

## Sichtbarkeit

### Datum/Standort

Datum: 01-01-2010  
 Zeitraum: 1 Jahr  
 Br.: 2°15' 6"N  
 Län.: 178°36'31"O

### Objekt

Planet:  
 Saturn

Datum (0:00 Ortszeit)	Scheinbarer Ort		Azim	Höhe	Helligkeit	Entf.	Winkeld.	Sonne Elong.	Mond	
	RA	Dek							Phase	Winkel
01-01-2010	12h20m10s	+ 0° 18 ' 32"	88° 29 ' 58"	-0° 50 ' 13"	0.99 m	9.323 AE	17.8"	+ 95.9°	99 %	+ 81.7°
02-01-2010	12h20m15s	+ 0° 18 ' 17"	89° 14 ' 44"	-0° 13 ' 38"	0.99 m	9.307 AE	17.9"	+ 96.9°	98 %	+ 66.5°
03-01-2010	12h20m20s	+ 0° 18 ' 03"	89° 59 ' 32"	+0° 23 ' 02"	0.98 m	9.290 AE	17.9"	+ 97.9°	93 %	+ 51.4°
04-01-2010	12h20m25s	+ 0° 17 ' 53"	90° 44 ' 24"	+0° 59 ' 49"	0.98 m	9.274 AE	17.9"	+ 98.9°	85 %	+ 36.7°
05-01-2010	12h20m29s	+ 0° 17 ' 45"	91° 29 ' 19"	+1° 36 ' 41"	0.98 m	9.258 AE	18.0"	+ 99.9°	76 %	+ 22.6°
06-01-2010	12h20m32s	+ 0° 17 ' 39"	92° 14 ' 19"	+2° 13 ' 38"	0.97 m	9.241 AE	18.0"	+ 100.9°	66 %	+ 10.5°
07-01-2010	12h20m36s	+ 0° 17 ' 36"	92° 59 ' 23"	+2° 50 ' 39"	0.97 m	9.225 AE	18.0"	+ 101.9°	55 %	+ 10.4°
08-01-2010	12h20m39s	+ 0° 17 ' 36"	93° 44 ' 33"	+3° 27 ' 45"	0.96 m	9.209 AE	18.0"	+ 102.9°	44 %	+ 21.6°
09-01-2010	12h20m41s	+ 0° 17 ' 38"	94° 29 ' 50"	+4° 04 ' 55"	0.96 m	9.193 AE	18.1"	+ 103.9°	34 %	+ 34.0°
10-01-2010	12h20m43s	+ 0° 17 ' 43"	95° 15 ' 14"	+4° 42 ' 09"	0.96 m	9.177 AE	18.1"	+ 104.9°	24 %	+ 46.5°
11-01-2010	12h20m45s	+ 0° 17 ' 50"	96° 00 ' 45"	+5° 19 ' 25"	0.95 m	9.161 AE	18.1"	+ 105.9°	16 %	+ 58.7°
12-01-2010	12h20m47s	+ 0° 18 ' 00"	96° 46 ' 25"	+5° 56 ' 45"	0.95 m	9.145 AE	18.2"	+ 107.0°	10 %	+ 70.8°
13-01-2010	12h20m47s	+ 0° 18 ' 13"	97° 32 ' 14"	+6° 34 ' 07"	0.94 m	9.129 AE	18.2"	+ 108.0°	4 %	+ 82.7°
14-01-2010	12h20m48s	+ 0° 18 ' 28"	98° 18 ' 12"	+7° 11 ' 30"	0.94 m	9.113 AE	18.2"	+ 109.0°	1 %	+ 94.5°
15-01-2010	12h20m48s	+ 0° 18 ' 46"	99° 04 ' 21"	+7° 48 ' 55"	0.93 m	9.097 AE	18.3"	+ 110.0°	0 %	+ 106.2°
16-01-2010	12h20m48s	+ 0° 19 ' 07"	99° 50 ' 42"	+8° 26 ' 21"	0.93 m	9.082 AE	18.3"	+ 111.0°	0 %	+ 117.8°
17-01-2010	12h20m47s	+ 0° 19 ' 30"	100° 37 ' 14"	+9° 03 ' 48"	0.92 m	9.067 AE	18.3"	+ 112.1°	2 %	+ 129.4°
18-01-2010	12h20m46s	+ 0° 19 ' 55"	101° 23 ' 59"	+9° 41 ' 15"	0.92 m	9.051 AE	18.4"	+ 113.1°	6 %	+ 140.9°
19-01-2010	12h20m45s	+ 0° 20 ' 23"	102° 10 ' 57"	+10° 18 ' 41"	0.91 m	9.036 AE	18.4"	+ 114.1°	11 %	+ 152.4°
20-01-2010	12h20m43s	+ 0° 20 ' 54"	102° 58 ' 09"	+10° 56 ' 07"	0.91 m	9.021 AE	18.4"	+ 115.1°	18 %	+ 163.5°
21-01-2010	12h20m40s	+ 0° 21 ' 27"	103° 45 ' 36"	+11° 33 ' 31"	0.90 m	9.006 AE	18.5"	+ 116.2°	26 %	+ 172.4°
22-01-2010	12h20m38s	+ 0° 22 ' 02"	104° 33 ' 19"	+12° 10 ' 53"	0.90 m	8.991 AE	18.5"	+ 117.2°	35 %	+ 168.4°
23-01-2010	12h20m35s	+ 0° 22 ' 40"	105° 21 ' 19"	+12° 48 ' 13"	0.89 m	8.976 AE	18.5"	+ 118.2°	45 %	+ 157.2°
24-01-2010	12h20m31s	+ 0° 23 ' 21"	106° 09 ' 35"	+13° 25 ' 31"	0.89 m	8.962 AE	18.5"	+ 119.3°	55 %	+ 144.8°
25-01-2010	12h20m27s	+ 0° 24 ' 04"	106° 58 ' 10"	+14° 02 ' 44"	0.88 m	8.948 AE	18.6"	+ 120.3°	65 %	+ 131.7°
26-01-2010	12h20m23s	+ 0° 24 ' 49"	107° 47 ' 03"	+14° 39 ' 54"	0.88 m	8.933 AE	18.6"	+ 121.3°	75 %	+ 118.1°
27-01-2010	12h20m19s	+ 0° 25 ' 37"	108° 36 ' 16"	+15° 16 ' 59"	0.87 m	8.919 AE	18.6"	+ 122.4°	84 %	+ 103.9°
28-01-2010	12h20m14s	+ 0° 26 ' 27"	109° 25 ' 49"	+15° 53 ' 59"	0.87 m	8.905 AE	18.7"	+ 123.4°	92 %	+ 89.2°
29-01-2010	12h20m08s	+ 0° 27 ' 19"	110° 15 ' 44"	+16° 30 ' 54"	0.86 m	8.892 AE	18.7"	+ 124.4°	97 %	+ 74.1°
30-01-2010	12h20m02s	+ 0° 28 ' 14"	111° 06 ' 00"	+17° 07 ' 42"	0.86 m	8.878 AE	18.7"	+ 125.5°	99 %	+ 58.7°

## Sichtbarkeit

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Datum: 01-01-2010  
 Zeitraum: 1 Jahr  
 Br.: 2°15' 6"N  
 Län.: 178°36'31"O

