I slightly modified Thorstensen's code to print out the time between evening twilight and morning twilight.
For Okie-Tex site (site code = o) near Kenton OK I used same time zone as for Oklahoma City.

W. Romanishin- August 2013 - email: wromanishin at ou.edu - Here is stuff from John T. intro:

***** 2018 Night-time Astronomical Calendar for DCT *****

By John Thorstensen, Dartmouth College

This calendar is designed to provide information useful for the planning of nighttime observations.
The format should minimize confusion; each line gives the phenomena for a single (local!) night,
and each line is labeled with both evening and morning (local) day and date.
Note that all times given are LOCAL CIVIL (zone) times.

The rise/set times printed are the times at which the center of the object is 50 arcminutes below
the geometrical horizon. At the given twilight, the center of the sun is 0.0 degrees below the geometrical horizon.

The moon positions (and rise/set times) are generated by an implementation of the Low-Precision formulae
in the Astronomical Almanac. The Almanac states that the error seldom exceeds 0.3 degrees.
Topocentric corrections are included. Comparisons with tables for Kitt Peak in the NOAO Newsletter
indicate that the rise-set times are good to +- 2 min or so. The moon's RA, Dec, and illuminated fraction
are given for local midnight, regardless of whether the moon is actually up at that time.
Note that the moonrise and moonset times are not printed if they occur near mid-day.

The LST at evening and morning twilight are tabulated. This gives an accurate idea of the
range of RA's accessible during the night.

The JD is given (severely rounded off) for local midnight. Again, this avoids any ambiguity.

Some credits: The sidereal time and Julian date routines were originally coded in PL/I by
Steve Maker of Dartmouth College. The algorithms originated in the old American Ephemeris.
The routine to convert JD back to calendar date is adapted from Numerical Recipes in C, by Press et al.

CAUTIONS: I believe that the program which generates these tables is reasonably accurate. However,
it has not been exhaustively tested, so you should be sure to run 'sanity checks' on the results. Also,
in view of the approximations used, the results should not be used when high precision is needed.
Extension to dates far from the present (1990) should be done with great caution. The code has
not been tested for the eastern or southern hemishpheres. Rise/set times are slightly incaccurate and
rather confusing at circumpolar latitudes, where the concept of a 'night' is blurry.

The daylight savings time conventions (if used) are quite specific (to U. S., post-1986) and subject to change.
I know that the code has many infelicities; if you should find actual errors,please notify
John.Thorstensen@dartmouth.edu

MOON PHASES FOR 2018, at DCT

Times and dates are given in local time, zone = 7 hr West.
They are generally better than +- 2 minutes.

The end of the previous year and the beginning of the next are included for continuity.

NEW			1ST			FULL			LAST		
Dec	17	23 31	Dec	26	2 20	Jan	01	19 25	Jan	08	15 27
Jan	16	19 18	Jan	24	15 21	Jan	31	6 28	Feb	07	8 56
Feb	15	14 07	Feb	23	1 09	Mar	01	17 52	Mar	09	4 23
Mar	17	6 14	Mar	24	8 36	Mar	31	5 38	Apr	08	0 21
Apr	15	19 00	Apr	22	14 47	Apr	29	17 59	May	07	19 12
May	15	4 50	May	21	20 51	May	29	7 21	Jun	06	11 34
Jun	13	12 45	Jun	20	3 53	Jun	27	21 55	Jul	06	0 53
Jul	12	19 50	Jul	19	12 54	Jul	27	13 22	Aug	04	11 20
Aug	11	2 59	Aug	18	0 50	Aug	26	4 58	Sep	02	19 39
Sep	09	11 03	Sep	16	16 16	Sep	24	19 55	Oct	02	2 47
Oct	08	20 48	Oct	16	11 02	Oct	24	9 48	Oct	31	9 42
Nov	07	9 03	Nov	15	7 54	Nov	22	22 41	Nov	29	17 21
Dec	07	0 22	Dec	15	4 50	Dec	22	10 50	Dec	29	2 37
Jan	05	18 30	Jan	13	23 46	Jan	20	22 17	Jan	27	14 12

Calendar for DCT, west longitude (h.m.s) = 7 25 41, latitude (d.m) = 34 44.7
Rise/set times in Mountain time (7 hr W), for 500 m above surroundings, in standard time all year.
Moon info is for local midnight, even if moon is down. Program: John Thorstensen, Dartmouth College.

***** 2018 JANUARY *****

Date (eve/morn)	LMST	Sun:				LST twilight:		Moon:					Twi-Twi
	midn	set	twi.end	twi.beg	rise	eve	morn	rise	set	%illum	RA	Dec	hours
Mon Jan 01/Tue Jan 02	6 22	17 30	18 56	6 03	7 29	1 17	12 26	17 22	8 01	100	7 02.7	19 44	11.1
Tue Jan 02/Wed Jan 03	6 26	17 31	18 57	6 03	7 29	1 22	12 30	18 28	.....	98	8 08.1	18 32	11.1
Wed Jan 03/Thu Jan 04	6 30	17 31	18 57	6 04	7 30	1 26	12 34	19 37	.....	93	9 10.9	16 00	11.1
Thu Jan 04/Fri Jan 05	6 34	17 32	18 58	6 04	7 30	1 31	12 38	20 46	.....	85	10 10.2	12 28	11.1
Fri Jan 05/Sat Jan 06	6 38	17 33	18 59	6 04	7 30	1 36	12 42	21 52	.....	76	11 05.7	8 18	11.1
Sat Jan 06/Sun Jan 07	6 42	17 34	19 00	6 04	7 30	1 40	12 47	22 56	.....	66	11 58.0	3 50	11.1
Sun Jan 07/Mon Jan 08	6 45	17 35	19 00	6 04	7 30	1 45	12 51	23 56	.....	56	12 47.7	- 0 40	11.1
Mon Jan 08/Tue Jan 09	6 49	17 35	19 01	6 04	7 30	1 50	12 55	0 55	.....	46	13 35.9	- 5 00	11.1
Tue Jan 09/Wed Jan 10	6 53	17 36	19 02	6 04	7 30	1 54	12 59	1 52	.....	36	14 23.2	- 9 00	11.0
Wed Jan 10/Thu Jan 11	6 57	17 37	19 03	6 04	7 29	1 59	13 02	2 48	.....	27	15 10.3	-12 33	11.0
Thu Jan 11/Fri Jan 12	7 01	17 38	19 03	6 04	7 29	2 04	13 06	3 43	.....	19	15 57.8	-15 32	11.0
Fri Jan 12/Sat Jan 13	7 05	17 39	19 04	6 04	7 29	2 09	13 10	4 36	.....	12	16 45.9	-17 52	11.0
Sat Jan 13/Sun Jan 14	7 09	17 40	19 05	6 04	7 29	2 13	13 14	5 28	.....	7	17 34.8	-19 27	11.0
Sun Jan 14/Mon Jan 15	7 13	17 41	19 06	6 04	7 29	2 18	13 18	6 18	16 01	3	18 24.3	-20 13	11.0
Mon Jan 15/Tue Jan 16	7 17	17 42	19 07	6 04	7 28	2 23	13 22	7 05	16 48	1	19 14.1	-20 07	10.9
Tue Jan 16/Wed Jan 17	7 21	17 43	19 08	6 04	7 28	2 28	13 26	7 48	17 39	0	20 03.7	-19 09	10.9
Wed Jan 17/Thu Jan 18	7 25	17 44	19 08	6 03	7 28	2 33	13 29	.....	18 31	1	20 53.0	-17 22	10.9
Thu Jan 18/Fri Jan 19	7 29	17 45	19 09	6 03	7 28	2 37	13 33	.....	19 26	4	21 41.5	-14 50	10.9
Fri Jan 19/Sat Jan 20	7 33	17 46	19 10	6 03	7 27	2 42	13 37	.....	20 22	9	22 29.4	-11 40	10.9
Sat Jan 20/Sun Jan 21	7 37	17 47	19 11	6 03	7 27	2 47	13 40	.....	21 19	15	23 16.8	- 7 57	10.9
Sun Jan 21/Mon Jan 22	7 41	17 48	19 12	6 02	7 26	2 52	13 44	.....	22 16	23	0 04.3	- 3 51	10.8
Mon Jan 22/Tue Jan 23	7 45	17 49	19 13	6 02	7 26	2 57	13 48	.....	23 15	32	0 52.3	0 30	10.8
Tue Jan 23/Wed Jan 24	7 49	17 50	19 14	6 02	7 25	3 01	13 51	.....	0 15	42	1 41.7	4 56	10.8
Wed Jan 24/Thu Jan 25	7 52	17 51	19 14	6 01	7 25	3 06	13 55	.....	1 17	53	2 33.2	9 14	10.8
Thu Jan 25/Fri Jan 26	7 56	17 52	19 15	6 01	7 24	3 11	13 58	.....	2 22	64	3 27.6	13 09	10.8
Fri Jan 26/Sat Jan 27	8 00	17 53	19 16	6 00	7 24	3 16	14 02	.....	3 28	75	4 25.4	16 25	10.7
Sat Jan 27/Sun Jan 28	8 04	17 54	19 17	6 00	7 23	3 21	14 05	.....	4 35	84	5 26.6	18 43	10.7
Sun Jan 28/Mon Jan 29	8 08	17 55	19 18	5 59	7 22	3 25	14 08	.....	5 39	92	6 30.4	19 43	10.7
Mon Jan 29/Tue Jan 30	8 12	17 56	19 19	5 59	7 22	3 30	14 12	16 03	6 39	98	7 35.4	19 17	10.7
Tue Jan 30/Wed Jan 31	8 16	17 57	19 20	5 58	7 21	3 35	14 15	17 10	7 33	100	8 39.7	17 25	10.6
Wed Jan 31/Thu Feb 01	8 20	17 58	19 21	5 58	7 20	3 40	14 19	18 20	.....	99	9 41.6	14 19	10.6

