

## Aufgang/Untergang

### Datum/Standort

Datum: 01-01-2010  
 Zeitraum: 1 Jahr  
 Br.: 4°20'41"N  
 Län.: 86°38'41"O

### Objekt

Planet:  
 Merkur

Datum	Aufgang		Meridiandurchgang		Untergang		Sonne		Mond	
	Ortszeit	Azm	Ortszeit	Höhe	Ortszeit	Azm	Aufgang	Untergang	Aufgang	Untergang
01-01-2010	08:47	122°25' 40"	13:03	+19°08' 07"	17:19	237°40' 22"	08:31	16:32	17:37	09:01
02-01-2010	08:38	122°09' 28"	12:54	+19°17' 08"	17:10	237°55' 40"	08:31	16:34	19:06	09:34
03-01-2010	08:28	121°55' 51"	12:45	+19°24' 42"	17:02	238°08' 23"	08:31	16:35	20:34	10:00
04-01-2010	08:17	121°44' 46"	12:35	+19°30' 49"	16:53	238°18' 34"	08:30	16:36	21:59	10:21
05-01-2010	08:07	121°36' 12"	12:25	+19°35' 31"	16:44	238°26' 16"	08:30	16:37	23:21	10:39
06-01-2010	07:57	121°30' 06"	12:16	+19°38' 47"	16:34	238°31' 29"	08:30	16:38	---	10:56
07-01-2010	07:48	121°26' 27"	12:06	+19°40' 39"	16:25	238°34' 16"	08:30	16:39	00:41	11:15
08-01-2010	07:39	121°25' 13"	11:57	+19°41' 07"	16:16	238°34' 39"	08:29	16:41	01:59	11:35
09-01-2010	07:30	121°26' 20"	11:49	+19°40' 14"	16:08	238°32' 41"	08:29	16:42	03:16	12:00
10-01-2010	07:23	121°29' 45"	11:41	+19°38' 02"	16:00	238°28' 29"	08:28	16:43	04:29	12:30
11-01-2010	07:16	121°35' 20"	11:34	+19°34' 37"	15:53	238°22' 10"	08:28	16:45	05:37	13:10
12-01-2010	07:10	121°42' 55"	11:28	+19°30' 03"	15:46	238°13' 55"	08:27	16:46	06:36	13:59
13-01-2010	07:04	121°52' 18"	11:22	+19°24' 29"	15:40	238°03' 57"	08:26	16:48	07:23	14:57
14-01-2010	07:00	122°03' 15"	11:17	+19°18' 03"	15:34	237°52' 31"	08:26	16:49	08:01	16:02
15-01-2010	06:56	122°15' 29"	11:13	+19°10' 54"	15:29	237°39' 52"	08:25	16:51	08:29	17:10
16-01-2010	06:53	122°28' 45"	11:09	+19°03' 13"	15:25	237°25' 48"	08:24	16:52	08:52	18:18
17-01-2010	06:50	122°42' 46"	11:06	+18°55' 08"	15:21	237°12' 07"	08:23	16:54	09:10	19:27
18-01-2010	06:48	122°57' 15"	11:03	+18°46' 50"	15:17	236°57' 33"	08:22	16:55	09:26	20:34
19-01-2010	06:47	123°11' 56"	11:01	+18°38' 28"	15:14	236°42' 52"	08:21	16:57	09:40	21:41
20-01-2010	06:46	123°26' 34"	10:59	+18°30' 10"	15:12	236°28' 20"	08:20	16:58	09:54	22:49
21-01-2010	06:45	123°40' 53"	10:58	+18°22' 04"	15:10	236°14' 11"	08:19	17:00	10:09	23:58
22-01-2010	06:45	123°54' 42"	10:57	+18°14' 18"	15:08	236°00' 37"	08:18	17:02	10:26	---
23-01-2010	06:45	124°07' 47"	10:56	+18°06' 59"	15:07	235°47' 51"	08:17	17:03	10:46	01:10
24-01-2010	06:46	124°19' 57"	10:56	+18°00' 12"	15:06	235°36' 02"	08:16	17:05	11:12	02:25
25-01-2010	06:46	124°31' 03"	10:56	+17°54' 03"	15:05	235°25' 22"	08:15	17:07	11:48	03:40
26-01-2010	06:47	124°40' 55"	10:56	+17°48' 37"	15:05	235°15' 58"	08:13	17:08	12:36	04:53
27-01-2010	06:48	124°49' 25"	10:56	+17°43' 59"	15:05	235°07' 58"	08:12	17:10	13:41	05:57
28-01-2010	06:49	124°56' 26"	10:57	+17°40' 11"	15:05	235°01' 30"	08:11	17:12	15:00	06:49
29-01-2010	06:50	125°01' 50"	10:58	+17°37' 18"	15:05	234°56' 40"	08:10	17:13	16:28	07:28
30-01-2010	06:51	125°05' 33"	10:59	+17°35' 23"	15:06	234°53' 34"	08:08	17:15	17:59	07:58

