

Aufgang/Untergang

Datum/Standort

Datum: 01-01-2010
 Zeitraum: 1 Jahr
 Br.: 5°15'43"N
 Län.: 86°54'27"W

Objekt

Mond:
 Mond (Erde)

Datum	Aufgang		Meridiandurchgang		Untergang		Sonne		Mond	
	Ortszeit	Azm	Ortszeit	Höhe	Ortszeit	Azm	Aufgang	Untergang	Aufgang	Untergang
01-01-2010	16:11(-1T)	50°09' 28"	00:43	+62°35' 39"	09:01	306°11' 52"	08:31	16:32	17:37	09:01
02-01-2010	17:37(-1T)	56°09' 40"	01:45	+58°42' 21"	09:34	298°45' 57"	08:31	16:34	19:06	09:34
03-01-2010	19:06(-1T)	64°36' 25"	02:43	+53°24' 47"	10:00	280°45' 57"	08:31	16:35	20:34	10:00
04-01-2010	20:34(-1T)	74°24' 47"	03:37	+47°15' 41"	10:21	280°00' 56"	08:30	16:36	21:59	10:21
05-01-2010	21:59(-1T)	84°44' 35"	04:27	+40°46' 00"	10:39	270°05' 39"	08:30	16:37	23:21	10:39
06-01-2010	23:21(-1T)	95°01' 14"	05:16	+34°21' 22"	10:56	260°24' 42"	08:30	16:38	---	10:56
07-01-2010	00:41	104°50' 11"	06:04	+28°22' 08"	11:15	251°17' 11"	08:30	16:39	00:41	11:15
08-01-2010	01:59	113°50' 49"	06:53	+23°04' 37"	11:35	243°01' 00"	08:29	16:41	01:59	11:35
09-01-2010	03:16	121°41' 27"	07:42	+18°42' 30"	12:00	235°56' 44"	08:29	16:42	03:16	12:00
10-01-2010	04:29	127°55' 56"	08:33	+15°27' 25"	12:30	230°29' 57"	08:28	16:43	04:29	12:30
11-01-2010	05:37	132°04' 25"	09:25	+13°28' 23"	13:10	227°09' 46"	08:28	16:45	05:37	13:10
12-01-2010	06:36	133°41' 41"	10:17	+12°50' 23"	13:59	226°19' 57"	08:27	16:46	06:36	13:59
13-01-2010	07:23	132°42' 25"	11:09	+13°32' 59"	14:57	228°05' 22"	08:26	16:48	07:23	14:57
14-01-2010	08:01	129°23' 30"	11:58	+15°30' 14"	16:02	232°06' 32"	08:26	16:49	08:01	16:02
15-01-2010	08:29	124°16' 28"	12:46	+18°31' 54"	17:10	237°52' 24"	08:25	16:51	08:29	17:10
16-01-2010	08:52	117°53' 23"	13:30	+22°25' 35"	18:18	244°50' 06"	08:24	16:52	08:52	18:18
17-01-2010	09:10	110°39' 45"	14:13	+26°58' 36"	19:27	252°34' 53"	08:23	16:54	09:10	19:27
18-01-2010	09:26	102°53' 59"	14:54	+31°59' 04"	20:34	260°47' 27"	08:22	16:55	09:26	20:34
19-01-2010	09:40	94°49' 11"	15:34	+37°16' 11"	21:41	269°15' 30"	08:21	16:57	09:40	21:41
20-01-2010	09:54	86°35' 20"	16:15	+42°39' 48"	22:49	277°48' 38"	08:20	16:58	09:54	22:49
21-01-2010	10:09	78°21' 30"	16:56	+47°59' 34"	23:58	286°16' 08"	08:19	17:00	10:09	23:58
22-01-2010	10:26	70°18' 19"	17:40	+53°03' 44"	01:10(+1T)	294°23' 29"	08:18	17:02	10:26	---
23-01-2010	10:46	62°41' 14"	18:27	+57°37' 41"	02:25(+1T)	301°47' 24"	08:17	17:03	10:46	01:10
24-01-2010	11:12	55°55' 05"	19:19	+61°22' 41"	03:40(+1T)	307°50' 04"	08:16	17:05	11:12	02:25
25-01-2010	11:48	50°39' 23"	20:16	+63°55' 57"	04:53(+1T)	311°37' 26"	08:15	17:07	11:48	03:40
26-01-2010	12:36	47°49' 06"	21:16	+64°53' 37"	05:57(+1T)	312°13' 54"	08:13	17:08	12:36	04:53
27-01-2010	13:41	48°18' 26"	22:20	+63°57' 46"	06:49(+1T)	309°15' 50"	08:12	17:10	13:41	05:57
28-01-2010	15:00	52°26' 35"	23:23	+61°04' 34"	07:28(+1T)	303°09' 12"	08:11	17:12	15:00	06:49
29-01-2010	16:28	59°29' 38"	---	---	07:28	302°57' 07"	08:10	17:13	16:28	07:28
30-01-2010	16:28(-1T)	59°41' 58"	00:23	+56°27' 57"	07:58	294°48' 32"	08:08	17:15	17:59	07:58

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Datum	Aufgang		Meridiandurchgang		Untergang		Sonne		Mond	
	Ortszeit	Azm	Ortszeit	Höhe	Ortszeit	Azm	Aufgang	Untergang	Aufgang	Untergang
31-01-2010	17:59(-1T)	69°02' 23"	01:20	+50°35' 36"	08:22	285°09' 10"	08:07	17:17	19:29	08:22
01-02-2010	19:29(-1T)	79°28' 40"	02:14	+44°00' 57"	08:42	274°56' 05"	08:05	17:19	20:55	08:42
02-02-2010	20:55(-1T)	90°13' 35"	03:06	+37°16' 18"	09:01	264°43' 33"	08:04	17:20	22:19	09:01
03-02-2010	22:19(-1T)	100°41' 47"	03:56	+30°49' 09"	09:19	254°58' 12"	08:02	17:22	23:41	09:19
04-02-2010	23:41(-1T)	110°25' 31"	04:46	+25°01' 17"	09:40	246°02' 23"	08:01	17:24	---	09:40
05-02-2010	01:01	118°59' 59"	05:37	+20°09' 28"	10:03	238°17' 57"	07:59	17:26	01:01	10:03
06-02-2010	02:18	125°59' 12"	06:29	+16°26' 16"	10:32	232°09' 12"	07:57	17:27	02:18	10:32
07-02-2010	03:29	130°55' 10"	07:21	+14°00' 23"	11:09	228°03' 12"	07:56	17:29	03:29	11:09
08-02-2010	04:31	133°22' 38"	08:13	+12°56' 13"	11:55	226°23' 51"	07:54	17:31	04:31	11:55
09-02-2010	05:22	133°12' 51"	09:05	+13°13' 22"	12:50	227°20' 11"	07:52	17:33	05:22	12:50
10-02-2010	06:02	130°37' 23"	09:55	+14°46' 37"	13:53	230°38' 25"	07:51	17:35	06:02	13:53
11-02-2010	06:33	126°04' 42"	10:43	+17°26' 59"	15:00	235°50' 51"	07:49	17:36	06:33	15:00
12-02-2010	06:58	120°06' 27"	11:28	+21°03' 14"	16:08	242°25' 05"	07:47	17:38	06:58	16:08
13-02-2010	07:17	113°09' 19"	12:12	+25°23' 24"	17:17	249°55' 04"	07:45	17:40	07:17	17:17
14-02-2010	07:34	105°33' 22"	12:53	+30°15' 37"	18:24	257°59' 31"	07:44	17:42	07:34	18:24
15-02-2010	07:49	97°33' 26"	13:34	+35°28' 34"	19:32	266°24' 07"	07:42	17:43	07:49	19:32
16-02-2010	08:03	89°21' 12"	14:14	+40°51' 17"	20:39	274°56' 38"	07:40	17:45	08:03	20:39
17-02-2010	08:18	81°07' 05"	14:55	+46°12' 40"	21:48	283°25' 17"	07:38	17:47	08:18	21:48
18-02-2010	08:34	73°02' 09"	15:38	+51°20' 53"	22:58	291°36' 03"	07:36	17:49	08:34	22:58
19-02-2010	08:52	65°20' 28"	16:24	+56°02' 22"	00:11(+1T)	299°09' 20"	07:34	17:50	08:52	---
20-02-2010	09:16	58°22' 21"	17:13	+60°01' 09"	01:24(+1T)	305°35' 36"	07:32	17:52	09:16	00:11
21-02-2010	09:46	52°38' 18"	18:06	+62°58' 33"	02:36(+1T)	310°12' 32"	07:30	17:54	09:46	01:24
22-02-2010	10:28	48°51' 27"	19:03	+64°34' 32"	03:42(+1T)	312°10' 48"	07:28	17:56	10:28	02:36
23-02-2010	11:23	47°50' 59"	20:02	+64°31' 27"	04:37(+1T)	310°55' 23"	07:26	17:57	11:23	03:42
24-02-2010	12:32	50°10' 00"	21:03	+62°39' 36"	05:21(+1T)	306°28' 17"	07:24	17:59	12:32	04:37
25-02-2010	13:54	55°42' 49"	22:03	+59°01' 54"	05:55(+1T)	299°25' 15"	07:22	18:01	13:54	05:21
26-02-2010	15:22	63°49' 41"	23:01	+53°54' 33"	06:21(+1T)	290°34' 01"	07:20	18:02	15:22	05:55
27-02-2010	16:51	73°36' 38"	23:57	+47°43' 35"	06:43(+1T)	280°39' 17"	07:18	18:04	16:51	06:21
28-02-2010	18:20	84°02' 56"	---	---	06:43	280°27' 11"	07:16	18:06	18:20	06:43
01-03-2010	18:20(-1T)	84°15' 26"	00:50	+40°59' 42"	07:03	270°19' 04"	07:14	18:08	19:46	07:03