### Objekt

Planet:  
 Saturn

Datum (0:00 Ortszeit)	Scheinbarer Ort		Azim	Höhe	Helligkeit	Entf.	Winkeld.	Sonne Elong.	Mond	
	RA	Dek							Phase	Winkel
31-01-2010	12h19m56s	+ 0° 29 ' 11"	111° 56 ' 40"	+17° 44 ' 23"	0.85 m	8.865 AE	18.7"	+ 126.5°	99 %	+ 43.4°
01-02-2010	12h19m50s	+ 0° 30 ' 10"	112° 47 ' 43"	+18° 20 ' 57"	0.85 m	8.851 AE	18.8"	+ 127.6°	95 %	+ 28.5°
02-02-2010	12h19m43s	+ 0° 31 ' 11"	113° 39 ' 11"	+18° 57 ' 22"	0.84 m	8.838 AE	18.8"	+ 128.6°	89 %	+ 14.6°
03-02-2010	12h19m36s	+ 0° 32 ' 15"	114° 31 ' 04"	+19° 33 ' 39"	0.83 m	8.825 AE	18.8"	+ 129.7°	81 %	+ 8.3°
04-02-2010	12h19m28s	+ 0° 33 ' 21"	115° 23 ' 24"	+20° 09 ' 45"	0.83 m	8.813 AE	18.9"	+ 130.7°	71 %	+ 18.3°
05-02-2010	12h19m20s	+ 0° 34 ' 29"	116° 16 ' 11"	+20° 45 ' 42"	0.82 m	8.800 AE	18.9"	+ 131.8°	60 %	+ 31.1°
06-02-2010	12h19m12s	+ 0° 35 ' 39"	117° 09 ' 26"	+21° 21 ' 28"	0.82 m	8.788 AE	18.9"	+ 132.8°	50 %	+ 43.9°
07-02-2010	12h19m03s	+ 0° 36 ' 51"	118° 03 ' 10"	+21° 57 ' 02"	0.81 m	8.776 AE	18.9"	+ 133.9°	40 %	+ 56.4°
08-02-2010	12h18m54s	+ 0° 38 ' 05"	118° 57 ' 24"	+22° 32 ' 24"	0.81 m	8.764 AE	19.0"	+ 134.9°	30 %	+ 68.6°
09-02-2010	12h18m45s	+ 0° 39 ' 21"	119° 52 ' 08"	+23° 07 ' 32"	0.80 m	8.753 AE	19.0"	+ 136.0°	22 %	+ 80.7°
10-02-2010	12h18m35s	+ 0° 40 ' 40"	120° 47 ' 25"	+23° 42 ' 27"	0.80 m	8.741 AE	19.0"	+ 137.0°	14 %	+ 92.5°
11-02-2010	12h18m25s	+ 0° 42 ' 00"	121° 43 ' 13"	+24° 17 ' 06"	0.79 m	8.730 AE	19.0"	+ 138.1°	8 %	+ 104.2°
12-02-2010	12h18m15s	+ 0° 43 ' 22"	122° 39 ' 36"	+24° 51 ' 30"	0.78 m	8.719 AE	19.1"	+ 139.2°	4 %	+ 115.9°
13-02-2010	12h18m04s	+ 0° 44 ' 46"	123° 36 ' 32"	+25° 25 ' 37"	0.78 m	8.708 AE	19.1"	+ 140.2°	1 %	+ 127.5°
14-02-2010	12h17m53s	+ 0° 46 ' 12"	124° 34 ' 03"	+25° 59 ' 27"	0.77 m	8.698 AE	19.1"	+ 141.3°	0 %	+ 139.1°
15-02-2010	12h17m42s	+ 0° 47 ' 40"	125° 32 ' 11"	+26° 32 ' 59"	0.77 m	8.688 AE	19.1"	+ 142.3°	0 %	+ 150.6°
16-02-2010	12h17m30s	+ 0° 49 ' 09"	126° 30 ' 55"	+27° 06 ' 12"	0.76 m	8.678 AE	19.2"	+ 143.4°	3 %	+ 161.9°
17-02-2010	12h17m18s	+ 0° 50 ' 40"	127° 30 ' 17"	+27° 39 ' 04"	0.76 m	8.668 AE	19.2"	+ 144.4°	7 %	+ 171.6°
18-02-2010	12h17m06s	+ 0° 52 ' 12"	128° 30 ' 17"	+28° 11 ' 35"	0.75 m	8.658 AE	19.2"	+ 145.5°	13 %	+ 169.9°
19-02-2010	12h16m54s	+ 0° 53 ' 47"	129° 30 ' 57"	+28° 43 ' 44"	0.74 m	8.649 AE	19.2"	+ 146.6°	20 %	+ 159.2°
20-02-2010	12h16m41s	+ 0° 55 ' 22"	130° 32 ' 16"	+29° 15 ' 30"	0.74 m	8.640 AE	19.2"	+ 147.7°	29 %	+ 147.2°
21-02-2010	12h16m28s	+ 0° 57 ' 00"	131° 34 ' 16"	+29° 46 ' 52"	0.73 m	8.631 AE	19.3"	+ 148.7°	38 %	+ 134.5°
22-02-2010	12h16m15s	+ 0° 58 ' 38"	132° 36 ' 57"	+30° 17 ' 49"	0.73 m	8.623 AE	19.3"	+ 149.8°	49 %	+ 121.5°
23-02-2010	12h16m01s	+ 1° 00 ' 18"	133° 40 ' 20"	+30° 48 ' 19"	0.72 m	8.615 AE	19.3"	+ 150.8°	60 %	+ 108.0°
24-02-2010	12h15m47s	+ 1° 01 ' 59"	134° 44 ' 26"	+31° 18 ' 23"	0.72 m	8.607 AE	19.3"	+ 151.9°	70 %	+ 94.0°
25-02-2010	12h15m33s	+ 1° 03 ' 42"	135° 49 ' 15"	+31° 47 ' 57"	0.71 m	8.599 AE	19.3"	+ 153.0°	80 %	+ 79.5°
26-02-2010	12h15m19s	+ 1° 05 ' 26"	136° 54 ' 47"	+32° 17 ' 03"	0.70 m	8.592 AE	19.3"	+ 154.0°	89 %	+ 64.7°
27-02-2010	12h15m05s	+ 1° 07 ' 11"	138° 01 ' 04"	+32° 45 ' 37"	0.70 m	8.585 AE	19.4"	+ 155.1°	95 %	+ 49.6°
28-02-2010	12h14m50s	+ 1° 08 ' 57"	139° 08 ' 05"	+33° 13 ' 40"	0.69 m	8.578 AE	19.4"	+ 156.2°	99 %	+ 34.5°
01-03-2010	12h14m35s	+ 1° 10 ' 44"	140° 15 ' 51"	+33° 41 ' 11"	0.69 m	8.572 AE	19.4"	+ 157.2°	99 %	+ 19.8°

## Sichtbarkeit

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### Objekt

Planet:  
 Saturn

Datum (0:00 Ortszeit)	Scheinbarer Ort		Azm	Höhe	Helligkeit	Entf.	Winkeld.	Sonne Elong.	Mond	
	RA	Dek							Phase	Winkel
02-03-2010	12h14m20s	+ 1° 12 ' 32"	141° 24 ' 23"	+34° 08 ' 07"	0.68 m	8.565 AE	19.4"	+ 158.3°	97 %	+ 8.6°
03-03-2010	12h14m05s	+ 1° 14 ' 21"	142° 33 ' 39"	+34° 34 ' 28"	0.68 m	8.559 AE	19.4"	+ 159.4°	92 %	+ 14.4°
04-03-2010	12h13m49s	+ 1° 16 ' 10"	143° 43 ' 42"	+35° 00 ' 12"	0.67 m	8.554 AE	19.4"	+ 160.4°	85 %	+ 27.4°
05-03-2010	12h13m34s	+ 1° 18 ' 01"	144° 54 ' 30"	+35° 25 ' 19"	0.67 m	8.548 AE	19.4"	+ 161.5°	76 %	+ 40.9°
06-03-2010	12h13m18s	+ 1° 19 ' 53"	146° 06 ' 03"	+35° 49 ' 48"	0.66 m	8.543 AE	19.5"	+ 162.6°	67 %	+ 54.0°
07-03-2010	12h13m02s	+ 1° 21 ' 45"	147° 18 ' 22"	+36° 13 ' 36"	0.66 m	8.539 AE	19.5"	+ 163.6°	57 %	+ 66.7°
08-03-2010	12h12m46s	+ 1° 23 ' 38"	148° 31 ' 26"	+36° 36 ' 44"	0.65 m	8.534 AE	19.5"	+ 164.7°	47 %	+ 79.1°
09-03-2010	12h12m29s	+ 1° 25 ' 31"	149° 45 ' 15"	+36° 59 ' 09"	0.65 m	8.530 AE	19.5"	+ 165.7°	37 %	+ 91.2°
10-03-2010	12h12m13s	+ 1° 27 ' 25"	150° 59 ' 48"	+37° 20 ' 51"	0.64 m	8.526 AE	19.5"	+ 166.8°	28 %	+ 103.1°
11-03-2010	12h11m56s	+ 1° 29 ' 19"	152° 15 ' 05"	+37° 41 ' 48"	0.64 m	8.523 AE	19.5"	+ 167.8°	20 %	+ 114.8°
12-03-2010	12h11m40s	+ 1° 31 ' 14"	153° 31 ' 05"	+38° 02 ' 00"	0.63 m	8.519 AE	19.5"	+ 168.9°	13 %	+ 126.5°
13-03-2010	12h11m23s	+ 1° 33 ' 09"	154° 47 ' 47"	+38° 21 ' 25"	0.63 m	8.516 AE	19.5"	+ 169.9°	7 %	+ 138.1°
14-03-2010	12h11m06s	+ 1° 35 ' 05"	156° 05 ' 11"	+38° 40 ' 01"	0.62 m	8.514 AE	19.5"	+ 171.0°	3 %	+ 149.6°
15-03-2010	12h10m49s	+ 1° 37 ' 00"	157° 23 ' 15"	+38° 57 ' 49"	0.62 m	8.511 AE	19.5"	+ 172.0°	0 %	+ 161.0°
16-03-2010	12h10m32s	+ 1° 38 ' 56"	158° 41 ' 58"	+39° 14 ' 47"	0.61 m	8.509 AE	19.5"	+ 173.0°	0 %	+ 171.1°
17-03-2010	12h10m15s	+ 1° 40 ' 52"	160° 01 ' 19"	+39° 30 ' 53"	0.61 m	8.508 AE	19.5"	+ 174.0°	1 %	+ 170.7°
18-03-2010	12h09m58s	+ 1° 42 ' 48"	161° 21 ' 16"	+39° 46 ' 07"	0.60 m	8.506 AE	19.5"	+ 174.9°	4 %	+ 160.1°
19-03-2010	12h09m41s	+ 1° 44 ' 44"	162° 41 ' 48"	+40° 00 ' 28"	0.60 m	8.505 AE	19.5"	+ 175.8°	9 %	+ 148.0°
20-03-2010	12h09m24s	+ 1° 46 ' 39"	164° 02 ' 53"	+40° 13 ' 55"	0.60 m	8.504 AE	19.5"	+ 176.6°	16 %	+ 135.5°
21-03-2010	12h09m06s	+ 1° 48 ' 35"	165° 24 ' 29"	+40° 26 ' 27"	0.59 m	8.504 AE	19.5"	+ 177.2°	24 %	+ 122.6°
22-03-2010	12h08m49s	+ 1° 50 ' 30"	166° 46 ' 34"	+40° 38 ' 04"	0.59 m	8.504 AE	19.5"	+ 177.4°	34 %	+ 109.4°
23-03-2010	12h08m32s	+ 1° 52 ' 25"	168° 09 ' 06"	+40° 48 ' 43"	0.60 m	8.504 AE	19.5"	+ 177.2°	44 %	+ 95.9°
24-03-2010	12h08m15s	+ 1° 54 ' 19"	169° 32 ' 03"	+40° 58 ' 26"	0.60 m	8.504 AE	19.5"	+ 176.7°	55 %	+ 82.1°
25-03-2010	12h07m57s	+ 1° 56 ' 14"	170° 55 ' 23"	+41° 07 ' 11"	0.60 m	8.505 AE	19.5"	+ 175.9°	66 %	+ 67.9°
26-03-2010	12h07m40s	+ 1° 58 ' 07"	172° 19 ' 02"	+41° 14 ' 57"	0.61 m	8.506 AE	19.5"	+ 175.1°	77 %	+ 53.5°
27-03-2010	12h07m23s	+ 2° 00 ' 00"	173° 43 ' 00"	+41° 21 ' 44"	0.61 m	8.508 AE	19.5"	+ 174.1°	86 %	+ 38.9°
28-03-2010	12h07m06s	+ 2° 01 ' 53"	175° 07 ' 12"	+41° 27 ' 32"	0.62 m	8.509 AE	19.5"	+ 173.1°	93 %	+ 24.4°
29-03-2010	12h06m49s	+ 2° 03 ' 40"	156° 56 ' 37"	+39° 20 ' 03"	0.62 m	8.511 AE	19.5"	+ 172.2°	97 %	+ 11.6°
30-03-2010	12h06m32s	+ 2° 05 ' 31"	158° 15 ' 40"	+39° 37 ' 14"	0.63 m	8.514 AE	19.5"	+ 171.2°	99 %	+ 10.4°
31-03-2010	12h06m15s	+ 2° 07 ' 21"	159° 35 ' 20"	+39° 53 ' 31"	0.64 m	8.516 AE	19.5"	+ 170.2°	98 %	+ 22.8°