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	Ortszeit	Azm	Ortszeit	Höhe	Ortszeit	Azm	Aufgang	Untergang	Aufgang	Untergang
31-01-2010	06:52	125°07' 30"	11:00	+17°34' 28"	15:07	234°52' 16"	08:07	17:17	19:29	08:22
01-02-2010	06:53	125°07' 35"	11:01	+17°34' 36"	15:09	234°52' 50"	08:05	17:19	20:55	08:42
02-02-2010	06:54	125°05' 45"	11:02	+17°35' 50"	15:10	234°55' 21"	08:04	17:20	22:19	09:01
03-02-2010	06:56	125°01' 56"	11:04	+17°38' 10"	15:12	234°59' 52"	08:02	17:22	23:41	09:19
04-02-2010	06:57	124°56' 06"	11:05	+17°41' 38"	15:14	235°06' 25"	08:01	17:24	---	09:40
05-02-2010	06:58	124°48' 13"	11:07	+17°46' 17"	15:16	235°15' 02"	07:59	17:26	01:01	10:03
06-02-2010	06:59	124°38' 14"	11:09	+17°52' 07"	15:18	235°25' 46"	07:57	17:27	02:18	10:32
07-02-2010	07:00	124°26' 08"	11:10	+17°59' 09"	15:21	235°38' 38"	07:56	17:29	03:29	11:09
08-02-2010	07:01	124°11' 53"	11:12	+18°07' 25"	15:24	235°53' 38"	07:54	17:31	04:31	11:55
09-02-2010	07:02	123°55' 30"	11:14	+18°16' 55"	15:27	236°10' 49"	07:52	17:33	05:22	12:50
10-02-2010	07:03	123°36' 57"	11:16	+18°27' 40"	15:30	236°30' 10"	07:51	17:35	06:02	13:53
11-02-2010	07:04	123°16' 14"	11:18	+18°39' 41"	15:33	236°51' 41"	07:49	17:36	06:33	15:00
12-02-2010	07:05	122°53' 21"	11:21	+18°52' 59"	15:37	237°15' 23"	07:47	17:38	06:58	16:08
13-02-2010	07:06	122°28' 19"	11:23	+19°07' 33"	15:41	237°41' 16"	07:45	17:40	07:17	17:17
14-02-2010	07:06	122°01' 07"	11:25	+19°23' 25"	15:44	238°09' 18"	07:44	17:42	07:34	18:24
15-02-2010	07:07	121°31' 46"	11:27	+19°40' 34"	15:48	238°39' 30"	07:42	17:43	07:49	19:32
16-02-2010	07:07	121°00' 17"	11:30	+19°59' 01"	15:53	239°11' 52"	07:40	17:45	08:03	20:39
17-02-2010	07:08	120°26' 40"	11:32	+20°18' 47"	15:57	239°46' 21"	07:38	17:47	08:18	21:48
18-02-2010	07:08	119°50' 57"	11:34	+20°39' 52"	16:02	240°22' 57"	07:36	17:49	08:34	22:58
19-02-2010	07:08	119°13' 08"	11:37	+21°02' 15"	16:06	241°01' 40"	07:34	17:50	08:52	---
20-02-2010	07:08	118°33' 14"	11:39	+21°25' 58"	16:11	241°42' 28"	07:32	17:52	09:16	00:11
21-02-2010	07:09	117°51' 17"	11:42	+21°50' 59"	16:16	242°25' 21"	07:30	17:54	09:46	01:24
22-02-2010	07:09	117°07' 18"	11:44	+22°17' 20"	16:21	243°10' 17"	07:28	17:56	10:28	02:36
23-02-2010	07:08	116°21' 17"	11:47	+22°45' 00"	16:26	243°57' 15"	07:26	17:57	11:23	03:42
24-02-2010	07:08	115°33' 15"	11:49	+23°13' 59"	16:31	244°46' 14"	07:24	17:59	12:32	04:37
25-02-2010	07:08	114°43' 14"	11:52	+23°44' 18"	16:37	245°37' 14"	07:22	18:01	13:54	05:21
26-02-2010	07:08	113°51' 15"	11:54	+24°15' 56"	16:42	246°30' 13"	07:20	18:02	15:22	05:55
27-02-2010	07:07	112°57' 19"	11:57	+24°48' 54"	16:48	247°25' 10"	07:18	18:04	16:51	06:21
28-02-2010	07:07	112°01' 27"	12:00	+25°23' 11"	16:54	248°22' 04"	07:16	18:06	18:20	06:43
01-03-2010	07:07	111°03' 39"	12:02	+25°58' 47"	16:59	249°20' 55"	07:14	18:08	19:46	07:03

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02-03-2010	07:06	110°03' 57"	12:05	+26°35' 42"	17:05	250°21' 40"	07:12	18:09	21:12	07:22
03-03-2010	07:05	109°02' 22"	12:08	+27°13' 55"	17:12	251°24' 20"	07:10	18:11	22:36	07:42
04-03-2010	07:05	107°58' 55"	12:10	+27°53' 27"	17:18	252°28' 53"	07:08	18:13	23:57	08:05
05-03-2010	07:04	106°53' 37"	12:13	+28°34' 17"	17:24	253°35' 19"	07:06	18:14	---	08:33
06-03-2010	07:03	105°46' 29"	12:16	+29°16' 24"	17:30	254°43' 35"	07:04	18:16	01:13	09:08
07-03-2010	07:02	104°37' 32"	12:19	+29°59' 47"	17:37	255°53' 40"	07:01	18:18	02:20	09:51
08-03-2010	07:01	103°26' 48"	12:22	+30°44' 25"	17:44	257°05' 34"	06:59	18:19	03:16	10:44
09-03-2010	07:00	102°14' 19"	12:25	+31°30' 18"	17:50	258°19' 14"	06:57	18:21	04:01	11:45
10-03-2010	07:00	101°00' 06"	12:27	+32°17' 24"	17:57	259°34' 38"	06:55	18:23	04:35	12:50
11-03-2010	06:58	99°44' 11"	12:30	+33°05' 41"	18:04	260°51' 45"	06:53	18:24	05:02	13:58
12-03-2010	06:57	98°26' 37"	12:33	+33°55' 07"	18:11	262°10' 31"	06:51	18:26	05:23	15:06
13-03-2010	06:56	97°07' 26"	12:36	+34°45' 40"	18:19	263°30' 54"	06:48	18:28	05:41	16:14
14-03-2010	06:55	95°46' 43"	12:40	+35°37' 16"	18:26	264°52' 48"	06:46	18:29	05:56	17:21
15-03-2010	06:54	94°24' 31"	12:43	+36°29' 52"	18:33	266°16' 11"	06:44	18:31	06:11	18:29
16-03-2010	06:53	93°00' 56"	12:46	+37°23' 23"	18:41	267°40' 55"	06:42	18:33	06:26	19:38
17-03-2010	06:52	91°36' 03"	12:49	+38°17' 45"	18:48	269°06' 56"	06:40	18:34	06:42	20:48
18-03-2010	06:50	90°10' 00"	12:52	+39°12' 52"	18:56	270°34' 04"	06:37	18:36	07:00	22:00
19-03-2010	06:49	88°42' 54"	12:55	+40°08' 37"	19:04	272°02' 10"	06:35	18:37	07:22	23:14
20-03-2010	06:48	87°14' 56"	12:58	+41°04' 52"	19:11	273°31' 05"	06:33	18:39	07:50	---
21-03-2010	06:46	85°46' 17"	13:02	+42°01' 28"	19:19	275°00' 35"	06:31	18:41	08:28	00:26
22-03-2010	06:45	84°17' 08"	13:05	+42°58' 16"	19:27	276°30' 28"	06:29	18:42	09:17	01:32
23-03-2010	06:43	82°47' 46"	13:08	+43°55' 04"	19:35	278°00' 26"	06:26	18:44	10:20	02:30
24-03-2010	06:42	81°18' 25"	13:11	+44°51' 40"	19:43	279°30' 12"	06:24	18:46	11:34	03:16
25-03-2010	06:40	79°49' 24"	13:14	+45°47' 52"	19:50	280°59' 29"	06:22	18:47	12:56	03:53
26-03-2010	06:39	78°21' 01"	13:17	+46°43' 26"	19:58	282°27' 55"	06:20	18:49	14:22	04:21
27-03-2010	06:37	76°53' 38"	13:20	+47°38' 07"	20:05	283°55' 08"	06:18	18:50	15:48	04:44
28-03-2010	07:35	75°27' 35"	14:23	+48°31' 41"	21:13	285°20' 47"	07:15	19:52	18:13	06:05
29-03-2010	07:33	74°03' 15"	14:25	+49°23' 54"	21:20	286°44' 30"	07:13	19:54	19:39	06:24
30-03-2010	07:32	72°40' 59"	14:28	+50°14' 32"	21:27	288°05' 52"	07:11	19:55	21:04	06:44
31-03-2010	07:30	71°21' 09"	14:30	+51°03' 20"	21:33	289°24' 33"	07:09	19:57	22:27	07:05