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Datum	Aufgang		Meridiandurchgang		Untergang		Sonne		Mond	
	Ortszeit	Azm	Ortszeit	Höhe	Ortszeit	Azm	Aufgang	Untergang	Aufgang	Untergang
02-03-2010	19:46(-1T)	95°04' 39"	01:42	+34°13' 54"	07:22	260°05' 41"	07:12	18:09	21:12	07:22
03-03-2010	21:12(-1T)	105°28' 57"	02:34	+27°54' 11"	07:42	250°27' 44"	07:10	18:11	22:36	07:42
04-03-2010	22:36(-1T)	114°56' 23"	03:26	+22°23' 59"	08:05	241°52' 17"	07:08	18:13	23:57	08:05
05-03-2010	23:57(-1T)	122°55' 42"	04:19	+18°01' 17"	08:33	234°47' 08"	07:06	18:14	---	08:33
06-03-2010	01:13	128°55' 05"	05:13	+14°58' 13"	09:08	229°41' 40"	07:04	18:16	01:13	09:08
07-03-2010	02:20	132°25' 30"	06:07	+13°20' 46"	09:51	227°02' 34"	07:01	18:18	02:20	09:51
08-03-2010	03:16	133°13' 39"	07:00	+13°08' 42"	10:44	227°03' 21"	06:59	18:19	03:16	10:44
09-03-2010	04:01	131°26' 51"	07:51	+14°16' 23"	11:45	229°35' 03"	06:57	18:21	04:01	11:45
10-03-2010	04:35	127°32' 23"	08:40	+16°34' 21"	12:50	234°09' 30"	06:55	18:23	04:35	12:50
11-03-2010	05:02	122°03' 12"	09:26	+19°51' 19"	13:58	240°15' 24"	06:53	18:24	05:02	13:58
12-03-2010	05:23	115°27' 41"	10:10	+23°55' 35"	15:06	247°24' 44"	06:51	18:26	05:23	15:06
13-03-2010	05:41	108°07' 01"	10:52	+28°35' 54"	16:14	255°15' 16"	06:48	18:28	05:41	16:14
14-03-2010	05:56	100°16' 41"	11:33	+33°41' 25"	17:21	263°32' 09"	06:46	18:29	05:56	17:21
15-03-2010	06:11	92°08' 45"	12:13	+39°01' 26"	18:29	272°02' 40"	06:44	18:31	06:11	18:29
16-03-2010	06:26	83°54' 03"	12:55	+44°24' 44"	19:38	280°34' 29"	06:42	18:33	06:26	19:38
17-03-2010	06:42	75°44' 09"	13:37	+49°39' 04"	20:48	288°53' 14"	06:40	18:34	06:42	20:48
18-03-2010	07:00	67°53' 16"	14:22	+54°30' 29"	22:00	296°39' 47"	06:37	18:36	07:00	22:00
19-03-2010	07:22	60°40' 50"	15:10	+58°43' 03"	23:14	303°26' 57"	06:35	18:37	07:22	23:14
20-03-2010	07:50	54°34' 22"	16:02	+61°58' 59"	00:26(+1T)	308°37' 16"	06:33	18:39	07:50	---
21-03-2010	08:28	50°11' 30"	16:57	+64°00' 02"	01:32(+1T)	311°26' 32"	06:31	18:41	08:28	00:26
22-03-2010	09:17	48°15' 52"	17:54	+64°30' 22"	02:30(+1T)	311°19' 19"	06:29	18:42	09:17	01:32
23-03-2010	10:20	49°21' 22"	18:53	+63°20' 33"	03:16(+1T)	308°08' 57"	06:26	18:44	10:20	02:30
24-03-2010	11:34	53°32' 10"	19:51	+60°30' 42"	03:53(+1T)	302°20' 10"	06:24	18:46	11:34	03:16
25-03-2010	12:56	60°21' 04"	20:48	+56°11' 11"	04:21(+1T)	294°32' 39"	06:22	18:47	12:56	03:53
26-03-2010	14:22	69°04' 10"	21:42	+50°40' 33"	04:44(+1T)	285°25' 40"	06:20	18:49	14:22	04:21
27-03-2010	15:48	78°59' 35"	22:35	+44°22' 43"	06:05(+1T)	275°33' 22"	06:18	18:50	15:48	04:44
28-03-2010	18:13	89°17' 20"	---	---	06:05	275°21' 15"	07:15	19:52	18:13	06:05
29-03-2010	18:13(-1T)	89°29' 51"	00:27	+37°44' 18"	06:24	265°26' 00"	07:13	19:54	19:39	06:24
30-03-2010	19:39(-1T)	100°00' 55"	01:18	+31°12' 47"	06:44	255°32' 06"	07:11	19:55	21:04	06:44
31-03-2010	21:04(-1T)	109°59' 33"	02:11	+25°14' 32"	07:05	246°20' 34"	07:09	19:57	22:27	07:05

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 Mond (Erde)

