

Planetenephemeride für Jupiter im Zeitraum 1. 1.2012 - 31.12.2012

Berechnet für den Standort Boden (50.5° N, 7.9° O)

Die TOpt bezieht sich auf eine Sonnenhöhe von -16°

Datum	RA (2000.0)	Dek(2000.0)	r	Entferng.	Elong.	Hell	Azim	Höhe	Diam.	TOpt.	THoe.	TRi.	Aufg.	Kulm.	KHöh	Untg.	Stb.
So 1. 1.2012	0:00	1h54'21.9"	+10°24'28.1"	4.9727	aE 4.5422	aE 110.50°	-2.6\	76° +24°	43.4"	19:40	+50°	S	12:50	19:41	+50°	02:33	ARI
Mo 2. 1.2012	0:00	1h54'26.7"	+10°25'14.3"	4.9728	aE 4.5574	aE 109.50°	-2.6\	77° +24°	43.2"	19:36	+50°	S	12:46	19:37	+50°	02:29	ARI
Di 3. 1.2012	0:00	1h54'32.2"	+10°26' 4.8"	4.9730	aE 4.5726	aE 108.51°	-2.6\	78° +23°	43.1"	19:32	+50°	S	12:42	19:33	+50°	02:25	ARI
Mi 4. 1.2012	0:00	1h54'38.6"	+10°26'59.5"	4.9732	aE 4.5879	aE 107.52°	-2.6\	79° +23°	42.9"	19:28	+50°	S	12:38	19:29	+50°	02:22	ARI
Do 5. 1.2012	0:00	1h54'45.7"	+10°27'58.5"	4.9733	aE 4.6033	aE 106.54°	-2.5\	80° +22°	42.8"	19:24	+50°	S	12:34	19:25	+50°	02:18	ARI
Fr 6. 1.2012	0:00	1h54'53.6"	+10°29' 1.6"	4.9735	aE 4.6187	aE 105.55°	-2.5\	80° +21°	42.6"	19:21	+50°	S	12:30	19:22	+50°	02:14	ARI
Sa 7. 1.2012	0:00	1h55' 2.3"	+10°30' 9.0"	4.9737	aE 4.6343	aE 104.58°	-2.5\	81° +21°	42.5"	19:17	+50°	S	12:27	19:18	+50°	02:10	ARI
So 8. 1.2012	0:00	1h55'11.7"	+10°31'20.4"	4.9738	aE 4.6499	aE 103.60°	-2.5\	82° +20°	42.4"	19:13	+50°	S	12:23	19:14	+50°	02:07	ARI
Mo 9. 1.2012	0:00	1h55'21.9"	+10°32'36.0"	4.9740	aE 4.6656	aE 102.63°	-2.5\	83° +20°	42.2"	19:09	+50°	S	12:19	19:10	+50°	02:03	ARI
Di 10. 1.2012	0:00	1h55'32.9"	+10°33'55.6"	4.9742	aE 4.6813	aE 101.66°	-2.5\	84° +19°	42.1"	19:06	+50°	S	12:15	19:07	+50°	02:00	ARI
Mi 11. 1.2012	0:00	1h55'44.6"	+10°35'19.2"	4.9743	aE 4.6971	aE 100.69°	-2.5\	84° +18°	41.9"	19:02	+50°	S	12:11	19:03	+50°	01:56	ARI
Do 12. 1.2012	0:00	1h55'57.0"	+10°36'46.8"	4.9745	aE 4.7129	aE 99.73°	-2.5\	85° +18°	41.8"	18:58	+50°	S	12:07	18:59	+50°	01:53	ARI
Fr 13. 1.2012	0:00	1h56'10.2"	+10°38'18.3"	4.9747	aE 4.7288	aE 98.77°	-2.5\	86° +17°	41.6"	18:54	+50°	S	12:04	18:55	+50°	01:49	ARI
Sa 14. 1.2012	0:00	1h56'24.2"	+10°39'53.8"	4.9748	aE 4.7447	aE 97.82°	-2.5\	87° +17°	41.5"	18:51	+50°	S	12:00	18:52	+50°	01:46	ARI
So 15. 1.2012	0:00	1h56'38.9"	+10°41'33.1"	4.9750	aE 4.7606	aE 96.87°	-2.5\	87° +16°	41.4"	18:47	+50°	S	11:56	18:48	+50°	01:42	ARI
Mo 16. 1.2012	0:00	1h56'54.3"	+10°43'16.3"	4.9752	aE 4.7766	aE 95.92°	-2.5\	88° +16°	41.2"	18:43	+50°	S	11:52	18:44	+50°	01:38	ARI
Di 17. 1.2012	0:00	1h57'10.4"	+10°45' 3.3"	4.9754	aE 4.7926	aE 94.97°	-2.5\	89° +15°	41.1"	18:40	+50°	S	11:49	18:41	+50°	01:35	ARI
Mi 18. 1.2012	0:00	1h57'27.2"	+10°46'54.0"	4.9755	aE 4.8087	aE 94.03°	-2.4\	89° +14°	41.0"	18:36	+50°	S	11:45	18:37	+50°	01:31	ARI
Do 19. 1.2012	0:00	1h57'44.8"	+10°48'48.4"	4.9757	aE 4.8247	aE 93.09°	-2.4\	90° +14°	40.8"	18:33	+50°	S	11:41	18:34	+50°	01:28	ARI
Fr 20. 1.2012	0:00	1h58' 3.1"	+10°50'46.6"	4.9759	aE 4.8408	aE 92.15°	-2.4\	91° +13°	40.7"	18:29	+50°	S	11:37	18:30	+50°	01:25	ARI
Sa 21. 1.2012	0:00	1h58'22.1"	+10°52'48.3"	4.9761	aE 4.8569	aE 91.22°	-2.4\	92° +13°	40.5"	18:25	+50°	S	11:33	18:26	+50°	01:21	ARI
So 22. 1.2012	0:00	1h58'41.7"	+10°54'53.7"	4.9762	aE 4.8730	aE 90.29°	-2.4\	92° +12°	40.4"	18:22	+50°	S	11:30	18:23	+50°	01:18	ARI
Mo 23. 1.2012	0:00	1h59' 2.1"	+10°57' 2.6"	4.9764	aE 4.8891	aE 89.36°	-2.4\	93° +12°	40.3"	18:18	+51°	S	11:26	18:19	+51°	01:14	ARI
Di 24. 1.2012	0:00	1h59'23.2"	+10°59'14.9"	4.9766	aE 4.9052	aE 88.44°	-2.4\	94° +11°	40.1"	18:15	+51°	S	11:22	18:16	+51°	01:11	ARI
Mi 25. 1.2012	0:00	1h59'44.9"	+11° 1'30.7"	4.9768	aE 4.9212	aE 87.52°	-2.4\	94° +11°	40.0"	18:11	+51°	S	11:18	18:12	+51°	01:07	ARI
Do 26. 1.2012	0:00	2h 0' 7.3"	+11° 3'49.9"	4.9769	aE 4.9373	aE 86.60°	-2.4\	95° +10°	39.9"	18:07	+51°	S	11:15	18:08	+51°	01:04	ARI
Fr 27. 1.2012	0:00	2h 0'30.4"	+11° 6'12.4"	4.9771	aE 4.9534	aE 85.68°	-2.4\	96° +10°	39.8"	18:04	+51°	S	11:11	18:05	+51°	01:01	ARI
Sa 28. 1.2012	0:00	2h 0'54.2"	+11° 8'38.2"	4.9773	aE 4.9694	aE 84.77°	-2.4\	97° + 9°	39.6"	18:00	+51°	S	11:07	18:01	+51°	00:57	ARI
So 29. 1.2012	0:00	2h 1'18.6"	+11°11' 7.2"	4.9775	aE 4.9854	aE 83.86°	-2.4\	97° + 9°	39.5"	17:57	+51°	S	11:03	17:58	+51°	00:54	ARI
Mo 30. 1.2012	0:00	2h 1'43.6"	+11°13'39.3"	4.9777	aE 5.0014	aE 82.96°	-2.4\	98° + 8°	39.4"	17:53	+51°	S	10:59	17:54	+51°	00:50	ARI
Di 31. 1.2012	0:00	2h 2' 9.3"	+11°16'14.6"	4.9778	aE 5.0174	aE 82.06°	-2.4\	99° + 7°	39.3"	17:54	+51°	S	10:56	17:51	+51°	00:47	ARI
Mi 1. 2.2012	0:00	2h 2'35.6"	+11°18'52.9"	4.9780	aE 5.0333	aE 81.16°	-2.3\	99° + 7°	39.1"	17:56	+51°	S	10:52	17:47	+51°	00:44	ARI
Do 2. 2.2012	0:00	2h 3' 2.6"	+11°21'34.2"	4.9782	aE 5.0492	aE 80.26°	-2.3\	100° + 6°	39.0"	17:58	+51°	S	10:48	17:44	+51°	00:41	ARI
Fr 3. 2.2012	0:00	2h 3'30.1"	+11°24'18.4"	4.9784	aE 5.0650	aE 79.37°	-2.3\	101° + 6°	38.9"	17:59	+51°	S	10:44	17:40	+51°	00:37	ARI
Sa 4. 2.2012	0:00	2h 3'58.3"	+11°27' 5.5"	4.9786	aE 5.0808	aE 78.48°	-2.3\	101° + 5°	38.8"	18:01	+51°	S	10:41	17:37	+51°	00:34	ARI
So 5. 2.2012	0:00	2h 4'27.0"	+11°29'55.4"	4.9787	aE 5.0966	aE 77.59°	-2.3\	102° + 5°	38.6"	18:03	+51°	S	10:37	17:33	+51°	00:31	ARI
Mo 6. 2.2012	0:00	2h 4'56.4"	+11°32'48.1"	4.9789	aE 5.1123	aE 76.71°	-2.3\	103° + 4°	38.5"	18:04	+50°	S	10:33	17:30	+51°	00:28	ARI
Di 7. 2.2012	0:00	2h 5'26.3"	+11°35'43.6"	4.9791	aE 5.1279	aE 75.83°	-2.3\	103° + 4°	38.4"	18:06	+50°	S	10:29	17:27	+51°	00:24	ARI
Mi 8. 2.2012	0:00	2h 5'56.8"	+11°38'41.6"	4.9793	aE 5.1435	aE 74.95°	-2.3\	104° + 3°	38.3"	18:08	+50°	S	10:26	17:23	+51°	00:21	ARI