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	Ortszeit	Azm	Ortszeit	Höhe	Ortszeit	Azm	Aufgang	Untergang	Aufgang	Untergang
01-04-2010	07:28	70°04'07"	14:32	+51°50'06"	21:39	290°40'11"	07:07	19:58	23:48	07:31
02-04-2010	07:26	68°50'14"	14:34	+52°34'39"	21:45	291°52'26"	07:04	20:00	---	08:04
03-04-2010	07:24	67°39'48"	14:36	+53°16'47"	21:50	293°00'58"	07:02	20:02	01:01	08:44
04-04-2010	07:21	66°33'08"	14:37	+53°56'22"	21:55	294°05'32"	07:00	20:03	02:04	09:35
05-04-2010	07:19	65°30'29"	14:38	+54°33'16"	21:59	295°05'52"	06:58	20:05	02:55	10:34
06-04-2010	07:17	64°32'08"	14:39	+55°07'21"	22:03	296°01'42"	06:56	20:06	03:33	11:39
07-04-2010	07:14	63°38'17"	14:39	+55°38'32"	22:06	296°52'51"	06:54	20:08	04:03	12:46
08-04-2010	07:12	62°49'08"	14:39	+56°06'44"	22:09	297°39'07"	06:51	20:10	04:26	13:54
09-04-2010	07:09	62°04'53"	14:39	+56°31'53"	22:11	298°20'21"	06:49	20:11	04:46	15:02
10-04-2010	07:06	61°25'42"	14:38	+56°53'56"	22:12	298°56'23"	06:47	20:13	05:02	16:09
11-04-2010	07:03	60°51'41"	14:37	+57°12'50"	22:12	299°27'06"	06:45	20:14	05:17	17:17
12-04-2010	07:00	60°23'00"	14:36	+57°28'33"	22:12	299°52'24"	06:43	20:16	05:32	18:25
13-04-2010	06:57	59°59'45"	14:34	+57°41'03"	22:12	300°12'12"	06:41	20:18	05:48	19:35
14-04-2010	06:54	59°42'00"	14:32	+57°50'18"	22:10	300°26'25"	06:39	20:19	06:06	20:48
15-04-2010	06:51	59°29'49"	14:29	+57°56'19"	22:08	300°35'02"	06:37	20:21	06:27	22:01
16-04-2010	06:48	59°23'14"	14:26	+57°59'05"	22:05	300°38'02"	06:35	20:22	06:54	23:15
17-04-2010	06:44	59°22'15"	14:23	+57°58'37"	22:01	300°35'13"	06:32	20:24	07:29	---
18-04-2010	06:41	59°26'51"	14:19	+57°54'57"	21:57	300°27'21"	06:30	20:26	08:15	00:24
19-04-2010	06:38	59°36'56"	14:15	+57°48'08"	21:52	300°13'52"	06:28	20:27	09:14	01:25
20-04-2010	06:34	59°52'22"	14:10	+57°38'14"	21:46	299°55'09"	06:26	20:29	10:25	02:14
21-04-2010	06:31	60°12'58"	14:06	+57°25'22"	21:40	299°31'27"	06:24	20:30	11:43	02:53
22-04-2010	06:27	60°38'28"	14:00	+57°09'41"	21:33	299°03'04"	06:22	20:32	13:05	03:23
23-04-2010	06:23	61°08'34"	13:55	+56°51'20"	21:26	298°30'22"	06:20	20:33	14:28	03:47
24-04-2010	06:20	61°42'52"	13:50	+56°30'32"	21:18	297°53'46"	06:18	20:35	15:51	04:08
25-04-2010	06:16	62°20'55"	13:44	+56°07'34"	21:10	297°13'47"	06:17	20:37	17:13	04:27
26-04-2010	06:13	63°02'11"	13:38	+55°42'43"	21:02	296°30'57"	06:15	20:38	18:36	04:46
27-04-2010	06:09	63°46'06"	13:32	+55°16'18"	20:53	295°45'52"	06:13	20:40	19:59	05:07
28-04-2010	06:05	64°32'03"	13:26	+54°48'41"	20:44	294°59'09"	06:11	20:41	21:21	05:30
29-04-2010	06:02	65°19'23"	13:19	+54°20'15"	20:35	294°11'28"	06:09	20:43	22:38	06:00
30-04-2010	05:58	66°07'27"	13:13	+53°51'23"	20:27	293°23'28"	06:07	20:44	23:47	06:37

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01-05-2010	05:55	66°55' 35"	13:07	+53°22' 29"	20:18	292°35' 46"	06:05	20:46	---	07:24
02-05-2010	05:52	67°43' 08"	13:01	+52°53' 55"	20:10	291°49' 01"	06:04	20:48	00:44	08:20
03-05-2010	05:48	68°29' 31"	12:56	+52°26' 05"	20:01	291°03' 46"	06:02	20:49	01:28	09:24
04-05-2010	05:45	69°14' 09"	12:50	+51°59' 18"	19:54	290°20' 33"	06:00	20:51	02:02	10:32
05-05-2010	05:42	69°56' 32"	12:44	+51°33' 54"	19:46	289°39' 49"	05:58	20:52	02:28	11:40
06-05-2010	05:39	70°36' 14"	12:39	+51°10' 08"	19:39	289°01' 58"	05:57	20:54	02:49	12:48
07-05-2010	05:35	71°12' 52"	12:34	+50°48' 14"	19:32	288°27' 21"	05:55	20:55	03:07	13:56
08-05-2010	05:32	71°46' 08"	12:30	+50°28' 25"	19:26	287°56' 14"	05:53	20:57	03:22	15:02
09-05-2010	05:29	72°15' 47"	12:25	+50°10' 49"	19:20	287°28' 48"	05:52	20:58	03:37	16:10
10-05-2010	05:27	72°41' 38"	12:21	+49°55' 33"	19:14	287°05' 14"	05:50	21:00	03:53	17:19
11-05-2010	05:24	73°03' 35"	12:17	+49°42' 41"	19:09	286°45' 36"	05:49	21:01	04:10	18:30
12-05-2010	05:21	73°21' 32"	12:13	+49°32' 17"	19:05	286°29' 33"	05:47	21:03	04:30	19:44
13-05-2010	05:18	73°35' 29"	12:10	+49°24' 22"	19:01	286°18' 20"	05:46	21:04	04:55	20:59
14-05-2010	05:15	73°45' 26"	12:07	+49°18' 54"	18:58	286°10' 40"	05:44	21:06	05:27	22:11
15-05-2010	05:13	73°51' 25"	12:04	+49°15' 53"	18:55	286°06' 55"	05:43	21:07	06:10	23:17
16-05-2010	05:10	73°53' 31"	12:01	+49°15' 16"	18:52	286°07' 00"	05:41	21:09	07:06	---
17-05-2010	05:08	73°51' 49"	11:59	+49°16' 59"	18:50	286°10' 49"	05:40	21:10	08:15	00:11
18-05-2010	05:05	73°46' 26"	11:57	+49°20' 57"	18:48	286°18' 17"	05:39	21:11	09:33	00:53
19-05-2010	05:03	73°37' 28"	11:55	+49°27' 08"	18:47	286°29' 14"	05:37	21:13	10:54	01:26
20-05-2010	05:00	73°25' 04"	11:53	+49°35' 25"	18:46	286°43' 34"	05:36	21:14	12:17	01:52
21-05-2010	04:58	73°09' 21"	11:52	+49°45' 43"	18:46	287°01' 10"	05:35	21:15	13:38	02:13
22-05-2010	04:56	72°50' 28"	11:51	+49°57' 58"	18:46	287°21' 51"	05:34	21:17	14:59	02:32
23-05-2010	04:54	72°28' 32"	11:50	+50°12' 03"	18:46	287°45' 32"	05:32	21:18	16:19	02:51
24-05-2010	04:52	72°03' 42"	11:49	+50°27' 53"	18:47	288°12' 02"	05:31	21:19	17:40	03:10
25-05-2010	04:50	71°36' 06"	11:48	+50°45' 22"	18:48	288°41' 15"	05:30	21:20	19:00	03:32
26-05-2010	04:48	71°05' 53"	11:48	+51°04' 25"	18:50	289°13' 02"	05:29	21:22	20:18	03:59
27-05-2010	04:46	70°33' 10"	11:48	+51°24' 56"	18:51	289°47' 14"	05:28	21:23	21:30	04:32
28-05-2010	04:44	69°58' 05"	11:48	+51°46' 50"	18:54	290°23' 45"	05:27	21:24	22:32	05:14
29-05-2010	04:42	69°20' 47"	11:48	+52°10' 02"	18:56	291°02' 25"	05:26	21:25	23:21	06:07
30-05-2010	04:40	68°41' 24"	11:49	+52°34' 24"	18:59	291°43' 08"	05:26	21:26	---	07:08