Datum	Aufgang		Meridiandurchgang		Untergang		Sonne		Mond	
	Ortszeit	Azm	Ortszeit	Höhe	Ortszeit	Azm	Aufgang	Untergang	Aufgang	Untergang
01-04-2010	22:27(-1T)	118°51' 02"	03:04	+20°13' 01"	07:31	238°22' 21"	07:07	19:58	23:48	07:31
02-04-2010	23:48(-1T)	125°58' 13"	03:59	+16°26' 46"	08:04	232°11' 08"	07:04	20:00	---	08:04
03-04-2010	01:01	130°44' 42"	04:55	+14°07' 23"	08:44	228°20' 16"	07:02	20:02	01:01	08:44
04-04-2010	02:04	132°44' 38"	05:50	+13°18' 23"	09:35	227°12' 31"	07:00	20:03	02:04	09:35
05-04-2010	02:55	131°58' 03"	06:43	+13°55' 28"	10:34	228°47' 25"	06:58	20:05	02:55	10:34
06-04-2010	03:33	128°48' 19"	07:33	+15°48' 42"	11:39	232°39' 26"	06:56	20:06	03:33	11:39
07-04-2010	04:03	123°51' 05"	08:21	+18°45' 29"	12:46	238°14' 36"	06:54	20:08	04:03	12:46
08-04-2010	04:26	117°38' 59"	09:06	+22°32' 59"	13:54	245°01' 06"	06:51	20:10	04:26	13:54
09-04-2010	04:46	110°36' 15"	09:49	+26°59' 28"	15:02	252°34' 11"	06:49	20:11	04:46	15:02
10-04-2010	05:02	102°59' 37"	10:30	+31°54' 20"	16:09	260°38' 13"	06:47	20:13	05:02	16:09
11-04-2010	05:17	95°01' 08"	11:11	+37°07' 39"	17:17	269°00' 58"	06:45	20:14	05:17	17:17
12-04-2010	05:32	86°50' 54"	11:52	+42°29' 12"	18:25	277°31' 10"	06:43	20:16	05:32	18:25
13-04-2010	05:48	78°39' 26"	12:34	+47°47' 31"	19:35	285°55' 45"	06:41	20:18	05:48	19:35
14-04-2010	06:06	70°39' 57"	13:19	+52°49' 01"	20:48	293°56' 47"	06:39	20:19	06:06	20:48
15-04-2010	06:27	63°10' 52"	14:06	+57°17' 27"	22:01	301°08' 16"	06:37	20:21	06:27	22:01
16-04-2010	06:54	56°38' 37"	14:58	+60°54' 12"	23:15	306°53' 43"	06:35	20:22	06:54	23:15
17-04-2010	07:29	51°39' 46"	15:52	+63°19' 48"	00:24(+1T)	310°28' 30"	06:32	20:24	07:29	---
18-04-2010	08:15	48°57' 56"	16:50	+64°17' 22"	01:25(+1T)	311°13' 41"	06:30	20:26	08:15	00:24
19-04-2010	09:14	49°09' 59"	17:48	+63°36' 46"	02:14(+1T)	308°56' 46"	06:28	20:27	09:14	01:25
20-04-2010	10:25	52°25' 26"	18:46	+61°17' 56"	02:53(+1T)	303°58' 32"	06:26	20:29	10:25	02:14
21-04-2010	11:43	58°20' 33"	19:42	+57°30' 38"	03:23(+1T)	296°57' 34"	06:24	20:30	11:43	02:53
22-04-2010	13:05	66°14' 56"	20:35	+52°31' 49"	03:47(+1T)	288°32' 41"	06:22	20:32	13:05	03:23
23-04-2010	14:28	75°26' 42"	21:27	+46°42' 14"	04:08(+1T)	279°16' 07"	06:20	20:33	14:28	03:47
24-04-2010	15:51	85°22' 24"	22:17	+40°24' 14"	04:27(+1T)	269°34' 29"	06:18	20:35	15:51	04:08
25-04-2010	17:13	95°32' 55"	23:07	+34°00' 57"	04:46(+1T)	259°51' 59"	06:17	20:37	17:13	04:27
26-04-2010	18:36	105°30' 11"	23:58	+27°55' 54"	05:07(+1T)	250°33' 30"	06:15	20:38	18:36	04:46
27-04-2010	19:59	114°31' 07"	---	---	05:07	250°21' 18"	06:13	20:40	19:59	05:07
28-04-2010	19:59(-1T)	114°43' 35"	00:50	+22°32' 21"	05:30	242°07' 12"	06:11	20:41	21:21	05:30
29-04-2010	21:21(-1T)	122°37' 24"	01:44	+18°11' 48"	06:00	235°06' 13"	06:09	20:43	22:38	06:00
30-04-2010	22:38(-1T)	128°31' 34"	02:40	+15°11' 24"	06:37	230°07' 41"	06:07	20:44	23:47	06:37

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	Ortszeit	Azm	Ortszeit	Höhe	Ortszeit	Azm	Aufgang	Untergang	Aufgang	Untergang
01-05-2010	23:47(-1T)	131°49'41"	03:36	+13°41'03"	07:24	227°44'45"	06:05	20:46	---	07:24
02-05-2010	00:44	132°14'29"	04:31	+13°41'33"	08:20	228°11'21"	06:04	20:48	00:44	08:20
03-05-2010	01:28	130°00'04"	05:24	+15°05'22"	09:24	231°11'41"	06:02	20:49	01:28	09:24
04-05-2010	02:02	125°40'19"	06:13	+17°39'41"	10:32	236°12'02"	06:00	20:51	02:02	10:32
05-05-2010	02:28	119°52'50"	07:00	+21°10'04"	11:40	242°34'46"	05:58	20:52	02:28	11:40
06-05-2010	02:49	113°07'20"	07:44	+25°23'02"	12:48	249°51'46"	05:57	20:54	02:49	12:48
07-05-2010	03:07	105°44'06"	08:25	+30°06'55"	13:56	257°42'28"	05:55	20:55	03:07	13:56
08-05-2010	03:22	97°56'37"	09:06	+35°11'41"	15:02	265°54'32"	05:53	20:57	03:22	15:02
09-05-2010	03:37	89°54'42"	09:47	+40°28'00"	16:10	274°17'47"	05:52	20:58	03:37	16:10
10-05-2010	03:53	81°47'17"	10:29	+45°45'53"	17:19	282°41'34"	05:50	21:00	03:53	17:19
11-05-2010	04:10	73°45'04"	11:12	+50°53'35"	18:30	290°51'25"	05:49	21:01	04:10	18:30
12-05-2010	04:30	66°03'23"	11:59	+55°36'15"	19:44	298°25'07"	05:47	21:03	04:30	19:44
13-05-2010	04:55	59°05'30"	12:50	+59°35'33"	20:59	304°48'58"	05:46	21:04	04:55	20:59
14-05-2010	05:27	53°25'52"	13:44	+62°30'28"	22:11	309°17'20"	05:44	21:06	05:27	22:11
15-05-2010	06:10	49°49'45"	14:42	+64°00'38"	23:17	311°03'07"	05:43	21:07	06:10	23:17
16-05-2010	07:06	49°02'08"	15:41	+63°51'37"	00:11(+1T)	309°41'13"	05:41	21:09	07:06	---
17-05-2010	08:15	51°24'30"	16:40	+62°00'04"	00:53(+1T)	305°24'36"	05:40	21:10	08:15	00:11
18-05-2010	09:33	56°39'42"	17:37	+58°34'59"	01:26(+1T)	298°53'00"	05:39	21:11	09:33	00:53
19-05-2010	10:54	64°05'22"	18:32	+53°54'25"	01:52(+1T)	290°50'19"	05:37	21:13	10:54	01:26
20-05-2010	12:17	72°54'26"	19:24	+48°20'28"	02:13(+1T)	281°52'50"	05:36	21:14	12:17	01:52
21-05-2010	13:38	82°30'09"	20:13	+42°15'40"	02:32(+1T)	272°28'17"	05:35	21:15	13:38	02:13
22-05-2010	14:59	92°23'42"	21:02	+36°01'34"	02:51(+1T)	262°59'06"	05:34	21:17	14:59	02:32
23-05-2010	16:19	102°10'33"	21:51	+29°58'55"	03:10(+1T)	253°46'14"	05:32	21:18	16:19	02:51
24-05-2010	17:40	111°25'45"	22:42	+24°27'58"	03:32(+1T)	245°12'35"	05:31	21:19	17:40	03:10
25-05-2010	19:00	119°40'00"	23:34	+19°48'32"	03:59(+1T)	237°46'01"	05:30	21:20	19:00	03:32
26-05-2010	20:18	126°05'02"	---	---	03:59	237°33'46"	05:29	21:22	20:18	03:59
27-05-2010	20:18(-1T)	126°17'26"	00:28	+16°18'43"	04:32	232°00'39"	05:28	21:23	21:30	04:32
28-05-2010	21:30(-1T)	130°39'05"	01:24	+14°12'16"	05:14	228°33'03"	05:27	21:24	22:32	05:14
29-05-2010	22:32(-1T)	132°15'11"	02:19	+13°35'36"	06:07	227°49'33"	05:26	21:25	23:21	06:07
30-05-2010	23:21(-1T)	131°03'53"	03:13	+14°26'18"	07:08	229°49'42"	05:26	21:26	---	07:08