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Datum: 01-01-2010  
 Zeitraum: 1 Jahr  
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### Objekt

Planet:  
 Saturn

Datum (0:00 Ortszeit)	Scheinbarer Ort		Azim	Höhe	Helligkeit	Entf.	Winkeld.	Sonne Elong.	Mond	
	RA	Dek							Phase	Winkel
01-04-2010	12h05m58s	+ 2° 09 ' 10"	160° 55 ' 35"	+40° 08 ' 56"	0.64 m	8.519 AE	19.5"	+ 169.1°	95 %	+ 36.5°
02-04-2010	12h05m41s	+ 2° 10 ' 59"	162° 16 ' 23"	+40° 23 ' 26"	0.65 m	8.522 AE	19.5"	+ 168.1°	89 %	+ 50.2°
03-04-2010	12h05m25s	+ 2° 12 ' 46"	163° 37 ' 42"	+40° 37 ' 00"	0.65 m	8.526 AE	19.5"	+ 167.1°	82 %	+ 63.5°
04-04-2010	12h05m08s	+ 2° 14 ' 33"	164° 59 ' 31"	+40° 49 ' 39"	0.66 m	8.530 AE	19.5"	+ 166.0°	73 %	+ 76.4°
05-04-2010	12h04m51s	+ 2° 16 ' 19"	166° 21 ' 47"	+41° 01 ' 21"	0.67 m	8.534 AE	19.5"	+ 165.0°	64 %	+ 88.9°
06-04-2010	12h04m35s	+ 2° 18 ' 03"	167° 44 ' 29"	+41° 12 ' 06"	0.67 m	8.538 AE	19.5"	+ 163.9°	54 %	+ 101.0°
07-04-2010	12h04m19s	+ 2° 19 ' 46"	169° 07 ' 33"	+41° 21 ' 52"	0.68 m	8.543 AE	19.5"	+ 162.9°	45 %	+ 113.0°
08-04-2010	12h04m03s	+ 2° 21 ' 28"	170° 30 ' 59"	+41° 30 ' 40"	0.69 m	8.548 AE	19.4"	+ 161.8°	35 %	+ 124.7°
09-04-2010	12h03m46s	+ 2° 23 ' 09"	171° 54 ' 42"	+41° 38 ' 28"	0.69 m	8.553 AE	19.4"	+ 160.8°	27 %	+ 136.3°
10-04-2010	12h03m31s	+ 2° 24 ' 49"	173° 18 ' 41"	+41° 45 ' 17"	0.70 m	8.559 AE	19.4"	+ 159.7°	19 %	+ 147.9°
11-04-2010	12h03m15s	+ 2° 26 ' 27"	174° 42 ' 53"	+41° 51 ' 07"	0.71 m	8.565 AE	19.4"	+ 158.7°	12 %	+ 159.3°
12-04-2010	12h02m59s	+ 2° 28 ' 03"	176° 07 ' 15"	+41° 55 ' 55"	0.71 m	8.571 AE	19.4"	+ 157.7°	6 %	+ 169.8°
13-04-2010	12h02m44s	+ 2° 29 ' 38"	177° 31 ' 45"	+41° 59 ' 44"	0.72 m	8.577 AE	19.4"	+ 156.6°	2 %	+ 171.9°
14-04-2010	12h02m29s	+ 2° 31 ' 12"	178° 56 ' 19"	+42° 02 ' 31"	0.73 m	8.584 AE	19.4"	+ 155.6°	0 %	+ 161.8°
15-04-2010	12h02m14s	+ 2° 32 ' 44"	180° 20 ' 56"	+42° 04 ' 18"	0.73 m	8.591 AE	19.3"	+ 154.5°	0 %	+ 149.8°
16-04-2010	12h01m59s	+ 2° 34 ' 14"	181° 45 ' 32"	+42° 05 ' 04"	0.74 m	8.598 AE	19.3"	+ 153.5°	2 %	+ 137.2°
17-04-2010	12h01m44s	+ 2° 35 ' 43"	183° 10 ' 04"	+42° 04 ' 50"	0.75 m	8.606 AE	19.3"	+ 152.4°	6 %	+ 124.2°
18-04-2010	12h01m30s	+ 2° 37 ' 10"	184° 34 ' 29"	+42° 03 ' 35"	0.75 m	8.614 AE	19.3"	+ 151.4°	12 %	+ 111.0°
19-04-2010	12h01m16s	+ 2° 38 ' 35"	185° 58 ' 45"	+42° 01 ' 20"	0.76 m	8.622 AE	19.3"	+ 150.4°	20 %	+ 97.5°
20-04-2010	12h01m02s	+ 2° 39 ' 59"	187° 22 ' 49"	+41° 58 ' 05"	0.77 m	8.630 AE	19.3"	+ 149.3°	29 %	+ 83.9°
21-04-2010	12h00m48s	+ 2° 41 ' 20"	188° 46 ' 39"	+41° 53 ' 51"	0.78 m	8.639 AE	19.2"	+ 148.3°	40 %	+ 70.0°
22-04-2010	12h00m35s	+ 2° 42 ' 40"	190° 10 ' 11"	+41° 48 ' 37"	0.78 m	8.647 AE	19.2"	+ 147.3°	51 %	+ 56.0°
23-04-2010	12h00m22s	+ 2° 43 ' 58"	191° 33 ' 23"	+41° 42 ' 25"	0.79 m	8.657 AE	19.2"	+ 146.2°	63 %	+ 41.8°
24-04-2010	12h00m09s	+ 2° 45 ' 13"	192° 56 ' 13"	+41° 35 ' 15"	0.80 m	8.666 AE	19.2"	+ 145.2°	73 %	+ 27.8°
25-04-2010	11h59m56s	+ 2° 46 ' 27"	194° 18 ' 38"	+41° 27 ' 08"	0.80 m	8.676 AE	19.2"	+ 144.2°	83 %	+ 14.5°
26-04-2010	11h59m44s	+ 2° 47 ' 39"	195° 40 ' 36"	+41° 18 ' 04"	0.81 m	8.685 AE	19.1"	+ 143.2°	91 %	+ 8.6°
27-04-2010	11h59m32s	+ 2° 48 ' 49"	197° 02 ' 05"	+41° 08 ' 04"	0.82 m	8.695 AE	19.1"	+ 142.1°	96 %	+ 18.9°
28-04-2010	11h59m20s	+ 2° 49 ' 56"	198° 23 ' 03"	+40° 57 ' 09"	0.82 m	8.706 AE	19.1"	+ 141.1°	99 %	+ 32.5°
29-04-2010	11h59m08s	+ 2° 51 ' 02"	199° 43 ' 27"	+40° 45 ' 20"	0.83 m	8.716 AE	19.1"	+ 140.1°	99 %	+ 46.2°
30-04-2010	11h58m57s	+ 2° 52 ' 05"	201° 03 ' 17"	+40° 32 ' 37"	0.84 m	8.727 AE	19.0"	+ 139.1°	97 %	+ 59.7°