## Aufgang/Untergang

### Datum/Standort

Datum: 01-01-2010  
 Zeitraum: 1 Jahr  
 Br.: 4°20'41"N  
 Län.: 86°38'41"O

### Objekt

Planet:  
 Merkur

Datum	Aufgang		Meridiandurchgang		Untergang		Sonne		Mond	
	Ortszeit	Azm	Ortszeit	Höhe	Ortszeit	Azm	Aufgang	Untergang	Aufgang	Untergang
31-05-2010	04:39	68°00'02"	11:50	+52°59'53"	19:02	292°25'44"	05:25	21:27	00:00	08:16
01-06-2010	04:37	67°16'51"	11:50	+53°26'22"	19:05	293°10'07"	05:24	21:28	00:29	09:25
02-06-2010	04:36	66°31'58"	11:52	+53°53'45"	19:09	293°56'08"	05:23	21:29	00:52	10:34
03-06-2010	04:34	65°45'31"	11:53	+54°21'57"	19:13	294°43'38"	05:23	21:30	01:11	11:41
04-06-2010	04:33	64°57'39"	11:54	+54°50'52"	19:17	295°32'29"	05:22	21:31	01:27	12:48
05-06-2010	04:32	64°08'31"	11:56	+55°20'24"	19:22	296°22'33"	05:21	21:32	01:42	13:54
06-06-2010	04:31	63°18'15"	11:58	+55°50'26"	19:27	297°13'38"	05:21	21:33	01:57	15:02
07-06-2010	04:30	62°27'00"	12:00	+56°20'51"	19:32	298°05'37"	05:20	21:34	02:13	16:11
08-06-2010	04:30	61°34'58"	12:02	+56°51'33"	19:37	298°58'16"	05:20	21:35	02:32	17:24
09-06-2010	04:29	60°42'19"	12:05	+57°22'25"	19:43	299°51'26"	05:19	21:36	02:54	18:38
10-06-2010	04:29	59°49'15"	12:08	+57°53'17"	19:49	300°44'53"	05:19	21:36	03:23	19:52
11-06-2010	04:29	58°56'00"	12:11	+58°24'03"	19:55	301°38'23"	05:19	21:37	04:02	21:01
12-06-2010	04:29	58°02'46"	12:14	+58°54'33"	20:01	302°31'42"	05:19	21:38	04:53	22:02
13-06-2010	04:29	57°09'49"	12:17	+59°24'39"	20:08	303°24'31"	05:18	21:38	05:58	22:50
14-06-2010	04:29	56°17'27"	12:21	+59°54'09"	20:15	304°16'34"	05:18	21:39	07:15	23:27
15-06-2010	04:30	55°25'58"	12:25	+60°22'53"	20:21	305°07'31"	05:18	21:39	08:38	23:55
16-06-2010	04:31	54°35'41"	12:29	+60°50'40"	20:29	305°57'00"	05:18	21:40	10:03	---
17-06-2010	04:33	53°46'58"	12:33	+61°17'20"	20:36	306°44'39"	05:18	21:40	11:26	00:19
18-06-2010	04:34	53°00'12"	12:38	+61°42'39"	20:43	307°30'03"	05:18	21:40	12:48	00:39
19-06-2010	04:36	52°15'47"	12:43	+62°06'25"	20:51	308°12'48"	05:18	21:41	14:08	00:57
20-06-2010	04:39	51°34'08"	12:47	+62°28'27"	20:58	308°52'27"	05:18	21:41	15:28	01:16
21-06-2010	04:41	50°55'40"	12:53	+62°48'32"	21:05	309°28'37"	05:18	21:41	16:47	01:37
22-06-2010	04:44	50°20'49"	12:58	+63°06'30"	21:13	310°00'51"	05:19	21:41	18:04	02:01
23-06-2010	04:48	49°49'59"	13:03	+63°22'08"	21:20	310°28'46"	05:19	21:42	19:17	02:32
24-06-2010	04:52	49°23'31"	13:09	+63°35'18"	21:27	310°52'03"	05:19	21:42	20:22	03:10
25-06-2010	04:56	49°01'47"	13:14	+63°45'53"	21:34	311°10'22"	05:20	21:42	21:16	03:58
26-06-2010	05:01	48°45'03"	13:20	+63°53'44"	21:40	311°23'31"	05:20	21:42	21:58	04:56
27-06-2010	05:05	48°33'32"	13:26	+63°58'48"	21:46	311°31'19"	05:20	21:42	22:30	06:01
28-06-2010	05:11	48°27'23"	13:31	+64°01'02"	21:52	311°33'42"	05:21	21:41	22:55	07:10
29-06-2010	05:16	48°26'39"	13:37	+64°00'26"	21:58	311°30'39"	05:21	21:41	23:16	08:19

## Aufgang/Untergang

### Datum/Standort

Datum: 01-01-2010  
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### Objekt