Aufgang/Untergang

Datum/Standort

Datum: 01-01-2010
 Zeitraum: 1 Jahr
 Br.: 5°15'43"N
 Län.: 86°54'27"W

Objekt

Mond:
 Mond (Erde)

Datum	Aufgang		Meridiandurchgang		Untergang		Sonne		Mond	
	Ortszeit	Azm	Ortszeit	Höhe	Ortszeit	Azm	Aufgang	Untergang	Aufgang	Untergang
31-05-2010	00:00	127°29' 57"	04:05	+16°34' 18"	08:16	234°07' 26"	05:25	21:27	00:00	08:16
01-06-2010	00:29	122°11' 43"	04:53	+19°45' 19"	09:25	240°03' 32"	05:24	21:28	00:29	09:25
02-06-2010	00:52	115°44' 07"	05:38	+23°44' 27"	10:34	247°04' 15"	05:23	21:29	00:52	10:34
03-06-2010	01:11	108°32' 35"	06:21	+28°18' 11"	11:41	254°43' 49"	05:23	21:30	01:11	11:41
04-06-2010	01:27	100°54' 04"	07:02	+33°15' 12"	12:48	262°46' 52"	05:22	21:31	01:27	12:48
05-06-2010	01:42	92°59' 52"	07:42	+38°25' 44"	13:54	271°02' 26"	05:21	21:32	01:42	13:54
06-06-2010	01:57	84°58' 36"	08:23	+43°40' 37"	15:02	279°21' 13"	05:21	21:33	01:57	15:02
07-06-2010	02:13	76°58' 56"	09:05	+48°49' 54"	16:11	287°32' 15"	05:20	21:34	02:13	16:11
08-06-2010	02:32	69°12' 26"	09:50	+53°41' 23"	17:24	295°18' 56"	05:20	21:35	02:32	17:24
09-06-2010	02:54	61°56' 55"	10:38	+57°59' 17"	18:38	302°14' 28"	05:19	21:36	02:54	18:38
10-06-2010	03:23	55°40' 44"	11:31	+61°23' 52"	19:52	307°38' 02"	05:19	21:36	03:23	19:52
11-06-2010	04:02	51°05' 36"	12:28	+63°32' 50"	21:01	310°38' 20"	05:19	21:37	04:02	21:01
12-06-2010	04:53	49°02' 13"	13:28	+64°06' 11"	22:02	310°32' 59"	05:19	21:38	04:53	22:02
13-06-2010	05:58	50°09' 55"	14:29	+62°52' 54"	22:50	307°15' 28"	05:18	21:38	05:58	22:50
14-06-2010	07:15	54°30' 25"	15:29	+59°56' 05"	23:27	301°18' 22"	05:18	21:39	07:15	23:27
15-06-2010	08:38	61°26' 44"	16:26	+55°32' 12"	23:55	293°30' 25"	05:18	21:39	08:38	23:55
16-06-2010	10:03	70°05' 18"	17:20	+50°05' 32"	00:19(+1T)	284°36' 14"	05:18	21:40	10:03	---
17-06-2010	11:26	79°40' 15"	18:11	+44°02' 09"	00:39(+1T)	275°10' 09"	05:18	21:40	11:26	00:19
18-06-2010	12:48	89°36' 24"	19:00	+37°46' 17"	00:57(+1T)	265°38' 05"	05:18	21:40	12:48	00:39
19-06-2010	14:08	99°26' 55"	19:49	+31°39' 31"	01:16(+1T)	256°21' 15"	05:18	21:41	14:08	00:57
20-06-2010	15:28	108°48' 24"	20:38	+26°01' 10"	01:37(+1T)	247°40' 03"	05:18	21:41	15:28	01:16
21-06-2010	16:47	117°16' 06"	21:29	+21°09' 03"	02:01(+1T)	239°57' 36"	05:18	21:41	16:47	01:37
22-06-2010	18:04	124°20' 18"	22:22	+17°19' 33"	02:32(+1T)	233°42' 30"	05:19	21:41	18:04	02:01
23-06-2010	19:17	129°26' 04"	23:16	+14°46' 24"	03:10(+1T)	229°28' 14"	05:19	21:42	19:17	02:32
24-06-2010	20:22	131°48' 01"	---	---	03:10	229°15' 55"	05:19	21:42	20:22	03:10
25-06-2010	20:22(-1T)	132°00' 22"	00:10	+13°38' 23"	03:58	227°45' 19"	05:20	21:42	21:16	03:58
26-06-2010	21:16(-1T)	131°49' 49"	01:05	+13°57' 10"	04:56	228°46' 00"	05:20	21:42	21:58	04:56
27-06-2010	21:58(-1T)	129°06' 49"	01:57	+15°36' 41"	06:01	232°14' 13"	05:20	21:42	22:30	06:01
28-06-2010	22:30(-1T)	124°24' 32"	02:46	+18°25' 07"	07:10	237°36' 56"	05:21	21:41	22:55	07:10
29-06-2010	22:55(-1T)	118°19' 25"	03:33	+22°07' 55"	08:19	244°16' 54"	05:21	21:41	23:16	08:19

Aufgang/Untergang

Datum/Standort

Datum: 01-01-2010
 Zeitraum: 1 Jahr
 Br.: 5°15'43"N
 Län.: 86°54'27"W

Objekt

Mond:
 Mond (Erde)