## Sichtbarkeit

### Datum/Standort

Datum: 01-01-2010  
 Zeitraum: 1 Jahr  
 Br.: 2°15' 6"N  
 Län.: 178°36'31"O

### Objekt

Planet:  
 Saturn

Datum (0:00 Ortszeit)	Scheinbarer Ort		Azim	Höhe	Helligkeit	Entf.	Winkeld.	Sonne Elong.	Mond	
	RA	Dek							Phase	Winkel
01-05-2010	11h58m46s	+ 2° 53 ' 07"	202° 22 ' 30"	+40° 19 ' 03"	0.85 m	8.738 AE	19.0"	+ 138.1°	93 %	+ 73.0°
02-05-2010	11h58m35s	+ 2° 54 ' 06"	203° 41 ' 04"	+40° 04 ' 37"	0.85 m	8.749 AE	19.0"	+ 137.0°	87 %	+ 85.8°
03-05-2010	11h58m25s	+ 2° 55 ' 03"	204° 58 ' 59"	+39° 49 ' 20"	0.86 m	8.761 AE	19.0"	+ 136.0°	79 %	+ 98.4°
04-05-2010	11h58m15s	+ 2° 55 ' 58"	206° 16 ' 14"	+39° 33 ' 15"	0.87 m	8.772 AE	18.9"	+ 135.0°	71 %	+ 110.6°
05-05-2010	11h58m05s	+ 2° 56 ' 50"	207° 32 ' 46"	+39° 16 ' 21"	0.87 m	8.784 AE	18.9"	+ 134.0°	62 %	+ 122.5°
06-05-2010	11h57m56s	+ 2° 57 ' 40"	208° 48 ' 34"	+38° 58 ' 40"	0.88 m	8.796 AE	18.9"	+ 133.0°	52 %	+ 134.3°
07-05-2010	11h57m47s	+ 2° 58 ' 28"	210° 03 ' 39"	+38° 40 ' 13"	0.89 m	8.808 AE	18.9"	+ 132.0°	43 %	+ 145.9°
08-05-2010	11h57m38s	+ 2° 59 ' 14"	211° 17 ' 59"	+38° 21 ' 01"	0.89 m	8.821 AE	18.8"	+ 131.0°	33 %	+ 157.3°
09-05-2010	11h57m30s	+ 2° 59 ' 57"	212° 31 ' 33"	+38° 01 ' 06"	0.90 m	8.834 AE	18.8"	+ 130.0°	25 %	+ 168.1°
10-05-2010	11h57m22s	+ 3° 00 ' 38"	213° 44 ' 21"	+37° 40 ' 27"	0.91 m	8.846 AE	18.8"	+ 129.0°	17 %	+ 173.0°
11-05-2010	11h57m14s	+ 3° 01 ' 16"	214° 56 ' 23"	+37° 19 ' 08"	0.91 m	8.859 AE	18.8"	+ 128.0°	10 %	+ 164.2°
12-05-2010	11h57m06s	+ 3° 01 ' 52"	216° 07 ' 38"	+36° 57 ' 08"	0.92 m	8.873 AE	18.7"	+ 127.0°	5 %	+ 152.3°
13-05-2010	11h56m59s	+ 3° 02 ' 26"	217° 18 ' 05"	+36° 34 ' 28"	0.93 m	8.886 AE	18.7"	+ 126.0°	1 %	+ 139.7°
14-05-2010	11h56m53s	+ 3° 02 ' 57"	218° 27 ' 45"	+36° 11 ' 11"	0.93 m	8.899 AE	18.7"	+ 125.0°	0 %	+ 126.8°
15-05-2010	11h56m46s	+ 3° 03 ' 26"	219° 36 ' 38"	+35° 47 ' 17"	0.94 m	8.913 AE	18.6"	+ 124.0°	0 %	+ 113.5°
16-05-2010	11h56m40s	+ 3° 03 ' 52"	220° 44 ' 44"	+35° 22 ' 47"	0.95 m	8.927 AE	18.6"	+ 123.0°	4 %	+ 99.9°
17-05-2010	11h56m35s	+ 3° 04 ' 16"	221° 52 ' 02"	+34° 57 ' 42"	0.95 m	8.941 AE	18.6"	+ 122.0°	9 %	+ 86.0°
18-05-2010	11h56m29s	+ 3° 04 ' 37"	222° 58 ' 34"	+34° 32 ' 04"	0.96 m	8.955 AE	18.6"	+ 121.0°	17 %	+ 72.1°
19-05-2010	11h56m25s	+ 3° 04 ' 56"	224° 04 ' 18"	+34° 05 ' 53"	0.97 m	8.970 AE	18.5"	+ 120.1°	27 %	+ 58.1°
20-05-2010	11h56m20s	+ 3° 05 ' 12"	225° 09 ' 17"	+33° 39 ' 12"	0.97 m	8.984 AE	18.5"	+ 119.1°	37 %	+ 44.0°
21-05-2010	11h56m16s	+ 3° 05 ' 26"	226° 13 ' 29"	+33° 11 ' 59"	0.98 m	8.999 AE	18.5"	+ 118.1°	49 %	+ 30.2°
22-05-2010	11h56m12s	+ 3° 05 ' 38"	227° 16 ' 57"	+32° 44 ' 18"	0.99 m	9.013 AE	18.4"	+ 117.1°	60 %	+ 17.0°
23-05-2010	11h56m09s	+ 3° 05 ' 46"	228° 19 ' 39"	+32° 16 ' 08"	0.99 m	9.028 AE	18.4"	+ 116.2°	71 %	+ 8.3°
24-05-2010	11h56m05s	+ 3° 05 ' 53"	229° 21 ' 37"	+31° 47 ' 31"	1.00 m	9.043 AE	18.4"	+ 115.2°	81 %	+ 15.9°
25-05-2010	11h56m03s	+ 3° 05 ' 57"	230° 22 ' 51"	+31° 18 ' 28"	1.01 m	9.058 AE	18.3"	+ 114.2°	89 %	+ 28.7°
26-05-2010	11h56m00s	+ 3° 05 ' 58"	231° 23 ' 23"	+30° 49 ' 00"	1.01 m	9.073 AE	18.3"	+ 113.2°	94 %	+ 42.1°
27-05-2010	11h55m58s	+ 3° 05 ' 57"	232° 23 ' 12"	+30° 19 ' 08"	1.02 m	9.089 AE	18.3"	+ 112.3°	98 %	+ 55.5°
28-05-2010	11h55m57s	+ 3° 05 ' 54"	233° 22 ' 20"	+29° 48 ' 52"	1.02 m	9.104 AE	18.3"	+ 111.3°	99 %	+ 68.7°
29-05-2010	11h55m56s	+ 3° 05 ' 48"	234° 20 ' 46"	+29° 18 ' 14"	1.03 m	9.120 AE	18.2"	+ 110.3°	98 %	+ 81.7°
30-05-2010	11h55m55s	+ 3° 05 ' 39"	235° 18 ' 33"	+28° 47 ' 14"	1.04 m	9.135 AE	18.2"	+ 109.4°	95 %	+ 94.4°

## Sichtbarkeit

### Datum/Standort

Datum: 01-01-2010  
 Zeitraum: 1 Jahr  
 Br.: 2°15' 6"N  
 Län.: 178°36'31"O

### Objekt

Planet:  
 Saturn

Datum (0:00 Ortszeit)	Scheinbarer Ort		Azim	Höhe	Helligkeit	Entf.	Winkeld.	Sonne Elong.	Mond	
	RA	Dek							Phase	Winkel
31-05-2010	11h55m54s	+ 3°05 ' 28"	236°15 ' 41"	+28°15 ' 53"	1.04 m	9.151 AE	18.2"	+ 108.4°	91 %	+ 106.8°
01-06-2010	11h55m54s	+ 3°05 ' 15"	237°12 ' 10"	+27°44 ' 13"	1.05 m	9.167 AE	18.1"	+ 107.5°	84 %	+ 118.9°
02-06-2010	11h55m54s	+ 3°04 ' 59"	238°08 ' 01"	+27°12 ' 13"	1.05 m	9.183 AE	18.1"	+ 106.5°	77 %	+ 130.8°
03-06-2010	11h55m55s	+ 3°04 ' 40"	239°03 ' 16"	+26°39 ' 56"	1.06 m	9.199 AE	18.1"	+ 105.6°	68 %	+ 142.5°
04-06-2010	11h55m56s	+ 3°04 ' 20"	239°57 ' 54"	+26°07 ' 21"	1.06 m	9.215 AE	18.0"	+ 104.6°	59 %	+ 154.0°
05-06-2010	11h55m58s	+ 3°03 ' 56"	240°51 ' 58"	+25°34 ' 29"	1.07 m	9.231 AE	18.0"	+ 103.7°	50 %	+ 165.1°
06-06-2010	11h55m59s	+ 3°03 ' 31"	241°45 ' 27"	+25°01 ' 21"	1.08 m	9.247 AE	18.0"	+ 102.7°	40 %	+ 173.2°
07-06-2010	11h56m01s	+ 3°03 ' 02"	242°38 ' 23"	+24°27 ' 59"	1.08 m	9.263 AE	17.9"	+ 101.8°	31 %	+ 167.6°
08-06-2010	11h56m04s	+ 3°02 ' 32"	243°30 ' 46"	+23°54 ' 21"	1.09 m	9.280 AE	17.9"	+ 100.8°	22 %	+ 156.3°
09-06-2010	11h56m07s	+ 3°01 ' 59"	244°22 ' 37"	+23°20 ' 30"	1.09 m	9.296 AE	17.9"	+ 99.9°	14 %	+ 144.0°
10-06-2010	11h56m10s	+ 3°01 ' 23"	245°13 ' 58"	+22°46 ' 26"	1.10 m	9.312 AE	17.8"	+ 99.0°	7 %	+ 131.3°
11-06-2010	11h56m14s	+ 3°00 ' 45"	246°04 ' 49"	+22°12 ' 09"	1.10 m	9.329 AE	17.8"	+ 98.0°	3 %	+ 118.1°
12-06-2010	11h56m18s	+ 3°00 ' 05"	246°55 ' 10"	+21°37 ' 40"	1.11 m	9.345 AE	17.8"	+ 97.1°	0 %	+ 104.5°
13-06-2010	11h56m22s	+ 2°59 ' 22"	247°45 ' 03"	+21°03 ' 00"	1.11 m	9.362 AE	17.8"	+ 96.1°	0 %	+ 90.5°
14-06-2010	11h56m27s	+ 2°58 ' 37"	248°34 ' 29"	+20°28 ' 10"	1.12 m	9.378 AE	17.7"	+ 95.2°	2 %	+ 76.4°
15-06-2010	11h56m32s	+ 2°57 ' 49"	249°23 ' 27"	+19°53 ' 09"	1.12 m	9.395 AE	17.7"	+ 94.3°	7 %	+ 62.1°
16-06-2010	11h56m37s	+ 2°57 ' 00"	250°12 ' 01"	+19°17 ' 59"	1.13 m	9.412 AE	17.7"	+ 93.3°	15 %	+ 47.8°
17-06-2010	11h56m43s	+ 2°56 ' 07"	251°00 ' 09"	+18°42 ' 40"	1.13 m	9.428 AE	17.6"	+ 92.4°	24 %	+ 33.7°
18-06-2010	11h56m50s	+ 2°55 ' 13"	251°47 ' 53"	+18°07 ' 12"	1.14 m	9.445 AE	17.6"	+ 91.5°	35 %	+ 20.2°
19-06-2010	11h56m56s	+ 2°54 ' 16"	252°35 ' 13"	+17°31 ' 37"	1.14 m	9.461 AE	17.6"	+ 90.6°	47 %	+ 9.4°
20-06-2010	11h57m03s	+ 2°53 ' 17"	253°22 ' 11"	+16°55 ' 54"	1.14 m	9.478 AE	17.5"	+ 89.7°	58 %	+ 12.9°
21-06-2010	11h57m10s	+ 2°52 ' 16"	254°08 ' 48"	+16°20 ' 04"	1.15 m	9.495 AE	17.5"	+ 88.7°	69 %	+ 25.0°
22-06-2010	11h57m18s	+ 2°51 ' 12"	254°55 ' 03"	+15°44 ' 07"	1.15 m	9.511 AE	17.5"	+ 87.8°	78 %	+ 38.0°
23-06-2010	11h57m26s	+ 2°50 ' 06"	255°40 ' 59"	+15°08 ' 05"	1.16 m	9.528 AE	17.4"	+ 86.9°	86 %	+ 51.1°
24-06-2010	11h57m34s	+ 2°48 ' 58"	256°26 ' 35"	+14°31 ' 57"	1.16 m	9.544 AE	17.4"	+ 86.0°	93 %	+ 64.1°
25-06-2010	11h57m43s	+ 2°47 ' 48"	257°11 ' 52"	+13°55 ' 44"	1.17 m	9.561 AE	17.4"	+ 85.1°	97 %	+ 77.0°
26-06-2010	11h57m52s	+ 2°46 ' 35"	257°56 ' 51"	+13°19 ' 26"	1.17 m	9.578 AE	17.4"	+ 84.2°	99 %	+ 89.6°
27-06-2010	11h58m01s	+ 2°45 ' 21"	258°41 ' 34"	+12°43 ' 04"	1.17 m	9.594 AE	17.3"	+ 83.3°	99 %	+ 102.0°
28-06-2010	11h58m11s	+ 2°44 ' 04"	259°26 ' 00"	+12°06 ' 38"	1.18 m	9.610 AE	17.3"	+ 82.3°	97 %	+ 114.2°
29-06-2010	11h58m21s	+ 2°42 ' 45"	260°10 ' 10"	+11°30 ' 08"	1.18 m	9.627 AE	17.3"	+ 81.5°	94 %	+ 126.2°