Planet:  
 Merkur

Datum	Aufgang		Meridiandurchgang		Untergang		Sonne		Mond	
	Ortszeit	Azm	Ortszeit	Höhe	Ortszeit	Azm	Aufgang	Untergang	Aufgang	Untergang
30-06-2010	05:22	48°31' 21"	13:43	+63°57' 00"	22:03	311°22' 15"	05:22	21:41	23:33	09:27
01-07-2010	05:29	48°41' 22"	13:48	+63°50' 47"	22:07	311°08' 38"	05:23	21:41	23:48	10:34
02-07-2010	05:35	48°56' 34"	13:54	+63°41' 52"	22:12	310°49' 59"	05:23	21:41	---	11:41
03-07-2010	05:42	49°16' 45"	13:59	+63°30' 21"	22:16	310°26' 33"	05:24	21:40	00:03	12:47
04-07-2010	05:48	49°41' 40"	14:04	+63°16' 20"	22:19	309°58' 38"	05:25	21:40	00:19	13:55
05-07-2010	05:55	50°11' 00"	14:09	+62°59' 57"	22:22	309°26' 31"	05:26	21:39	00:36	15:04
06-07-2010	06:02	50°44' 28"	14:14	+62°41' 19"	22:25	308°50' 32"	05:26	21:39	00:56	16:16
07-07-2010	06:09	51°21' 44"	14:19	+62°20' 36"	22:27	308°11' 01"	05:27	21:38	01:21	17:29
08-07-2010	06:16	52°02' 28"	14:23	+61°57' 56"	22:29	307°28' 16"	05:28	21:38	01:54	18:41
09-07-2010	06:24	52°46' 20"	14:28	+61°33' 28"	22:30	306°42' 38"	05:29	21:37	02:38	19:46
10-07-2010	06:31	53°33' 03"	14:32	+61°07' 19"	22:31	305°54' 25"	05:30	21:36	03:37	20:40
11-07-2010	06:38	54°22' 16"	14:36	+60°39' 39"	22:32	305°03' 53"	05:31	21:36	04:49	21:23
12-07-2010	06:44	55°13' 44"	14:40	+60°10' 36"	22:33	304°11' 20"	05:32	21:35	06:12	21:56
13-07-2010	06:51	56°07' 09"	14:43	+59°40' 16"	22:33	303°17' 00"	05:33	21:34	07:39	22:22
14-07-2010	06:58	57°02' 17"	14:47	+59°08' 49"	22:33	302°21' 09"	05:34	21:33	09:06	22:43
15-07-2010	07:04	57°58' 53"	14:50	+58°36' 20"	22:33	301°23' 59"	05:35	21:32	10:31	23:03
16-07-2010	07:11	58°56' 44"	14:53	+58°02' 56"	22:33	300°25' 42"	05:36	21:31	11:54	23:22
17-07-2010	07:17	59°55' 38"	14:56	+57°28' 45"	22:32	299°26' 30"	05:38	21:30	13:15	23:43
18-07-2010	07:23	60°55' 25"	14:58	+56°53' 52"	22:31	298°26' 33"	05:39	21:29	14:36	---
19-07-2010	07:29	61°55' 53"	15:01	+56°18' 23"	22:30	297°26' 01"	05:40	21:28	15:54	00:06
20-07-2010	07:35	62°56' 54"	15:03	+55°42' 23"	22:29	296°25' 02"	05:41	21:27	17:08	00:34
21-07-2010	07:41	63°58' 19"	15:05	+55°05' 58"	22:28	295°23' 45"	05:42	21:26	18:15	01:10
22-07-2010	07:46	64°59' 59"	15:07	+54°29' 13"	22:26	294°22' 17"	05:44	21:25	19:12	01:54
23-07-2010	07:51	66°01' 46"	15:09	+53°52' 12"	22:25	293°20' 45"	05:45	21:23	19:57	02:48
24-07-2010	07:56	67°03' 35"	15:11	+53°15' 01"	22:23	292°19' 17"	05:46	21:22	20:32	03:50
25-07-2010	08:01	68°05' 18"	15:12	+52°37' 44"	22:21	291°17' 58"	05:48	21:21	21:00	04:58
26-07-2010	08:06	69°06' 48"	15:13	+52°00' 25"	22:19	290°16' 55"	05:49	21:19	21:21	06:07
27-07-2010	08:10	70°08' 00"	15:14	+51°23' 09"	22:17	289°16' 13"	05:50	21:18	21:39	07:15
28-07-2010	08:15	71°08' 48"	15:15	+50°46' 00"	22:14	288°15' 59"	05:52	21:17	21:55	08:23
29-07-2010	08:19	72°09' 05"	15:16	+50°09' 02"	22:12	287°16' 18"	05:53	21:15	22:11	09:29

## Aufgang/Untergang

### Datum/Standort

Datum: 01-01-2010  
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 Br.: 4°20'41"N  
 Län.: 86°38'41"O

### Objekt

Planet:  
 Merkur

Datum	Aufgang		Meridiandurchgang		Untergang		Sonne		Mond	
	Ortszeit	Azm	Ortszeit	Höhe	Ortszeit	Azm	Aufgang	Untergang	Aufgang	Untergang
30-07-2010	08:23	73°08' 47"	15:17	+49°32' 19"	22:09	286°17' 16"	05:54	21:14	22:26	10:35
31-07-2010	08:26	74°07' 46"	15:17	+48°55' 56"	22:07	285°18' 58"	05:56	21:12	22:42	11:42
01-08-2010	08:30	75°05' 58"	15:18	+48°19' 57"	22:04	284°21' 30"	05:57	21:11	23:00	12:50
02-08-2010	08:33	76°03' 17"	15:18	+47°44' 27"	22:01	283°24' 59"	05:59	21:09	23:22	13:59
03-08-2010	08:36	76°59' 35"	15:18	+47°09' 29"	21:58	282°29' 30"	06:00	21:07	23:51	15:10
04-08-2010	08:39	77°54' 48"	15:18	+46°35' 08"	21:55	281°35' 09"	06:02	21:06	---	16:21
05-08-2010	08:41	78°48' 49"	15:17	+46°01' 29"	21:52	280°42' 05"	06:03	21:04	00:29	17:28
06-08-2010	08:44	79°41' 29"	15:17	+45°28' 38"	21:49	279°50' 22"	06:05	21:02	01:19	18:26
07-08-2010	08:46	80°32' 43"	15:16	+44°56' 40"	21:45	279°00' 10"	06:06	21:01	02:23	19:14
08-08-2010	08:47	81°22' 23"	15:15	+44°25' 39"	21:42	278°11' 36"	06:07	20:59	03:41	19:51
09-08-2010	08:49	82°10' 19"	15:14	+43°55' 42"	21:38	277°24' 48"	06:09	20:57	05:06	20:21
10-08-2010	08:50	82°56' 23"	15:13	+43°26' 55"	21:35	276°40' 34"	06:10	20:55	06:34	20:45
11-08-2010	08:51	83°40' 25"	15:11	+42°59' 25"	21:31	275°57' 32"	06:12	20:54	08:02	21:07
12-08-2010	08:51	84°22' 15"	15:10	+42°33' 19"	21:27	275°16' 46"	06:13	20:52	09:29	21:27
13-08-2010	08:52	85°01' 42"	15:08	+42°08' 45"	21:23	274°38' 28"	06:15	20:50	10:54	21:47
14-08-2010	08:51	85°38' 34"	15:06	+41°45' 49"	21:19	274°02' 50"	06:16	20:48	12:18	22:10
15-08-2010	08:51	86°12' 37"	15:03	+41°24' 41"	21:15	273°30' 55"	06:18	20:46	13:40	22:38
16-08-2010	08:50	86°43' 40"	15:00	+41°05' 30"	21:10	273°01' 35"	06:19	20:44	14:57	23:11
17-08-2010	08:48	87°11' 27"	14:57	+40°48' 25"	21:06	272°35' 38"	06:21	20:42	16:07	23:53
18-08-2010	08:46	87°35' 44"	14:54	+40°33' 35"	21:01	272°13' 17"	06:22	20:40	17:08	---
19-08-2010	08:44	87°56' 14"	14:50	+40°21' 11"	20:57	271°54' 50"	06:24	20:38	17:56	00:44
20-08-2010	08:41	88°12' 43"	14:47	+40°11' 24"	20:52	271°40' 32"	06:26	20:36	18:34	01:43
21-08-2010	08:37	88°24' 54"	14:43	+40°04' 22"	20:47	271°30' 39"	06:27	20:34	19:04	02:49
22-08-2010	08:33	88°32' 31"	14:38	+40°00' 17"	20:42	271°25' 27"	06:29	20:32	19:27	03:57
23-08-2010	08:28	88°35' 20"	14:33	+39°59' 18"	20:38	271°25' 09"	06:30	20:30	19:46	05:05
24-08-2010	08:23	88°33' 07"	14:28	+40°01' 32"	20:32	271°30' 00"	06:32	20:28	20:03	06:13
25-08-2010	08:17	88°25' 40"	14:22	+40°07' 08"	20:27	271°40' 10"	06:33	20:26	20:19	07:20
26-08-2010	08:11	88°12' 52"	14:16	+40°16' 09"	20:22	271°55' 44"	06:35	20:24	20:34	08:26
27-08-2010	08:04	87°54' 38"	14:10	+40°28' 39"	20:17	272°16' 47"	06:36	20:22	20:49	09:32
28-08-2010	07:56	87°30' 58"	14:04	+40°44' 35"	20:12	272°43' 14"	06:38	20:20	21:07	10:39

