 02 23.71	-04 15 51.95	6.06658	6.44283
Dec 30	11 02 20.19	-04 16 02.75	6.05089	6.44280
Dec 31	11 02 16.05	-04 16 09.20	6.03529	6.44277