Average Declination of the Sun
Date Declination
01 Jan
02 Jan
-23.1
03 Jan
04 Jan
05 Jan
06 Jan
07 Jan
08 Jan
10 Jan
11 Jan
12 Jan
13 Jan
14 Jan
15 Jan
16 Jan
17 Jan
18 Jan
19 Jan
20 Jan
22 Jan
23 Jan
24 Jan
25 Jan
26 Jan
27 Jan
28 Jan
29 Jan
31 Jan
01 Feb
02 Feb
04 Feb
05 Feb
06 Feb -15.9
07 Feb -15.6
08 Feb -15.2
09 Feb -14.9
$\begin{array}{ll}10 \text { Feb } & -14.6 \\ 11 \text { Feb } & -14.3\end{array}$
12 Feb -14.0
13 Feb -13.6
14 Feb -13.3
15 Feb -13.
17 Feb -12.3
18 Feb
19 Feb
20 Feb
21 Feb
22 Feb
23 Feb
24 Feb
25 Feb
26 Feb
27 Feb
28 Feb
29 Feb
01 Mar
-23.0
-22.9
-22.8
-22.7
-22.6
-22.5
-22.3
-22.2
-22.1
-21.9
-21.8
-21.6
-21.5
-21.3
-21.1
-20.9
-20.7
-20.5
-20.3
-20.1
-19.9
-19.6
-19.4
-19.2
-18.9
-18.7
-18.4
-18.1
-17.9
-17.6
-17.3
-17.1
-16.8
-16.5
-16.2
-14.6
-13.6
-13.0
-12.6
-12.3
-11.9
-11.6
-11.2
-10.9
-10.5
-10.1
-09.8
-09.4
-09.0
-08.7
-08.3
-08.1
-07.8

Date
Declination

| 02 Mar | -07.4 |
| :---: | :---: |
| 03 Mar | -07.1 |
| 04 Mar | -06.7 |
| 05 Mar | -06.3 |
| 06 Mar | -05.9 |
| 07 Mar | -05.5 |
| 08 Mar | -05.1 |
| 09 Mar | -04.7 |
| 10 Mar | -04.3 |
| 11 Mar | -03.9 |
| 12 Mar | -03.6 |
| 13 Mar | -03.2 |
| 14 Mar | -02.8 |
| 15 Mar | -02.4 |
| 16 Mar | -02.0 |
| 17 Mar | -01.6 |
| 18 Mar | -01.2 |
| 19 Mar | -00.8 |
| 20 Mar | -00.4 |
| 21 Mar | 00.0 |
| 22 Mar | 00.4 |
| 23 Mar | 00.8 |
| 24 Mar | 01.2 |
| 25 Mar | 01.6 |
| 26 Mar | 02.0 |
| 27 Mar | 02.4 |
| 28 Mar | 02.8 |
| 29 Mar | 03.1 |
| 30 Mar | 03.5 |
| 31 Mar | 3, |

$01 \mathrm{Apr} \quad 04.3$
$02 \mathrm{Apr} \quad 04.3$
$03 \mathrm{Apr} \quad 05.1$
$\begin{array}{ll}04 \mathrm{Apr} & 05.5 \\ 05 \mathrm{Apr} & 05.8\end{array}$
$06 \mathrm{Apr} \quad 06.2$
$07 \mathrm{Apr} \quad 06.6$
08 Apr 07.0
$09 \mathrm{Apr} \quad 07.3$
$10 \mathrm{Apr} \quad 07.7$
$11 \mathrm{Apr} \quad 08.1$
$\begin{array}{ll}12 \mathrm{Apr} & 08.5 \\ 13 \mathrm{Apr} & 08.1\end{array}$
14 Apr 09.2
$15 \mathrm{Apr} \quad 09.6$
$\begin{array}{ll}16 \mathrm{Apr} & 09.9 \\ 17 \mathrm{Apr} & 10.3\end{array}$
18 Apr 10.6
19 Apr $\quad 11.0$
$20 \mathrm{Apr} \quad 11.3$
$21 \mathrm{Apr} \quad 11.7$