## Sichtbarkeit

### Datum/Standort

Datum: 01-01-2010  
 Zeitraum: 1 Jahr  
 Br.: 2°15' 6"N  
 Län.: 178°36'31"O

### Objekt

Planet:  
 Saturn

Datum (0:00 Ortszeit)	Scheinbarer Ort		Azim	Höhe	Helligkeit	Entf.	Winkeld.	Sonne Elong.	Mond	
	RA	Dek							Phase	Winkel
30-06-2010	11h58m32s	+ 2° 41 ' 25"	260° 54 ' 05"	+10° 53 ' 35"	1.19 m	9.643 AE	17.2"	+ 80.5°	89 %	+ 138.0°
01-07-2010	11h58m42s	+ 2° 40 ' 02"	261° 37 ' 46"	+10° 17 ' 00"	1.19 m	9.660 AE	17.2"	+ 79.6°	82 %	+ 149.6°
02-07-2010	11h58m53s	+ 2° 38 ' 36"	262° 21 ' 14"	+9° 40 ' 22"	1.19 m	9.676 AE	17.2"	+ 78.7°	74 %	+ 160.9°
03-07-2010	11h59m05s	+ 2° 37 ' 09"	263° 04 ' 28"	+9° 03 ' 42"	1.20 m	9.692 AE	17.1"	+ 77.8°	66 %	+ 171.0°
04-07-2010	11h59m16s	+ 2° 35 ' 40"	263° 47 ' 30"	+8° 27 ' 01"	1.20 m	9.709 AE	17.1"	+ 77.0°	56 %	+ 171.3°
05-07-2010	11h59m28s	+ 2° 34 ' 09"	264° 30 ' 21"	+7° 50 ' 18"	1.20 m	9.725 AE	17.1"	+ 76.0°	47 %	+ 161.1°
06-07-2010	11h59m41s	+ 2° 32 ' 36"	265° 13 ' 01"	+7° 13 ' 34"	1.21 m	9.741 AE	17.1"	+ 75.2°	37 %	+ 149.4°
07-07-2010	11h59m53s	+ 2° 31 ' 01"	265° 55 ' 31"	+6° 36 ' 49"	1.21 m	9.757 AE	17.0"	+ 74.3°	27 %	+ 137.0°
08-07-2010	12h00m06s	+ 2° 29 ' 24"	266° 37 ' 51"	+6° 00 ' 05"	1.21 m	9.773 AE	17.0"	+ 73.4°	18 %	+ 124.2°
09-07-2010	12h00m20s	+ 2° 27 ' 45"	267° 20 ' 02"	+5° 23 ' 20"	1.21 m	9.789 AE	17.0"	+ 72.5°	11 %	+ 110.9°
10-07-2010	12h00m33s	+ 2° 26 ' 04"	268° 02 ' 04"	+4° 46 ' 35"	1.22 m	9.805 AE	17.0"	+ 71.6°	4 %	+ 97.2°
11-07-2010	12h00m47s	+ 2° 24 ' 21"	268° 43 ' 59"	+4° 09 ' 51"	1.22 m	9.820 AE	16.9"	+ 70.7°	1 %	+ 83.1°
12-07-2010	12h01m01s	+ 2° 22 ' 36"	269° 25 ' 47"	+3° 33 ' 08"	1.22 m	9.836 AE	16.9"	+ 69.8°	0 %	+ 68.7°
13-07-2010	12h01m16s	+ 2° 20 ' 49"	270° 07 ' 28"	+2° 56 ' 26"	1.23 m	9.851 AE	16.9"	+ 68.9°	1 %	+ 54.1°
14-07-2010	12h01m31s	+ 2° 19 ' 01"	270° 49 ' 04"	+2° 19 ' 46"	1.23 m	9.867 AE	16.8"	+ 68.0°	6 %	+ 39.6°
15-07-2010	12h01m46s	+ 2° 17 ' 11"	271° 30 ' 34"	+1° 43 ' 08"	1.23 m	9.882 AE	16.8"	+ 67.2°	13 %	+ 25.4°
16-07-2010	12h02m01s	+ 2° 15 ' 19"	272° 12 ' 00"	+1° 06 ' 31"	1.23 m	9.898 AE	16.8"	+ 66.3°	22 %	+ 12.7°
17-07-2010	12h02m17s	+ 2° 13 ' 25"	272° 53 ' 21"	+0° 29 ' 57"	1.24 m	9.913 AE	16.8"	+ 65.4°	33 %	+ 9.6°
18-07-2010	12h02m33s	+ 2° 11 ' 29"	273° 34 ' 40"	-0° 06 ' 33"	1.24 m	9.928 AE	16.7"	+ 64.5°	44 %	+ 20.4°
19-07-2010	12h02m49s	+ 2° 09 ' 32"	274° 15 ' 55"	-0° 43 ' 02"	1.24 m	9.943 AE	16.7"	+ 63.6°	55 %	+ 33.4°
20-07-2010	12h03m06s	+ 2° 07 ' 33"	274° 57 ' 08"	-1° 19 ' 27"	1.24 m	9.958 AE	16.7"	+ 62.8°	66 %	+ 46.4°
21-07-2010	12h03m23s	+ 2° 05 ' 33"	275° 38 ' 20"	-1° 55 ' 49"	1.24 m	9.972 AE	16.7"	+ 61.9°	75 %	+ 59.2°
22-07-2010	12h03m40s	+ 2° 03 ' 31"	276° 19 ' 30"	-2° 32 ' 07"	1.25 m	9.987 AE	16.6"	+ 61.0°	84 %	+ 71.9°
23-07-2010	12h03m57s	+ 2° 01 ' 27"	277° 00 ' 40"	-3° 08 ' 22"	1.25 m	10.001 AE	16.6"	+ 60.1°	90 %	+ 84.4°
24-07-2010	12h04m15s	+ 1° 59 ' 22"	277° 41 ' 50"	-3° 44 ' 32"	1.25 m	10.016 AE	16.6"	+ 59.3°	95 %	+ 96.7°
25-07-2010	12h04m33s	+ 1° 57 ' 15"	278° 23 ' 00"	-4° 20 ' 37"	1.25 m	10.030 AE	16.6"	+ 58.4°	98 %	+ 108.8°
26-07-2010	12h04m51s	+ 1° 55 ' 07"	279° 04 ' 12"	-4° 56 ' 38"	1.25 m	10.044 AE	16.5"	+ 57.5°	99 %	+ 120.8°
27-07-2010	12h05m09s	+ 1° 52 ' 57"	279° 45 ' 26"	-5° 32 ' 33"	1.25 m	10.058 AE	16.5"	+ 56.6°	99 %	+ 132.6°
28-07-2010	12h05m28s	+ 1° 50 ' 46"	280° 26 ' 41"	-6° 08 ' 24"	1.25 m	10.072 AE	16.5"	+ 55.8°	96 %	+ 144.3°
29-07-2010	12h05m47s	+ 1° 48 ' 33"	281° 08 ' 00"	-6° 44 ' 09"	1.26 m	10.085 AE	16.5"	+ 54.9°	92 %	+ 155.8°