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Datum	RA (2000.0)	Dek(2000.0)	r	Entferng.	Elong.	Hell	Azim	Höhe	Diam.	TOpt.	THoe.	TRi.	Aufg.	Kulm.	KHöh	Untg.	Stb.
Do 9. 2.2012	0:00	2h 6'27.9"	+11°41'42.3"	4.9795	aE 5.1590	aE 74.07°	-2.3\	105° + 3°	38.2"	18:09	+50°	S	10:22	17:20	+51°	00:18	ARI
Fr 10. 2.2012	0:00	2h 6'59.5"	+11°44'45.5"	4.9797	aE 5.1744	aE 73.20°	-2.3\	106° + 2°	38.1"	18:11	+50°	S	10:18	17:16	+51°	00:15	ARI
Sa 11. 2.2012	0:00	2h 7'31.7"	+11°47'51.3"	4.9798	aE 5.1898	aE 72.33°	-2.3\	106° + 2°	37.9"	18:12	+49°	SW	10:15	17:13	+51°	00:12	ARI
So 12. 2.2012	0:00	2h 8' 4.5"	+11°50'59.4"	4.9800	aE 5.2051	aE 71.46°	-2.3\	107° + 2°	37.8"	18:14	+49°	SW	10:11	17:10	+51°	00:09	ARI
Mo 13. 2.2012	0:00	2h 8'37.8"	+11°54'10.0"	4.9802	aE 5.2204	aE 70.59°	-2.3\	108° + 1°	37.7"	18:16	+49°	SW	10:08	17:06	+51°	00:06	ARI
Di 14. 2.2012	0:00	2h 9'11.6"	+11°57'23.0"	4.9804	aE 5.2355	aE 69.73°	-2.3\	108° + 1°	37.6"	18:17	+49°	SW	10:04	17:03	+52°	00:03	ARI
Mi 15. 2.2012	0:00	2h 9'46.0"	+12° 0'38.2"	4.9806	aE 5.2506	aE 68.87°	-2.3\	109° + 0°	37.5"	18:19	+48°	SW	10:00	17:00	+52°	23:57	ARI
Do 16. 2.2012	0:00	2h10'20.9"	+12° 3'55.7"	4.9808	aE 5.2656	aE 68.01°	-2.3\	110° - 0°	37.4"	18:21	+48°	SW	09:57	16:56	+52°	23:54	ARI
Fr 17. 2.2012	0:00	2h10'56.3"	+12° 7'15.4"	4.9810	aE 5.2805	aE 67.16°	-2.2\	110° - 1°	37.3"	18:22	+47°	SW	09:53	16:53	+52°	23:51	ARI
Sa 18. 2.2012	0:00	2h11'32.2"	+12°10'37.2"	4.9812	aE 5.2954	aE 66.30°	-2.2\	111° - 1°	37.2"	18:24	+47°	SW	09:50	16:50	+52°	23:48	ARI
So 19. 2.2012	0:00	2h12' 8.7"	+12°14' 1.2"	4.9814	aE 5.3101	aE 65.45°	-2.2\	112° - 2°	37.1"	18:26	+47°	SW	09:46	16:46	+52°	23:45	ARI
Mo 20. 2.2012	0:00	2h12'45.6"	+12°17'27.1"	4.9815	aE 5.3247	aE 64.61°	-2.2\	112° - 2°	37.0"	18:27	+46°	SW	09:43	16:43	+52°	23:42	ARI
Di 21. 2.2012	0:00	2h13'23.1"	+12°20'55.1"	4.9817	aE 5.3393	aE 63.76°	-2.2\	113° - 3°	36.9"	18:29	+46°	SW	09:39	16:40	+52°	23:39	ARI
Mi 22. 2.2012	0:00	2h14' 1.0"	+12°24'25.0"	4.9819	aE 5.3537	aE 62.92°	-2.2\	114° - 3°	36.8"	18:31	+45°	SW	09:35	16:36	+52°	23:36	ARI
Do 23. 2.2012	0:00	2h14'39.4"	+12°27'56.8"	4.9821	aE 5.3681	aE 62.08°	-2.2\	114° - 3°	36.7"	18:32	+45°	SW	09:32	16:33	+52°	23:33	ARI
Fr 24. 2.2012	0:00	2h15'18.3"	+12°31'30.4"	4.9823	aE 5.3823	aE 61.24°	-2.2\	115° - 4°	36.6"	18:34	+44°	SW	09:28	16:30	+52°	23:30	ARI
Sa 25. 2.2012	0:00	2h15'57.6"	+12°35' 5.7"	4.9825	aE 5.3964	aE 60.40°	-2.2\	116° - 4°	36.5"	18:36	+44°	SW	09:25	16:26	+52°	23:27	ARI
So 26. 2.2012	0:00	2h16'37.4"	+12°38'42.8"	4.9827	aE 5.4104	aE 59.57°	-2.2\	116° - 5°	36.4"	18:37	+43°	SW	09:21	16:23	+52°	23:24	ARI
Mo 27. 2.2012	0:00	2h17'17.7"	+12°42'21.5"	4.9829	aE 5.4243	aE 58.74°	-2.2\	117° - 5°	36.3"	18:39	+43°	SW	09:17	16:20	+52°	23:21	ARI
Di 28. 2.2012	0:00	2h17'58.4"	+12°46' 1.8"	4.9831	aE 5.4380	aE 57.91°	-2.2\	118° - 6°	36.2"	18:41	+42°	SW	09:14	16:17	+52°	23:18	ARI
Mi 29. 2.2012	0:00	2h18'39.5"	+12°49'43.7"	4.9833	aE 5.4517	aE 57.08°	-2.2\	119° - 6°	36.1"	18:42	+42°	SW	09:10	16:13	+52°	23:15	ARI
Do 1. 3.2012	0:00	2h19'21.1"	+12°53'27.0"	4.9835	aE 5.4652	aE 56.26°	-2.2\	119° - 6°	36.0"	18:44	+41°	SW	09:07	16:10	+52°	23:12	ARI
Fr 2. 3.2012	0:00	2h20' 3.1"	+12°57'11.8"	4.9837	aE 5.4786	aE 55.44°	-2.2\	120° - 7°	35.9"	18:46	+40°	SW	09:03	16:07	+53°	23:09	ARI
Sa 3. 3.2012	0:00	2h20'45.5"	+13° 0'57.9"	4.9839	aE 5.4918	aE 54.62°	-2.2\	121° - 7°	35.9"	18:47	+40°	SW	08:59	16:04	+53°	23:06	ARI
So 4. 3.2012	0:00	2h21'28.3"	+13° 4'45.4"	4.9841	aE 5.5050	aE 53.80°	-2.2\	121° - 8°	35.8"	18:49	+39°	SW	08:56	16:00	+53°	23:03	ARI
Mo 5. 3.2012	0:00	2h22'11.5"	+13° 8'34.2"	4.9843	aE 5.5180	aE 52.99°	-2.2\	122° - 8°	35.7"	18:51	+39°	SW	08:52	15:57	+53°	23:00	ARI
Di 6. 3.2012	0:00	2h22'55.1"	+13°12'24.2"	4.9845	aE 5.5308	aE 52.17°	-2.2\	123° - 8°	35.6"	18:52	+38°	SW	08:49	15:54	+53°	22:58	ARI
Mi 7. 3.2012	0:00	2h23'39.1"	+13°16'15.4"	4.9846	aE 5.5436	aE 51.36°	-2.1\	123° - 9°	35.5"	18:54	+37°	SW	08:45	15:51	+53°	22:55	ARI
Do 8. 3.2012	0:00	2h24'23.5"	+13°20' 7.8"	4.9848	aE 5.5562	aE 50.55°	-2.1\	124° - 9°	35.4"	18:56	+37°	SW	08:41	15:48	+53°	22:52	ARI
Fr 9. 3.2012	0:00	2h25' 8.2"	+13°24' 1.2"	4.9850	aE 5.5686	aE 49.75°	-2.1\	125° - 9°	35.4"	18:57	+36°	SW	08:38	15:45	+53°	22:49	ARI
Sa 10. 3.2012	0:00	2h25'53.4"	+13°27'55.6"	4.9852	aE 5.5809	aE 48.94°	-2.1\	125° -10°	35.3"	18:59	+35°	SW	08:34	15:41	+53°	22:46	ARI
So 11. 3.2012	0:00	2h26'38.8"	+13°31'51.1"	4.9854	aE 5.5931	aE 48.14°	-2.1\	126° -10°	35.2"	19:00	+35°	SW	08:31	15:38	+53°	22:43	ARI
Mo 12. 3.2012	0:00	2h27'24.7"	+13°35'47.5"	4.9856	aE 5.6051	aE 47.34°	-2.1\	127° -11°	35.1"	19:02	+34°	W	08:27	15:35	+53°	22:40	ARI
Di 13. 3.2012	0:00	2h28'10.9"	+13°39'44.8"	4.9858	aE 5.6170	aE 46.54°	-2.1\	128° -11°	35.1"	19:04	+33°	W	08:24	15:32	+53°	22:38	ARI
Mi 14. 3.2012	0:00	2h28'57.5"	+13°43'43.0"	4.9860	aE 5.6288	aE 45.74°	-2.1\	128° -11°	35.0"	19:05	+33°	W	08:20	15:29	+53°	22:35	ARI
Do 15. 3.2012	0:00	2h29'44.4"	+13°47'42.1"	4.9863	aE 5.6403	aE 44.95°	-2.1\	129° -12°	34.9"	19:07	+32°	W	08:17	15:26	+53°	22:32	ARI
Fr 16. 3.2012	0:00	2h30'31.6"	+13°51'41.9"	4.9865	aE 5.6518	aE 44.15°	-2.1\	130° -12°	34.8"	19:09	+31°	W	08:13	15:22	+53°	22:29	ARI
Sa 17. 3.2012	0:00	2h31'19.2"	+13°55'42.4"	4.9867	aE 5.6630	aE 43.36°	-2.1\	130° -12°	34.8"	19:10	+31°	W	08:10	15:19	+53°	22:26	ARI
So 18. 3.2012	0:00	2h32' 7.1"	+13°59'43.6"	4.9869	aE 5.6742	aE 42.57°	-2.1\	131° -13°	34.7"	19:12	+30°	W	08:06	15:16	+54°	22:24	ARI

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Die TOpt bezieht sich auf eine Sonnenhöhe von -16°