## Aufgang/Untergang

### Datum/Standort

Datum: 01-01-2010  
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### Objekt

Planet:  
 Merkur

Datum	Aufgang		Meridiandurchgang		Untergang		Sonne		Mond	
	Ortszeit	Azm	Ortszeit	Höhe	Ortszeit	Azm	Aufgang	Untergang	Aufgang	Untergang
29-08-2010	07:48	87°01'59"	13:57	+41°03'53"	20:07	273°14'57"	06:39	20:18	21:28	11:47
30-08-2010	07:40	86°27'53"	13:50	+41°26'23"	20:02	273°51'39"	06:41	20:16	21:54	12:57
31-08-2010	07:31	85°49'02"	13:43	+41°51'50"	19:57	274°32'55"	06:42	20:14	22:27	14:06
01-09-2010	07:22	85°05'53"	13:36	+42°19'55"	19:52	275°18'13"	06:44	20:12	23:10	15:13
02-09-2010	07:12	84°19'03"	13:29	+42°50'13"	19:48	276°06'52"	06:45	20:09	---	16:13
03-09-2010	07:02	83°29'15"	13:22	+43°22'16"	19:43	276°58'07"	06:47	20:07	00:07	17:04
04-09-2010	06:52	82°37'18"	13:15	+43°55'29"	19:39	277°50'31"	06:48	20:05	01:16	17:45
05-09-2010	06:43	81°44'07"	13:08	+44°29'17"	19:35	278°44'49"	06:50	20:03	02:35	18:18
06-09-2010	06:33	80°50'40"	13:01	+45°03'02"	19:31	279°38'06"	06:51	20:01	04:00	18:45
07-09-2010	06:24	79°57'55"	12:55	+45°36'07"	19:27	280°30'16"	06:53	19:58	05:28	19:07
08-09-2010	06:15	79°06'50"	12:49	+46°07'56"	19:24	281°20'12"	06:54	19:56	06:56	19:29
09-09-2010	06:07	78°18'23"	12:43	+46°37'52"	19:21	282°06'59"	06:56	19:54	08:23	19:50
10-09-2010	06:00	77°33'26"	12:38	+47°05'24"	19:18	282°49'48"	06:57	19:52	09:50	20:12
11-09-2010	05:53	76°52'45"	12:34	+47°30'05"	19:16	283°27'54"	06:59	19:50	11:15	20:38
12-09-2010	05:47	76°17'03"	12:30	+47°51'29"	19:14	284°00'38"	07:00	19:47	12:37	21:10
13-09-2010	05:41	75°46'54"	12:26	+48°09'17"	19:12	284°27'30"	07:02	19:45	13:53	21:50
14-09-2010	05:37	75°22'51"	12:23	+48°23'14"	19:10	284°48'04"	07:03	19:43	14:59	22:39
15-09-2010	05:34	75°05'03"	12:21	+48°33'06"	19:09	285°02'03"	07:05	19:41	15:52	23:37
16-09-2010	05:31	74°53'59"	12:19	+48°38'48"	19:07	285°09'17"	07:07	19:38	16:34	---
17-09-2010	05:30	74°49'43"	12:18	+48°40'15"	19:06	285°09'40"	07:08	19:36	17:06	00:41
18-09-2010	05:29	74°52'17"	12:17	+48°37'26"	19:05	285°03'14"	07:10	19:34	17:32	01:48
19-09-2010	05:29	75°01'38"	12:17	+48°30'26"	19:04	284°50'05"	07:11	19:32	17:52	02:56
20-09-2010	05:30	75°17'38"	12:17	+48°19'19"	19:04	284°30'27"	07:13	19:30	18:10	04:04
21-09-2010	05:31	75°40'02"	12:18	+48°04'15"	19:03	284°04'36"	07:14	19:27	18:26	05:10
22-09-2010	05:34	76°08'33"	12:18	+47°45'26"	19:02	283°32'51"	07:16	19:25	18:41	06:17
23-09-2010	05:37	76°42'50"	12:20	+47°23'03"	19:02	282°55'36"	07:17	19:23	18:57	07:23
24-09-2010	05:40	77°22'29"	12:21	+46°57'22"	19:01	282°13'17"	07:19	19:21	19:15	08:30
25-09-2010	05:44	78°07'02"	12:23	+46°28'38"	19:00	281°26'21"	07:20	19:18	19:35	09:38
26-09-2010	05:49	78°56'04"	12:25	+45°57'09"	19:00	280°35'15"	07:22	19:16	19:59	10:47
27-09-2010	05:54	79°49'06"	12:27	+45°23'11"	18:59	279°40'26"	07:23	19:14	20:30	11:56