## Sichtbarkeit

### Datum/Standort

Datum: 01-01-2010  
 Zeitraum: 1 Jahr  
 Br.: 2°15' 6"N  
 Län.: 178°36'31"O

### Objekt

Planet:  
 Saturn

Datum (0:00 Ortszeit)	Scheinbarer Ort		Azim	Höhe	Helligkeit	Entf.	Winkeld.	Sonne Elong.	Mond	
	RA	Dek							Phase	Winkel
30-07-2010	12h06m06s	+ 1° 46 ' 19"	281° 49 ' 22"	-7° 19 ' 48"	1.26 m	10.099 AE	16.5"	+ 54.0°	87 %	+ 166.7°
31-07-2010	12h06m25s	+ 1° 44 ' 03"	282° 30 ' 48"	-7° 55 ' 21"	1.26 m	10.112 AE	16.4"	+ 53.2°	80 %	+ 173.5°
01-08-2010	12h06m45s	+ 1° 41 ' 46"	283° 12 ' 19"	-8° 30 ' 47"	1.26 m	10.126 AE	16.4"	+ 52.3°	71 %	+ 166.3°
02-08-2010	12h07m05s	+ 1° 39 ' 28"	283° 53 ' 55"	-9° 06 ' 07"	1.26 m	10.139 AE	16.4"	+ 51.5°	62 %	+ 155.1°
03-08-2010	12h07m25s	+ 1° 37 ' 08"	284° 35 ' 36"	-9° 41 ' 20"	1.25 m	10.152 AE	16.4"	+ 50.6°	53 %	+ 143.1°
04-08-2010	12h07m45s	+ 1° 34 ' 47"	285° 17 ' 24"	-10° 16 ' 26"	1.25 m	10.164 AE	16.4"	+ 49.7°	42 %	+ 130.8°
05-08-2010	12h08m06s	+ 1° 32 ' 24"	285° 59 ' 18"	-10° 51 ' 24"	1.25 m	10.177 AE	16.3"	+ 48.9°	32 %	+ 118.0°
06-08-2010	12h08m26s	+ 1° 30 ' 01"	286° 41 ' 20"	-11° 26 ' 15"	1.25 m	10.189 AE	16.3"	+ 48.0°	22 %	+ 104.8°
07-08-2010	12h08m47s	+ 1° 27 ' 36"	287° 23 ' 29"	-12° 00 ' 58"	1.25 m	10.202 AE	16.3"	+ 47.1°	14 %	+ 91.1°
08-08-2010	12h09m08s	+ 1° 25 ' 09"	288° 05 ' 47"	-12° 35 ' 32"	1.25 m	10.214 AE	16.3"	+ 46.3°	7 %	+ 77.0°
09-08-2010	12h09m30s	+ 1° 22 ' 42"	288° 48 ' 13"	-13° 09 ' 58"	1.25 m	10.226 AE	16.3"	+ 45.4°	2 %	+ 62.5°
10-08-2010	12h09m51s	+ 1° 20 ' 14"	289° 30 ' 50"	-13° 44 ' 15"	1.25 m	10.237 AE	16.2"	+ 44.6°	0 %	+ 47.9°
11-08-2010	12h10m13s	+ 1° 17 ' 44"	290° 13 ' 36"	-14° 18 ' 23"	1.25 m	10.249 AE	16.2"	+ 43.7°	1 %	+ 33.2°
12-08-2010	12h10m35s	+ 1° 15 ' 13"	290° 56 ' 33"	-14° 52 ' 22"	1.25 m	10.260 AE	16.2"	+ 42.9°	5 %	+ 19.1°
13-08-2010	12h10m57s	+ 1° 12 ' 41"	291° 39 ' 41"	-15° 26 ' 10"	1.25 m	10.272 AE	16.2"	+ 42.0°	11 %	+ 8.6°
14-08-2010	12h11m20s	+ 1° 10 ' 08"	292° 23 ' 00"	-15° 59 ' 49"	1.25 m	10.283 AE	16.2"	+ 41.1°	20 %	+ 14.4°
15-08-2010	12h11m42s	+ 1° 07 ' 34"	293° 06 ' 32"	-16° 33 ' 17"	1.24 m	10.293 AE	16.1"	+ 40.3°	30 %	+ 27.2°
16-08-2010	12h12m05s	+ 1° 04 ' 59"	293° 50 ' 17"	-17° 06 ' 35"	1.24 m	10.304 AE	16.1"	+ 39.4°	41 %	+ 40.4°
17-08-2010	12h12m28s	+ 1° 02 ' 23"	294° 34 ' 15"	-17° 39 ' 42"	1.24 m	10.315 AE	16.1"	+ 38.6°	51 %	+ 53.4°
18-08-2010	12h12m51s	+ 0° 59 ' 46"	295° 18 ' 27"	-18° 12 ' 38"	1.24 m	10.325 AE	16.1"	+ 37.7°	62 %	+ 66.2°
19-08-2010	12h13m15s	+ 0° 57 ' 08"	296° 02 ' 54"	-18° 45 ' 22"	1.24 m	10.335 AE	16.1"	+ 36.9°	71 %	+ 78.7°
20-08-2010	12h13m38s	+ 0° 54 ' 29"	296° 47 ' 36"	-19° 17 ' 54"	1.24 m	10.345 AE	16.1"	+ 36.0°	80 %	+ 90.9°
21-08-2010	12h14m02s	+ 0° 51 ' 50"	297° 32 ' 33"	-19° 50 ' 14"	1.24 m	10.354 AE	16.1"	+ 35.1°	87 %	+ 103.0°
22-08-2010	12h14m26s	+ 0° 49 ' 09"	298° 17 ' 47"	-20° 22 ' 21"	1.23 m	10.364 AE	16.0"	+ 34.3°	93 %	+ 114.9°
23-08-2010	12h14m50s	+ 0° 46 ' 28"	299° 03 ' 17"	-20° 54 ' 16"	1.23 m	10.373 AE	16.0"	+ 33.5°	97 %	+ 126.7°
24-08-2010	12h15m14s	+ 0° 43 ' 46"	299° 49 ' 05"	-21° 25 ' 57"	1.23 m	10.382 AE	16.0"	+ 32.6°	99 %	+ 138.4°
25-08-2010	12h15m38s	+ 0° 41 ' 03"	300° 35 ' 10"	-21° 57 ' 25"	1.23 m	10.391 AE	16.0"	+ 31.8°	99 %	+ 150.0°
26-08-2010	12h16m02s	+ 0° 38 ' 19"	301° 21 ' 34"	-22° 28 ' 39"	1.23 m	10.400 AE	16.0"	+ 30.9°	98 %	+ 161.3°
27-08-2010	12h16m27s	+ 0° 35 ' 35"	302° 08 ' 16"	-22° 59 ' 38"	1.22 m	10.408 AE	16.0"	+ 30.1°	95 %	+ 171.3°
28-08-2010	12h16m52s	+ 0° 32 ' 49"	302° 55 ' 19"	-23° 30 ' 22"	1.22 m	10.416 AE	16.0"	+ 29.2°	90 %	+ 171.1°

## Sichtbarkeit

### Datum/Standort

Datum: 01-01-2010  
 Zeitraum: 1 Jahr  
 Br.: 2°15' 6"N  
 Län.: 178°36'31"O

### Objekt

Planet:  
 Saturn

Datum (0:00 Ortszeit)	Scheinbarer Ort		Azim	Höhe	Helligkeit	Entf.	Winkeld.	Sonne Elong.	Mond	
	RA	Dek							Phase	Winkel
29-08-2010	12h17m16s	+ 0°30' 04"	303°42' 41"	-24°00' 52"	1.22 m	10.424 AE	15.9"	+ 28.4°	84 %	+ 160.8°
30-08-2010	12h17m41s	+ 0°27' 17"	304°30' 23"	-24°31' 06"	1.22 m	10.432 AE	15.9"	+ 27.5°	77 %	+ 149.2°
31-08-2010	12h18m06s	+ 0°24' 30"	305°18' 27"	-25°01' 04"	1.21 m	10.440 AE	15.9"	+ 26.6°	68 %	+ 137.1°
01-09-2010	12h18m32s	+ 0°21' 42"	306°06' 52"	-25°30' 46"	1.21 m	10.447 AE	15.9"	+ 25.8°	58 %	+ 124.7°
02-09-2010	12h18m57s	+ 0°18' 54"	306°55' 39"	-26°00' 11"	1.21 m	10.454 AE	15.9"	+ 24.9°	48 %	+ 112.0°
03-09-2010	12h19m22s	+ 0°16' 05"	307°44' 48"	-26°29' 19"	1.21 m	10.461 AE	15.9"	+ 24.1°	37 %	+ 98.8°
04-09-2010	12h19m48s	+ 0°13' 16"	308°34' 21"	-26°58' 09"	1.20 m	10.468 AE	15.9"	+ 23.3°	27 %	+ 85.3°
05-09-2010	12h20m14s	+ 0°10' 26"	309°24' 17"	-27°26' 41"	1.20 m	10.474 AE	15.9"	+ 22.4°	17 %	+ 71.3°
06-09-2010	12h20m40s	+ 0°07' 35"	310°14' 37"	-27°54' 55"	1.20 m	10.480 AE	15.9"	+ 21.6°	9 %	+ 57.0°
07-09-2010	12h21m05s	+ 0°04' 44"	311°05' 22"	-28°22' 50"	1.19 m	10.486 AE	15.8"	+ 20.7°	3 %	+ 42.5°
08-09-2010	12h21m31s	+ 0°01' 53"	311°56' 32"	-28°50' 26"	1.19 m	10.492 AE	15.8"	+ 19.9°	0 %	+ 28.0°
09-09-2010	12h21m58s	- 0°00' 58"	312°48' 07"	-29°17' 42"	1.19 m	10.498 AE	15.8"	+ 19.0°	0 %	+ 14.3°
10-09-2010	12h22m24s	- 0°03' 50"	313°40' 08"	-29°44' 37"	1.18 m	10.503 AE	15.8"	+ 18.2°	3 %	+ 8.5°
11-09-2010	12h22m50s	- 0°06' 42"	314°32' 35"	-30°11' 12"	1.18 m	10.508 AE	15.8"	+ 17.3°	9 %	+ 19.2°
12-09-2010	12h23m16s	- 0°09' 35"	315°25' 29"	-30°37' 25"	1.18 m	10.513 AE	15.8"	+ 16.5°	17 %	+ 32.6°
13-09-2010	12h23m43s	- 0°12' 28"	316°18' 50"	-31°03' 17"	1.18 m	10.517 AE	15.8"	+ 15.6°	26 %	+ 46.1°
14-09-2010	12h24m09s	- 0°15' 22"	317°12' 39"	-31°28' 47"	1.17 m	10.522 AE	15.8"	+ 14.8°	36 %	+ 59.2°
15-09-2010	12h24m36s	- 0°18' 15"	318°06' 55"	-31°53' 53"	1.17 m	10.526 AE	15.8"	+ 13.9°	46 %	+ 72.0°
16-09-2010	12h25m03s	- 0°21' 09"	319°01' 40"	-32°18' 37"	1.16 m	10.530 AE	15.8"	+ 13.1°	56 %	+ 84.4°
17-09-2010	12h25m29s	- 0°24' 03"	319°56' 53"	-32°42' 56"	1.16 m	10.533 AE	15.8"	+ 12.3°	66 %	+ 96.6°
18-09-2010	12h25m56s	- 0°26' 57"	320°52' 34"	-33°06' 51"	1.16 m	10.536 AE	15.8"	+ 11.4°	75 %	+ 108.5°
19-09-2010	12h26m23s	- 0°29' 51"	321°48' 45"	-33°30' 22"	1.15 m	10.540 AE	15.8"	+ 10.6°	83 %	+ 120.3°
20-09-2010	12h26m50s	- 0°32' 45"	322°45' 25"	-33°53' 27"	1.15 m	10.542 AE	15.8"	+ 9.8°	89 %	+ 132.0°
21-09-2010	12h27m17s	- 0°35' 40"	323°42' 35"	-34°16' 06"	1.15 m	10.545 AE	15.8"	+ 8.9°	94 %	+ 143.6°
22-09-2010	12h27m44s	- 0°38' 34"	324°40' 13"	-34°38' 18"	1.14 m	10.548 AE	15.8"	+ 8.1°	97 %	+ 155.1°
23-09-2010	12h28m11s	- 0°41' 28"	325°38' 22"	-35°00' 03"	1.14 m	10.550 AE	15.8"	+ 7.3°	99 %	+ 166.2°
24-09-2010	12h28m38s	- 0°44' 23"	326°37' 00"	-35°21' 21"	1.13 m	10.552 AE	15.8"	+ 6.5°	99 %	+ 173.5°
25-09-2010	12h29m05s	- 0°47' 17"	327°36' 08"	-35°42' 10"	1.13 m	10.553 AE	15.7"	+ 5.7°	97 %	+ 166.6°
26-09-2010	12h29m32s	- 0°50' 12"	328°35' 46"	-36°02' 31"	1.13 m	10.555 AE	15.7"	+ 4.9°	93 %	+ 155.3°
27-09-2010	12h29m59s	- 0°53' 06"	329°35' 54"	-36°22' 22"	1.12 m	10.556 AE	15.7"	+ 4.1°	88 %	+ 143.3°