Datum	RA (2000.0)	Dek(2000.0)	r	Entferng.	Elong.	Hell	Azim	Höhe	Diam.	TOpt.	THoe.	Tri.	Aufg.	Kulm.	KHöh	Untg.	Stb.
Mo 19. 3.2012	0:00	2h32'55.3"	+14° 3'45.5"	4.9871	aE 5.6851	aE 41.78°	-2.1\ 132°	-13°	34.6"	19:14	+29°	W	08:03	15:13	+54°	22:21	ARI
Di 20. 3.2012	0:00	2h33'43.8"	+14° 7'48.0"	4.9873	aE 5.6959	aE 41.00°	-2.1\ 133°	-13°	34.6"	19:15	+29°	W	07:59	15:10	+54°	22:18	ARI
Mi 21. 3.2012	0:00	2h34'32.7"	+14°11'51.1"	4.9875	aE 5.7065	aE 40.21°	-2.1\ 133°	-13°	34.5"	19:17	+28°	W	07:56	15:07	+54°	22:15	ARI
Do 22. 3.2012	0:00	2h35'21.8"	+14°15'54.6"	4.9877	aE 5.7170	aE 39.43°	-2.1\ 134°	-14°	34.4"	19:19	+27°	W	07:53	15:04	+54°	22:13	ARI
Fr 23. 3.2012	0:00	2h36'11.3"	+14°19'58.6"	4.9879	aE 5.7273	aE 38.65°	-2.1\ 135°	-14°	34.4"	19:20	+27°	W	07:49	15:01	+54°	22:10	ARI
Sa 24. 3.2012	0:00	2h37' 1.0"	+14°24' 3.1"	4.9881	aE 5.7375	aE 37.87°	-2.1\ 135°	-14°	34.3"	19:22	+26°	W	07:46	14:57	+54°	22:07	ARI
So 25. 3.2012	0:00	2h37'49.0"	+14°27'57.7"	4.9883	aE 5.7470	aE 37.12°	-2.1\ 123°	- 7°	34.3"	20:24	+25°	W	08:42	15:54	+54°	23:05	ARI
Mo 26. 3.2012	0:00	2h38'39.3"	+14°32' 2.8"	4.9885	aE 5.7568	aE 36.34°	-2.1\ 124°	- 8°	34.2"	20:25	+25°	W	08:38	15:51	+54°	23:02	ARI
Di 27. 3.2012	0:00	2h39'29.9"	+14°36' 8.2"	4.9887	aE 5.7665	aE 35.57°	-2.1\ 125°	- 8°	34.2"	20:27	+24°	W	08:35	15:48	+54°	22:59	ARI
Mi 28. 3.2012	0:00	2h40'20.7"	+14°40'13.9"	4.9889	aE 5.7759	aE 34.80°	-2.1\ 125°	- 8°	34.1"	20:28	+23°	W	08:31	15:45	+54°	22:56	ARI
Do 29. 3.2012	0:00	2h41'11.8"	+14°44'19.7"	4.9891	aE 5.7852	aE 34.02°	-2.1\ 126°	- 9°	34.0"	20:30	+23°	W	08:28	15:42	+54°	22:54	ARI
Fr 30. 3.2012	0:00	2h42' 3.2"	+14°48'25.7"	4.9893	aE 5.7943	aE 33.25°	-2.1\ 127°	- 9°	34.0"	20:32	+22°	W	08:25	15:39	+54°	22:51	ARI
Sa 31. 3.2012	0:00	2h42'54.8"	+14°52'31.9"	4.9895	aE 5.8033	aE 32.48°	-2.1\ 127°	- 9°	33.9"	20:34	+21°	W	08:21	15:36	+54°	22:48	ARI
So 1. 4.2012	0:00	2h43'46.7"	+14°56'38.1"	4.9897	aE 5.8120	aE 31.72°	-2.1\ 128°	-10°	33.9"	20:35	+20°	W	08:18	15:33	+55°	22:46	ARI
Mo 2. 4.2012	0:00	2h44'38.7"	+15° 0'44.3"	4.9900	aE 5.8206	aE 30.95°	-2.1\ 129°	-10°	33.8"	20:37	+20°	W	08:14	15:30	+55°	22:43	ARI
Di 3. 4.2012	0:00	2h45'31.1"	+15° 4'50.6"	4.9902	aE 5.8290	aE 30.19°	-2.1\ 129°	-10°	33.8"	20:39	+19°	W	08:11	15:27	+55°	22:40	ARI
Mi 4. 4.2012	0:00	2h46'23.6"	+15° 8'56.8"	4.9904	aE 5.8372	aE 29.43°	-2.1\ 130°	-11°	33.7"	20:40	+18°	W	08:07	15:24	+55°	22:37	ARI
Do 5. 4.2012	0:00	2h47'16.4"	+15°13' 2.9"	4.9906	aE 5.8452	aE 28.66°	-2.0\ 131°	-11°	33.7"	20:42	+18°	W	08:04	15:20	+55°	22:35	ARI
Fr 6. 4.2012	0:00	2h48' 9.4"	+15°17' 8.9"	4.9908	aE 5.8531	aE 27.90°	-2.0\ 132°	-11°	33.6"	20:44	+17°	W	08:01	15:17	+55°	22:32	ARI
Sa 7. 4.2012	0:00	2h49' 2.6"	+15°21'14.8"	4.9910	aE 5.8608	aE 27.15°	-2.0\ 132°	-12°	33.6"	20:45	+16°	W	07:57	15:14	+55°	22:29	ARI
So 8. 4.2012	0:00	2h49'56.0"	+15°25'20.5"	4.9912	aE 5.8683	aE 26.39°	-2.0\ 133°	-12°	33.6"	20:47	+15°	W	07:54	15:11	+55°	22:27	ARI
Mo 9. 4.2012	0:00	2h50'49.7"	+15°29'26.0"	4.9914	aE 5.8756	aE 25.63°	-2.0\ 134°	-12°	33.5"	20:49	+15°	W	07:51	15:08	+55°	22:24	ARI
Di 10. 4.2012	0:00	2h51'43.5"	+15°33'31.2"	4.9917	aE 5.8827	aE 24.88°	-2.0\ 134°	-12°	33.5"	20:50	+14°	W	07:47	15:05	+55°	22:21	ARI
Mi 11. 4.2012	0:00	2h52'37.5"	+15°37'36.2"	4.9919	aE 5.8896	aE 24.12°	-2.0\ 135°	-13°	33.4"	20:52	+13°	W	07:44	15:02	+55°	22:19	ARI
Do 12. 4.2012	0:00	2h53'31.7"	+15°41'40.8"	4.9921	aE 5.8964	aE 23.37°	-2.0\ 136°	-13°	33.4"	20:54	+13°	W	07:40	14:59	+55°	22:16	ARI
Fr 13. 4.2012	0:00	2h54'26.1"	+15°45'45.1"	4.9923	aE 5.9029	aE 22.62°	-2.0\ 136°	-13°	33.4"	20:56	+12°	W	07:37	14:56	+55°	22:13	ARI
Sa 14. 4.2012	0:00	2h55'20.7"	+15°49'49.1"	4.9925	aE 5.9093	aE 21.87°	-2.0\ 137°	-14°	33.3"	20:57	+11°	W	07:34	14:53	+55°	22:11	ARI
So 15. 4.2012	0:00	2h56'15.4"	+15°53'52.6"	4.9927	aE 5.9155	aE 21.12°	-2.0\ 138°	-14°	33.3"	20:59	+11°	W	07:30	14:50	+55°	22:08	ARI
Mo 16. 4.2012	0:00	2h57'10.4"	+15°57'55.7"	4.9930	aE 5.9215	aE 20.37°	-2.0\ 138°	-14°	33.3"	21:01	+10°	W	07:27	14:47	+56°	22:06	ARI
Di 17. 4.2012	0:00	2h58' 5.5"	+16° 1'58.3"	4.9932	aE 5.9273	aE 19.63°	-2.0\ 139°	-14°	33.2"	21:03	+ 9°	W	07:23	14:44	+56°	22:03	ARI
Mi 18. 4.2012	0:00	2h59' 0.7"	+16° 6' 0.5"	4.9934	aE 5.9329	aE 18.88°	-2.0\ 140°	-15°	33.2"	21:04	+ 9°	W	07:20	14:41	+56°	22:00	ARI
Do 19. 4.2012	0:00	2h59'56.2"	+16°10' 2.0"	4.9936	aE 5.9383	aE 18.13°	-2.0\ 141°	-15°	33.2"	21:06	+ 8°	W	07:17	14:38	+56°	21:58	ARI
Fr 20. 4.2012	0:00	3h 0'51.7"	+16°14' 3.0"	4.9938	aE 5.9435	aE 17.39°	-2.0\ 141°	-15°	33.1"	21:08	+ 7°	W	07:13	14:35	+56°	21:55	ARI
Sa 21. 4.2012	0:00	3h 1'47.5"	+16°18' 3.4"	4.9941	aE 5.9486	aE 16.65°	-2.0\ 142°	-15°	33.1"	21:10	+ 6°	W	07:10	14:32	+56°	21:53	ARI
So 22. 4.2012	0:00	3h 2'43.3"	+16°22' 3.2"	4.9943	aE 5.9534	aE 15.91°	-2.0\ 143°	-16°	33.1"	21:11	+ 6°	W	07:06	14:29	+56°	21:50	ARI
Mo 23. 4.2012	0:00	3h 3'39.3"	+16°26' 2.2"	4.9945	aE 5.9580	aE 15.16°	-2.0\ 143°	-16°	33.1"	21:13	+ 5°	W	07:03	14:26	+56°	21:47	ARI
Di 24. 4.2012	0:00	3h 4'35.5"	+16°30' 0.6"	4.9947	aE 5.9625	aE 14.42°	-2.0\ 144°	-16°	33.0"	21:15	+ 4°	W	07:00	14:23	+56°	21:45	ARI
Mi 25. 4.2012	0:00	3h 5'31.7"	+16°33'58.2"	4.9949	aE 5.9667	aE 13.69°	-2.0\ 145°	-16°	33.0"	21:17	+ 4°	W	06:56	14:20	+56°	21:42	ARI
Do 26. 4.2012	0:00	3h 6'28.1"	+16°37'55.1"	4.9952	aE 5.9708	aE 12.95°	-2.0\ 146°	-16°	33.0"	21:18	+ 3°	NW	06:53	14:17	+56°	21:40	ARI

Planetenephemeride für Jupiter im Zeitraum 1. 1.2012 - 31.12.2012

Berechnet für den Standort Boden (50.5° N, 7.9° O)

Die TOpt bezieht sich auf eine Sonnenhöhe von -16°

Datum	RA (2000.0)	Dek(2000.0)	r	Entferng.	Elong.	Hell	Azim	Höhe	Diam.	TOpt.	THoe.	TRi.	Aufg.	Kulm.	KHöh	Untg.	Stb.
Fr 27. 4.2012	0:00	3h 7'24.6"	+16°41'51.2"	4.9954 aE	5.9746 aE	12.21°	-2.0\	146°	-17°	33.0"	21:20	+ 3°	NW	06:49	14:14	+56°	21:37 ARI
Sa 28. 4.2012	0:00	3h 8'21.2"	+16°45'46.4"	4.9956 aE	5.9783 aE	11.48°	-2.0\	147°	-17°	32.9"	21:22	+ 2°	NW	06:46	14:11	+56°	21:34 ARI
So 29. 4.2012	0:00	3h 9'17.9"	+16°49'40.8"	4.9958 aE	5.9817 aE	10.74°	-2.0\	148°	-17°	32.9"	21:24	+ 1°	NW	06:43	14:08	+56°	21:32 ARI
Mo 30. 4.2012	0:00	3h10'14.7"	+16°53'34.3"	4.9960 aE	5.9850 aE	10.01°	-2.0\	148°	-17°	32.9"	21:25	+ 1°	NW	06:39	14:05	+56°	21:29 ARI
Di 1. 5.2012	0:00	3h11'11.6"	+16°57'26.9"	4.9963 aE	5.9880 aE	9.28°	-2.0\	149°	-17°	32.9"	21:27	+ 0°	NW	06:36	14:02	+57°	21:27 TAU
Mi 2. 5.2012	0:00	3h12' 8.6"	+17° 1'18.6"	4.9965 aE	5.9909 aE	8.54°	-2.0\	150°	-18°	32.9"	--:--	----	--	06:32	13:59	+57°	21:24 TAU
Do 3. 5.2012	0:00	3h13' 5.7"	+17° 5' 9.3"	4.9967 aE	5.9935 aE	7.81°	-2.0\	151°	-18°	32.9"	--:--	----	--	06:29	13:56	+57°	21:21 TAU
Fr 4. 5.2012	0:00	3h14' 2.8"	+17° 8'59.0"	4.9969 aE	5.9960 aE	7.09°	-2.0\	151°	-18°	32.8"	--:--	----	--	06:26	13:53	+57°	21:19 TAU
Sa 5. 5.2012	0:00	3h15' 0.1"	+17°12'47.8"	4.9972 aE	5.9983 aE	6.36°	-2.0\	152°	-18°	32.8"	--:--	----	--	06:22	13:50	+57°	21:16 TAU
So 6. 5.2012	0:00	3h15'57.4"	+17°16'35.5"	4.9974 aE	6.0003 aE	5.63°	-2.0\	153°	-18°	32.8"	--:--	----	--	06:19	13:47	+57°	21:13 TAU
Mo 7. 5.2012	0:00	3h16'54.7"	+17°20'22.1"	4.9976 aE	6.0022 aE	4.91°	-2.0\	154°	-18°	32.8"	--:--	----	--	06:16	13:44	+57°	21:11 TAU
Di 8. 5.2012	0:00	3h17'52.2"	+17°24' 7.7"	4.9979 aE	6.0039 aE	4.19°	-2.0\	154°	-19°	32.8"	--:--	----	--	06:12	13:41	+57°	21:08 TAU
Mi 9. 5.2012	0:00	3h18'49.7"	+17°27'52.2"	4.9981 aE	6.0053 aE	3.48°	-2.0\	155°	-19°	32.8"	--:--	----	--	06:09	13:38	+57°	21:05 TAU
Do 10. 5.2012	0:00	3h19'47.2"	+17°31'35.5"	4.9983 aE	6.0066 aE	2.78°	-2.0\	156°	-19°	32.8"	--:--	----	--	06:06	13:35	+57°	21:03 TAU
Fr 11. 5.2012	0:00	3h20'44.8"	+17°35'17.8"	4.9985 aE	6.0077 aE	2.09°	-2.0\	157°	-19°	32.8"	--:--	----	--	06:03	13:32	+57°	21:00 TAU
Sa 12. 5.2012	0:00	3h21'42.5"	+17°38'58.9"	4.9988 aE	6.0086 aE	1.45°	-2.0\	157°	-19°	32.8"	--:--	----	--	05:59	13:29	+57°	20:57 TAU
So 13. 5.2012	0:00	3h22'40.2"	+17°42'38.8"	4.9990 aE	6.0093 aE	0.95°	-2.0\	158°	-19°	32.8"	--:--	----	--	05:56	13:26	+57°	20:55 TAU
Mo 14. 5.2012	0:00	3h23'37.9"	+17°46'17.5"	4.9992 aE	6.0098 aE	0.86°	-2.0\	159°	-19°	32.8"	--:--	----	--	05:53	13:23	+57°	20:52 TAU
Di 15. 5.2012	0:00	3h24'35.7"	+17°49'55.0"	4.9995 aE	6.0100 aE	1.29°	-2.0\	160°	-19°	32.8"	--:--	----	--	05:50	13:20	+57°	20:49 TAU
Mi 16. 5.2012	0:00	3h25'33.5"	+17°53'31.2"	4.9997 aE	6.0101 aE	1.90°	-2.0\	160°	-20°	32.8"	--:--	----	--	05:46	13:17	+57°	20:47 TAU
Do 17. 5.2012	0:00	3h26'31.3"	+17°57' 6.2"	4.9999 aE	6.0100 aE	2.58°	-2.0\	161°	-20°	32.8"	--:--	----	--	05:43	13:14	+58°	20:44 TAU
Fr 18. 5.2012	0:00	3h27'29.1"	+18° 0'39.9"	5.0002 aE	6.0097 aE	3.27°	-2.0\	162°	-20°	32.8"	--:--	----	--	05:40	13:11	+58°	20:41 TAU
Sa 19. 5.2012	0:00	3h28'27.0"	+18° 4'12.3"	5.0004 aE	6.0092 aE	3.98°	-2.0\	163°	-20°	32.8"	--:--	----	--	05:36	13:09	+58°	20:39 TAU
So 20. 5.2012	0:00	3h29'24.9"	+18° 7'43.4"	5.0006 aE	6.0085 aE	4.69°	-2.0\	163°	-20°	32.8"	--:--	----	--	05:33	13:06	+58°	20:36 TAU
Mo 21. 5.2012	0:00	3h30'22.7"	+18°11'13.1"	5.0009 aE	6.0076 aE	5.41°	-2.0\	164°	-20°	32.8"	--:--	----	--	05:30	13:03	+58°	20:34 TAU
Di 22. 5.2012	0:00	3h31'20.6"	+18°14'41.4"	5.0011 aE	6.0065 aE	6.13°	-2.0\	165°	-20°	32.8"	--:--	----	--	05:26	13:00	+58°	20:31 TAU
Mi 23. 5.2012	0:00	3h32'18.5"	+18°18' 8.4"	5.0013 aE	6.0052 aE	6.85°	-2.0\	166°	-20°	32.8"	--:--	----	--	05:23	12:57	+58°	20:28 TAU
Do 24. 5.2012	0:00	3h33'16.3"	+18°21'33.9"	5.0016 aE	6.0037 aE	7.57°	-2.0\	166°	-20°	32.8"	--:--	----	--	05:20	12:54	+58°	20:26 TAU
Fr 25. 5.2012	0:00	3h34'14.1"	+18°24'58.1"	5.0018 aE	6.0020 aE	8.29°	-2.0\	167°	-20°	32.8"	--:--	----	--	05:16	12:51	+58°	20:23 TAU
Sa 26. 5.2012	0:00	3h35'12.0"	+18°28'20.7"	5.0020 aE	6.0001 aE	9.01°	-2.0\	168°	-20°	32.8"	--:--	----	--	05:13	12:48	+58°	20:20 TAU
So 27. 5.2012	0:00	3h36' 9.7"	+18°31'42.0"	5.0023 aE	5.9980 aE	9.74°	-2.0\	169°	-20°	32.8"	--:--	----	--	05:10	12:45	+58°	20:18 TAU
Mo 28. 5.2012	0:00	3h37' 7.5"	+18°35' 1.7"	5.0025 aE	5.9957 aE	10.46°	-2.0\	169°	-20°	32.8"	--:--	----	--	05:06	12:42	+58°	20:15 TAU
Di 29. 5.2012	0:00	3h38' 5.2"	+18°38'20.0"	5.0027 aE	5.9932 aE	11.18°	-2.0\	170°	-20°	32.9"	--:--	----	--	05:03	12:39	+58°	20:12 TAU
Mi 30. 5.2012	0:00	3h39' 2.8"	+18°41'36.8"	5.0030 aE	5.9905 aE	11.91°	-2.0\	171°	-20°	32.9"	--:--	----	--	05:00	12:36	+58°	20:10 TAU
Do 31. 5.2012	0:00	3h40' 0.4"	+18°44'52.0"	5.0032 aE	5.9877 aE	12.63°	-2.0\	172°	-20°	32.9"	--:--	----	--	04:56	12:33	+58°	20:07 TAU
Fr 1. 6.2012	0:00	3h40'58.0"	+18°48' 5.7"	5.0034 aE	5.9846 aE	13.35°	-2.0\	172°	-20°	32.9"	--:--	----	--	04:53	12:30	+58°	20:05 TAU
Sa 2. 6.2012	0:00	3h41'55.5"	+18°51'17.9"	5.0037 aE	5.9813 aE	14.08°	-2.0\	173°	-20°	32.9"	--:--	----	--	04:50	12:27	+58°	20:02 TAU
So 3. 6.2012	0:00	3h42'52.9"	+18°54'28.5"	5.0039 aE	5.9779 aE	14.80°	-2.0\	174°	-20°	32.9"	--:--	----	--	04:46	12:24	+58°	19:59 TAU