Datum	Aufgang		Meridiandurchgang		Untergang		Sonne		Mond	
	Ortszeit	Azm	Ortszeit	Höhe	Ortszeit	Azm	Aufgang	Untergang	Aufgang	Untergang
30-06-2010	23:16(-1T)	111°21' 05"	04:16	+26°30' 39"	09:27	251°45' 34"	05:22	21:41	23:33	09:27
01-07-2010	23:33(-1T)	103°50' 27"	04:58	+31°20' 25"	10:34	259°41' 30"	05:23	21:41	23:48	10:34
02-07-2010	23:48(-1T)	96°01' 42"	05:38	+36°26' 11"	11:41	267°51' 45"	05:23	21:41	---	11:41
03-07-2010	00:03	88°04' 56"	06:18	+41°38' 16"	12:47	276°06' 11"	05:24	21:40	00:03	12:47
04-07-2010	00:19	80°08' 36"	06:59	+46°47' 17"	13:55	284°15' 11"	05:25	21:40	00:19	13:55
05-07-2010	00:36	72°22' 05"	07:42	+51°42' 51"	15:04	292°06' 15"	05:26	21:39	00:36	15:04
06-07-2010	00:56	64°58' 40"	08:28	+56°12' 16"	16:16	299°19' 51"	05:26	21:39	00:56	16:16
07-07-2010	01:21	58°19' 16"	09:18	+59°59' 13"	17:29	305°24' 40"	05:27	21:38	01:21	17:29
08-07-2010	01:54	52°56' 49"	10:12	+62°43' 39"	18:41	309°35' 23"	05:28	21:38	01:54	18:41
09-07-2010	02:38	49°37' 34"	11:10	+64°03' 56"	19:46	311°01' 37"	05:29	21:37	02:38	19:46
10-07-2010	03:37	49°11' 03"	12:11	+63°42' 10"	20:40	309°13' 07"	05:30	21:36	03:37	20:40
11-07-2010	04:49	52°04' 10"	13:13	+61°31' 23"	21:23	304°20' 30"	05:31	21:36	04:49	21:23
12-07-2010	06:12	58°01' 39"	14:13	+57°39' 38"	21:56	297°06' 13"	05:32	21:35	06:12	21:56
13-07-2010	07:39	66°14' 26"	15:09	+52°28' 11"	22:22	288°20' 13"	05:33	21:34	07:39	22:22
14-07-2010	09:06	75°48' 57"	16:03	+46°25' 11"	22:43	278°45' 40"	05:34	21:33	09:06	22:43
15-07-2010	10:31	85°59' 42"	16:55	+39°59' 40"	23:03	268°56' 20"	05:35	21:32	10:31	23:03
16-07-2010	11:54	96°11' 37"	17:45	+33°37' 50"	23:22	259°18' 44"	05:36	21:31	11:54	23:22
17-07-2010	13:15	105°56' 45"	18:35	+27°42' 07"	23:43	250°15' 34"	05:38	21:30	13:15	23:43
18-07-2010	14:36	114°49' 39"	19:26	+22°31' 20"	00:06(+1T)	242°09' 12"	05:39	21:29	14:36	---
19-07-2010	15:54	122°23' 11"	20:18	+18°21' 24"	00:34(+1T)	235°25' 00"	05:40	21:28	15:54	00:06
20-07-2010	17:08	128°06' 32"	21:12	+15°25' 05"	01:10(+1T)	230°32' 33"	05:41	21:27	17:08	00:34
21-07-2010	18:15	131°28' 17"	22:06	+13°50' 58"	01:54(+1T)	228°01' 14"	05:42	21:26	18:15	01:10
22-07-2010	19:12	132°10' 45"	22:59	+13°41' 53"	02:48(+1T)	228°08' 30"	05:44	21:25	19:12	01:54
23-07-2010	19:57	130°17' 33"	23:52	+14°54' 12"	03:50(+1T)	230°47' 29"	05:45	21:23	19:57	02:48
24-07-2010	20:32	126°02' 51"	---	---	03:50	230°35' 03"	05:46	21:22	20:32	03:50
25-07-2010	20:32(-1T)	126°15' 09"	00:42	+17°18' 35"	04:58	235°31' 41"	05:48	21:21	21:00	04:58
26-07-2010	21:00(-1T)	120°38' 15"	01:29	+20°42' 13"	06:07	241°45' 22"	05:49	21:19	21:21	06:07
27-07-2010	21:21(-1T)	113°57' 59"	02:13	+24°51' 09"	07:15	248°58' 00"	05:50	21:18	21:39	07:15
28-07-2010	21:39(-1T)	106°37' 57"	02:56	+29°32' 01"	08:23	256°45' 02"	05:52	21:17	21:55	08:23
29-07-2010	21:55(-1T)	98°54' 56"	03:36	+34°32' 47"	09:29	264°50' 41"	05:53	21:15	22:11	09:29

Aufgang/Untergang

Datum/Standort

Datum: 01-01-2010
 Zeitraum: 1 Jahr
 Br.: 5°15'43"N
 Län.: 86°54'27"W

Objekt

Mond:
 Mond (Erde)

Datum	Aufgang		Meridiandurchgang		Untergang		Sonne		Mond	
	Ortszeit	Azm	Ortszeit	Höhe	Ortszeit	Azm	Aufgang	Untergang	Aufgang	Untergang
30-07-2010	22:11(-1T)	91°01'09"	04:16	+39°42'43"	10:35	273°02'48"	05:54	21:14	22:26	10:35
31-07-2010	22:26(-1T)	83°06'18"	04:57	+44°51'52"	11:42	281°10'59"	05:56	21:12	22:42	11:42
01-08-2010	22:42(-1T)	75°19'45"	05:38	+49°50'10"	12:50	288°03'57"	05:57	21:11	23:00	12:50
02-08-2010	23:00(-1T)	67°52'45"	06:22	+54°26'28"	13:59	296°26'18"	05:59	21:09	23:22	13:59
03-08-2010	23:22(-1T)	61°01'27"	07:09	+58°27'19"	15:10	302°54'32"	06:00	21:07	23:51	15:10
04-08-2010	23:51(-1T)	55°10'35"	08:00	+61°36'20"	16:21	307°53'27"	06:02	21:06	---	16:21
05-08-2010	00:29	50°56'39"	08:55	+63°34'34"	17:28	310°37'47"	06:03	21:04	00:29	17:28
06-08-2010	01:19	49°05'28"	09:53	+64°03'15"	18:26	310°26'46"	06:05	21:02	01:19	18:26
07-08-2010	02:23	50°16'45"	10:54	+62°48'54"	19:14	307°07'24"	06:06	21:01	02:23	19:14
08-08-2010	03:41	54°40'19"	11:54	+59°49'07"	19:51	301°02'31"	06:07	20:59	03:41	19:51
09-08-2010	05:06	61°49'14"	12:53	+55°15'12"	20:21	292°55'22"	06:09	20:57	05:06	20:21
10-08-2010	06:34	70°53'42"	13:49	+49°30'07"	20:45	283°31'34"	06:10	20:55	06:34	20:45
11-08-2010	08:02	81°04'09"	14:43	+43°03'17"	21:07	273°31'12"	06:12	20:54	08:02	21:07
12-08-2010	09:29	91°37'05"	15:36	+36°25'19"	21:27	263°27'57"	06:13	20:52	09:29	21:27
13-08-2010	10:54	101°56'10"	16:28	+30°04'24"	21:47	253°50'43"	06:15	20:50	10:54	21:47
14-08-2010	12:18	111°29'40"	17:20	+24°24'29"	22:10	245°06'01"	06:16	20:48	12:18	22:10
15-08-2010	13:40	119°47'14"	18:13	+19°44'48"	22:38	237°40'41"	06:18	20:46	13:40	22:38
16-08-2010	14:57	126°17'32"	19:07	+16°19'34"	23:11	232°03'42"	06:19	20:44	14:57	23:11
17-08-2010	16:07	130°30'00"	20:02	+14°17'37"	23:53	228°43'51"	06:21	20:42	16:07	23:53
18-08-2010	17:08	132°03'09"	20:56	+13°41'46"	00:44(+1T)	228°00'38"	06:22	20:40	17:08	---
19-08-2010	17:56	130°58'00"	21:48	+14°28'39"	01:44(+1T)	229°52'50"	06:24	20:38	17:56	00:44
20-08-2010	18:34	127°36'05"	22:39	+16°29'42"	02:49(+1T)	233°56'37"	06:26	20:36	18:34	01:43
21-08-2010	19:04	122°30'33"	23:26	+19°33'07"	03:57(+1T)	239°39'57"	06:27	20:34	19:04	02:49
22-08-2010	19:27	116°00'41"	---	---	03:57	239°27'27"	06:29	20:32	19:27	03:57
23-08-2010	19:27(-1T)	116°12'59"	00:12	+23°25'50"	05:05	246°31'18"	06:30	20:30	19:46	05:05
24-08-2010	19:46(-1T)	109°08'11"	00:54	+27°54'58"	06:13	254°04'46"	06:32	20:28	20:03	06:13
25-08-2010	20:03(-1T)	101°34'22"	01:36	+32°48'29"	07:20	262°02'58"	06:33	20:26	20:19	07:20
26-08-2010	20:19(-1T)	93°45'04"	02:16	+37°55'11"	08:26	270°12'12"	06:35	20:24	20:34	08:26
27-08-2010	20:34(-1T)	85°51'16"	02:56	+43°04'32"	09:32	278°20'50"	06:36	20:22	20:49	09:32
28-08-2010	20:49(-1T)	78°03'09"	03:37	+48°05'57"	10:39	286°17'03"	06:38	20:20	21:07	10:39