## Sichtbarkeit

### Datum/Standort

Datum: 01-01-2010  
 Zeitraum: 1 Jahr  
 Br.: 2°15' 6"N  
 Län.: 178°36'31"O

### Objekt

Planet:  
 Saturn

Datum (0:00 Ortszeit)	Scheinbarer Ort		Azim	Höhe	Helligkeit	Entf.	Winkeld.	Sonne Elong.	Mond	
	RA	Dek							Phase	Winkel
28-09-2010	12h30m27s	- 0°56' 00"	330°36' 31"	-36°41' 44"	1.12 m	10.557 AE	15.7"	+ 3.4°	81 %	+ 131.0°
29-09-2010	12h30m54s	- 0°58' 54"	331°37' 38"	-37°00' 35"	1.12 m	10.557 AE	15.7"	+ 2.8°	72 %	+ 118.5°
30-09-2010	12h31m21s	- 1°01' 48"	332°39' 14"	-37°18' 55"	1.11 m	10.558 AE	15.7"	+ 2.4°	63 %	+ 105.7°
01-10-2010	12h31m48s	- 1°04' 42"	333°41' 19"	-37°36' 43"	1.11 m	10.558 AE	15.7"	+ 2.2°	52 %	+ 92.5°
02-10-2010	12h32m16s	- 1°07' 35"	334°43' 53"	-37°53' 59"	1.11 m	10.558 AE	15.7"	+ 2.3°	41 %	+ 79.1°
03-10-2010	12h32m43s	- 1°10' 29"	335°46' 56"	-38°10' 42"	1.11 m	10.558 AE	15.7"	+ 2.7°	30 %	+ 65.4°
04-10-2010	12h33m10s	- 1°13' 22"	336°50' 27"	-38°26' 52"	1.12 m	10.557 AE	15.7"	+ 3.3°	20 %	+ 51.3°
05-10-2010	12h33m37s	- 1°16' 15"	337°54' 26"	-38°42' 29"	1.12 m	10.556 AE	15.7"	+ 4.0°	12 %	+ 37.1°
06-10-2010	12h34m05s	- 1°19' 07"	338°58' 51"	-38°57' 31"	1.12 m	10.555 AE	15.7"	+ 4.7°	5 %	+ 23.0°
07-10-2010	12h34m32s	- 1°21' 59"	340°03' 44"	-39°11' 57"	1.12 m	10.554 AE	15.7"	+ 5.5°	1 %	+ 10.4°
08-10-2010	12h34m59s	- 1°24' 51"	341°09' 03"	-39°25' 49"	1.13 m	10.552 AE	15.7"	+ 6.3°	0 %	+ 11.1°
09-10-2010	12h35m26s	- 1°27' 43"	342°14' 47"	-39°39' 04"	1.13 m	10.550 AE	15.8"	+ 7.1°	2 %	+ 23.6°
10-10-2010	12h35m53s	- 1°30' 33"	343°20' 56"	-39°51' 44"	1.13 m	10.548 AE	15.8"	+ 8.0°	6 %	+ 37.3°
11-10-2010	12h36m21s	- 1°33' 24"	344°27' 29"	-40°03' 46"	1.14 m	10.546 AE	15.8"	+ 8.8°	13 %	+ 50.9°
12-10-2010	12h36m48s	- 1°36' 14"	345°34' 26"	-40°15' 10"	1.14 m	10.543 AE	15.8"	+ 9.6°	21 %	+ 64.1°
13-10-2010	12h37m15s	- 1°39' 03"	346°41' 45"	-40°25' 57"	1.14 m	10.541 AE	15.8"	+ 10.5°	30 %	+ 76.9°
14-10-2010	12h37m42s	- 1°41' 52"	347°49' 25"	-40°36' 05"	1.14 m	10.538 AE	15.8"	+ 11.3°	40 %	+ 89.4°
15-10-2010	12h38m09s	- 1°44' 41"	348°57' 26"	-40°45' 35"	1.15 m	10.534 AE	15.8"	+ 12.2°	50 %	+ 101.6°
16-10-2010	12h38m36s	- 1°47' 28"	350°05' 46"	-40°54' 25"	1.15 m	10.531 AE	15.8"	+ 13.1°	59 %	+ 113.5°
17-10-2010	12h39m03s	- 1°50' 16"	351°14' 25"	-41°02' 36"	1.15 m	10.527 AE	15.8"	+ 13.9°	69 %	+ 125.2°
18-10-2010	12h39m29s	- 1°53' 02"	352°23' 21"	-41°10' 07"	1.15 m	10.523 AE	15.8"	+ 14.8°	77 %	+ 136.9°
19-10-2010	12h39m56s	- 1°55' 48"	353°32' 33"	-41°16' 58"	1.16 m	10.518 AE	15.8"	+ 15.6°	84 %	+ 148.4°
20-10-2010	12h40m23s	- 1°58' 33"	354°41' 59"	-41°23' 08"	1.16 m	10.514 AE	15.8"	+ 16.5°	90 %	+ 159.8°
21-10-2010	12h40m49s	- 2°01' 17"	355°51' 40"	-41°28' 37"	1.16 m	10.509 AE	15.8"	+ 17.4°	95 %	+ 170.2°
22-10-2010	12h41m16s	- 2°04' 01"	357°01' 33"	-41°33' 25"	1.16 m	10.504 AE	15.8"	+ 18.2°	98 %	+ 171.8°
23-10-2010	12h41m42s	- 2°06' 44"	358°11' 36"	-41°37' 31"	1.17 m	10.499 AE	15.8"	+ 19.1°	99 %	+ 161.7°
24-10-2010	12h42m09s	- 2°09' 26"	359°21' 49"	-41°40' 56"	1.17 m	10.493 AE	15.8"	+ 20.0°	99 %	+ 149.8°
25-10-2010	12h42m35s	- 2°12' 07"	0°32' 11"	-41°43' 39"	1.17 m	10.488 AE	15.8"	+ 20.8°	96 %	+ 137.4°
26-10-2010	12h43m01s	- 2°14' 48"	1°42' 39"	-41°45' 40"	1.17 m	10.482 AE	15.9"	+ 21.7°	91 %	+ 124.8°
27-10-2010	12h43m27s	- 2°17' 27"	2°53' 12"	-41°46' 59"	1.17 m	10.475 AE	15.9"	+ 22.6°	85 %	+ 112.0°

## Sichtbarkeit

### Datum/Standort

Datum: 01-01-2010  
 Zeitraum: 1 Jahr  
 Br.: 2°15' 6"N  
 Län.: 178°36'31"O

### Objekt

Planet:  
 Saturn

Datum (0:00 Ortszeit)	Scheinbarer Ort		Azim	Höhe	Helligkeit	Entf.	Winkeld.	Sonne Elong.	Mond	
	RA	Dek							Phase	Winkel
28-10-2010	12h43m53s	- 2°20' 06"	4°03' 49"	-41°47' 36"	1.18 m	10.469 AE	15.9"	+ 23.5°	77 %	+ 98.9°
29-10-2010	12h44m19s	- 2°22' 44"	5°14' 29"	-41°47' 30"	1.18 m	10.462 AE	15.9"	+ 24.3°	67 %	+ 85.6°
30-10-2010	12h44m45s	- 2°25' 20"	6°25' 10"	-41°46' 42"	1.18 m	10.455 AE	15.9"	+ 25.2°	56 %	+ 72.2°
31-10-2010	12h45m11s	- 2°27' 56"	7°35' 50"	-41°45' 12"	1.18 m	10.448 AE	15.9"	+ 26.1°	45 %	+ 58.5°
01-11-2010	12h45m37s	- 2°30' 38"	28°04' 59"	-38°41' 06"	1.18 m	10.440 AE	15.9"	+ 27.0°	34 %	+ 44.0°
02-11-2010	12h46m03s	- 2°33' 11"	29°10' 12"	-38°27' 27"	1.18 m	10.433 AE	15.9"	+ 27.9°	23 %	+ 30.2°
03-11-2010	12h46m28s	- 2°35' 44"	30°15' 03"	-38°13' 12"	1.18 m	10.425 AE	15.9"	+ 28.8°	14 %	+ 16.8°
04-11-2010	12h46m53s	- 2°38' 16"	31°19' 30"	-37°58' 23"	1.19 m	10.417 AE	16.0"	+ 29.7°	7 %	+ 7.8°
05-11-2010	12h47m19s	- 2°40' 46"	32°23' 33"	-37°42' 59"	1.19 m	10.409 AE	16.0"	+ 30.6°	2 %	+ 15.8°
06-11-2010	12h47m43s	- 2°43' 15"	33°27' 12"	-37°27' 01"	1.19 m	10.400 AE	16.0"	+ 31.4°	0 %	+ 29.1°
07-11-2010	12h48m08s	- 2°45' 43"	34°30' 26"	-37°10' 29"	1.19 m	10.391 AE	16.0"	+ 32.3°	0 %	+ 42.7°
08-11-2010	12h48m33s	- 2°48' 10"	35°33' 15"	-36°53' 25"	1.19 m	10.382 AE	16.0"	+ 33.2°	4 %	+ 56.1°
09-11-2010	12h48m57s	- 2°50' 36"	36°35' 39"	-36°35' 48"	1.19 m	10.373 AE	16.0"	+ 34.1°	9 %	+ 69.3°
10-11-2010	12h49m22s	- 2°53' 00"	37°37' 36"	-36°17' 39"	1.19 m	10.364 AE	16.0"	+ 35.0°	16 %	+ 82.1°
11-11-2010	12h49m46s	- 2°55' 23"	38°39' 08"	-35°58' 58"	1.19 m	10.354 AE	16.1"	+ 35.9°	24 %	+ 94.6°
12-11-2010	12h50m10s	- 2°57' 45"	39°40' 13"	-35°39' 46"	1.19 m	10.344 AE	16.1"	+ 36.8°	33 %	+ 106.8°
13-11-2010	12h50m34s	- 3°00' 06"	40°40' 52"	-35°20' 04"	1.19 m	10.334 AE	16.1"	+ 37.7°	43 %	+ 118.7°
14-11-2010	12h50m57s	- 3°02' 25"	41°41' 04"	-34°59' 52"	1.19 m	10.324 AE	16.1"	+ 38.6°	52 %	+ 130.3°
15-11-2010	12h51m21s	- 3°04' 43"	42°40' 50"	-34°39' 11"	1.20 m	10.314 AE	16.1"	+ 39.5°	61 %	+ 141.9°
16-11-2010	12h51m44s	- 3°06' 59"	43°40' 09"	-34°18' 00"	1.20 m	10.303 AE	16.1"	+ 40.4°	70 %	+ 153.4°
17-11-2010	12h52m07s	- 3°09' 14"	44°39' 02"	-33°56' 22"	1.20 m	10.292 AE	16.1"	+ 41.3°	79 %	+ 164.5°
18-11-2010	12h52m30s	- 3°11' 27"	45°37' 27"	-33°34' 15"	1.20 m	10.281 AE	16.2"	+ 42.2°	86 %	+ 172.8°
19-11-2010	12h52m53s	- 3°13' 39"	46°35' 27"	-33°11' 41"	1.20 m	10.270 AE	16.2"	+ 43.1°	92 %	+ 167.7°
20-11-2010	12h53m15s	- 3°15' 49"	47°33' 00"	-32°48' 40"	1.20 m	10.258 AE	16.2"	+ 44.0°	96 %	+ 156.3°
21-11-2010	12h53m38s	- 3°17' 58"	48°30' 06"	-32°25' 13"	1.20 m	10.247 AE	16.2"	+ 44.9°	99 %	+ 144.0°
22-11-2010	12h54m00s	- 3°20' 06"	49°26' 47"	-32°01' 21"	1.20 m	10.235 AE	16.2"	+ 45.9°	99 %	+ 131.3°
23-11-2010	12h54m22s	- 3°22' 11"	50°23' 01"	-31°37' 03"	1.20 m	10.223 AE	16.3"	+ 46.8°	98 %	+ 118.2°
24-11-2010	12h54m43s	- 3°24' 16"	51°18' 50"	-31°12' 20"	1.20 m	10.211 AE	16.3"	+ 47.7°	94 %	+ 104.8°
25-11-2010	12h55m05s	- 3°26' 18"	52°14' 13"	-30°47' 13"	1.20 m	10.198 AE	16.3"	+ 48.6°	88 %	+ 91.3°
26-11-2010	12h55m26s	- 3°28' 19"	53°09' 12"	-30°21' 42"	1.19 m	10.186 AE	16.3"	+ 49.5°	80 %	+ 77.6°