Planetenephemeride für Jupiter im Zeitraum 1. 1.2012 - 31.12.2012

Berechnet für den Standort Boden (50.5° N, 7.9° O)

Die TOpt bezieht sich auf eine Sonnenhöhe von -16°

Datum	RA (2000.0)	Dek(2000.0)	r	Entferng.	Elong.	Hell	Azim	Höhe	Diam.	TOpt.	THoe.	TRi.	Aufg.	Kulm.	KHöh	Untg.	Stb.
Mo 4. 6.2012	0:00	3h43'50.3"	+18°57'37.5"	5.0042	aE 5.9743	aE 15.52°	-2.0/ 175°	-20°	33.0"	--:--	----°	--	04:43	12:21	+59°	19:57	TAU
Di 5. 6.2012	0:00	3h44'47.6"	+19° 0'45.0"	5.0044	aE 5.9704	aE 16.25°	-2.0/ 175°	-20°	33.0"	--:--	----°	--	04:40	12:18	+59°	19:54	TAU
Mi 6. 6.2012	0:00	3h45'44.8"	+19° 3'50.9"	5.0046	aE 5.9664	aE 16.97°	-2.0/ 176°	-20°	33.0"	--:--	----°	--	04:37	12:15	+59°	19:51	TAU
Do 7. 6.2012	0:00	3h46'41.9"	+19° 6'55.2"	5.0049	aE 5.9622	aE 17.70°	-2.0/ 177°	-20°	33.0"	04:33	+ 0°	NO	04:33	12:12	+59°	19:49	TAU
Fr 8. 6.2012	0:00	3h47'39.0"	+19° 9'57.9"	5.0051	aE 5.9578	aE 18.42°	-2.0/ 178°	-20°	33.1"	04:33	+ 1°	NO	04:30	12:09	+59°	19:46	TAU
Sa 9. 6.2012	0:00	3h48'35.9"	+19°12'59.0"	5.0054	aE 5.9533	aE 19.15°	-2.0/ 178°	-20°	33.1"	04:32	+ 1°	NO	04:27	12:06	+59°	19:43	TAU
So 10. 6.2012	0:00	3h49'32.8"	+19°15'58.4"	5.0056	aE 5.9485	aE 19.87°	-2.0/ 179°	-20°	33.1"	04:32	+ 1°	NO	04:23	12:03	+59°	19:41	TAU
Mo 11. 6.2012	0:00	3h50'29.6"	+19°18'56.2"	5.0059	aE 5.9435	aE 20.60°	-2.0/ 180°	-20°	33.1"	04:31	+ 2°	NO	04:20	12:00	+59°	19:38	TAU
Di 12. 6.2012	0:00	3h51'26.3"	+19°21'52.4"	5.0061	aE 5.9384	aE 21.33°	-2.0/ 181°	-20°	33.2"	04:31	+ 2°	NO	04:17	11:57	+59°	19:35	TAU
Mi 13. 6.2012	0:00	3h52'22.8"	+19°24'46.8"	5.0063	aE 5.9331	aE 22.06°	-2.0/ 181°	-20°	33.2"	04:31	+ 3°	NO	04:14	11:54	+59°	19:33	TAU
Do 14. 6.2012	0:00	3h53'19.3"	+19°27'39.7"	5.0066	aE 5.9276	aE 22.78°	-2.0/ 182°	-20°	33.2"	04:31	+ 3°	NO	04:10	11:51	+59°	19:30	TAU
Fr 15. 6.2012	0:00	3h54'15.6"	+19°30'30.8"	5.0068	aE 5.9219	aE 23.51°	-2.0/ 183°	-20°	33.3"	04:30	+ 3°	NO	04:07	11:48	+59°	19:27	TAU
Sa 16. 6.2012	0:00	3h55'11.8"	+19°33'20.2"	5.0071	aE 5.9160	aE 24.24°	-2.0/ 184°	-20°	33.3"	04:30	+ 4°	NO	04:04	11:45	+59°	19:25	TAU
So 17. 6.2012	0:00	3h56' 7.9"	+19°36' 8.0"	5.0073	aE 5.9099	aE 24.97°	-2.0/ 184°	-20°	33.3"	04:30	+ 4°	NO	04:01	11:42	+59°	19:22	TAU
Mo 18. 6.2012	0:00	3h57' 3.8"	+19°38'54.0"	5.0076	aE 5.9037	aE 25.70°	-2.0/ 185°	-20°	33.4"	04:30	+ 5°	NO	03:57	11:39	+59°	19:19	TAU
Di 19. 6.2012	0:00	3h57'59.6"	+19°41'38.3"	5.0078	aE 5.8973	aE 26.43°	-2.0/ 186°	-20°	33.4"	04:30	+ 5°	NO	03:54	11:36	+59°	19:16	TAU
Mi 20. 6.2012	0:00	3h58'55.2"	+19°44'20.9"	5.0081	aE 5.8907	aE 27.16°	-2.0/ 187°	-20°	33.4"	04:31	+ 6°	NO	03:51	11:33	+59°	19:13	TAU
Do 21. 6.2012	0:00	3h59'50.7"	+19°47' 1.8"	5.0083	aE 5.8839	aE 27.90°	-2.0/ 187°	-19°	33.5"	04:31	+ 6°	NO	03:48	11:30	+59°	19:11	TAU
Fr 22. 6.2012	0:00	4h 0'46.0"	+19°49'40.9"	5.0086	aE 5.8769	aE 28.63°	-2.0/ 188°	-19°	33.5"	04:31	+ 7°	NO	03:44	11:27	+59°	19:08	TAU
Sa 23. 6.2012	0:00	4h 1'41.1"	+19°52'18.2"	5.0088	aE 5.8698	aE 29.36°	-2.0/ 189°	-19°	33.6"	04:31	+ 7°	O	03:41	11:24	+59°	19:05	TAU
So 24. 6.2012	0:00	4h 2'36.1"	+19°54'53.9"	5.0091	aE 5.8625	aE 30.10°	-2.0/ 190°	-19°	33.6"	04:32	+ 8°	O	03:38	11:21	+59°	19:02	TAU
Mo 25. 6.2012	0:00	4h 3'30.9"	+19°57'27.7"	5.0093	aE 5.8550	aE 30.83°	-2.0/ 190°	-19°	33.6"	04:32	+ 8°	O	03:35	11:18	+60°	19:00	TAU
Di 26. 6.2012	0:00	4h 4'25.5"	+19°59'59.8"	5.0095	aE 5.8473	aE 31.57°	-2.0/ 191°	-19°	33.7"	04:33	+ 9°	O	03:31	11:15	+60°	18:57	TAU
Mi 27. 6.2012	0:00	4h 5'19.8"	+20° 2'30.1"	5.0098	aE 5.8395	aE 32.30°	-2.0/ 192°	-19°	33.7"	04:33	+ 9°	O	03:28	11:12	+60°	18:54	TAU
Do 28. 6.2012	0:00	4h 6'14.0"	+20° 4'58.7"	5.0100	aE 5.8315	aE 33.04°	-2.0/ 193°	-19°	33.8"	04:34	+10°	O	03:25	11:09	+60°	18:51	TAU
Fr 29. 6.2012	0:00	4h 7' 8.0"	+20° 7'25.5"	5.0103	aE 5.8233	aE 33.78°	-2.0/ 193°	-18°	33.8"	04:34	+11°	O	03:21	11:06	+60°	18:48	TAU
Sa 30. 6.2012	0:00	4h 8' 1.8"	+20° 9'50.5"	5.0105	aE 5.8150	aE 34.52°	-2.0/ 194°	-18°	33.9"	04:35	+11°	O	03:18	11:03	+60°	18:45	TAU
So 1. 7.2012	0:00	4h 8'55.4"	+20°12'13.7"	5.0108	aE 5.8065	aE 35.26°	-2.0/ 195°	-18°	33.9"	04:36	+12°	O	03:15	11:00	+60°	18:43	TAU
Mo 2. 7.2012	0:00	4h 9'48.7"	+20°14'35.2"	5.0111	aE 5.7978	aE 36.00°	-2.0/ 196°	-18°	34.0"	04:37	+13°	O	03:11	10:57	+60°	18:40	TAU
Di 3. 7.2012	0:00	4h10'41.9"	+20°16'54.9"	5.0113	aE 5.7890	aE 36.74°	-2.1/ 196°	-18°	34.0"	04:37	+13°	O	03:08	10:54	+60°	18:37	TAU
Mi 4. 7.2012	0:00	4h11'34.8"	+20°19'12.8"	5.0116	aE 5.7800	aE 37.48°	-2.1/ 197°	-18°	34.1"	04:38	+14°	O	03:05	10:51	+60°	18:34	TAU
Do 5. 7.2012	0:00	4h12'27.4"	+20°21'28.9"	5.0118	aE 5.7709	aE 38.23°	-2.1/ 198°	-17°	34.1"	04:39	+14°	O	03:02	10:47	+60°	18:31	TAU
Fr 6. 7.2012	0:00	4h13'19.8"	+20°23'43.3"	5.0121	aE 5.7616	aE 38.97°	-2.1/ 198°	-17°	34.2"	04:40	+15°	O	02:58	10:44	+60°	18:28	TAU
Sa 7. 7.2012	0:00	4h14'12.0"	+20°25'55.8"	5.0123	aE 5.7521	aE 39.72°	-2.1/ 199°	-17°	34.2"	04:41	+16°	O	02:55	10:41	+60°	18:26	TAU
So 8. 7.2012	0:00	4h15' 3.9"	+20°28' 6.6"	5.0126	aE 5.7425	aE 40.46°	-2.1/ 200°	-17°	34.3"	04:42	+16°	O	02:52	10:38	+60°	18:23	TAU
Mo 9. 7.2012	0:00	4h15'55.6"	+20°30'15.6"	5.0128	aE 5.7327	aE 41.21°	-2.1/ 201°	-17°	34.4"	04:44	+17°	O	02:48	10:35	+60°	18:20	TAU
Di 10. 7.2012	0:00	4h16'47.0"	+20°32'22.8"	5.0131	aE 5.7228	aE 41.96°	-2.1/ 201°	-16°	34.4"	04:45	+18°	O	02:45	10:32	+60°	18:17	TAU
Mi 11. 7.2012	0:00	4h17'38.1"	+20°34'28.3"	5.0133	aE 5.7127	aE 42.71°	-2.1/ 202°	-16°	34.5"	04:46	+18°	O	02:42	10:29	+60°	18:14	TAU
Do 12. 7.2012	0:00	4h18'28.9"	+20°36'32.0"	5.0136	aE 5.7025	aE 43.46°	-2.1/ 203°	-16°	34.5"	04:47	+19°	O	02:38	10:26	+60°	18:11	TAU