***** 2018 FEBRUARY *****

Date (eve/morn)	LMST	Sun:				LST twilight:		Moon:					Twi-Twi
	midn	set	twi.end	twi.beg	rise	eve	morn	rise	set	%illum	RA	Dec	hours
Thu Feb 01/Fri Feb 02	8 24	17 59	19 21	5 57	7 19	3 45	14 22	19 29	.....	96	10 40.4	10 19	10.6
Fri Feb 02/Sat Feb 03	8 28	18 00	19 22	5 56	7 19	3 50	14 25	20 36	.....	89	11 35.9	5 48	10.6
Sat Feb 03/Sun Feb 04	8 32	18 01	19 23	5 56	7 18	3 54	14 28	21 41	.....	82	12 28.5	1 07	10.5
Sun Feb 04/Mon Feb 05	8 36	18 02	19 24	5 55	7 17	3 59	14 32	22 42	.....	73	13 19.1	- 3 28	10.5
Mon Feb 05/Tue Feb 06	8 40	18 03	19 25	5 54	7 16	4 04	14 35	23 42	.....	63	14 08.2	- 7 44	10.5
Tue Feb 06/Wed Feb 07	8 44	18 04	19 26	5 53	7 15	4 09	14 38	0 39	.....	53	14 56.6	-11 33	10.5
Wed Feb 07/Thu Feb 08	8 48	18 05	19 27	5 53	7 14	4 14	14 41	1 35	.....	43	15 44.9	-14 47	10.4
Thu Feb 08/Fri Feb 09	8 52	18 06	19 28	5 52	7 14	4 18	14 44	2 30	.....	34	16 33.4	-17 20	10.4
Fri Feb 09/Sat Feb 10	8 56	18 07	19 28	5 51	7 13	4 23	14 48	3 22	.....	25	17 22.4	-19 08	10.4
Sat Feb 10/Sun Feb 11	9 00	18 08	19 29	5 50	7 12	4 28	14 51	4 13	.....	18	18 11.8	-20 07	10.3
Sun Feb 11/Mon Feb 12	9 03	18 09	19 30	5 49	7 11	4 33	14 54	5 01	.....	11	19 01.6	-20 15	10.3
Mon Feb 12/Tue Feb 13	9 07	18 10	19 31	5 48	7 10	4 38	14 57	5 46	.....	6	19 51.4	-19 30	10.3
Tue Feb 13/Wed Feb 14	9 11	18 11	19 32	5 47	7 09	4 42	15 00	6 27	16 25	2	20 40.9	-17 55	10.3
Wed Feb 14/Thu Feb 15	9 15	18 12	19 33	5 46	7 08	4 47	15 03	7 06	17 20	0	21 29.9	-15 33	10.2
Thu Feb 15/Fri Feb 16	9 19	18 12	19 34	5 46	7 07	4 52	15 06	7 42	18 16	0	22 18.3	-12 30	10.2
Fri Feb 16/Sat Feb 17	9 23	18 13	19 34	5 45	7 05	4 57	15 09	.....	19 13	2	23 06.2	- 8 52	10.2
Sat Feb 17/Sun Feb 18	9 27	18 14	19 35	5 44	7 04	5 02	15 12	.....	20 11	6	23 53.9	- 4 49	10.1
Sun Feb 18/Mon Feb 19	9 31	18 15	19 36	5 42	7 03	5 06	15 14	.....	21 09	11	0 41.9	- 0 29	10.1
Mon Feb 19/Tue Feb 20	9 35	18 16	19 37	5 41	7 02	5 11	15 17	.....	22 09	19	1 30.7	3 55	10.1
Tue Feb 20/Wed Feb 21	9 39	18 17	19 38	5 40	7 01	5 16	15 20	.....	23 11	27	2 21.0	8 13	10.0
Wed Feb 21/Thu Feb 22	9 43	18 18	19 39	5 39	7 00	5 21	15 23	.....	0 13	38	3 13.4	12 10	10.0
Thu Feb 22/Fri Feb 23	9 47	18 19	19 40	5 38	6 59	5 26	15 26	.....	1 17	49	4 08.5	15 33	10.0
Fri Feb 23/Sat Feb 24	9 51	18 20	19 40	5 37	6 57	5 30	15 29	.....	2 22	60	5 06.5	18 04	9.9
Sat Feb 24/Sun Feb 25	9 55	18 21	19 41	5 36	6 56	5 35	15 31	.....	3 25	71	6 07.0	19 29	9.9
Sun Feb 25/Mon Feb 26	9 59	18 22	19 42	5 35	6 55	5 40	15 34	.....	4 24	81	7 09.2	19 36	9.9
Mon Feb 26/Tue Feb 27	10 03	18 23	19 43	5 33	6 54	5 45	15 37	.....	5 19	90	8 11.8	18 20	9.8
Tue Feb 27/Wed Feb 28	10 07	18 23	19 44	5 32	6 53	5 50	15 40	.....	6 08	96	9 13.4	15 48	9.8
Wed Feb 28/Thu Mar 01	10 10	18 24	19 45	5 31	6 51	5 54	15 42	17 05	6 53	99	10 12.9	12 12	9.8

Calendar for DCT, west longitude (h.m.s) = 7 25 41, latitude (d.m) = 34 44.7
Rise/set times in Mountain time (7 hr W), for 500 m above surroundings, in standard time all year.
Moon info is for local midnight, even if moon is down. Program: John Thorstensen, Dartmouth College.