Aufgang/Untergang

Datum/Standort

Datum: 01-01-2010
 Zeitraum: 1 Jahr
 Br.: 5°15'43"N
 Län.: 86°54'27"W

Objekt

Mond:
 Mond (Erde)

Datum	Aufgang		Meridiandurchgang		Untergang		Sonne		Mond	
	Ortszeit	Azm	Ortszeit	Höhe	Ortszeit	Azm	Aufgang	Untergang	Aufgang	Untergang
29-08-2010	21:07(-1T)	70°31' 58"	04:20	+52°48' 17"	11:47	293°46' 28"	06:39	20:18	21:28	11:47
30-08-2010	21:28(-1T)	63°32' 12"	05:05	+56°59' 07"	12:57	300°29' 12"	06:41	20:16	21:54	12:57
31-08-2010	21:54(-1T)	57°24' 21"	05:54	+60°24' 09"	14:06	305°56' 50"	06:42	20:14	22:27	14:06
01-09-2010	22:27(-1T)	52°37' 34"	06:46	+62°47' 26"	15:13	309°32' 01"	06:44	20:12	23:10	15:13
02-09-2010	23:10(-1T)	49°49' 47"	07:41	+63°52' 36"	16:13	310°36' 06"	06:45	20:09	---	16:13
03-09-2010	00:07	49°39' 30"	08:38	+63°25' 55"	17:04	308°45' 58"	06:47	20:07	00:07	17:04
04-09-2010	01:16	52°28' 24"	09:37	+61°20' 21"	17:45	304°07' 20"	06:48	20:05	01:16	17:45
05-09-2010	02:35	58°08' 06"	10:35	+57°38' 45"	18:18	297°09' 39"	06:50	20:03	02:35	18:18
06-09-2010	04:00	66°06' 05"	11:32	+52°34' 43"	18:45	288°31' 29"	06:51	20:01	04:00	18:45
07-09-2010	05:28	75°38' 07"	12:27	+46°30' 39"	19:07	278°50' 55"	06:53	19:58	05:28	19:07
08-09-2010	06:56	86°02' 17"	13:20	+39°54' 35"	19:29	268°43' 05"	06:54	19:56	06:56	19:29
09-09-2010	08:23	96°38' 57"	14:14	+33°16' 44"	19:50	258°40' 42"	06:56	19:54	08:23	19:50
10-09-2010	09:50	106°50' 41"	15:07	+27°06' 17"	20:12	249°15' 20"	06:57	19:52	09:50	20:12
11-09-2010	11:15	116°00' 50"	16:02	+21°48' 48"	20:38	240°58' 44"	06:59	19:50	11:15	20:38
12-09-2010	12:37	123°32' 19"	16:58	+17°44' 17"	21:10	234°23' 56"	07:00	19:47	12:37	21:10
13-09-2010	13:53	128°49' 18"	17:54	+15°05' 31"	21:50	230°03' 30"	07:02	19:45	13:53	21:50
14-09-2010	14:59	131°24' 20"	18:49	+13°57' 18"	22:39	228°21' 44"	07:03	19:43	14:59	22:39
15-09-2010	15:52	131°13' 02"	19:43	+14°16' 33"	23:37	229°22' 38"	07:05	19:41	15:52	23:37
16-09-2010	16:34	128°33' 54"	20:35	+15°54' 10"	00:41(+1T)	232°45' 17"	07:07	19:38	16:34	---
17-09-2010	17:06	124°00' 48"	21:24	+18°37' 42"	01:48(+1T)	237°57' 11"	07:08	19:36	17:06	00:41
18-09-2010	17:32	118°07' 31"	22:10	+22°13' 45"	02:56(+1T)	244°25' 03"	07:10	19:34	17:32	01:48
19-09-2010	17:52	111°20' 45"	22:53	+26°29' 31"	04:04(+1T)	251°41' 27"	07:11	19:32	17:52	02:56
20-09-2010	18:10	103°59' 42"	23:35	+31°13' 18"	05:10(+1T)	259°28' 13"	07:13	19:30	18:10	04:04
21-09-2010	18:26	96°06' 05"	---	---	05:10	259°15' 39"	07:14	19:27	18:26	05:10
22-09-2010	18:26(-1T)	96°18' 21"	00:15	+36°14' 19"	06:17	267°31' 17"	07:16	19:25	18:41	06:17
23-09-2010	18:41(-1T)	88°27' 55"	00:56	+41°22' 08"	07:23	275°38' 43"	07:17	19:23	18:57	07:23
24-09-2010	18:57(-1T)	80°38' 49"	01:37	+46°26' 07"	08:30	283°38' 30"	07:19	19:21	19:15	08:30
25-09-2010	19:15(-1T)	73°02' 28"	02:19	+51°14' 50"	09:38	291°16' 18"	07:20	19:18	19:35	09:38
26-09-2010	19:35(-1T)	65°53' 08"	03:04	+55°35' 38"	10:47	298°13' 05"	07:22	19:16	19:59	10:47
27-09-2010	19:59(-1T)	59°30' 03"	03:51	+59°14' 26"	11:56	304°02' 53"	07:23	19:14	20:30	11:56

Aufgang/Untergang

Datum/Standort

Datum: 01-01-2010
 Zeitraum: 1 Jahr
 Br.: 5°15'43"N
 Län.: 86°54'27"W

Objekt

Mond:
 Mond (Erde)