Planetenephemeride für Jupiter im Zeitraum 1. 1.2012 - 31.12.2012

Berechnet für den Standort Boden (50.5° N, 7.9° O)

Die TOpt bezieht sich auf eine Sonnenhöhe von -16°

Datum	RA (2000.0)	Dek(2000.0)	r	Entferng.	Elong.	Hell	Azim	Höhe	Diam.	TOpt.	THoe.	TRi.	Aufg.	Kulm.	KHöh	Untg.	Stb.
Fr 13. 7.2012	0:00	4h19'19.5"	+20°38'33.8"	5.0138	aE 5.6921	aE 44.22°	-2.1/ 204°	-16°	34.6"	04:48	+20°	O	02:35	10:23	+60°	18:08	TAU
Sa 14. 7.2012	0:00	4h20' 9.8"	+20°40'33.9"	5.0141	aE 5.6815	aE 44.97°	-2.1/ 204°	-16°	34.7"	04:50	+21°	O	02:32	10:20	+60°	18:06	TAU
So 15. 7.2012	0:00	4h20'59.7"	+20°42'32.3"	5.0144	aE 5.6709	aE 45.73°	-2.1/ 205°	-15°	34.7"	04:51	+21°	O	02:28	10:17	+60°	18:03	TAU
Mo 16. 7.2012	0:00	4h21'49.4"	+20°44'28.8"	5.0146	aE 5.6600	aE 46.49°	-2.1/ 206°	-15°	34.8"	04:52	+22°	O	02:25	10:14	+60°	18:00	TAU
Di 17. 7.2012	0:00	4h22'38.7"	+20°46'23.6"	5.0149	aE 5.6490	aE 47.25°	-2.1/ 206°	-15°	34.9"	04:54	+23°	O	02:22	10:10	+60°	17:57	TAU
Mi 18. 7.2012	0:00	4h23'27.7"	+20°48'16.6"	5.0151	aE 5.6379	aE 48.01°	-2.1/ 207°	-15°	34.9"	04:55	+23°	O	02:18	10:07	+60°	17:54	TAU
Do 19. 7.2012	0:00	4h24'16.4"	+20°50' 7.8"	5.0154	aE 5.6267	aE 48.77°	-2.1/ 208°	-14°	35.0"	04:57	+24°	O	02:15	10:04	+60°	17:51	TAU
Fr 20. 7.2012	0:00	4h25' 4.8"	+20°51'57.3"	5.0157	aE 5.6153	aE 49.53°	-2.1/ 208°	-14°	35.1"	04:58	+25°	O	02:12	10:01	+60°	17:48	TAU
Sa 21. 7.2012	0:00	4h25'52.8"	+20°53'45.0"	5.0159	aE 5.6037	aE 50.30°	-2.1/ 209°	-14°	35.1"	04:59	+26°	O	02:08	09:58	+60°	17:45	TAU
So 22. 7.2012	0:00	4h26'40.4"	+20°55'30.9"	5.0162	aE 5.5921	aE 51.07°	-2.1/ 210°	-13°	35.2"	05:01	+26°	O	02:05	09:55	+60°	17:42	TAU
Mo 23. 7.2012	0:00	4h27'27.7"	+20°57'15.1"	5.0164	aE 5.5803	aE 51.83°	-2.1/ 211°	-13°	35.3"	05:03	+27°	O	02:02	09:52	+60°	17:40	TAU
Di 24. 7.2012	0:00	4h28'14.6"	+20°58'57.6"	5.0167	aE 5.5683	aE 52.60°	-2.1/ 211°	-13°	35.4"	05:04	+28°	O	01:59	09:48	+61°	17:37	TAU
Mi 25. 7.2012	0:00	4h29' 1.2"	+21° 0'38.2"	5.0170	aE 5.5563	aE 53.38°	-2.1/ 212°	-13°	35.4"	05:06	+29°	O	01:55	09:45	+61°	17:34	TAU
Do 26. 7.2012	0:00	4h29'47.3"	+21° 2'17.2"	5.0172	aE 5.5441	aE 54.15°	-2.1/ 213°	-12°	35.5"	05:07	+30°	O	01:52	09:42	+61°	17:31	TAU
Fr 27. 7.2012	0:00	4h30'33.1"	+21° 3'54.4"	5.0175	aE 5.5318	aE 54.93°	-2.1/ 213°	-12°	35.6"	05:09	+30°	O	01:49	09:39	+61°	17:28	TAU
Sa 28. 7.2012	0:00	4h31'18.5"	+21° 5'29.9"	5.0177	aE 5.5194	aE 55.70°	-2.1/ 214°	-12°	35.7"	05:10	+31°	O	01:45	09:36	+61°	17:24	TAU
So 29. 7.2012	0:00	4h32' 3.5"	+21° 7' 3.7"	5.0180	aE 5.5068	aE 56.48°	-2.1/ 215°	-11°	35.8"	05:12	+32°	O	01:42	09:33	+61°	17:21	TAU
Mo 30. 7.2012	0:00	4h32'48.1"	+21° 8'35.7"	5.0183	aE 5.4942	aE 57.26°	-2.1/ 215°	-11°	35.8"	05:14	+33°	O	01:39	09:29	+61°	17:18	TAU
Di 31. 7.2012	0:00	4h33'32.2"	+21°10' 6.1"	5.0185	aE 5.4814	aE 58.04°	-2.2/ 216°	-11°	35.9"	05:15	+33°	O	01:35	09:26	+61°	17:15	TAU
Mi 1. 8.2012	0:00	4h34'16.0"	+21°11'34.7"	5.0188	aE 5.4685	aE 58.83°	-2.2/ 217°	-10°	36.0"	05:17	+34°	O	01:32	09:23	+61°	17:12	TAU
Do 2. 8.2012	0:00	4h34'59.3"	+21°13' 1.7"	5.0191	aE 5.4555	aE 59.61°	-2.2/ 218°	-10°	36.1"	05:19	+35°	O	01:29	09:20	+61°	17:09	TAU
Fr 3. 8.2012	0:00	4h35'42.2"	+21°14'27.0"	5.0193	aE 5.4424	aE 60.40°	-2.2/ 218°	-10°	36.2"	05:20	+36°	O	01:25	09:16	+61°	17:06	TAU
Sa 4. 8.2012	0:00	4h36'24.6"	+21°15'50.6"	5.0196	aE 5.4292	aE 61.19°	-2.2/ 219°	- 9°	36.3"	05:22	+37°	O	01:22	09:13	+61°	17:03	TAU
So 5. 8.2012	0:00	4h37' 6.6"	+21°17'12.6"	5.0199	aE 5.4158	aE 61.99°	-2.2/ 220°	- 9°	36.4"	05:24	+37°	O	01:19	09:10	+61°	17:00	TAU
Mo 6. 8.2012	0:00	4h37'48.2"	+21°18'32.9"	5.0201	aE 5.4024	aE 62.78°	-2.2/ 220°	- 9°	36.5"	05:25	+38°	O	01:15	09:07	+61°	16:57	TAU
Di 7. 8.2012	0:00	4h38'29.2"	+21°19'51.5"	5.0204	aE 5.3889	aE 63.58°	-2.2/ 221°	- 8°	36.5"	05:27	+39°	O	01:12	09:04	+61°	16:53	TAU
Mi 8. 8.2012	0:00	4h39' 9.8"	+21°21' 8.5"	5.0207	aE 5.3753	aE 64.38°	-2.2/ 222°	- 8°	36.6"	05:29	+40°	O	01:08	09:00	+61°	16:50	TAU
Do 9. 8.2012	0:00	4h39'50.0"	+21°22'23.9"	5.0209	aE 5.3616	aE 65.18°	-2.2/ 222°	- 8°	36.7"	05:30	+40°	O	01:05	08:57	+61°	16:47	TAU
Fr 10. 8.2012	0:00	4h40'29.6"	+21°23'37.6"	5.0212	aE 5.3477	aE 65.98°	-2.2/ 223°	- 7°	36.8"	05:32	+41°	O	01:01	08:54	+61°	16:44	TAU
Sa 11. 8.2012	0:00	4h41' 8.8"	+21°24'49.7"	5.0215	aE 5.3338	aE 66.79°	-2.2/ 224°	- 7°	36.9"	05:34	+42°	O	00:58	08:50	+61°	16:41	TAU
So 12. 8.2012	0:00	4h41'47.4"	+21°26' 0.2"	5.0217	aE 5.3199	aE 67.60°	-2.2/ 224°	- 7°	37.0"	05:35	+43°	O	00:55	08:47	+61°	16:38	TAU
Mo 13. 8.2012	0:00	4h42'25.5"	+21°27' 9.1"	5.0220	aE 5.3058	aE 68.41°	-2.2/ 225°	- 6°	37.1"	05:37	+44°	O	00:51	08:44	+61°	16:34	TAU
Di 14. 8.2012	0:00	4h43' 3.1"	+21°28'16.5"	5.0223	aE 5.2916	aE 69.22°	-2.2/ 226°	- 6°	37.2"	05:39	+44°	SO	00:48	08:41	+61°	16:31	TAU
Mi 15. 8.2012	0:00	4h43'40.2"	+21°29'22.2"	5.0225	aE 5.2774	aE 70.04°	-2.2/ 226°	- 5°	37.3"	05:40	+45°	SO	00:44	08:37	+61°	16:28	TAU
Do 16. 8.2012	0:00	4h44'16.7"	+21°30'26.4"	5.0228	aE 5.2630	aE 70.85°	-2.2/ 227°	- 5°	37.4"	05:42	+46°	SO	00:41	08:34	+61°	16:25	TAU
Fr 17. 8.2012	0:00	4h44'52.7"	+21°31'29.0"	5.0231	aE 5.2487	aE 71.67°	-2.2/ 228°	- 5°	37.5"	05:44	+47°	SO	00:37	08:31	+61°	16:21	TAU
Sa 18. 8.2012	0:00	4h45'28.1"	+21°32'30.0"	5.0233	aE 5.2342	aE 72.50°	-2.2/ 228°	- 4°	37.6"	05:45	+47°	SO	00:34	08:27	+61°	16:18	TAU
So 19. 8.2012	0:00	4h46' 3.0"	+21°33'29.6"	5.0236	aE 5.2196	aE 73.32°	-2.3/ 229°	- 4°	37.7"	05:47	+48°	SO	00:30	08:24	+61°	16:15	TAU
Mo 20. 8.2012	0:00	4h46'37.3"	+21°34'27.5"	5.0239	aE 5.2050	aE 74.15°	-2.3/ 230°	- 3°	37.8"	05:49	+49°	SO	00:27	08:20	+61°	16:12	TAU

Planetenephemeride für Jupiter im Zeitraum 1. 1.2012 - 31.12.2012

Berechnet für den Standort Boden (50.5° N, 7.9° O)