***** 2018 MARCH *****

Date (eve/morn)	LMST midn	Sun: set	twi.end	twi.beg	rise	LST twilight: eve	morn	Moon: rise	set	%illum	RA	Dec	Twi-Twi hours
Thu Mar 01/Fri Mar 02	10 14	18 25	19 46	5 30	6 50	5 59	15 45	18 13	7 33	100	11 09.9	7 52	9.7
Fri Mar 02/Sat Mar 03	10 18	18 26	19 46	5 29	6 49	6 04	15 48	19 20	.....	98	12 04.4	3 09	9.7
Sat Mar 03/Sun Mar 04	10 22	18 27	19 47	5 27	6 47	6 09	15 50	20 24	.....	93	12 56.9	- 1 37	9.7
Sun Mar 04/Mon Mar 05	10 26	18 28	19 48	5 26	6 46	6 14	15 53	21 26	.....	87	13 47.9	- 6 11	9.6
Mon Mar 05/Tue Mar 06	10 30	18 29	19 49	5 25	6 45	6 18	15 56	22 26	.....	79	14 38.0	-10 20	9.6
Tue Mar 06/Wed Mar 07	10 34	18 29	19 50	5 23	6 43	6 23	15 58	23 24	.....	70	15 27.7	-13 53	9.6
Wed Mar 07/Thu Mar 08	10 38	18 30	19 51	5 22	6 42	6 28	16 01	0 20	.....	61	16 17.3	-16 45	9.5
Thu Mar 08/Fri Mar 09	10 42	18 31	19 51	5 21	6 41	6 33	16 04	1 15	.....	51	17 07.1	-18 50	9.5
Fri Mar 09/Sat Mar 10	10 46	18 32	19 52	5 19	6 39	6 38	16 06	2 06	.....	42	17 57.0	-20 05	9.4
Sat Mar 10/Sun Mar 11	10 50	18 33	19 53	5 18	6 38	6 42	16 09	2 55	.....	33	18 47.1	-20 28	9.4
Sun Mar 11/Mon Mar 12	10 54	18 34	19 54	5 17	6 37	6 47	16 11	3 41	.....	24	19 37.0	-19 58	9.4
Mon Mar 12/Tue Mar 13	10 58	18 34	19 55	5 15	6 35	6 52	16 14	4 24	.....	17	20 26.7	-18 37	9.3
Tue Mar 13/Wed Mar 14	11 02	18 35	19 56	5 14	6 34	6 57	16 16	5 04	.....	10	21 15.9	-16 27	9.3
Wed Mar 14/Thu Mar 15	11 06	18 36	19 57	5 12	6 33	7 02	16 19	5 41	.....	5	22 04.7	-13 33	9.3
Thu Mar 15/Fri Mar 16	11 10	18 37	19 57	5 11	6 31	7 06	16 21	6 16	17 03	2	22 53.0	-10 01	9.2
Fri Mar 16/Sat Mar 17	11 14	18 38	19 58	5 09	6 30	7 11	16 24	6 50	18 01	0	23 41.2	- 6 00	9.2
Sat Mar 17/Sun Mar 18	11 17	18 39	19 59	5 08	6 29	7 16	16 26	7 23	19 01	1	0 29.6	- 1 39	9.1
Sun Mar 18/Mon Mar 19	11 21	18 39	20 00	5 06	6 27	7 21	16 29	.....	20 02	3	1 18.8	2 50	9.1
Mon Mar 19/Tue Mar 20	11 25	18 40	20 01	5 05	6 26	7 26	16 31	.....	21 04	8	2 09.3	7 15	9.1
Tue Mar 20/Wed Mar 21	11 29	18 41	20 02	5 04	6 24	7 31	16 34	.....	22 07	15	3 01.6	11 22	9.0
Wed Mar 21/Thu Mar 22	11 33	18 42	20 03	5 02	6 23	7 35	16 36	.....	23 11	24	3 56.1	14 54	9.0
Thu Mar 22/Fri Mar 23	11 37	18 43	20 04	5 01	6 22	7 40	16 39	.....	0 15	34	4 53.0	17 38	8.9
Fri Mar 23/Sat Mar 24	11 41	18 43	20 05	4 59	6 20	7 45	16 41	.....	1 18	45	5 51.9	19 18	8.9
Sat Mar 24/Sun Mar 25	11 45	18 44	20 05	4 58	6 19	7 50	16 43	.....	2 18	57	6 52.2	19 44	8.9
Sun Mar 25/Mon Mar 26	11 49	18 45	20 06	4 56	6 17	7 55	16 46	.....	3 13	68	7 52.9	18 53	8.8
Mon Mar 26/Tue Mar 27	11 53	18 46	20 07	4 54	6 16	8 00	16 48	.....	4 02	78	8 52.8	16 47	8.8
Tue Mar 27/Wed Mar 28	11 57	18 47	20 08	4 53	6 15	8 05	16 51	.....	4 47	87	9 51.1	13 36	8.7
Wed Mar 28/Thu Mar 29	12 01	18 47	20 09	4 51	6 13	8 09	16 53	.....	5 27	94	10 47.4	9 35	8.7
Thu Mar 29/Fri Mar 30	12 05	18 48	20 10	4 50	6 12	8 14	16 56	17 01	6 05	98	11 41.8	5 02	8.7
Fri Mar 30/Sat Mar 31	12 09	18 49	20 11	4 48	6 10	8 19	16 58	18 05	6 40	100	12 34.6	0 15	8.6
Sat Mar 31/Sun Apr 01	12 13	18 50	20 12	4 47	6 09	8 24	17 00	19 08	.....	99	13 26.2	- 4 29	8.6

***** 2018 APRIL *****

Date (eve/morn)	LMST midn	Sun: set	twi.end	twi.beg	rise	LST twilight: eve	morn	Moon: rise	set	%illum	RA	Dec	Twi-Twi hours
Sun Apr 01/Mon Apr 02	12 17	18 50	20 13	4 45	6 08	8 29	17 03	20 10	.....	96	14 17.0	- 8 54	8.5
Mon Apr 02/Tue Apr 03	12 21	18 51	20 14	4 44	6 06	8 34	17 05	21 10	.....	91	15 07.7	-12 49	8.5
Tue Apr 03/Wed Apr 04	12 25	18 52	20 15	4 42	6 05	8 39	17 07	22 08	.....	84	15 58.3	-16 03	8.5
Wed Apr 04/Thu Apr 05	12 28	18 53	20 16	4 41	6 04	8 44	17 10	23 04	.....	77	16 49.0	-18 30	8.4
Thu Apr 05/Fri Apr 06	12 32	18 54	20 17	4 39	6 02	8 49	17 12	23 58	.....	68	17 39.8	-20 05	8.4
Fri Apr 06/Sat Apr 07	12 36	18 54	20 18	4 38	6 01	8 54	17 15	0 49	.....	59	18 30.6	-20 46	8.3
Sat Apr 07/Sun Apr 08	12 40	18 55	20 19	4 36	6 00	8 58	17 17	1 36	.....	50	19 21.1	-20 33	8.3
Sun Apr 08/Mon Apr 09	12 44	18 56	20 20	4 34	5 58	9 03	17 19	2 20	.....	40	20 11.0	-19 27	8.2
Mon Apr 09/Tue Apr 10	12 48	18 57	20 21	4 33	5 57	9 08	17 22	3 00	.....	31	21 00.4	-17 31	8.2
Tue Apr 10/Wed Apr 11	12 52	18 58	20 22	4 31	5 56	9 13	17 24	3 38	.....	23	21 49.1	-14 50	8.2
Wed Apr 11/Thu Apr 12	12 56	18 58	20 23	4 30	5 54	9 18	17 27	4 14	.....	15	22 37.4	-11 28	8.1
Thu Apr 12/Fri Apr 13	13 00	18 59	20 24	4 28	5 53	9 23	17 29	4 48	.....	9	23 25.5	- 7 34	8.1
Fri Apr 13/Sat Apr 14	13 04	19 00	20 25	4 27	5 52	9 28	17 31	5 21	.....	4	0 14.0	- 3 15	8.0
Sat Apr 14/Sun Apr 15	13 08	19 01	20 26	4 25	5 50	9 33	17 34	5 56	17 48	1	1 03.3	1 19	8.0
Sun Apr 15/Mon Apr 16	13 12	19 02	20 27	4 24	5 49	9 38	17 36	6 32	18 51	0	1 54.0	5 53	7.9
Mon Apr 16/Tue Apr 17	13 16	19 02	20 28	4 22	5 48	9 43	17 39	.....	19 55	2	2 46.6	10 14	7.9
Tue Apr 17/Wed Apr 18	13 20	19 03	20 29	4 21	5 47	9 48	17 41	.....	21 01	6	3 41.6	14 04	7.9
Wed Apr 18/Thu Apr 19	13 24	19 04	20 30	4 19	5 45	9 53	17 44	.....	22 07	13	4 38.9	17 07	7.8
Thu Apr 19/Fri Apr 20	13 28	19 05	20 31	4 18	5 44	9 58	17 46	.....	23 12	21	5 38.2	19 06	7.8
Fri Apr 20/Sat Apr 21	13 32	19 06	20 32	4 16	5 43	10 03	17 48	.....	0 14	31	6 38.6	19 51	7.7
Sat Apr 21/Sun Apr 22	13 35	19 06	20 33	4 15	5 42	10 08	17 51	.....	1 11	42	7 39.1	19 18	7.7
Sun Apr 22/Mon Apr 23	13 39	19 07	20 35	4 13	5 40	10 13	17 53	.....	2 01	54	8 38.6	17 30	7.6
Mon Apr 23/Tue Apr 24	13 43	19 08	20 36	4 12	5 39	10 18	17 56	.....	2 46	65	9 36.2	14 36	7.6
Tue Apr 24/Wed Apr 25	13 47	19 09	20 37	4 10	5 38	10 23	17 58	.....	3 27	75	10 31.7	10 51	7.6
Wed Apr 25/Thu Apr 26	13 51	19 10	20 38	4 09	5 37	10 29	18 01	.....	4 04	84	11 25.1	6 30	7.5
Thu Apr 26/Fri Apr 27	13 55	19 10	20 39	4 07	5 36	10 34	18 03	.....	4 39	91	12 17.0	1 49	7.5
Fri Apr 27/Sat Apr 28	13 59	19 11	20 40	4 06	5 35	10 39	18 06	.....	5 13	96	13 07.8	- 2 55	7.4
Sat Apr 28/Sun Apr 29	14 03	19 12	20 41	4 05	5 34	10 44	18 08	17 57	5 47	99	13 58.2	- 7 28	7.4
Sun Apr 29/Mon Apr 30	14 07	19 13	20 42	4 03	5 33	10 49	18 11	18 57	6 22	100	14 48.5	-11 37	7.3
Mon Apr 30/Tue May 01	14 11	19 14	20 43	4 02	5 32	10 54	18 13	19 56	.....	98	15 39.2	-15 10	7.3

Calendar for DCT, west longitude (h.m.s) = 7 25 41, latitude (d.m) = 34 44.7
Rise/set times in Mountain time (7 hr W), for 500 m above surroundings, in standard time all year.
Moon info is for local midnight, even if moon is down. Program: John Thorstensen, Dartmouth College.