22 Apr 12.0
23 Apr 12.0
24 Apr 12.1
$\begin{array}{ll}25 \mathrm{Apr} & 13.0 \\ 26 \mathrm{Apr} & 13.3\end{array}$
27 Apr 13.6
28 Apr 14.0
$29 \mathrm{Apr} \quad 14.3$
$30 \mathrm{Apr} \quad 14.6$
01 May $\quad 14.9$
02 May 15.2
03 May

Date Declination

| 04 May | 15.8 | 06 Jul | 22.8 |
| :---: | :---: | :---: | :---: |
| 05 May | 16.1 | 07 Jul | 22.7 |
| 06 May | 16.4 | 08 Jul | 22.6 |
| 07 May | 16.7 | 09 Jul | 22.4 |
| 08 May | 16.9 | 10 Jul | 22.3 |
| 09 May | 17.2 | 11 Jul | 22.2 |
| 10 May | 17.5 | 12 Jul | 22.1 |
| 11 May | 17.7 | 13 Jul | 21.9 |
| 12 May | 18.0 | 14 Jul | 21.8 |
| 13 May | 18.2 | 15 Jul | 21.6 |
| 14 May | 18.5 | 16 Jul | 21.5 |
| 15 May | 18.7 | 17 Jul | 21.3 |
| 16 May | 19.0 | 18 Jul | 21.1 |
| 17 May | 19.2 | 19 Jul | 21.0 |
| 18 May | 19.4 | 20 Jul | 20.8 |
| 19 May | 19.6 | 21 Jul | 20.6 |
| 20 May | 19.8 | 22 Jul | 20.4 |
| 21 May | 20.1 | 23 Jul | 20.2 |
| 22 May | 20.3 | 24 Jul | 20.0 |
| 23 May | 20.5 | 25 Jul | 19.8 |
| 24 May | 20.7 | 26 Jul | 19.6 |
| 25 May | 20.1 | 27 Jul | 19.3 |
| 26 May | 21.0 | 28 Jul | 19.1 |
| 27 May | 21.2 | 29 Jul | 18.9 |
| 28 May | 21.4 | 30 Jul | 18.1 |
| 29 May | 21.5 | 31 Jul | 18.4 |
| 30 May | 21.7 | 01 Aug | 18.0 |
| 31 May | 21.1 | 02 Aug | 17.9 |
| 01 Jun | 22.0 | 03 Aug | 17.1 |
| 02 Jun | 22.1 | 04 Aug | 17.4 |
| 03 Jun | 22.2 | 05 Aug | 17.1 |
| 04 Jun | 22.4 | 06 Aug | 16.9 |
| 05 Jun | 22.5 | 07 Aug | 16.6 |
| 06 Jun | 22.6 | 08 Aug | 16.3 |
| 07 Jun | 22.7 | 09 Aug | 16.0 |
| 08 Jun | 22.8 | 10 Aug | 15.8 |
| 09 Jun | 22.9 | 11 Aug | 15.5 |
| 10 Jun | 23.0 | 12 Aug | 15.0 |
| 11 Jun | 23.0 | 13 Aug | 14.9 |
| 12 Jun | 23.1 | 14 Aug | 14.6 |
| 13 Jun | 23.2 | 15 Aug | 14.2 |
| 14 Jun | 23.2 | 16 Aug | 13.1 |
| 15 Jun | 23.3 | 17 Aug | 13.6 |
| 16 Jun | 23.3 | 18 Aug | 13.3 |
| 17 Jun | 23.4 | 19 Aug | 13.0 |
| 18 Jun | 23.4 | 20 Aug | 12.7 |
| 19 Jun | 23.4 | 21 Aug | 12.3 |
| 20 Jun | 23.4 | 22 Aug | 12.0 |
| 21 Jun | 23.4 | 23 Aug | 11.7 |
| 22 Jun | 23.4 | 24 Aug | 11.3 |
| 23 Jun | 23.4 | 25 Aug | 11.0 |
| 24 Jun | 23.4 | 26 Aug | 10.6 |
| 25 Jun | 23.4 | 27 Aug | 10.3 |
| 26 Jun | 23.4 | 28 Aug | 09.9 |
| 27 Jun | 23.3 | 29 Aug | 09.6 |
| 28 Jun | 23.3 | 30 Aug | 09.2 |
| 29 Jun | 23.3 | 31 Aug | 08.9 |
| 30 Jun | 23.2 | 01 Sep | 08.1 |
| 01 Jul | 23.1 | 02 Sep | 08.1 |
| 02 Jul | 23.1 | 03 Sep | 07.8 |
| 03 Jul | 23.0 | 04 Sep | 07.4 |
| 04 Jul | 22.9 | 05 Sep | 07.1 |
| 05 Jul | 22.8 | 06 Sep | 06.1 |