Die TOpt bezieht sich auf eine Sonnenhöhe von -16°

Datum	RA (2000.0)	Dek(2000.0)	r	Entferng.	Elong.	Hell	Azim	Höhe	Diam.	TOpt.	THoe.	TRi.	Aufg.	Kulm.	KHöh	Untg.	Stb.
Di 21. 8.2012	0:00	4h47'11.0"	+21°35'24.0"	5.0242	aE 5.1904	aE 74.98°	-2.3/ 230°	- 3°	37.9"	05:51	+50°	SO	00:23	08:17	+61°	16:08	TAU
Mi 22. 8.2012	0:00	4h47'44.1"	+21°36'18.9"	5.0244	aE 5.1757	aE 75.82°	-2.3/ 231°	- 2°	38.1"	05:52	+50°	SO	00:20	08:14	+61°	16:05	TAU
Do 23. 8.2012	0:00	4h48'16.6"	+21°37'12.4"	5.0247	aE 5.1609	aE 76.66°	-2.3/ 232°	- 2°	38.2"	05:54	+51°	SO	00:16	08:10	+61°	16:02	TAU
Fr 24. 8.2012	0:00	4h48'48.5"	+21°38' 4.3"	5.0250	aE 5.1460	aE 77.49°	-2.3/ 232°	- 2°	38.3"	05:56	+52°	SO	00:13	08:07	+61°	15:59	TAU
Sa 25. 8.2012	0:00	4h49'19.8"	+21°38'54.8"	5.0253	aE 5.1312	aE 78.34°	-2.3/ 233°	- 1°	38.4"	05:57	+52°	SO	00:09	08:03	+61°	15:55	TAU
So 26. 8.2012	0:00	4h49'50.4"	+21°39'43.8"	5.0255	aE 5.1162	aE 79.18°	-2.3/ 234°	- 1°	38.5"	05:59	+53°	SO	00:06	08:00	+61°	15:52	TAU
Mo 27. 8.2012	0:00	4h50'20.5"	+21°40'31.4"	5.0258	aE 5.1013	aE 80.03°	-2.3/ 234°	- 0°	38.6"	06:01	+53°	SO	00:03	07:57	+61°	15:49	TAU
Di 28. 8.2012	0:00	4h50'49.9"	+21°41'17.5"	5.0261	aE 5.0863	aE 80.88°	-2.3/ 235°	+ 0°	38.7"	06:02	+54°	SO	23:56	07:53	+61°	15:46	TAU
Mi 29. 8.2012	0:00	4h51'18.7"	+21°42' 2.2"	5.0264	aE 5.0712	aE 81.73°	-2.3/ 236°	+ 1°	38.8"	06:04	+55°	SO	23:52	07:50	+61°	15:42	TAU
Do 30. 8.2012	0:00	4h51'46.8"	+21°42'45.4"	5.0266	aE 5.0562	aE 82.59°	-2.3/ 236°	+ 1°	39.0"	06:05	+55°	SO	23:49	07:46	+61°	15:39	TAU
Fr 31. 8.2012	0:00	4h52'14.2"	+21°43'27.2"	5.0269	aE 5.0411	aE 83.45°	-2.3/ 237°	+ 2°	39.1"	06:07	+56°	SO	23:45	07:43	+61°	15:35	TAU
Sa 1. 9.2012	0:00	4h52'41.1"	+21°44' 7.7"	5.0272	aE 5.0259	aE 84.31°	-2.3/ 238°	+ 2°	39.2"	06:09	+56°	SO	23:42	07:39	+61°	15:32	TAU
So 2. 9.2012	0:00	4h53' 7.2"	+21°44'46.7"	5.0275	aE 5.0108	aE 85.18°	-2.3/ 238°	+ 3°	39.3"	06:10	+57°	SO	23:38	07:36	+61°	15:29	TAU
Mo 3. 9.2012	0:00	4h53'32.6"	+21°45'24.4"	5.0277	aE 4.9956	aE 86.05°	-2.3/ 239°	+ 3°	39.4"	06:12	+57°	SO	23:34	07:32	+61°	15:25	TAU
Di 4. 9.2012	0:00	4h53'57.4"	+21°46' 0.6"	5.0280	aE 4.9804	aE 86.92°	-2.3/ 239°	+ 4°	39.5"	06:14	+58°	SO	23:31	07:29	+61°	15:22	TAU
Mi 5. 9.2012	0:00	4h54'21.5"	+21°46'35.6"	5.0283	aE 4.9652	aE 87.79°	-2.4/ 240°	+ 4°	39.7"	06:15	+58°	SO	23:27	07:25	+61°	15:18	TAU
Do 6. 9.2012	0:00	4h54'44.9"	+21°47' 9.1"	5.0286	aE 4.9500	aE 88.67°	-2.4/ 241°	+ 5°	39.8"	06:17	+59°	SO	23:24	07:22	+61°	15:15	TAU
Fr 7. 9.2012	0:00	4h55' 7.5"	+21°47'41.3"	5.0288	aE 4.9347	aE 89.55°	-2.4/ 241°	+ 5°	39.9"	06:18	+59°	SO	23:20	07:18	+61°	15:11	TAU
Sa 8. 9.2012	0:00	4h55'29.4"	+21°48'12.2"	5.0291	aE 4.9195	aE 90.44°	-2.4/ 242°	+ 6°	40.0"	06:20	+59°	SO	23:16	07:15	+61°	15:07	TAU
So 9. 9.2012	0:00	4h55'50.7"	+21°48'41.8"	5.0294	aE 4.9043	aE 91.33°	-2.4/ 243°	+ 6°	40.2"	06:22	+60°	S	23:13	07:11	+61°	15:04	TAU
Mo 10. 9.2012	0:00	4h56'11.1"	+21°49'10.0"	5.0297	aE 4.8890	aE 92.22°	-2.4/ 243°	+ 7°	40.3"	06:23	+60°	S	23:09	07:07	+61°	15:00	TAU
Di 11. 9.2012	0:00	4h56'30.9"	+21°49'36.9"	5.0300	aE 4.8738	aE 93.12°	-2.4/ 244°	+ 7°	40.4"	06:25	+60°	S	23:05	07:04	+61°	14:57	TAU
Mi 12. 9.2012	0:00	4h56'49.8"	+21°50' 2.6"	5.0302	aE 4.8586	aE 94.01°	-2.4/ 245°	+ 8°	40.5"	06:26	+61°	S	23:01	07:00	+61°	14:53	TAU
Do 13. 9.2012	0:00	4h57' 8.0"	+21°50'26.9"	5.0305	aE 4.8434	aE 94.92°	-2.4/ 245°	+ 8°	40.7"	06:28	+61°	S	22:58	06:56	+61°	14:49	TAU
Fr 14. 9.2012	0:00	4h57'25.5"	+21°50'50.0"	5.0308	aE 4.8282	aE 95.82°	-2.4/ 246°	+ 9°	40.8"	06:30	+61°	S	22:54	06:53	+61°	14:46	TAU
Sa 15. 9.2012	0:00	4h57'42.1"	+21°51'11.8"	5.0311	aE 4.8131	aE 96.73°	-2.4/ 247°	+ 9°	40.9"	06:31	+61°	S	22:50	06:49	+61°	14:42	TAU
So 16. 9.2012	0:00	4h57'58.0"	+21°51'32.3"	5.0314	aE 4.7980	aE 97.65°	-2.4/ 247°	+10°	41.0"	06:33	+61°	S	22:46	06:45	+61°	14:38	TAU
Mo 17. 9.2012	0:00	4h58'13.1"	+21°51'51.6"	5.0316	aE 4.7829	aE 98.56°	-2.4/ 248°	+10°	41.2"	06:34	+61°	S	22:43	06:42	+61°	14:35	TAU
Di 18. 9.2012	0:00	4h58'27.4"	+21°52' 9.6"	5.0319	aE 4.7678	aE 99.48°	-2.4/ 249°	+11°	41.3"	06:36	+61°	S	22:39	06:38	+61°	14:31	TAU
Mi 19. 9.2012	0:00	4h58'40.9"	+21°52'26.3"	5.0322	aE 4.7528	aE 100.41°	-2.4/ 249°	+11°	41.4"	06:33	+61°	S	22:35	06:34	+61°	14:27	TAU
Do 20. 9.2012	0:00	4h58'53.6"	+21°52'41.8"	5.0325	aE 4.7379	aE 101.34°	-2.5/ 250°	+12°	41.6"	06:30	+61°	S	22:31	06:31	+61°	14:24	TAU
Fr 21. 9.2012	0:00	4h59' 5.5"	+21°52'56.1"	5.0328	aE 4.7229	aE 102.27°	-2.5/ 251°	+13°	41.7"	06:26	+61°	S	22:28	06:27	+61°	14:20	TAU
Sa 22. 9.2012	0:00	4h59'16.5"	+21°53' 9.2"	5.0331	aE 4.7081	aE 103.20°	-2.5/ 251°	+13°	41.8"	06:22	+61°	S	22:24	06:23	+61°	14:16	TAU
So 23. 9.2012	0:00	4h59'26.7"	+21°53'21.0"	5.0333	aE 4.6933	aE 104.14°	-2.5/ 252°	+14°	42.0"	06:18	+61°	S	22:20	06:19	+61°	14:13	TAU
Mo 24. 9.2012	0:00	4h59'36.2"	+21°53'31.7"	5.0336	aE 4.6786	aE 105.08°	-2.5/ 253°	+14°	42.1"	06:15	+61°	S	22:16	06:16	+61°	14:09	TAU
Di 25. 9.2012	0:00	4h59'44.7"	+21°53'41.1"	5.0339	aE 4.6639	aE 106.03°	-2.5/ 254°	+15°	42.2"	06:11	+61°	S	22:12	06:12	+61°	14:05	TAU
Mi 26. 9.2012	0:00	4h59'52.5"	+21°53'49.3"	5.0342	aE 4.6493	aE 106.98°	-2.5/ 254°	+15°	42.4"	06:07	+61°	S	22:09	06:08	+61°	14:01	TAU
Do 27. 9.2012	0:00	4h59'59.4"	+21°53'56.4"	5.0345	aE 4.6348	aE 107.93°	-2.5/ 255°	+16°	42.5"	06:03	+61°	S	22:05	06:04	+61°	13:58	TAU
Fr 28. 9.2012	0:00	5h 0' 5.5"	+21°54' 2.2"	5.0348	aE 4.6204	aE 108.89°	-2.5/ 256°	+17°	42.6"	05:59	+61°	S	22:01	06:00	+61°	13:54	TAU

Planetenephemeride für Jupiter im Zeitraum 1.1.2012 - 31.12.2012

Berechnet für den Standort Boden (50.5° N, 7.9° O)