***** 2018 MAY *****

Date (eve/morn)	LMST midn	Sun: set	twi.end	twi.beg	rise	LST twilight: eve	morn	Moon: rise	set	%illum	RA	Dec	Twi-Twi hours
Tue May 01/Wed May 02	14 15	19 15	20 45	4 00	5 30	10 59	18 16	20 53	.....	95	16 30.2	-17 59	7.3
Wed May 02/Thu May 03	14 19	19 15	20 46	3 59	5 29	11 04	18 19	21 49	.....	89	17 21.7	-19 57	7.2
Thu May 03/Fri May 04	14 23	19 16	20 47	3 58	5 28	11 09	18 21	22 41	.....	83	18 13.1	-20 59	7.2
Fri May 04/Sat May 05	14 27	19 17	20 48	3 56	5 27	11 14	18 24	23 30	.....	75	19 04.3	-21 05	7.1
Sat May 05/Sun May 06	14 31	19 18	20 49	3 55	5 26	11 19	18 26	0 16	.....	66	19 54.9	-20 17	7.1
Sun May 06/Mon May 07	14 35	19 19	20 50	3 54	5 26	11 24	18 29	0 57	.....	57	20 44.5	-18 36	7.1
Mon May 07/Tue May 08	14 39	19 19	20 51	3 53	5 25	11 30	18 32	1 36	.....	48	21 33.3	-16 09	7.0
Tue May 08/Wed May 09	14 43	19 20	20 53	3 51	5 24	11 35	18 34	2 12	.....	38	22 21.4	-13 01	7.0
Wed May 09/Thu May 10	14 46	19 21	20 54	3 50	5 23	11 40	18 37	2 46	.....	29	23 09.1	- 9 17	6.9
Thu May 10/Fri May 11	14 50	19 22	20 55	3 49	5 22	11 45	18 40	3 19	.....	20	23 56.9	- 5 06	6.9
Fri May 11/Sat May 12	14 54	19 23	20 56	3 48	5 21	11 50	18 43	3 52	.....	13	0 45.4	- 0 36	6.9
Sat May 12/Sun May 13	14 58	19 23	20 57	3 47	5 20	11 55	18 45	4 27	.....	6	1 35.4	4 02	6.8
Sun May 13/Mon May 14	15 02	19 24	20 58	3 45	5 20	12 00	18 48	5 04	17 37	2	2 27.5	8 34	6.8
Mon May 14/Tue May 15	15 06	19 25	20 59	3 44	5 19	12 05	18 51	5 45	18 43	0	3 22.2	12 43	6.7
Tue May 15/Wed May 16	15 10	19 26	21 01	3 43	5 18	12 10	18 54	.....	19 51	1	4 19.7	16 11	6.7
Wed May 16/Thu May 17	15 14	19 27	21 02	3 42	5 17	12 15	18 57	.....	20 59	5	5 19.8	18 38	6.7
Thu May 17/Fri May 18	15 18	19 27	21 03	3 41	5 17	12 20	19 00	.....	22 05	11	6 21.6	19 51	6.6
Fri May 18/Sat May 19	15 22	19 28	21 04	3 40	5 16	12 25	19 03	.....	23 05	19	7 23.6	19 41	6.6
Sat May 19/Sun May 20	15 26	19 29	21 05	3 39	5 15	12 30	19 06	.....	23 59	29	8 24.5	18 10	6.6
Sun May 20/Mon May 21	15 30	19 30	21 06	3 38	5 15	12 35	19 09	.....	0 47	40	9 23.1	15 30	6.5
Mon May 21/Tue May 22	15 34	19 30	21 07	3 37	5 14	12 40	19 12	.....	1 29	51	10 19.2	11 54	6.5
Tue May 22/Wed May 23	15 38	19 31	21 08	3 36	5 14	12 45	19 15	.....	2 07	62	11 12.6	7 41	6.5
Wed May 23/Thu May 24	15 42	19 32	21 09	3 36	5 13	12 50	19 18	.....	2 42	72	12 04.1	3 06	6.4
Thu May 24/Fri May 25	15 46	19 32	21 10	3 35	5 12	12 55	19 21	.....	3 15	81	12 54.2	- 1 35	6.4
Fri May 25/Sat May 26	15 50	19 33	21 11	3 34	5 12	13 00	19 24	.....	3 48	89	13 43.6	- 6 10	6.4
Sat May 26/Sun May 27	15 53	19 34	21 12	3 33	5 12	13 05	19 27	.....	4 22	95	14 33.0	-10 26	6.3
Sun May 27/Mon May 28	15 57	19 35	21 13	3 32	5 11	13 10	19 30	17 47	4 58	98	15 22.8	-14 12	6.3
Mon May 28/Tue May 29	16 01	19 35	21 14	3 32	5 11	13 15	19 34	18 44	5 36	100	16 13.4	-17 17	6.3
Tue May 29/Wed May 30	16 05	19 36	21 15	3 31	5 10	13 20	19 37	19 40	6 18	99	17 04.6	-19 35	6.3
Wed May 30/Thu May 31	16 09	19 37	21 16	3 30	5 10	13 25	19 40	20 34	.....	97	17 56.2	-20 58	6.2
Thu May 31/Fri Jun 01	16 13	19 37	21 17	3 30	5 10	13 30	19 44	21 25	.....	93	18 47.9	-21 25	6.2

***** 2018 JUNE *****

Date (eve/morn)	LMST midn	Sun: set	twi.end	twi.beg	rise	LST twilight: eve	morn	Moon: rise	set	%illum	RA	Dec	Twi-Twi hours
Fri Jun 01/Sat Jun 02	16 17	19 38	21 18	3 29	5 09	13 34	19 47	22 12	.....	88	19 39.1	-20 55	6.2
Sat Jun 02/Sun Jun 03	16 21	19 38	21 19	3 29	5 09	13 39	19 50	22 55	.....	81	20 29.3	-19 31	6.2
Sun Jun 03/Mon Jun 04	16 25	19 39	21 19	3 28	5 09	13 44	19 54	23 35	.....	73	21 18.5	-17 19	6.1
Mon Jun 04/Tue Jun 05	16 29	19 40	21 20	3 28	5 09	13 49	19 57	0 11	.....	64	22 06.6	-14 23	6.1
Tue Jun 05/Wed Jun 06	16 33	19 40	21 21	3 28	5 08	13 53	20 01	0 45	.....	54	22 54.0	-10 52	6.1
Wed Jun 06/Thu Jun 07	16 37	19 41	21 22	3 27	5 08	13 58	20 05	1 18	.....	44	23 41.0	- 6 52	6.1
Thu Jun 07/Fri Jun 08	16 41	19 41	21 22	3 27	5 08	14 03	20 08	1 50	.....	35	0 28.4	- 2 30	6.1
Fri Jun 08/Sat Jun 09	16 45	19 42	21 23	3 27	5 08	14 07	20 12	2 23	.....	25	1 16.9	2 04	6.1
Sat Jun 09/Sun Jun 10	16 49	19 42	21 24	3 26	5 08	14 12	20 16	2 58	.....	16	2 07.3	6 38	6.0
Sun Jun 10/Mon Jun 11	16 53	19 43	21 24	3 26	5 08	14 17	20 19	3 36	.....	9	3 00.4	10 59	6.0
Mon Jun 11/Tue Jun 12	16 57	19 43	21 25	3 26	5 08	14 21	20 23	4 20	.....	4	3 56.6	14 47	6.0
Tue Jun 12/Wed Jun 13	17 00	19 43	21 25	3 26	5 08	14 26	20 27	5 10	18 38	1	4 56.1	17 45	6.0
Wed Jun 13/Thu Jun 14	17 04	19 44	21 26	3 26	5 08	14 30	20 31	6 07	19 46	0	5 58.3	19 32	6.0
Thu Jun 14/Fri Jun 15	17 08	19 44	21 26	3 26	5 08	14 34	20 35	.....	20 51	3	7 01.8	19 55	6.0
Fri Jun 15/Sat Jun 16	17 12	19 45	21 27	3 26	5 08	14 39	20 39	.....	21 50	9	8 04.9	18 52	6.0
Sat Jun 16/Sun Jun 17	17 16	19 45	21 27	3 26	5 08	14 43	20 43	.....	22 42	17	9 06.0	16 30	6.0
Sun Jun 17/Mon Jun 18	17 20	19 45	21 28	3 26	5 08	14 47	20 47	.....	23 28	26	10 04.2	13 05	6.0
Mon Jun 18/Tue Jun 19	17 24	19 46	21 28	3 26	5 08	14 52	20 51	.....	0 08	37	10 59.4	8 56	6.0
Tue Jun 19/Wed Jun 20	17 28	19 46	21 28	3 26	5 09	14 56	20 55	.....	0 44	48	11 51.8	4 22	6.0
Wed Jun 20/Thu Jun 21	17 32	19 46	21 29	3 26	5 09	15 00	20 59	.....	1 18	59	12 42.3	- 0 21	6.0
Thu Jun 21/Fri Jun 22	17 36	19 46	21 29	3 27	5 09	15 04	21 03	.....	1 52	69	13 31.6	- 4 58	6.0
Fri Jun 22/Sat Jun 23	17 40	19 46	21 29	3 27	5 09	15 08	21 07	.....	2 25	78	14 20.5	- 9 19	6.0
Sat Jun 23/Sun Jun 24	17 44	19 47	21 29	3 27	5 10	15 12	21 12	.....	3 00	86	15 09.5	-13 12	6.0
Sun Jun 24/Mon Jun 25	17 48	19 47	21 29	3 28	5 10	15 17	21 16	.....	3 36	92	15 59.2	-16 29	6.0
Mon Jun 25/Tue Jun 26	17 52	19 47	21 29	3 28	5 10	15 21	21 20	17 34	4 16	97	16 49.8	-19 02	6.0
Tue Jun 26/Wed Jun 27	17 56	19 47	21 29	3 28	5 11	15 24	21 25	18 29	5 00	99	17 41.0	-20 43	6.0
Wed Jun 27/Thu Jun 28	18 00	19 47	21 29	3 29	5 11	15 28	21 29	19 20	5 46	100	18 32.6	-21 29	6.0
Thu Jun 28/Fri Jun 29	18 04	19 47	21 29	3 29	5 11	15 32	21 33	20 09	.....	99	19 24.1	-21 17	6.0
Fri Jun 29/Sat Jun 30	18 08	19 47	21 29	3 30	5 12	15 36	21 38	20 54	.....	96	20 14.9	-20 10	6.0
Sat Jun 30/Sun Jul 01	18 11	19 47	21 29	3 30	5 12	15 40	21 42	21 34	.....	92	21 04.6	-18 11	6.0