Datum	Aufgang		Meridiandurchgang		Untergang		Sonne		Mond	
	Ortszeit	Azm	Ortszeit	Höhe	Ortszeit	Azm	Aufgang	Untergang	Aufgang	Untergang
28-09-2010	20:30(-1T)	54° 19 ' 26"	04:42	+61° 56 ' 07"	13:03	308° 12 ' 20"	07:25	19:12	21:09	13:03
29-09-2010	21:09(-1T)	50° 54 ' 43"	05:35	+63° 25 ' 49"	14:05	310° 05 ' 58"	07:26	19:09	22:00	14:05
30-09-2010	22:00(-1T)	49° 50 ' 54"	06:30	+63° 31 ' 13"	14:58	309° 19 ' 12"	07:28	19:07	23:03	14:58
01-10-2010	23:03(-1T)	51° 31 ' 27"	07:27	+62° 05 ' 20"	15:41	305° 50 ' 54"	07:30	19:05	---	15:41
02-10-2010	00:16	55° 55 ' 44"	08:23	+59° 08 ' 45"	16:16	300° 02 ' 14"	07:31	19:03	00:16	16:16
03-10-2010	01:35	62° 40 ' 18"	09:18	+54° 50 ' 00"	16:44	292° 24 ' 52"	07:33	19:01	01:35	16:44
04-10-2010	02:59	71° 11 ' 39"	10:12	+49° 24 ' 39"	17:08	283° 31 ' 10"	07:34	18:58	02:59	17:08
05-10-2010	04:24	80° 52 ' 57"	11:05	+43° 13 ' 48"	17:29	273° 51 ' 20"	07:36	18:56	04:24	17:29
06-10-2010	05:49	91° 10 ' 41"	11:58	+36° 42 ' 39"	17:50	263° 54 ' 40"	07:37	18:54	05:49	17:50
07-10-2010	07:16	101° 30 ' 29"	12:51	+30° 19 ' 00"	18:12	254° 11 ' 24"	07:39	18:52	07:16	18:12
08-10-2010	08:42	111° 15 ' 33"	13:46	+24° 31 ' 08"	18:37	245° 14 ' 30"	07:41	18:50	08:42	18:37
09-10-2010	10:08	119° 45 ' 17"	14:42	+19° 44 ' 59"	19:07	237° 40 ' 31"	07:42	18:48	10:08	19:07
10-10-2010	11:29	126° 16 ' 30"	15:39	+16° 20 ' 49"	19:44	232° 08 ' 23"	07:44	18:46	11:29	19:44
11-10-2010	12:41	130° 10 ' 50"	16:37	+14° 30 ' 00"	20:31	229° 12 ' 20"	07:46	18:43	12:41	20:31
12-10-2010	13:42	131° 08 ' 54"	17:34	+14° 13 ' 32"	21:26	229° 07 ' 57"	07:47	18:41	13:42	21:26
13-10-2010	14:29	129° 22 ' 56"	18:28	+15° 23 ' 18"	22:30	231° 41 ' 21"	07:49	18:39	14:29	22:30
14-10-2010	15:06	125° 26 ' 14"	19:18	+17° 45 ' 41"	23:37	236° 19 ' 24"	07:50	18:37	15:06	23:37
15-10-2010	15:34	119° 57 ' 26"	20:06	+21° 05 ' 25"	00:46(+1T)	242° 23 ' 33"	07:52	18:35	15:34	---
16-10-2010	15:57	113° 27 ' 59"	20:50	+25° 08 ' 16"	01:54(+1T)	249° 23 ' 57"	07:54	18:33	15:57	00:46
17-10-2010	16:15	106° 19 ' 56"	21:32	+29° 41 ' 52"	03:00(+1T)	256° 58 ' 17"	07:55	18:31	16:15	01:53
18-10-2010	16:32	98° 48 ' 16"	22:13	+34° 35 ' 32"	04:06(+1T)	264° 52 ' 37"	07:57	18:29	16:32	03:00
19-10-2010	16:48	91° 03 ' 59"	22:54	+39° 39 ' 31"	05:12(+1T)	272° 55 ' 38"	07:59	18:27	16:48	04:06
20-10-2010	17:04	83° 16 ' 43"	23:35	+44° 43 ' 55"	06:19(+1T)	280° 56 ' 25"	08:00	18:25	17:04	05:12
21-10-2010	17:21	75° 24 ' 39"	---	---	06:19	280° 43 ' 53"	08:02	18:23	17:21	06:19
22-10-2010	17:21(-1T)	75° 36 ' 54"	00:17	+49° 37 ' 55"	07:27	288° 41 ' 46"	08:04	18:21	17:40	07:27
23-10-2010	17:40(-1T)	68° 17 ' 48"	01:01	+54° 09 ' 03"	08:36	295° 53 ' 50"	08:05	18:19	18:04	08:36
24-10-2010	18:04(-1T)	61° 37 ' 45"	01:48	+58° 02 ' 54"	09:46	302° 07 ' 34"	08:07	18:17	18:33	09:46
25-10-2010	18:33(-1T)	56° 02 ' 01"	02:38	+61° 03 ' 36"	10:55	306° 50 ' 07"	08:09	18:15	19:10	10:55
26-10-2010	19:10(-1T)	52° 03 ' 21"	03:31	+62° 55 ' 25"	11:58	309° 25 ' 09"	08:10	18:13	19:58	11:58
27-10-2010	19:58(-1T)	50° 17 ' 14"	04:26	+63° 25 ' 26"	12:54	309° 25 ' 10"	08:12	18:11	20:57	12:54

Aufgang/Untergang

Datum/Standort

Datum: 01-01-2010
 Zeitraum: 1 Jahr
 Br.: 5°15'43"N
 Län.: 86°54'27"W

Objekt

Mond:
 Mond (Erde)

Datum	Aufgang		Meridiandurchgang		Untergang		Sonne		Mond	
	Ortszeit	Azm	Ortszeit	Höhe	Ortszeit	Azm	Aufgang	Untergang	Aufgang	Untergang
28-10-2010	20:57(-1T)	51°09'32"	05:22	+62°26'33"	13:40	306°45'15"	08:14	18:09	22:06	13:40
29-10-2010	22:06(-1T)	54°43'01"	06:18	+59°59'28"	14:16	301°44'14"	08:15	18:08	23:22	14:16
30-10-2010	23:22(-1T)	60°36'41"	07:12	+56°12'26"	14:46	294°53'02"	08:17	18:06	---	14:46
31-10-2010	00:42	68°18'25"	07:04	+51°19'21"	14:10	286°42'52"	07:19	17:04	00:42	14:10
01-11-2010	01:03	77°14'08"	07:55	+45°37'50"	14:32	277°41'02"	07:20	17:02	01:03	14:32
02-11-2010	02:25	86°54'54"	08:46	+39°28'05"	14:52	268°11'58"	07:22	17:01	02:25	14:52
03-11-2010	03:48	96°53'01"	09:37	+33°12'31"	15:13	258°40'05"	07:24	16:59	03:48	15:13
04-11-2010	05:12	106°38'53"	10:30	+27°15'36"	15:36	249°32'42"	07:26	16:57	05:12	15:36
05-11-2010	06:36	115°37'30"	11:25	+22°02'52"	16:03	241°22'38"	07:27	16:55	06:36	16:03
06-11-2010	08:00	123°06'49"	12:22	+17°58'27"	16:36	234°49'05"	07:29	16:54	08:00	16:36
07-11-2010	09:17	128°21'08"	13:20	+15°21'05"	17:19	230°33'48"	07:31	16:52	09:17	17:19
08-11-2010	10:25	130°44'00"	14:18	+14°19'59"	18:12	229°08'19"	07:32	16:51	10:25	18:12
09-11-2010	11:19	130°09'17"	15:15	+14°52'55"	19:13	230°35'39"	07:34	16:49	11:19	19:13
10-11-2010	12:02	127°01'25"	16:09	+16°48'11"	20:21	234°29'32"	07:36	16:48	12:02	20:21
11-11-2010	12:34	122°01'53"	16:58	+19°49'19"	21:31	240°07'44"	07:37	16:46	12:34	21:31
12-11-2010	12:59	115°49'15"	17:45	+23°39'33"	22:40	246°53'13"	07:39	16:45	12:59	22:40
13-11-2010	13:19	108°51'35"	18:28	+28°04'15"	23:47	254°17'53"	07:41	16:43	13:19	23:47
14-11-2010	13:37	101°27'23"	19:10	+32°51'24"	00:54(+1T)	262°05'03"	07:42	16:42	13:37	---
15-11-2010	13:53	93°48'49"	19:50	+37°51'02"	01:59(+1T)	270°02'56"	07:44	16:41	13:53	00:54
16-11-2010	14:09	86°05'03"	20:31	+42°54'01"	03:05(+1T)	278°01'51"	07:46	16:39	14:09	01:59
17-11-2010	14:25	78°24'52"	21:12	+47°50'51"	04:13(+1T)	285°51'05"	07:47	16:38	14:25	03:05
18-11-2010	14:44	70°59'09"	21:55	+52°30'30"	05:22(+1T)	293°15'52"	07:49	16:37	14:44	04:13
19-11-2010	15:06	64°03'23"	22:42	+56°39'31"	06:32(+1T)	299°54'13"	07:51	16:36	15:06	05:22
20-11-2010	15:33	58°00'24"	23:31	+60°01'59"	07:42(+1T)	305°14'46"	07:52	16:35	15:33	06:32
21-11-2010	16:08	53°09'51"	---	---	07:42	305°02'27"	07:54	16:34	16:08	07:42
22-11-2010	16:08(-1T)	53°22'04"	00:24	+62°20'30"	08:48	308°38'45"	07:55	16:33	16:53	08:48
23-11-2010	16:53(-1T)	50°46'40"	01:20	+63°19'09"	09:48	309°31'00"	07:57	16:32	17:50	09:48
24-11-2010	17:50(-1T)	50°47'35"	02:17	+62°47'34"	10:38	307°37'19"	07:58	16:31	18:57	10:38
25-11-2010	18:57(-1T)	53°36'12"	03:13	+60°44'22"	11:17	303°12'06"	08:00	16:30	20:12	11:17
26-11-2010	20:12(-1T)	58°54'58"	04:08	+57°17'37"	11:49	296°48'04"	08:01	16:29	21:31	11:49