## Aufgang/Untergang

### Datum/Standort

Datum: 01-01-2010  
 Zeitraum: 1 Jahr  
 Br.: 4°20'41"N  
 Län.: 86°38'41"O

### Objekt

Planet:  
 Merkur

Datum	Aufgang		Meridiandurchgang		Untergang		Sonne		Mond	
	Ortszeit	Azm	Ortszeit	Höhe	Ortszeit	Azm	Aufgang	Untergang	Aufgang	Untergang
28-09-2010	05:59	80°45'40"	12:29	+44°47'01"	18:58	278°42'22"	07:25	19:12	21:09	13:03
29-09-2010	06:04	81°45'19"	12:32	+44°08'55"	18:58	277°41'29"	07:26	19:09	22:00	14:05
30-09-2010	06:10	82°47'39"	12:34	+43°29'10"	18:57	276°38'11"	07:28	19:07	23:03	14:58
01-10-2010	06:16	83°52'15"	12:37	+42°47'58"	18:56	275°32'50"	07:30	19:05	---	15:41
02-10-2010	06:22	84°58'45"	12:39	+42°05'36"	18:55	274°25'48"	07:31	19:03	00:16	16:16
03-10-2010	06:28	86°06'48"	12:42	+41°22'14"	18:54	273°17'23"	07:33	19:01	01:35	16:44
04-10-2010	06:34	87°16'07"	12:44	+40°38'06"	18:53	272°07'52"	07:34	18:58	02:59	17:08
05-10-2010	06:40	88°26'25"	12:47	+39°53'22"	18:52	270°57'31"	07:36	18:56	04:24	17:29
06-10-2010	06:46	89°37'27"	12:49	+39°08'10"	18:51	269°46'33"	07:37	18:54	05:49	17:50
07-10-2010	06:52	90°49'01"	12:52	+38°22'41"	18:50	268°35'11"	07:39	18:52	07:16	18:12
08-10-2010	06:59	92°00'54"	12:54	+37°37'01"	18:48	267°23'33"	07:41	18:50	08:42	18:37
09-10-2010	07:05	93°12'57"	12:57	+36°51'17"	18:47	266°11'50"	07:42	18:48	10:08	19:07
10-10-2010	07:11	94°25'02"	12:59	+36°05'36"	18:46	265°00'10"	07:44	18:46	11:29	19:44
11-10-2010	07:17	95°36'59"	13:02	+35°20'03"	18:45	263°48'40"	07:46	18:43	12:41	20:31
12-10-2010	07:23	96°48'44"	13:04	+34°34'41"	18:43	262°37'26"	07:47	18:41	13:42	21:26
13-10-2010	07:29	98°00'10"	13:07	+33°49'37"	18:42	261°26'33"	07:49	18:39	14:29	22:30
14-10-2010	07:35	99°11'11"	13:09	+33°04'53"	18:41	260°16'06"	07:50	18:37	15:06	23:37
15-10-2010	07:41	100°21'44"	13:11	+32°20'33"	18:39	259°06'09"	07:52	18:35	15:34	---
16-10-2010	07:47	101°31'44"	13:14	+31°36'40"	18:38	257°56'46"	07:54	18:33	15:57	00:46
17-10-2010	07:53	102°41'07"	13:16	+30°53'17"	18:37	256°48'00"	07:55	18:31	16:15	01:53
18-10-2010	07:59	103°49'52"	13:18	+30°10'25"	18:35	255°39'55"	07:57	18:29	16:32	03:00
19-10-2010	08:05	104°57'54"	13:20	+29°28'07"	18:34	254°32'32"	07:59	18:27	16:48	04:06
20-10-2010	08:11	106°05'11"	13:23	+28°46'26"	18:33	253°25'55"	08:00	18:25	17:04	05:12
21-10-2010	08:17	107°11'41"	13:25	+28°05'22"	18:31	252°20'05"	08:02	18:23	17:21	06:19
22-10-2010	08:22	108°17'21"	13:27	+27°24'59"	18:30	251°15'06"	08:04	18:21	17:40	07:27
23-10-2010	08:28	109°22'09"	13:29	+26°45'16"	18:29	250°10'58"	08:05	18:19	18:04	08:36
24-10-2010	08:34	110°26'04"	13:31	+26°06'16"	18:28	249°07'45"	08:07	18:17	18:33	09:46
25-10-2010	08:39	111°29'02"	13:34	+25°28'01"	18:26	248°05'28"	08:09	18:15	19:10	10:55
26-10-2010	08:45	112°31'03"	13:36	+24°50'30"	18:25	247°04'08"	08:10	18:13	19:58	11:58
27-10-2010	08:50	113°32'03"	13:38	+24°13'47"	18:24	246°03'50"	08:12	18:11	20:57	12:54

## Aufgang/Untergang

### Datum/Standort

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### Objekt

Planet:  
 Merkur

Datum	Aufgang		Meridiandurchgang		Untergang		Sonne		Mond	
	Ortszeit	Azm	Ortszeit	Höhe	Ortszeit	Azm	Aufgang	Untergang	Aufgang	Untergang
28-10-2010	08:56	114°32' 01"	13:40	+23°37' 52"	18:23	245°04' 33"	08:14	18:09	22:06	13:40
29-10-2010	09:01	115°30' 54"	13:42	+23°02' 46"	18:22	244°06' 21"	08:15	18:08	23:22	14:16
30-10-2010	09:07	116°28' 41"	13:44	+22°28' 31"	18:21	243°09' 16"	08:17	18:06	---	14:46
31-10-2010	08:12	117°25' 19"	12:47	+21°55' 07"	17:20	242°13' 20"	07:19	17:04	00:42	14:10
01-11-2010	08:17	118°20' 45"	12:49	+21°22' 37"	17:19	241°18' 36"	07:20	17:02	01:03	14:32
02-11-2010	08:23	119°14' 57"	12:51	+20°51' 01"	17:18	240°25' 06"	07:22	17:01	02:25	14:52
03-11-2010	08:28	120°07' 53"	12:53	+20°20' 20"	17:18	239°32' 53"	07:24	16:59	03:48	15:13
04-11-2010	08:33	120°59' 28"	12:56	+19°50' 37"	17:17	238°41' 59"	07:26	16:57	05:12	15:36
05-11-2010	08:38	121°49' 41"	12:58	+19°21' 51"	17:16	237°52' 29"	07:27	16:55	06:36	16:03
06-11-2010	08:43	122°38' 28"	13:00	+18°54' 05"	17:16	237°04' 25"	07:29	16:54	08:00	16:36
07-11-2010	08:48	123°25' 46"	13:02	+18°27' 20"	17:15	236°17' 50"	07:31	16:52	09:17	17:19
08-11-2010	08:53	124°11' 32"	13:05	+18°01' 37"	17:15	235°32' 48"	07:32	16:51	10:25	18:12
09-11-2010	08:58	124°55' 41"	13:07	+17°36' 57"	17:15	234°49' 22"	07:34	16:49	11:19	19:13
10-11-2010	09:03	125°38' 10"	13:09	+17°13' 22"	17:14	234°07' 37"	07:36	16:48	12:02	20:21
11-11-2010	09:08	126°18' 55"	13:11	+16°50' 53"	17:14	233°27' 36"	07:37	16:46	12:34	21:31
12-11-2010	09:13	126°57' 53"	13:14	+16°29' 32"	17:14	232°49' 24"	07:39	16:45	12:59	22:40
13-11-2010	09:17	127°34' 58"	13:16	+16°09' 21"	17:14	232°13' 04"	07:41	16:43	13:19	23:47
14-11-2010	09:22	128°10' 06"	13:18	+15°50' 19"	17:14	231°38' 41"	07:42	16:42	13:37	---
15-11-2010	09:26	128°43' 14"	13:21	+15°32' 30"	17:15	231°06' 19"	07:44	16:41	13:53	00:54
16-11-2010	09:30	129°14' 17"	13:23	+15°15' 54"	17:15	230°36' 03"	07:46	16:39	14:09	01:59
17-11-2010	09:34	129°43' 10"	13:25	+15°00' 33"	17:16	230°07' 57"	07:47	16:38	14:25	03:05
18-11-2010	09:38	130°09' 50"	13:27	+14°46' 29"	17:16	229°42' 05"	07:49	16:37	14:44	04:13
19-11-2010	09:42	130°34' 11"	13:30	+14°33' 41"	17:17	229°18' 32"	07:51	16:36	15:06	05:22
20-11-2010	09:45	130°56' 09"	13:32	+14°22' 13"	17:18	228°57' 22"	07:52	16:35	15:33	06:32
21-11-2010	09:49	131°15' 41"	13:34	+14°12' 06"	17:19	228°38' 39"	07:54	16:34	16:08	07:42
22-11-2010	09:52	131°32' 43"	13:36	+14°03' 19"	17:20	228°22' 27"	07:55	16:33	16:53	08:48
23-11-2010	09:55	131°47' 11"	13:38	+13°55' 55"	17:21	228°08' 49"	07:57	16:32	17:50	09:48
24-11-2010	09:57	131°59' 03"	13:40	+13°49' 55"	17:22	227°57' 47"	07:58	16:31	18:57	10:38
25-11-2010	10:00	132°08' 15"	13:42	+13°45' 18"	17:24	227°49' 26"	08:00	16:30	20:12	11:17
26-11-2010	10:02	132°14' 46"	13:43	+13°42' 07"	17:25	227°43' 45"	08:01	16:29	21:31	11:49