Calendar for DCT, west longitude (h.m.s) = 7 25 41, latitude (d.m) = 34 44.7
Rise/set times in Mountain time (7 hr W), for 500 m above surroundings, in standard time all year.
Moon info is for local midnight, even if moon is down. Program: John Thorstensen, Dartmouth College.

***** 2018 JULY *****

Date (eve/morn)	LMST midn	Sun: set	twi.end	twi.beg	rise	LST twilight: eve	morn	Moon: rise	set	%illum	RA	Dec	Twi-Twi hours
Sun Jul 01/Mon Jul 02	18 15	19 47	21 29	3 31	5 13	15 44	21 47	22 12	.....	85	21 53.2	-15 28	6.0
Mon Jul 02/Tue Jul 03	18 19	19 47	21 28	3 32	5 13	15 47	21 52	22 46	.....	78	22 40.7	-12 07	6.1
Tue Jul 03/Wed Jul 04	18 23	19 47	21 28	3 32	5 14	15 51	21 56	23 19	.....	69	23 27.5	- 8 16	6.1
Wed Jul 04/Thu Jul 05	18 27	19 47	21 28	3 33	5 14	15 55	22 01	23 50	.....	60	0 14.1	- 4 02	6.1
Thu Jul 05/Fri Jul 06	18 31	19 46	21 27	3 34	5 15	15 58	22 05	0 22	.....	50	1 01.3	0 24	6.1
Fri Jul 06/Sat Jul 07	18 35	19 46	21 27	3 34	5 15	16 02	22 10	0 55	.....	40	1 49.9	4 55	6.1
Sat Jul 07/Sun Jul 08	18 39	19 46	21 27	3 35	5 16	16 05	22 15	1 30	.....	29	2 40.7	9 17	6.1
Sun Jul 08/Mon Jul 09	18 43	19 46	21 26	3 36	5 16	16 09	22 20	2 10	.....	20	3 34.4	13 16	6.2
Mon Jul 09/Tue Jul 10	18 47	19 45	21 26	3 37	5 17	16 12	22 24	2 56	.....	11	4 31.6	16 35	6.2
Tue Jul 10/Wed Jul 11	18 51	19 45	21 25	3 38	5 17	16 15	22 29	3 48	.....	5	5 32.2	18 53	6.2
Wed Jul 11/Thu Jul 12	18 55	19 45	21 24	3 38	5 18	16 19	22 34	4 49	18 30	1	6 35.3	19 54	6.2
Thu Jul 12/Fri Jul 13	18 59	19 44	21 24	3 39	5 19	16 22	22 39	5 55	19 33	0	7 39.3	19 28	6.3
Fri Jul 13/Sat Jul 14	19 03	19 44	21 23	3 40	5 19	16 25	22 44	.....	20 30	2	8 42.5	17 35	6.3
Sat Jul 14/Sun Jul 15	19 07	19 44	21 22	3 41	5 20	16 29	22 48	.....	21 20	7	9 43.4	14 29	6.3
Sun Jul 15/Mon Jul 16	19 11	19 43	21 22	3 42	5 21	16 32	22 53	.....	22 04	14	10 41.2	10 28	6.3
Mon Jul 16/Tue Jul 17	19 15	19 43	21 21	3 43	5 21	16 35	22 58	.....	22 43	23	11 35.9	5 54	6.4
Tue Jul 17/Wed Jul 18	19 18	19 42	21 20	3 44	5 22	16 38	23 03	.....	23 19	33	12 28.1	1 06	6.4
Wed Jul 18/Thu Jul 19	19 22	19 42	21 19	3 45	5 23	16 41	23 08	.....	23 53	44	13 18.5	- 3 39	6.4
Thu Jul 19/Fri Jul 20	19 26	19 41	21 18	3 46	5 23	16 44	23 13	.....	0 27	54	14 07.8	- 8 08	6.5
Fri Jul 20/Sat Jul 21	19 30	19 41	21 17	3 47	5 24	16 47	23 18	.....	1 01	64	14 56.9	-12 11	6.5
Sat Jul 21/Sun Jul 22	19 34	19 40	21 17	3 48	5 25	16 50	23 23	.....	1 37	74	15 46.3	-15 38	6.5
Sun Jul 22/Mon Jul 23	19 38	19 39	21 16	3 49	5 25	16 53	23 28	.....	2 16	82	16 36.3	-18 23	6.6
Mon Jul 23/Tue Jul 24	19 42	19 39	21 15	3 50	5 26	16 56	23 33	.....	2 58	89	17 27.0	-20 18	6.6
Tue Jul 24/Wed Jul 25	19 46	19 38	21 14	3 51	5 27	16 59	23 38	.....	3 43	94	18 18.3	-21 20	6.6
Wed Jul 25/Thu Jul 26	19 50	19 37	21 13	3 52	5 27	17 02	23 43	18 06	4 32	98	19 09.6	-21 25	6.7
Thu Jul 26/Fri Jul 27	19 54	19 37	21 11	3 53	5 28	17 05	23 48	18 52	5 24	100	20 00.7	-20 34	6.7
Fri Jul 27/Sat Jul 28	19 58	19 36	21 10	3 54	5 29	17 08	23 53	19 34	6 17	100	20 50.9	-18 49	6.7
Sat Jul 28/Sun Jul 29	20 02	19 35	21 09	3 55	5 30	17 11	23 58	20 13	.....	98	21 40.1	-16 17	6.8
Sun Jul 29/Mon Jul 30	20 06	19 34	21 08	3 57	5 30	17 13	0 03	20 48	.....	95	22 28.1	-13 05	6.8
Mon Jul 30/Tue Jul 31	20 10	19 33	21 07	3 58	5 31	17 16	0 08	21 21	.....	89	23 15.2	- 9 20	6.8
Tue Jul 31/Wed Aug 01	20 14	19 32	21 06	3 59	5 32	17 19	0 13	21 53	.....	82	0 01.9	- 5 11	6.9