## Sichtbarkeit

### Datum/Standort

Datum: 01-01-2010  
 Zeitraum: 1 Jahr  
 Br.: 2°15' 6"N  
 Län.: 178°36'31"O

### Objekt

Planet:  
 Saturn

Datum (0:00 Ortszeit)	Scheinbarer Ort		Azim	Höhe	Helligkeit	Entf.	Winkeld.	Sonne Elong.	Mond	
	RA	Dek							Phase	Winkel
27-11-2010	12h55m47s	- 3°30' 18"	54°03' 45"	-29°55' 48"	1.19 m	10.173 AE	16.3"	+ 50.4°	71 %	+ 63.9°
28-11-2010	12h56m08s	- 3°32' 16"	54°57' 54"	-29°29' 31"	1.19 m	10.160 AE	16.4"	+ 51.3°	60 %	+ 50.1°
29-11-2010	12h56m29s	- 3°34' 12"	55°51' 39"	-29°02' 52"	1.19 m	10.147 AE	16.4"	+ 52.3°	48 %	+ 36.3°
30-11-2010	12h56m49s	- 3°36' 06"	56°45' 01"	-28°35' 51"	1.19 m	10.134 AE	16.4"	+ 53.2°	37 %	+ 22.9°
01-12-2010	12h57m09s	- 3°37' 58"	57°37' 59"	-28°08' 29"	1.19 m	10.121 AE	16.4"	+ 54.1°	26 %	+ 10.8°
02-12-2010	12h57m29s	- 3°39' 48"	58°30' 34"	-27°40' 46"	1.19 m	10.107 AE	16.4"	+ 55.0°	17 %	+ 10.2°
03-12-2010	12h57m48s	- 3°41' 37"	59°22' 46"	-27°12' 42"	1.19 m	10.093 AE	16.5"	+ 56.0°	9 %	+ 21.8°
04-12-2010	12h58m08s	- 3°43' 24"	60°14' 37"	-26°44' 18"	1.19 m	10.080 AE	16.5"	+ 56.9°	3 %	+ 35.0°
05-12-2010	12h58m27s	- 3°45' 09"	61°06' 06"	-26°15' 35"	1.19 m	10.066 AE	16.5"	+ 57.8°	0 %	+ 48.4°
06-12-2010	12h58m45s	- 3°46' 52"	61°57' 14"	-25°46' 33"	1.19 m	10.051 AE	16.5"	+ 58.7°	0 %	+ 61.6°
07-12-2010	12h59m04s	- 3°48' 33"	62°48' 01"	-25°17' 12"	1.18 m	10.037 AE	16.6"	+ 59.7°	1 %	+ 74.6°
08-12-2010	12h59m22s	- 3°50' 12"	63°38' 29"	-24°47' 32"	1.18 m	10.023 AE	16.6"	+ 60.6°	5 %	+ 87.3°
09-12-2010	12h59m40s	- 3°51' 49"	64°28' 36"	-24°17' 35"	1.18 m	10.008 AE	16.6"	+ 61.5°	11 %	+ 99.7°
10-12-2010	12h59m58s	- 3°53' 25"	65°18' 25"	-23°47' 21"	1.18 m	9.994 AE	16.6"	+ 62.5°	18 %	+ 111.9°
11-12-2010	13h00m15s	- 3°54' 58"	66°07' 55"	-23°16' 49"	1.18 m	9.979 AE	16.7"	+ 63.4°	26 %	+ 123.8°
12-12-2010	13h00m32s	- 3°56' 29"	66°57' 07"	-22°46' 01"	1.18 m	9.964 AE	16.7"	+ 64.3°	35 %	+ 135.5°
13-12-2010	13h00m49s	- 3°57' 58"	67°46' 02"	-22°14' 56"	1.17 m	9.949 AE	16.7"	+ 65.3°	44 %	+ 147.0°
14-12-2010	13h01m05s	- 3°59' 25"	68°34' 39"	-21°43' 36"	1.17 m	9.934 AE	16.7"	+ 66.2°	53 %	+ 158.3°
15-12-2010	13h01m21s	- 4°00' 50"	69°23' 00"	-21°12' 00"	1.17 m	9.918 AE	16.8"	+ 67.2°	63 %	+ 168.8°
16-12-2010	13h01m37s	- 4°02' 13"	70°11' 06"	-20°40' 09"	1.17 m	9.903 AE	16.8"	+ 68.1°	71 %	+ 172.2°
17-12-2010	13h01m53s	- 4°03' 34"	70°58' 56"	-20°08' 04"	1.16 m	9.888 AE	16.8"	+ 69.1°	80 %	+ 163.0°
18-12-2010	13h02m08s	- 4°04' 53"	71°46' 31"	-19°35' 44"	1.16 m	9.872 AE	16.8"	+ 70.0°	87 %	+ 151.1°
19-12-2010	13h02m23s	- 4°06' 09"	72°33' 52"	-19°03' 10"	1.16 m	9.856 AE	16.9"	+ 71.0°	93 %	+ 138.5°
20-12-2010	13h02m38s	- 4°07' 23"	73°20' 59"	-18°30' 23"	1.16 m	9.841 AE	16.9"	+ 71.9°	97 %	+ 125.4°
21-12-2010	13h02m52s	- 4°08' 36"	74°07' 54"	-17°57' 23"	1.15 m	9.825 AE	16.9"	+ 72.9°	99 %	+ 112.0°
22-12-2010	13h03m06s	- 4°09' 46"	74°54' 35"	-17°24' 10"	1.15 m	9.809 AE	16.9"	+ 73.8°	99 %	+ 98.1°
23-12-2010	13h03m19s	- 4°10' 53"	75°41' 05"	-16°50' 45"	1.15 m	9.793 AE	17.0"	+ 74.8°	96 %	+ 84.1°
24-12-2010	13h03m33s	- 4°11' 59"	76°27' 24"	-16°17' 07"	1.15 m	9.777 AE	17.0"	+ 75.8°	91 %	+ 69.9°
25-12-2010	13h03m46s	- 4°13' 02"	77°13' 31"	-15°43' 18"	1.14 m	9.761 AE	17.0"	+ 76.7°	83 %	+ 55.6°
26-12-2010	13h03m58s	- 4°14' 03"	77°59' 29"	-15°09' 17"	1.14 m	9.745 AE	17.1"	+ 77.7°	74 %	+ 41.5°

## Sichtbarkeit

### Datum/Standort

Datum: 01-01-2010  
 Zeitraum: 1 Jahr  
 Br.: 2°15' 6"N  
 Län.: 178°36'31"O

### Objekt

Planet:  
 Saturn

Datum (0:00 Ortszeit)	Scheinbarer Ort		Azm	Höhe	Helligkeit	Entf.	Winkeld.	Sonne Elong.	Mond	
	RA	Dek							Phase	Winkel
27-12-2010	13h04m10s	- 4°15' 02"	78°45' 17"	-14°35' 06"	1.14 m	9.728 AE	17.1"	+ 78.7°	63 %	+ 27.7°
28-12-2010	13h04m22s	- 4°15' 59"	79°30' 56"	-14°00' 43"	1.13 m	9.712 AE	17.1"	+ 79.6°	52 %	+ 14.8°
29-12-2010	13h04m34s	- 4°16' 53"	80°16' 27"	-13°26' 10"	1.13 m	9.696 AE	17.1"	+ 80.6°	41 %	+ 8.1°
30-12-2010	13h04m45s	- 4°17' 45"	81°01' 49"	-12°51' 28"	1.13 m	9.679 AE	17.2"	+ 81.5°	30 %	+ 17.1°
31-12-2010	13h04m56s	- 4°18' 34"	81°47' 05"	-12°16' 35"	1.12 m	9.663 AE	17.2"	+ 82.5°	20 %	+ 29.8°