## Aufgang/Untergang

### Datum/Standort

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### Objekt

Planet:  
 Merkur

Datum	Aufgang		Meridiandurchgang		Untergang		Sonne		Mond	
	Ortszeit	Azm	Ortszeit	Höhe	Ortszeit	Azm	Aufgang	Untergang	Aufgang	Untergang
27-11-2010	10:04	132°18'35"	13:45	+13°40'21"	17:26	227°40'47"	08:03	16:28	22:51	12:15
28-11-2010	10:05	132°19'40"	13:46	+13°40'00"	17:28	227°40'32"	08:04	16:27	---	12:37
29-11-2010	10:06	132°18'03"	13:48	+13°41'04"	17:29	227°43'00"	08:06	16:26	00:11	12:57
30-11-2010	10:07	132°13'44"	13:49	+13°43'33"	17:30	227°48'09"	08:07	16:26	01:31	13:17
01-12-2010	10:08	132°06'45"	13:49	+13°47'26"	17:31	227°55'58"	08:09	16:25	02:52	13:38
02-12-2010	10:07	131°57'10"	13:50	+13°52'41"	17:33	228°06'21"	08:10	16:25	04:14	14:02
03-12-2010	10:07	131°45'02"	13:50	+13°59'16"	17:33	228°19'16"	08:11	16:24	05:35	14:32
04-12-2010	10:06	131°30'27"	13:50	+14°07'09"	17:34	228°34'36"	08:13	16:24	06:54	15:10
05-12-2010	10:04	131°13'32"	13:49	+14°16'18"	17:34	228°52'16"	08:14	16:23	08:06	15:57
06-12-2010	10:02	130°54'23"	13:48	+14°26'39"	17:35	229°12'07"	08:15	16:23	09:06	16:55
07-12-2010	09:59	130°33'09"	13:46	+14°38'08"	17:34	229°34'01"	08:16	16:23	09:54	18:01
08-12-2010	09:55	130°09'25"	13:44	+14°50'42"	17:33	229°57'50"	08:17	16:22	10:31	19:11
09-12-2010	09:51	129°44'59"	13:41	+15°04'17"	17:32	230°23'25"	08:18	16:22	11:00	20:22
10-12-2010	09:46	129°18'20"	13:38	+15°18'48"	17:30	230°50'36"	08:20	16:22	11:22	21:31
11-12-2010	09:40	128°50'12"	13:33	+15°34'11"	17:27	231°19'15"	08:21	16:22	11:41	22:39
12-12-2010	09:33	128°20'42"	13:28	+15°50'22"	17:23	231°49'08"	08:22	16:22	11:58	23:45
13-12-2010	09:25	127°49'58"	13:22	+16°07'17"	17:19	232°20'23"	08:22	16:22	12:14	---
14-12-2010	09:17	127°18'11"	13:15	+16°24'51"	17:14	232°52'34"	08:23	16:22	12:30	00:50
15-12-2010	09:07	126°45'30"	13:08	+16°42'59"	17:08	233°25'34"	08:24	16:22	12:47	01:56
16-12-2010	08:57	126°12'10"	12:59	+17°01'34"	17:02	233°59'09"	08:25	16:22	13:07	03:04
17-12-2010	08:46	125°38'28"	12:50	+17°20'23"	16:55	234°32'58"	08:26	16:22	13:32	04:13
18-12-2010	08:35	125°04'49"	12:41	+17°39'14"	16:48	235°06'34"	08:26	16:23	14:03	05:23
19-12-2010	08:23	124°31'45"	12:31	+17°57'47"	16:40	235°39'22"	08:27	16:23	14:44	06:32
20-12-2010	08:12	123°59'54"	12:21	+18°15'40"	16:32	236°10'44"	08:28	16:23	15:36	07:35
21-12-2010	08:00	123°29'57"	12:12	+18°32'28"	16:24	236°39'55"	08:28	16:24	16:41	08:30
22-12-2010	07:49	123°02'38"	12:02	+18°47'45"	16:16	237°06'13"	08:29	16:24	17:55	09:15
23-12-2010	07:39	122°38'36"	11:53	+19°01'09"	16:08	237°29'00"	08:29	16:25	19:16	09:50
24-12-2010	07:29	122°18'25"	11:45	+19°12'20"	16:01	237°47'46"	08:30	16:26	20:38	10:19
25-12-2010	07:20	122°02'27"	11:37	+19°21'04"	15:54	238°02'11"	08:30	16:26	22:00	10:42
26-12-2010	07:12	121°50'56"	11:30	+19°27'15"	15:48	238°12'06"	08:30	16:27	23:20	11:03

## Aufgang/Untergang

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### Objekt

Planet:  
 Merkur

Datum	Aufgang		Meridiandurchgang		Untergang		Sonne		Mond	
	Ortszeit	Azm	Ortszeit	Höhe	Ortszeit	Azm	Aufgang	Untergang	Aufgang	Untergang
27-12-2010	07:05	121°43'54"	11:24	+19°30'51"	15:42	238°17'34"	08:31	16:28	---	11:23
28-12-2010	06:59	121°41'13"	11:18	+19°31'58"	15:37	238°18'44"	08:31	16:29	00:41	11:44
29-12-2010	06:55	121°42'37"	11:13	+19°30'45"	15:32	238°15'56"	08:31	16:29	02:01	12:06
30-12-2010	06:50	121°47'48"	11:09	+19°27'24"	15:27	238°09'30"	08:31	16:30	03:21	12:34
31-12-2010	06:47	121°56'18"	11:05	+19°22'11"	15:23	237°59'54"	08:31	16:31	04:39	13:07