***** 2018 AUGUST *****

Date (eve/morn)	LMST midn	Sun: set	twi.end	twi.beg	rise	LST twilight: eve	morn	Moon: rise	set	%illum	RA	Dec	Twi-Twi hours
Wed Aug 01/Thu Aug 02	20 18	19 32	21 04	4 00	5 33	17 22	0 18	22 24	.....	74	0 48.6	- 0 48	6.9
Thu Aug 02/Fri Aug 03	20 22	19 31	21 03	4 01	5 33	17 24	0 23	22 56	.....	65	1 36.2	3 39	7.0
Fri Aug 03/Sat Aug 04	20 26	19 30	21 02	4 02	5 34	17 27	0 28	23 29	.....	55	2 25.3	8 01	7.0
Sat Aug 04/Sun Aug 05	20 29	19 29	21 01	4 03	5 35	17 30	0 33	0 06	.....	44	3 16.8	12 04	7.0
Sun Aug 05/Mon Aug 06	20 33	19 28	20 59	4 04	5 36	17 32	0 38	0 47	.....	33	4 11.4	15 33	7.1
Mon Aug 06/Tue Aug 07	20 37	19 27	20 58	4 05	5 36	17 35	0 43	1 35	.....	23	5 09.2	18 11	7.1
Tue Aug 07/Wed Aug 08	20 41	19 26	20 57	4 06	5 37	17 38	0 48	2 29	.....	14	6 10.0	19 42	7.2
Wed Aug 08/Thu Aug 09	20 45	19 25	20 55	4 07	5 38	17 40	0 53	3 32	.....	7	7 12.8	19 52	7.2
Thu Aug 09/Fri Aug 10	20 49	19 24	20 54	4 09	5 39	17 43	0 58	4 40	18 13	2	8 16.0	18 35	7.2
Fri Aug 10/Sat Aug 11	20 53	19 23	20 53	4 10	5 40	17 45	1 03	5 51	19 06	0	9 18.0	15 58	7.3
Sat Aug 11/Sun Aug 12	20 57	19 22	20 51	4 11	5 40	17 48	1 08	.....	19 54	1	10 17.8	12 14	7.3
Sun Aug 12/Mon Aug 13	21 01	19 21	20 50	4 12	5 41	17 50	1 13	.....	20 36	5	11 14.7	7 46	7.4
Mon Aug 13/Tue Aug 14	21 05	19 19	20 48	4 13	5 42	17 53	1 18	.....	21 15	11	12 09.1	2 55	7.4
Tue Aug 14/Wed Aug 15	21 09	19 18	20 47	4 14	5 43	17 55	1 23	.....	21 51	20	13 01.3	- 2 00	7.4
Wed Aug 15/Thu Aug 16	21 13	19 17	20 45	4 15	5 43	17 58	1 28	.....	22 26	29	13 52.1	- 6 42	7.5
Thu Aug 16/Fri Aug 17	21 17	19 16	20 44	4 16	5 44	18 00	1 33	.....	23 01	39	14 42.1	-10 59	7.5
Fri Aug 17/Sat Aug 18	21 21	19 15	20 43	4 17	5 45	18 03	1 38	.....	23 37	49	15 32.1	-14 41	7.6
Sat Aug 18/Sun Aug 19	21 25	19 14	20 41	4 18	5 46	18 05	1 43	.....	0 15	59	16 22.2	-17 39	7.6
Sun Aug 19/Mon Aug 20	21 29	19 12	20 40	4 19	5 46	18 08	1 48	.....	0 56	68	17 12.8	-19 49	7.7
Mon Aug 20/Tue Aug 21	21 33	19 11	20 38	4 20	5 47	18 10	1 53	.....	1 40	77	18 03.8	-21 06	7.7
Tue Aug 21/Wed Aug 22	21 36	19 10	20 37	4 21	5 48	18 12	1 58	.....	2 28	84	18 55.0	-21 27	7.7
Wed Aug 22/Thu Aug 23	21 40	19 09	20 35	4 22	5 49	18 15	2 03	.....	3 19	91	19 46.0	-20 51	7.8
Thu Aug 23/Fri Aug 24	21 44	19 07	20 33	4 23	5 49	18 17	2 08	17 33	4 11	95	20 36.5	-19 21	7.8
Fri Aug 24/Sat Aug 25	21 48	19 06	20 32	4 24	5 50	18 20	2 13	18 13	5 06	99	21 26.1	-17 01	7.9
Sat Aug 25/Sun Aug 26	21 52	19 05	20 30	4 25	5 51	18 22	2 18	18 49	6 01	100	22 14.7	-13 57	7.9
Sun Aug 26/Mon Aug 27	21 56	19 04	20 29	4 26	5 51	18 24	2 23	19 23	.....	99	23 02.4	-10 18	8.0
Mon Aug 27/Tue Aug 28	22 00	19 02	20 27	4 27	5 52	18 27	2 28	19 55	.....	97	23 49.6	- 6 11	8.0
Tue Aug 28/Wed Aug 29	22 04	19 01	20 26	4 28	5 53	18 29	2 33	20 27	.....	92	0 36.7	- 1 48	8.0
Wed Aug 29/Thu Aug 30	22 08	19 00	20 24	4 29	5 54	18 32	2 38	20 58	.....	86	1 24.2	2 42	8.1
Thu Aug 30/Fri Aug 31	22 12	18 58	20 23	4 30	5 54	18 34	2 43	21 31	.....	78	2 12.9	7 08	8.1
Fri Aug 31/Sat Sep 01	22 16	18 57	20 21	4 31	5 55	18 36	2 48	22 06	.....	69	3 03.5	11 16	8.2

Calendar for DCT, west longitude (h.m.s) = 7 25 41, latitude (d.m) = 34 44.7
Rise/set times in Mountain time (7 hr W), for 500 m above surroundings, in standard time all year.
Moon info is for local midnight, even if moon is down. Program: John Thorstensen, Dartmouth College.

***** 2018 SEPTEMBER *****

Date (eve/morn)	LMST	Sun:				LST twilight:		Moon:					Twi-Twi
	midn	set	twi.end	twi.beg	rise	eve	morn	rise	set	%illum	RA	Dec	hours
Sat Sep 01/Sun Sep 02	22 20	18 55	20 19	4 32	5 56	18 39	2 53	22 44	.....	58	3 56.4	14 52	8.2
Sun Sep 02/Mon Sep 03	22 24	18 54	20 18	4 33	5 57	18 41	2 57	23 28	.....	47	4 52.1	17 43	8.3
Mon Sep 03/Tue Sep 04	22 28	18 53	20 16	4 34	5 57	18 43	3 02	0 18	.....	36	5 50.6	19 33	8.3
Tue Sep 04/Wed Sep 05	22 32	18 51	20 15	4 35	5 58	18 46	3 07	1 15	.....	26	6 51.1	20 09	8.3
Wed Sep 05/Thu Sep 06	22 36	18 50	20 13	4 36	5 59	18 48	3 12	2 19	.....	16	7 52.7	19 23	8.4
Thu Sep 06/Fri Sep 07	22 40	18 49	20 11	4 37	5 59	18 50	3 17	3 27	.....	8	8 54.0	17 17	8.4
Fri Sep 07/Sat Sep 08	22 44	18 47	20 10	4 37	6 00	18 53	3 22	4 38	17 43	3	9 53.8	13 59	8.5
Sat Sep 08/Sun Sep 09	22 47	18 46	20 08	4 38	6 01	18 55	3 27	5 48	18 27	0	10 51.5	9 46	8.5
Sun Sep 09/Mon Sep 10	22 51	18 44	20 07	4 39	6 02	18 57	3 31	6 57	19 07	1	11 46.9	4 59	8.5
Mon Sep 10/Tue Sep 11	22 55	18 43	20 05	4 40	6 02	19 00	3 36	.....	19 45	3	12 40.5	- 0 01	8.6
Tue Sep 11/Wed Sep 12	22 59	18 42	20 04	4 41	6 03	19 02	3 41	.....	20 20	9	13 32.6	- 4 56	8.6
Wed Sep 12/Thu Sep 13	23 03	18 40	20 02	4 42	6 04	19 05	3 46	.....	20 56	16	14 23.8	- 9 30	8.7
Thu Sep 13/Fri Sep 14	23 07	18 39	20 00	4 43	6 05	19 07	3 51	.....	21 33	24	15 14.7	-13 31	8.7
Fri Sep 14/Sat Sep 15	23 11	18 37	19 59	4 44	6 05	19 09	3 55	.....	22 11	33	16 05.6	-16 49	8.7
Sat Sep 15/Sun Sep 16	23 15	18 36	19 57	4 44	6 06	19 12	4 00	.....	22 52	43	16 56.7	-19 17	8.8
Sun Sep 16/Mon Sep 17	23 19	18 34	19 56	4 45	6 07	19 14	4 05	.....	23 35	52	17 48.0	-20 51	8.8
Mon Sep 17/Tue Sep 18	23 23	18 33	19 54	4 46	6 07	19 16	4 10	.....	0 22	62	18 39.3	-21 28	8.9
Tue Sep 18/Wed Sep 19	23 27	18 31	19 53	4 47	6 08	19 19	4 15	.....	1 12	71	19 30.4	-21 09	8.9
Wed Sep 19/Thu Sep 20	23 31	18 30	19 51	4 48	6 09	19 21	4 19	.....	2 04	79	20 20.9	-19 55	8.9
Thu Sep 20/Fri Sep 21	23 35	18 29	19 50	4 49	6 10	19 24	4 24	.....	2 58	86	21 10.5	-17 49	9.0
Fri Sep 21/Sat Sep 22	23 39	18 27	19 48	4 49	6 10	19 26	4 29	16 49	3 53	92	21 59.4	-14 56	9.0
Sat Sep 22/Sun Sep 23	23 43	18 26	19 47	4 50	6 11	19 28	4 34	17 24	4 49	97	22 47.5	-11 24	9.1
Sun Sep 23/Mon Sep 24	23 47	18 24	19 45	4 51	6 12	19 31	4 38	17 57	5 46	99	23 35.1	- 7 21	9.1
Mon Sep 24/Tue Sep 25	23 51	18 23	19 43	4 52	6 12	19 33	4 43	18 28	6 44	100	0 22.7	- 2 56	9.1
Tue Sep 25/Wed Sep 26	23 54	18 21	19 42	4 53	6 13	19 36	4 48	19 00	.....	98	1 10.8	1 39	9.2
Wed Sep 26/Thu Sep 27	23 58	18 20	19 41	4 53	6 14	19 38	4 53	19 32	.....	95	1 59.9	6 14	9.2
Thu Sep 27/Fri Sep 28	0 02	18 19	19 39	4 54	6 15	19 41	4 57	20 07	.....	89	2 50.6	10 33	9.3
Fri Sep 28/Sat Sep 29	0 06	18 17	19 38	4 55	6 15	19 43	5 02	20 44	.....	81	3 43.5	14 23	9.3
Sat Sep 29/Sun Sep 30	0 10	18 16	19 36	4 56	6 16	19 46	5 07	21 26	.....	72	4 38.8	17 28	9.3
Sun Sep 30/Mon Oct 01	0 14	18 14	19 35	4 57	6 17	19 48	5 12	22 14	.....	62	5 36.4	19 33	9.4