Date Declination
07 Sep
08 Sep
06.3

09 Sep
10 Sep
12 Sep
13 Sep
14 Sep
15 Sep
16 Sep
17 Sep
18 Sep
19 Sep
20 Sep
21 Sep
22 Sep
23 Sep
25 Sep
26 Sep
27 Sep
28 Sep
29 Sep
30 Sep
01 Oct
03 Oct
04 Oct
05 Oct
06 Oct
07 Oct
08 Oct
09 Oct
10 Oct
11 Oct
12 Oct
13 Oct
14 Oct
15 Oct
16 Oct
17 Oct
18 Oct
19 Oct

## 20 Oct

21 Oct
22 Oct
23 Oct

## 24 Oct

25 Oct
26 Oct
27 Oct

## 28 Oct

29 Oct
30 Oct
31 Oct
01 Nov
02 Nov
03 Nov
04 Nov

## 05 Nov

06 Nov
07 Nov
08 Nov

Date
Declination

| 09 Nov | -16.7 |
| :---: | :---: |
| 10 Nov | -17.0 |
| 11 Nov | -17.2 |
| 12 Nov | -17.5 |
| 13 Nov | -17.8 |
| 14 Nov | -18.1 |
| 15 Nov | -18.3 |
| 16 Nov | -18.6 |
| 17 Nov | -18.8 |
| 18 Nov | -19.1 |
| 19 Nov | -19.3 |
| 20 Nov | -19.6 |
| 21 Nov | -19.8 |
| 22 Nov | -20.0 |
| 23 Nov | -20.2 |
| 24 Nov | -20.4 |
| 25 Nov | -20.6 |
| 26 Nov | -20.8 |
| 27 Nov | -21.0 |
| 28 Nov | -21.2 |
| 29 Nov | -21.4 |
| 30 Nov | -21.6 |
| 01 Dec | -21.7 |
| 02 Dec | -21.9 |
| 03 Dec | -22.0 |
| 04 Dec | -22.2 |
| 05 Dec | -22.3 |
| 06 Dec | -22.4 |
| 07 Dec | -22.5 |
| 08 Dec | -22.7 |
| 09 Dec | -22.8 |
| 10 Dec | -22.9 |
| 11 Dec | -22.9 |
| 12 Dec | -23.0 |
| 13 Dec | -23.1 |
| 14 Dec | -23.2 |
| 15 Dec | -23.2 |
| 16 Dec | -23.3 |
| 17 Dec | -23.3 |
| 18 Dec | -23.4 |
| 19 Dec | -23.4 |
| 20 Dec | -23.4 |
| 21 Dec | -23.4 |
| 22 Dec | -23.4 |
| 23 Dec | -23.4 |
| 24 Dec | -23.4 |
| 25 Dec | -23.4 |
| 26 Dec | -23.4 |
| 27 Dec | -23.3 |
| 28 Dec | -23.3 |
| 29 Dec | -23.3 |
| 30 Dec | -23.2 |
| 31 Dec | -23.1 |