Aufgang/Untergang

Datum/Standort

Datum: 01-01-2010
 Zeitraum: 1 Jahr
 Br.: 5°15'43"N
 Län.: 86°54'27"W

Objekt

Mond:
 Mond (Erde)

Datum	Aufgang		Meridiandurchgang		Untergang		Sonne		Mond	
	Ortszeit	Azm	Ortszeit	Höhe	Ortszeit	Azm	Aufgang	Untergang	Aufgang	Untergang
27-11-2010	21:31(-1T)	66°08' 41"	05:01	+52°42' 25"	12:15	289°00' 40"	08:03	16:28	22:51	12:15
28-11-2010	22:51(-1T)	74°40' 50"	05:52	+47°17' 30"	12:37	280°20' 15"	08:04	16:27	---	12:37
29-11-2010	00:11	83°58' 35"	06:42	+41°22' 43"	12:57	271°11' 28"	08:06	16:26	00:11	12:57
30-11-2010	01:31	93°36' 13"	07:31	+35°18' 12"	13:17	261°55' 53"	08:07	16:26	01:31	13:17
01-12-2010	02:52	103°09' 13"	08:22	+29°24' 32"	13:38	252°55' 24"	08:09	16:25	02:52	13:38
02-12-2010	04:14	112°10' 26"	09:14	+24°03' 09"	14:02	244°35' 40"	08:10	16:25	04:14	14:02
03-12-2010	05:35	120°06' 17"	10:08	+19°35' 51"	14:32	237°28' 56"	08:11	16:24	05:35	14:32
04-12-2010	06:54	126°15' 32"	11:05	+16°22' 51"	15:10	232°14' 21"	08:13	16:24	06:54	15:10
05-12-2010	08:06	129°55' 55"	12:03	+14°38' 55"	15:57	229°31' 00"	08:14	16:23	08:06	15:57
06-12-2010	09:06	130°40' 56"	13:00	+14°29' 36"	16:55	229°41' 00"	08:15	16:23	09:06	16:55
07-12-2010	09:54	128°38' 03"	13:56	+15°49' 34"	18:01	232°33' 40"	08:16	16:23	09:54	18:01
08-12-2010	10:31	124°20' 52"	14:48	+18°25' 11"	19:11	237°34' 09"	08:17	16:22	10:31	19:11
09-12-2010	11:00	118°31' 31"	15:36	+21°59' 02"	20:22	243°59' 27"	08:18	16:22	11:00	20:22
10-12-2010	11:22	111°45' 01"	16:22	+26°14' 08"	21:31	251°15' 58"	08:20	16:22	11:22	21:31
11-12-2010	11:41	104°25' 47"	17:04	+30°55' 56"	22:39	258°59' 13"	08:21	16:22	11:41	22:39
12-12-2010	11:58	96°49' 44"	17:45	+35°52' 42"	23:45	266°54' 55"	08:22	16:22	11:58	23:45
13-12-2010	12:14	89°07' 33"	18:26	+40°54' 41"	00:50(+1T)	274°52' 42"	08:22	16:22	12:14	---
14-12-2010	12:30	81°27' 38"	19:06	+45°53' 00"	01:56(+1T)	282°43' 20"	08:23	16:22	12:30	00:50
15-12-2010	12:47	73°58' 44"	19:48	+50°38' 13"	03:04(+1T)	290°15' 32"	08:24	16:22	12:47	01:56
16-12-2010	13:07	66°52' 39"	20:33	+54°59' 10"	04:13(+1T)	297°12' 36"	08:25	16:22	13:07	03:04
17-12-2010	13:32	60°27' 11"	21:21	+58°41' 57"	05:23(+1T)	303°08' 46"	08:26	16:22	13:32	04:13
18-12-2010	14:03	55°09' 16"	22:12	+61°29' 48"	06:32(+1T)	307°27' 50"	08:26	16:23	14:03	05:23
19-12-2010	14:44	51°35' 49"	23:07	+63°04' 48"	07:35(+1T)	309°28' 41"	08:27	16:23	14:44	06:32
20-12-2010	15:36	50°15' 05"	---	---	07:35	309°16' 27"	08:28	16:23	15:36	07:35
21-12-2010	15:36(-1T)	50°27' 19"	00:05	+63°11' 36"	08:30	308°42' 06"	08:28	16:24	16:41	08:30
22-12-2010	16:41(-1T)	52°10' 41"	01:03	+61°42' 29"	09:15	305°07' 53"	08:29	16:24	17:55	09:15
23-12-2010	17:55(-1T)	56°42' 21"	02:00	+58°40' 49"	09:50	299°13' 56"	08:29	16:25	19:16	09:50
24-12-2010	19:16(-1T)	63°30' 29"	02:56	+54°20' 31"	10:19	291°39' 46"	08:30	16:26	20:38	10:19
25-12-2010	20:38(-1T)	71°53' 07"	03:48	+49°02' 13"	10:42	283°02' 39"	08:30	16:26	22:00	10:42
26-12-2010	22:00(-1T)	81°09' 37"	04:39	+43°08' 57"	11:03	273°53' 08"	08:30	16:27	23:20	11:03

Aufgang/Untergang

Datum/Standort

Datum: 01-01-2010
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Objekt

Mond:
 Mond (Erde)

Datum	Aufgang		Meridiandurchgang		Untergang		Sonne		Mond	
	Ortszeit	Azm	Ortszeit	Höhe	Ortszeit	Azm	Aufgang	Untergang	Aufgang	Untergang
27-12-2010	23:20(-1T)	90°48'39"	05:29	+37°03'15"	11:23	264°35'58"	08:31	16:28	---	11:23
28-12-2010	00:41	100°23'46"	06:19	+31°06'18"	11:44	255°32'56"	08:31	16:29	00:41	11:44
29-12-2010	02:01	109°30'03"	07:09	+25°38'01"	12:06	247°06'20"	08:31	16:29	02:01	12:06
30-12-2010	03:21	117°39'54"	08:02	+20°57'28"	12:34	239°42'15"	08:31	16:30	03:21	12:34
31-12-2010	04:39	124°19'53"	08:56	+17°22'26"	13:07	233°52'49"	08:31	16:31	04:39	13:07