***** 2018 OCTOBER *****

Date (eve/morn)	LMST	Sun:				LST twilight:		Moon:					Twi-Twi
	midn	set	twi.end	twi.beg	rise	eve	morn	rise	set	%illum	RA	Dec	hours
Mon Oct 01/Tue Oct 02	0 18	18 13	19 33	4 57	6 18	19 51	5 16	23 07	.....	51	6 35.8	20 27	9.4
Tue Oct 02/Wed Oct 03	0 22	18 12	19 32	4 58	6 18	19 53	5 21	0 07	.....	39	7 36.0	20 03	9.4
Wed Oct 03/Thu Oct 04	0 26	18 10	19 30	4 59	6 19	19 56	5 26	1 12	.....	28	8 35.9	18 20	9.5
Thu Oct 04/Fri Oct 05	0 30	18 09	19 29	5 00	6 20	19 58	5 30	2 20	.....	19	9 34.7	15 26	9.5
Fri Oct 05/Sat Oct 06	0 34	18 08	19 28	5 01	6 21	20 01	5 35	3 28	.....	10	10 31.6	11 33	9.5
Sat Oct 06/Sun Oct 07	0 38	18 06	19 26	5 01	6 22	20 03	5 40	4 36	17 01	5	11 26.6	6 59	9.6
Sun Oct 07/Mon Oct 08	0 42	18 05	19 25	5 02	6 22	20 06	5 45	5 43	17 39	1	12 20.1	2 02	9.6
Mon Oct 08/Tue Oct 09	0 46	18 03	19 24	5 03	6 23	20 09	5 49	6 49	18 15	0	13 12.3	- 2 58	9.7
Tue Oct 09/Wed Oct 10	0 50	18 02	19 22	5 04	6 24	20 11	5 54	.....	18 50	2	14 03.9	- 7 46	9.7
Wed Oct 10/Thu Oct 11	0 54	18 01	19 21	5 04	6 25	20 14	5 59	.....	19 26	6	14 55.3	-12 06	9.7
Thu Oct 11/Fri Oct 12	0 58	17 59	19 20	5 05	6 26	20 16	6 04	.....	20 04	11	15 46.8	-15 45	9.8
Fri Oct 12/Sat Oct 13	1 01	17 58	19 18	5 06	6 26	20 19	6 08	.....	20 45	18	16 38.5	-18 36	9.8
Sat Oct 13/Sun Oct 14	1 05	17 57	19 17	5 07	6 27	20 22	6 13	.....	21 28	27	17 30.4	-20 32	9.8
Sun Oct 14/Mon Oct 15	1 09	17 56	19 16	5 08	6 28	20 25	6 18	.....	22 14	36	18 22.2	-21 29	9.9
Mon Oct 15/Tue Oct 16	1 13	17 54	19 15	5 08	6 29	20 27	6 22	.....	23 03	45	19 13.6	-21 29	9.9
Tue Oct 16/Wed Oct 17	1 17	17 53	19 13	5 09	6 30	20 30	6 27	.....	23 55	54	20 04.2	-20 32	9.9
Wed Oct 17/Thu Oct 18	1 21	17 52	19 12	5 10	6 30	20 33	6 32	.....	0 48	64	20 53.9	-18 42	10.0
Thu Oct 18/Fri Oct 19	1 25	17 51	19 11	5 11	6 31	20 36	6 37	.....	1 43	72	21 42.7	-16 04	10.0
Fri Oct 19/Sat Oct 20	1 29	17 49	19 10	5 11	6 32	20 38	6 41	.....	2 39	81	22 30.7	-12 44	10.0
Sat Oct 20/Sun Oct 21	1 33	17 48	19 09	5 12	6 33	20 41	6 46	.....	3 35	88	23 18.2	- 8 50	10.1
Sun Oct 21/Mon Oct 22	1 37	17 47	19 08	5 13	6 34	20 44	6 51	16 28	4 33	93	0 05.7	- 4 29	10.1
Mon Oct 22/Tue Oct 23	1 41	17 46	19 07	5 14	6 35	20 47	6 56	17 00	5 31	98	0 53.8	0 09	10.1
Tue Oct 23/Wed Oct 24	1 45	17 45	19 06	5 15	6 36	20 50	7 00	17 32	6 32	100	1 43.1	4 52	10.1
Wed Oct 24/Thu Oct 25	1 49	17 44	19 05	5 15	6 36	20 53	7 05	18 06	7 34	99	2 34.2	9 26	10.2
Thu Oct 25/Fri Oct 26	1 53	17 43	19 04	5 16	6 37	20 55	7 10	18 42	.....	97	3 27.6	13 36	10.2
Fri Oct 26/Sat Oct 27	1 57	17 41	19 03	5 17	6 38	20 58	7 15	19 24	.....	92	4 23.6	17 02	10.2
Sat Oct 27/Sun Oct 28	2 01	17 40	19 02	5 18	6 39	21 01	7 19	20 10	.....	85	5 22.0	19 30	10.3
Sun Oct 28/Mon Oct 29	2 05	17 39	19 01	5 19	6 40	21 04	7 24	21 02	.....	75	6 22.0	20 44	10.3
Mon Oct 29/Tue Oct 30	2 09	17 38	19 00	5 19	6 41	21 07	7 29	22 01	.....	65	7 22.7	20 39	10.3
Tue Oct 30/Wed Oct 31	2 12	17 37	18 59	5 20	6 42	21 10	7 34	23 04	.....	54	8 22.8	19 13	10.4
Wed Oct 31/Thu Nov 01	2 16	17 36	18 58	5 21	6 43	21 13	7 38	0 10	.....	42	9 21.3	16 35	10.4

Calendar for DCT, west longitude (h.m.s) = 7 25 41, latitude (d.m) = 34 44.7
Rise/set times in Mountain time (7 hr W), for 500 m above surroundings, in standard time all year.
Moon info is for local midnight, even if moon is down. Program: John Thorstensen, Dartmouth College.