Die TOpt bezieht sich auf eine Sonnenhöhe von -16°

Datum	RA (2000.0)	Dek(2000.0)	r	Entferng.	Elong.	Hell	Azim	Höhe	Diam.	TOpt.	THoe.	TRi.	Aufg.	Kulm.	KHöh	Untg.	Stb.
Sa 29. 9.2012	0:00 5h 0'10.7"	+21°54' 6.9"	5.0351	aE 4.6060	aE 109.85°	-2.5/	256°	+17°	42.8"	05:56	+61°	S	21:57	05:57	+61°	13:50	TAU
So 30. 9.2012	0:00 5h 0'15.1"	+21°54'10.3"	5.0354	aE 4.5918	aE 110.82°	-2.5/	257°	+18°	42.9"	05:52	+61°	S	21:54	05:53	+61°	13:46	TAU
Mo 1.10.2012	0:00 5h 0'18.6"	+21°54'12.6"	5.0356	aE 4.5776	aE 111.78°	-2.5/	258°	+18°	43.0"	05:48	+61°	S	21:50	05:49	+61°	13:42	TAU
Di 2.10.2012	0:00 5h 0'21.3"	+21°54'13.7"	5.0359	aE 4.5635	aE 112.76°	-2.5/	258°	+19°	43.2"	05:44	+61°	S	21:46	05:45	+61°	13:38	TAU
Mi 3.10.2012	0:00 5h 0'23.1"	+21°54'13.6"	5.0362	aE 4.5495	aE 113.73°	-2.5/	259°	+20°	43.3"	05:40	+61°	S	21:42	05:41	+61°	13:35	TAU
Do 4.10.2012	0:00 5h 0'24.1"	+21°54'12.4"	5.0365	aE 4.5357	aE 114.71°	-2.6/	260°	+20°	43.4"	05:36	+61°	S	21:38	05:37	+61°	13:31	TAU
Fr 5.10.2012	0:00 5h 0'24.2"	+21°54'10.0"	5.0368	aE 4.5219	aE 115.70°	-2.6/	261°	+21°	43.6"	05:32	+61°	S	21:34	05:33	+61°	13:27	TAU
Sa 6.10.2012	0:00 5h 0'23.5"	+21°54' 6.4"	5.0371	aE 4.5083	aE 116.69°	-2.6/	261°	+22°	43.7"	05:28	+61°	S	21:30	05:29	+61°	13:23	TAU
So 7.10.2012	0:00 5h 0'21.8"	+21°54' 1.7"	5.0374	aE 4.4948	aE 117.68°	-2.6/	262°	+22°	43.8"	05:24	+61°	S	21:26	05:25	+61°	13:19	TAU
Mo 8.10.2012	0:00 5h 0'19.3"	+21°53'55.8"	5.0377	aE 4.4814	aE 118.68°	-2.6/	263°	+23°	43.9"	05:20	+61°	S	21:22	05:21	+61°	13:15	TAU
Di 9.10.2012	0:00 5h 0'16.0"	+21°53'48.7"	5.0379	aE 4.4681	aE 119.68°	-2.6/	263°	+23°	44.1"	05:16	+61°	S	21:18	05:17	+61°	13:11	TAU
Mi 10.10.2012	0:00 5h 0'11.8"	+21°53'40.4"	5.0382	aE 4.4550	aE 120.68°	-2.6/	264°	+24°	44.2"	05:12	+61°	S	21:14	05:13	+61°	13:07	TAU
Do 11.10.2012	0:00 5h 0' 6.6"	+21°53'31.0"	5.0385	aE 4.4420	aE 121.69°	-2.6/	265°	+25°	44.3"	05:08	+61°	S	21:10	05:09	+61°	13:02	TAU
Fr 12.10.2012	0:00 5h 0' 0.7"	+21°53'20.5"	5.0388	aE 4.4292	aE 122.70°	-2.6/	266°	+25°	44.5"	05:04	+61°	S	21:06	05:05	+61°	12:58	TAU
Sa 13.10.2012	0:00 4h59'53.8"	+21°53' 8.8"	5.0391	aE 4.4165	aE 123.72°	-2.6/	266°	+26°	44.6"	05:00	+61°	S	21:02	05:01	+61°	12:54	TAU
So 14.10.2012	0:00 4h59'46.1"	+21°52'55.9"	5.0394	aE 4.4039	aE 124.74°	-2.6/	267°	+27°	44.7"	04:56	+61°	S	20:58	04:57	+61°	12:50	TAU
Mo 15.10.2012	0:00 4h59'37.6"	+21°52'41.8"	5.0397	aE 4.3916	aE 125.76°	-2.6/	268°	+27°	44.8"	04:52	+61°	S	20:54	04:53	+61°	12:46	TAU
Di 16.10.2012	0:00 4h59'28.1"	+21°52'26.6"	5.0400	aE 4.3793	aE 126.79°	-2.6/	269°	+28°	45.0"	04:48	+61°	S	20:50	04:49	+61°	12:42	TAU
Mi 17.10.2012	0:00 4h59'17.9"	+21°52'10.2"	5.0403	aE 4.3673	aE 127.82°	-2.6/	270°	+29°	45.1"	04:44	+61°	S	20:46	04:45	+61°	12:38	TAU
Do 18.10.2012	0:00 4h59' 6.7"	+21°51'52.6"	5.0406	aE 4.3554	aE 128.86°	-2.6/	270°	+29°	45.2"	04:40	+61°	S	20:41	04:41	+61°	12:33	TAU
Fr 19.10.2012	0:00 4h58'54.7"	+21°51'33.9"	5.0409	aE 4.3437	aE 129.90°	-2.7/	271°	+30°	45.3"	04:36	+61°	S	20:37	04:37	+61°	12:29	TAU
Sa 20.10.2012	0:00 4h58'41.9"	+21°51'14.1"	5.0412	aE 4.3322	aE 130.94°	-2.7/	272°	+31°	45.5"	04:31	+61°	S	20:33	04:32	+61°	12:25	TAU
So 21.10.2012	0:00 4h58'28.3"	+21°50'53.0"	5.0415	aE 4.3209	aE 131.99°	-2.7/	273°	+31°	45.6"	04:27	+61°	S	20:29	04:28	+61°	12:21	TAU
Mo 22.10.2012	0:00 4h58'13.8"	+21°50'30.8"	5.0418	aE 4.3098	aE 133.04°	-2.7/	274°	+32°	45.7"	04:23	+61°	S	20:25	04:24	+61°	12:17	TAU
Di 23.10.2012	0:00 4h57'58.5"	+21°50' 7.5"	5.0420	aE 4.2989	aE 134.10°	-2.7/	275°	+33°	45.8"	04:19	+61°	S	20:21	04:20	+61°	12:12	TAU
Mi 24.10.2012	0:00 4h57'42.5"	+21°49'43.0"	5.0423	aE 4.2882	aE 135.15°	-2.7/	275°	+33°	45.9"	04:15	+61°	S	20:17	04:16	+61°	12:08	TAU
Do 25.10.2012	0:00 4h57'25.6"	+21°49'17.3"	5.0426	aE 4.2776	aE 136.22°	-2.7/	276°	+34°	46.0"	04:10	+61°	S	20:12	04:11	+61°	12:04	TAU
Fr 26.10.2012	0:00 4h57' 7.9"	+21°48'50.5"	5.0429	aE 4.2673	aE 137.28°	-2.7/	277°	+34°	46.2"	04:06	+61°	S	20:08	04:07	+61°	12:00	TAU
Sa 27.10.2012	0:00 4h56'49.5"	+21°48'22.6"	5.0432	aE 4.2572	aE 138.35°	-2.7/	278°	+35°	46.3"	04:02	+61°	S	20:04	04:03	+61°	11:56	TAU
So 28.10.2012	0:00 4h56'29.4"	+21°47'52.3"	5.0435	aE 4.2470	aE 139.47°	-2.7/	293°	+45°	46.4"	02:58	+61°	S	19:00	02:59	+61°	10:51	TAU
Mo 29.10.2012	0:00 4h56' 9.4"	+21°47'22.0"	5.0438	aE 4.2373	aE 140.54°	-2.7/	294°	+46°	46.5"	02:53	+61°	S	18:56	02:54	+61°	10:47	TAU
Di 30.10.2012	0:00 4h55'48.7"	+21°46'50.6"	5.0441	aE 4.2279	aE 141.62°	-2.7/	295°	+46°	46.6"	02:49	+61°	S	18:51	02:50	+61°	10:42	TAU
Mi 31.10.2012	0:00 4h55'27.2"	+21°46'18.0"	5.0444	aE 4.2187	aE 142.70°	-2.7/	296°	+47°	46.7"	02:45	+61°	S	18:47	02:46	+61°	10:38	TAU
Do 1.11.2012	0:00 4h55' 5.1"	+21°45'44.3"	5.0447	aE 4.2098	aE 143.79°	-2.7/	297°	+47°	46.8"	02:41	+61°	S	18:43	02:42	+61°	10:34	TAU
Fr 2.11.2012	0:00 4h54'42.2"	+21°45' 9.5"	5.0450	aE 4.2011	aE 144.88°	-2.7/	299°	+48°	46.9"	02:36	+61°	S	18:39	02:37	+61°	10:29	TAU
Sa 3.11.2012	0:00 4h54'18.6"	+21°44'33.5"	5.0453	aE 4.1926	aE 145.97°	-2.7/	300°	+49°	47.0"	02:32	+61°	S	18:34	02:33	+61°	10:25	TAU
So 4.11.2012	0:00 4h53'54.3"	+21°43'56.5"	5.0456	aE 4.1844	aE 147.07°	-2.7/	301°	+49°	47.1"	02:28	+61°	S	18:30	02:29	+61°	10:20	TAU
Mo 5.11.2012	0:00 4h53'29.4"	+21°43'18.3"	5.0459	aE 4.1764	aE 148.17°	-2.8/	302°	+50°	47.2"	02:23	+61°	S	18:26	02:24	+61°	10:16	TAU

Planetenephemeride für Jupiter im Zeitraum 1. 1.2012 - 31.12.2012

Berechnet für den Standort Boden (50.5° N, 7.9° O)

Die TOpt bezieht sich auf eine Sonnenhöhe von -16°

Datum	RA (2000.0)	Dek(2000.0)	r	Entferng.	Elong.	Hell	Azim	Höhe	Diam.	TOpt.	THoe.	TRi.	Aufg.	Kulm.	KHöh	Untg.	Stb.
Di 6.11.2012	0:00	4h53' 3.8"	+21°42'39.1"	5.0462	aE 4.1687	aE 149.27°	-2.8/ 304°	+50°	47.2"	02:19	+61°	S	18:21	02:20	+61°	10:12	TAU
Mi 7.11.2012	0:00	4h52'37.6"	+21°41'58.8"	5.0465	aE 4.1613	aE 150.37°	-2.8/ 305°	+51°	47.3"	02:15	+61°	S	18:17	02:16	+61°	10:07	TAU
Do 8.11.2012	0:00	4h52'10.8"	+21°41'17.4"	5.0468	aE 4.1541	aE 151.48°	-2.8/ 306°	+52°	47.4"	02:10	+61°	S	18:13	02:11	+61°	10:03	TAU
Fr 9.11.2012	0:00	4h51'43.3"	+21°40'35.0"	5.0471	aE 4.1472	aE 152.59°	-2.8/ 308°	+52°	47.5"	02:06	+61°	S	18:09	02:07	+61°	09:59	TAU
Sa 10.11.2012	0:00	4h51'15.3"	+21°39'51.5"	5.0474	aE 4.1405	aE 153.70°	-2.8/ 309°	+53°	47.6"	02:01	+61°	S	18:04	02:02	+61°	09:54	TAU
So 11.11.2012	0:00	4h50'46.7"	+21°39' 7.0"	5.0477	aE 4.1342	aE 154.82°	-2.8/ 311°	+53°	47.6"	01:57	+61°	S	18:00	01:58	+61°	09:50	TAU
Mo 12.11.2012	0:00	4h50'17.6"	+21°38'21.5"	5.0480	aE 4.1281	aE 155.94°	-2.8/ 312°	+54°	47.7"	01:53	+61°	S	17:56	01:54	+61°	09:45	TAU
Di 13.11.2012	0:00	4h49'48.0"	+21°37'35.0"	5.0483	aE 4.1223	aE 157.06°	-2.8/ 314°	+54°	47.8"	01:48	+61°	S	17:52	01:49	+61°	09:41	TAU
Mi 14.11.2012	0:00	4h49'17.8"	+21°36'47.5"	5.0486	aE 4.1167	aE 158.19°	-2.8/ 315°	+55°	47.8"	01:44	+61°	S	17:47	01:45	+61°	09:36	TAU
Do 15.11.2012	0:00	4h48'47.2"	+21°35'59.1"	5.0489	aE 4.1115	aE 159.31°	-2.8/ 317°	+55°	47.9"	01:39	+61°	S	17:43	01:40	+61°	09:32	TAU
Fr 16.11.2012	0:00	4h48'16.1"	+21°35' 9.7"	5.0492	aE 4.1065	aE 160.44°	-2.8/ 318°	+56°	48.0"	01:35	+61°	S	17:39	01:36	+61°	09:27	TAU
Sa 17.11.2012	0:00	4h47'44.6"	+21°34'19.5"	5.0495	aE 4.1019	aE 161.57°	-2.8/ 320°	+56°	48.0"	01:30	+61°	S	17:34	01:31	+61°	09:23	TAU
So 18.11.2012	0:00	4h47'12.7"	+21°33'28.3"	5.0499	aE 4.0975	aE 162.70°	-2.8/ 322°	+57°	48.1"	01:26	+61°	S	17:30	01:27	+61°	09:18	TAU
Mo 19.11.2012	0:00	4h46'40.5"	+21°32'36.4"	5.0502	aE 4.0935	aE 163.84°	-2.8/ 323°	+57°	48.1"	01:21	+61°	S	17:25	01:22	+61°	09:13	TAU
Di 20.11.2012	0:00	4h46' 7.8"	+21°31'43.6"	5.0505	aE 4.0897	aE 164.97°	-2.8/ 325°	+57°	48.2"	01:17	+61°	S	17:21	01:18	+61°	09:09	TAU
Mi 21.11.2012	0:00	4h45'34.9"	+21°30'50.1"	5.0508	aE 4.0862	aE 166.11°	-2.8/ 327°	+58°	48.2"	01:13	+61°	S	17:17	01:14	+61°	09:04	TAU
Do 22.11.2012	0:00	4h45' 1.6"	+21°29'55.8"	5.0511	aE 4.0831	aE 167.25°	-2.8/ 329°	+58°	48.2"	01:08	+61°	S	17:12	01:09	+61°	09:00	TAU
Fr 23.11.2012	0:00	4h44'28.1"	+21°29' 0.8"	5.0514	aE 4.0802	aE 168.38°	-2.8/ 331°	+58°	48.3"	01:04	+61°	S	17:08	01:05	+61°	08:55	TAU
Sa 24.11.2012	0:00	4h43'54.3"	+21°28' 5.1"	5.0517	aE 4.0777	aE 169.52°	-2.8/ 333°	+59°	48.3"	00:59	+61°	S	17:03	01:00	+61°	08:50	TAU
So 25.11.2012	0:00	4h43'20.3"	+21°27' 8.8"	5.0520	aE 4.0755	aE 170.66°	-2.8/ 335°	+59°	48.3"	00:55	+61°	S	16:59	00:56	+61°	08:46	TAU
Mo 26.11.2012	0:00	4h42'46.1"	+21°26'11.8"	5.0523	aE 4.0735	aE 171.80°	-2.8/ 337°	+59°	48.3"	00:50	+61°	S	16:54	00:51	+61°	08:41	TAU
Di 27.11.2012	0:00	4h42'11.7"	+21°25'14.4"	5.0526	aE 4.0719	aE 172.94°	-2.8/ 339°	+60°	48.4"	00:46	+61°	S	16:50	00:47	+61°	08:36	TAU
Mi 28.11.2012	0:00	4h41'37.2"	+21°24'16.4"	5.0529	aE 4.0706	aE 174.08°	-2.8/ 341°	+60°	48.4"	00:41	+61°	S	16:46	00:42	+61°	08:32	TAU
Do 29.11.2012	0:00	4h41' 2.5"	+21°23'17.9"	5.0532	aE 4.0696	aE 175.22°	-2.8/ 343°	+60°	48.4"	00:37	+61°	S	16:41	00:38	+61°	08:27	TAU
Fr 30.11.2012	0:00	4h40'27.8"	+21°22'19.0"	5.0535	aE 4.0690	aE 176.35°	-2.8/ 345°	+60°	48.4"	00:32	+61°	S	16:37	00:33	+61°	08:23	TAU
Sa 1.12.2012	0:00	4h39'52.9"	+21°21'19.7"	5.0538	aE 4.0686	aE 177.46°	-2.8/ 347°	+60°	48.4"	00:28	+61°	S	16:32	00:29	+61°	08:18	TAU
So 2.12.2012	0:00	4h39'18.1"	+21°20'20.1"	5.0541	aE 4.0685	aE 178.52°	-2.8/ 349°	+61°	48.4"	00:23	+61°	S	16:28	00:24	+61°	08:13	TAU
Mo 3.12.2012	0:00	4h38'43.2"	+21°19'20.3"	5.0544	aE 4.0688	aE 179.23°	-2.8/ 351°	+61°	48.4"	00:19	+61°	S	16:23	00:20	+61°	08:09	TAU
Di 4.12.2012	0:00	4h38' 8.3"	+21°18'20.1"	5.0548	aE 4.0694	aE 178.72°	-2.8\ 353°	+61°	48.4"	00:14	+61°	S	16:19	00:15	+61°	08:04	TAU
Mi 5.12.2012	0:00	4h37'33.4"	+21°17'19.8"	5.0551	aE 4.0703	aE 177.69°	-2.8\ 355°	+61°	48.4"	00:09	+61°	S	16:15	00:10	+61°	08:00	TAU
Do 6.12.2012	0:00	4h36'58.6"	+21°16'19.4"	5.0554	aE 4.0715	aE 176.59°	-2.8\ 358°	+61°	48.4"	00:05	+61°	S	16:10	00:06	+61°	07:55	TAU
Fr 7.12.2012	0:00	4h36'23.9"	+21°15'18.9"	5.0557	aE 4.0730	aE 175.46°	-2.8\ 360°	+61°	48.4"	00:00	+61°	S	16:06	23:57	+61°	07:51	TAU
Sa 8.12.2012	0:00	4h35'49.3"	+21°14'18.4"	5.0560	aE 4.0748	aE 174.32°	-2.8\ 2°	+61°	48.3"	00:00	+61°	S	16:02	23:52	+61°	07:46	TAU
So 9.12.2012	0:00	4h35'14.9"	+21°13'17.9"	5.0563	aE 4.0770	aE 173.18°	-2.8\ 4°	+61°	48.3"	23:47	+61°	S	15:57	23:48	+61°	07:42	TAU
Mo 10.12.2012	0:00	4h34'40.6"	+21°12'17.5"	5.0566	aE 4.0795	aE 172.03°	-2.8\ 6°	+61°	48.3"	23:42	+61°	S	15:53	23:43	+61°	07:37	TAU
Di 11.12.2012	0:00	4h34' 6.5"	+21°11'17.2"	5.0569	aE 4.0823	aE 170.89°	-2.8\ 8°	+61°	48.2"	23:38	+61°	S	15:49	23:39	+61°	07:32	TAU
Mi 12.12.2012	0:00	4h33'32.6"	+21°10'17.2"	5.0572	aE 4.0854	aE 169.74°	-2.8\ 10°	+60°	48.2"	23:33	+61°	S	15:44	23:34	+61°	07:28	TAU
Do 13.12.2012	0:00	4h32'59.0"	+21° 9'17.4"	5.0575	aE 4.0888	aE 168.59°	-2.8\ 13°	+60°	48.2"	23:29	+61°	S	15:40	23:30	+61°	07:23	TAU
Fr 14.12.2012	0:00	4h32'25.7"	+21° 8'18.0"	5.0579	aE 4.0925	aE 167.45°	-2.8\ 15°	+60°	48.1"	23:25	+61°	S	15:36	23:26	+61°	07:18	TAU

Planetenephemeride für Jupiter im Zeitraum 1. 1.2012 - 31.12.2012

Berechnet für den Standort Boden (50.5° N, 7.9° O)

Die TOpt bezieht sich auf eine Sonnenhöhe von -16°

Datum	RA (2000.0)	Dek(2000.0)	r	Entferng.	Elong.	Hell	Azim	Höhe	Diam.	TOpt.	THoe.	TRi.	Aufg.	Kulm.	KHöh	Untg.	Stb.
Sa 15.12.2012	0:00	4h31'52.7"	+21° 7'18.9"	5.0582	aE 4.0965	aE 166.30°	-2.8\	17°	+60°	48.1"	23:20	+61°	S	15:31	23:21	+61°	07:14 TAU
So 16.12.2012	0:00	4h31'19.9"	+21° 6'20.4"	5.0585	aE 4.1009	aE 165.16°	-2.8\	19°	+60°	48.0"	23:16	+61°	S	15:27	23:17	+61°	07:09 TAU
Mo 17.12.2012	0:00	4h30'47.6"	+21° 5'22.3"	5.0588	aE 4.1055	aE 164.02°	-2.8\	21°	+59°	48.0"	23:11	+61°	S	15:22	23:12	+61°	07:05 TAU
Di 18.12.2012	0:00	4h30'15.6"	+21° 4'24.9"	5.0591	aE 4.1104	aE 162.87°	-2.8\	23°	+59°	47.9"	23:07	+61°	S	15:18	23:08	+61°	07:00 TAU
Mi 19.12.2012	0:00	4h29'44.1"	+21° 3'28.1"	5.0594	aE 4.1157	aE 161.73°	-2.8\	25°	+59°	47.9"	23:02	+61°	S	15:14	23:03	+61°	06:55 TAU
Do 20.12.2012	0:00	4h29'12.9"	+21° 2'31.9"	5.0597	aE 4.1212	aE 160.59°	-2.8\	26°	+58°	47.8"	22:58	+61°	S	15:09	22:59	+61°	06:51 TAU
Fr 21.12.2012	0:00	4h28'42.3"	+21° 1'36.6"	5.0601	aE 4.1271	aE 159.46°	-2.8\	28°	+58°	47.7"	22:53	+61°	S	15:05	22:54	+61°	06:46 TAU
Sa 22.12.2012	0:00	4h28'12.1"	+21° 0'42.1"	5.0604	aE 4.1332	aE 158.32°	-2.8\	30°	+58°	47.6"	22:49	+61°	S	15:00	22:50	+61°	06:42 TAU
So 23.12.2012	0:00	4h27'42.3"	+20°59'48.5"	5.0607	aE 4.1396	aE 157.19°	-2.8\	32°	+57°	47.6"	22:45	+61°	S	14:56	22:46	+61°	06:37 TAU
Mo 24.12.2012	0:00	4h27'13.1"	+20°58'55.8"	5.0610	aE 4.1463	aE 156.05°	-2.8\	34°	+57°	47.5"	22:40	+60°	S	14:52	22:41	+60°	06:33 TAU
Di 25.12.2012	0:00	4h26'44.5"	+20°58' 4.1"	5.0613	aE 4.1533	aE 154.92°	-2.8\	35°	+57°	47.4"	22:36	+60°	S	14:47	22:37	+60°	06:28 TAU
Mi 26.12.2012	0:00	4h26'16.4"	+20°57'13.5"	5.0616	aE 4.1606	aE 153.80°	-2.8\	37°	+56°	47.3"	22:31	+60°	S	14:43	22:32	+60°	06:24 TAU
Do 27.12.2012	0:00	4h25'48.8"	+20°56'24.0"	5.0619	aE 4.1681	aE 152.67°	-2.8\	39°	+56°	47.2"	22:27	+60°	S	14:39	22:28	+60°	06:19 TAU
Fr 28.12.2012	0:00	4h25'21.9"	+20°55'35.7"	5.0623	aE 4.1759	aE 151.55°	-2.7\	40°	+55°	47.2"	22:23	+60°	S	14:34	22:24	+60°	06:15 TAU
Sa 29.12.2012	0:00	4h24'55.5"	+20°54'48.6"	5.0626	aE 4.1840	aE 150.42°	-2.7\	42°	+55°	47.1"	22:18	+60°	S	14:30	22:19	+60°	06:10 TAU
So 30.12.2012	0:00	4h24'29.8"	+20°54' 2.8"	5.0629	aE 4.1924	aE 149.30°	-2.7\	44°	+54°	47.0"	22:14	+60°	S	14:26	22:15	+60°	06:06 TAU
Mo 31.12.2012	0:00	4h24' 4.7"	+20°53'18.3"	5.0632	aE 4.2010	aE 148.19°	-2.7\	45°	+54°	46.9"	22:10	+60°	S	14:22	22:11	+60°	06:02 TAU

Legende:

- Eine Zeile in dieser Farbe signalisiert eine optimale Beobachtbarkeit in über 10° Höhe
- Eine Zeile in dieser Farbe signalisiert eine optimale Beobachtbarkeit in unter 10° Höhe
- Eine Zeile in dieser Farbe signalisiert eine Unbeobachtbarkeit des Jupiter

- Datum = Berechnungsdatum und -Uhrzeit
- RA (2000.0) = Rektaszension zum Berechnungszeitpunkt (Äquinoktium 2000.0)
- Dek.(2000.0) = Deklination zum Berechnungszeitpunkt (Äquinoktium 2000.0)
- r = Abstand Sonne - Jupiter zum Berechnungszeitpunkt
- Entferng. = Abstand Erde - Jupiter zum Berechnungszeitpunkt
- Elong. = Elongation des Jupiter zum Berechnungszeitpunkt
- Hell. = Helligkeit des Jupiter zum Berechnungszeitpunkt
- Azim = Azimut des Jupiter zum Berechnungszeitpunkt
- Höhe = Höhe des Jupiter zum Berechnungszeitpunkt
- Diam. = Helligkeit des Jupiter zum Berechnungszeitpunkt
- TOpt. = Optimalster Beobachtungszeitpunkt
- TOptH. = Höhe des Jupiter zum optimalsten Beobachtungszeitpunkt
- TRi. = Azimut des Jupiter zum optimalsten Beobachtungszeitpunkt
- Aufg. = Jupiteraufgang
- Kulm. = Kulmination des Jupiter
- KHöh = Höhe des Jupiter zum Kulminationszeitpunkt
- Untg. = Jupiteruntergang
- Stb. = Sternbild zur berechneten Position