***** 2018 NOVEMBER *****

Date (eve/morn)	LMST	Sun:				LST twilight:		Moon:					Twi-Twi
	midn	set	twi.end	twi.beg	rise	eve	morn	rise	set	%illum	RA	Dec	hours
Thu Nov 01/Fri Nov 02	2 20	17 35	18 57	5 22	6 44	21 17	7 43	1 16	.....	31	10 17.7	12 57	10.4
Fri Nov 02/Sat Nov 03	2 24	17 34	18 56	5 23	6 45	21 20	7 48	2 23	.....	22	11 11.9	8 36	10.4
Sat Nov 03/Sun Nov 04	2 28	17 33	18 55	5 23	6 46	21 23	7 53	3 28	.....	13	12 04.4	3 48	10.5
Sun Nov 04/Mon Nov 05	2 32	17 33	18 55	5 24	6 46	21 26	7 57	4 33	16 12	7	12 55.8	- 1 10	10.5
Mon Nov 05/Tue Nov 06	2 36	17 32	18 54	5 25	6 47	21 29	8 02	5 37	16 47	2	13 46.5	- 6 02	10.5
Tue Nov 06/Wed Nov 07	2 40	17 31	18 53	5 26	6 48	21 32	8 07	6 39	17 22	0	14 37.3	-10 33	10.5
Wed Nov 07/Thu Nov 08	2 44	17 30	18 52	5 27	6 49	21 36	8 12	7 41	17 59	1	15 28.4	-14 30	10.6
Thu Nov 08/Fri Nov 09	2 48	17 29	18 52	5 28	6 50	21 39	8 16	.....	18 37	3	16 20.1	-17 43	10.6
Fri Nov 09/Sat Nov 10	2 52	17 28	18 51	5 28	6 51	21 42	8 21	.....	19 20	7	17 12.2	-20 02	10.6
Sat Nov 10/Sun Nov 11	2 56	17 28	18 50	5 29	6 52	21 45	8 26	.....	20 05	13	18 04.4	-21 22	10.6
Sun Nov 11/Mon Nov 12	3 00	17 27	18 50	5 30	6 53	21 49	8 31	.....	20 53	20	18 56.3	-21 43	10.7
Mon Nov 12/Tue Nov 13	3 04	17 26	18 49	5 31	6 54	21 52	8 35	.....	21 45	28	19 47.4	-21 06	10.7
Tue Nov 13/Wed Nov 14	3 08	17 26	18 49	5 32	6 55	21 56	8 40	.....	22 38	37	20 37.3	-19 33	10.7
Wed Nov 14/Thu Nov 15	3 12	17 25	18 48	5 33	6 56	21 59	8 45	.....	23 32	46	21 26.1	-17 12	10.7
Thu Nov 15/Fri Nov 16	3 16	17 24	18 48	5 33	6 57	22 02	8 50	.....	0 27	56	22 13.7	-14 08	10.8
Fri Nov 16/Sat Nov 17	3 19	17 24	18 47	5 34	6 58	22 06	8 55	.....	1 22	65	23 00.6	-10 27	10.8
Sat Nov 17/Sun Nov 18	3 23	17 23	18 47	5 35	6 59	22 09	8 59	.....	2 19	74	23 47.3	- 6 17	10.8
Sun Nov 18/Mon Nov 19	3 27	17 23	18 46	5 36	7 00	22 13	9 04	.....	3 16	82	0 34.5	- 1 46	10.8
Mon Nov 19/Tue Nov 20	3 31	17 22	18 46	5 37	7 01	22 17	9 09	.....	4 16	89	1 22.8	2 58	10.8
Tue Nov 20/Wed Nov 21	3 35	17 22	18 46	5 37	7 02	22 20	9 14	16 02	5 18	95	2 13.1	7 41	10.9
Wed Nov 21/Thu Nov 22	3 39	17 21	18 45	5 38	7 03	22 24	9 18	16 38	6 22	99	3 06.0	12 08	10.9
Thu Nov 22/Fri Nov 23	3 43	17 21	18 45	5 39	7 04	22 27	9 23	17 17	7 28	100	4 02.1	16 01	10.9
Fri Nov 23/Sat Nov 24	3 47	17 20	18 45	5 40	7 05	22 31	9 28	18 02	.....	98	5 01.3	18 59	10.9
Sat Nov 24/Sun Nov 25	3 51	17 20	18 45	5 41	7 05	22 35	9 33	18 54	.....	94	6 02.9	20 46	10.9
Sun Nov 25/Mon Nov 26	3 55	17 20	18 44	5 42	7 06	22 39	9 37	19 52	.....	88	7 05.7	21 07	11.0
Mon Nov 26/Tue Nov 27	3 59	17 19	18 44	5 42	7 07	22 42	9 42	20 55	.....	79	8 08.0	20 02	11.0
Tue Nov 27/Wed Nov 28	4 03	17 19	18 44	5 43	7 08	22 46	9 47	22 02	.....	68	9 08.4	17 38	11.0
Wed Nov 28/Thu Nov 29	4 07	17 19	18 44	5 44	7 09	22 50	9 52	23 09	.....	57	10 06.0	14 09	11.0
Thu Nov 29/Fri Nov 30	4 11	17 19	18 44	5 45	7 10	22 54	9 56	0 15	.....	46	11 00.9	9 54	11.0
Fri Nov 30/Sat Dec 01	4 15	17 19	18 44	5 45	7 11	22 58	10 01	1 20	.....	35	11 53.4	5 11	11.0

***** 2018 DECEMBER *****

Date (eve/morn)	LMST	Sun:				LST twilight:		Moon:					Twi-Twi
	midn	set	twi.end	twi.beg	rise	eve	morn	rise	set	%illum	RA	Dec	hours
Sat Dec 01/Sun Dec 02	4 19	17 19	18 44	5 46	7 12	23 02	10 06	2 24	.....	25	12 44.2	0 16	11.0
Sun Dec 02/Mon Dec 03	4 23	17 18	18 44	5 47	7 13	23 06	10 11	3 26	.....	16	13 34.1	- 4 36	11.1
Mon Dec 03/Tue Dec 04	4 27	17 18	18 44	5 48	7 13	23 10	10 15	4 28	.....	9	14 23.8	- 9 12	11.1
Tue Dec 04/Wed Dec 05	4 30	17 18	18 44	5 49	7 14	23 14	10 20	5 29	15 57	4	15 13.8	-13 18	11.1
Wed Dec 05/Thu Dec 06	4 34	17 18	18 44	5 49	7 15	23 18	10 25	6 29	16 34	1	16 04.6	-16 45	11.1
Thu Dec 06/Fri Dec 07	4 38	17 18	18 44	5 50	7 16	23 22	10 29	7 27	17 14	0	16 56.1	-19 22	11.1
Fri Dec 07/Sat Dec 08	4 42	17 18	18 44	5 51	7 17	23 26	10 34	8 23	17 58	1	17 48.1	-21 04	11.1
Sat Dec 08/Sun Dec 09	4 46	17 19	18 45	5 51	7 17	23 30	10 39	.....	18 45	4	18 40.1	-21 46	11.1
Sun Dec 09/Mon Dec 10	4 50	17 19	18 45	5 52	7 18	23 34	10 43	.....	19 35	8	19 31.5	-21 28	11.1
Mon Dec 10/Tue Dec 11	4 54	17 19	18 45	5 53	7 19	23 38	10 48	.....	20 28	14	20 21.9	-20 14	11.1
Tue Dec 11/Wed Dec 12	4 58	17 19	18 45	5 53	7 20	23 42	10 52	.....	21 22	21	21 10.9	-18 09	11.1
Wed Dec 12/Thu Dec 13	5 02	17 19	18 46	5 54	7 20	23 47	10 57	.....	22 16	29	21 58.5	-15 20	11.1
Thu Dec 13/Fri Dec 14	5 06	17 19	18 46	5 55	7 21	23 51	11 02	.....	23 11	38	22 44.9	-11 53	11.1
Fri Dec 14/Sat Dec 15	5 10	17 20	18 46	5 55	7 22	23 55	11 06	.....	0 06	47	23 30.7	- 7 57	11.2
Sat Dec 15/Sun Dec 16	5 14	17 20	18 47	5 56	7 22	23 59	11 11	.....	1 02	57	0 16.5	- 3 38	11.2
Sun Dec 16/Mon Dec 17	5 18	17 20	18 47	5 57	7 23	0 04	11 15	.....	2 00	67	1 03.0	0 56	11.2
Mon Dec 17/Tue Dec 18	5 22	17 21	18 47	5 57	7 24	0 08	11 20	.....	2 59	76	1 51.2	5 36	11.2
Tue Dec 18/Wed Dec 19	5 26	17 21	18 48	5 58	7 24	0 12	11 24	.....	4 01	85	2 41.9	10 09	11.2
Wed Dec 19/Thu Dec 20	5 30	17 22	18 48	5 58	7 25	0 17	11 29	.....	5 06	92	3 35.9	14 20	11.2
Thu Dec 20/Fri Dec 21	5 34	17 22	18 49	5 59	7 25	0 21	11 33	15 51	6 13	97	4 33.8	17 49	11.2
Fri Dec 21/Sat Dec 22	5 37	17 23	18 49	5 59	7 26	0 26	11 38	16 39	7 20	100	5 35.3	20 14	11.2
Sat Dec 22/Sun Dec 23	5 41	17 23	18 50	6 00	7 26	0 30	11 42	17 35	8 25	100	6 39.4	21 17	11.2
Sun Dec 23/Mon Dec 24	5 45	17 24	18 50	6 00	7 27	0 35	11 46	18 38	.....	96	7 44.4	20 47	11.2
Mon Dec 24/Tue Dec 25	5 49	17 24	18 51	6 01	7 27	0 39	11 51	19 46	.....	90	8 48.1	18 47	11.2
Tue Dec 25/Wed Dec 26	5 53	17 25	18 51	6 01	7 27	0 44	11 55	20 56	.....	82	9 49.2	15 30	11.2
Wed Dec 26/Thu Dec 27	5 57	17 25	18 52	6 01	7 28	0 48	12 00	22 05	.....	72	10 46.9	11 18	11.2
Thu Dec 27/Fri Dec 28	6 01	17 26	18 52	6 02	7 28	0 53	12 04	23 12	.....	61	11 41.5	6 32	11.2
Fri Dec 28/Sat Dec 29	6 05	17 27	18 53	6 02	7 28	0 57	12 08	0 17	.....	50	12 33.5	1 32	11.1
Sat Dec 29/Sun Dec 30	6 09	17 27	18 54	6 02	7 29	1 02	12 12	1 20	.....	40	13 23.9	- 3 25	11.1
Sun Dec 30/Mon Dec 31	6 13	17 28	18 54	6 03	7 29	1 07	12 17	2 22	.....	29	14 13.5	- 8 06	11.1
Mon Dec 31/Tue Jan 01	6 17	17 29	18 55	6 03	7 29	1 11	12 21	3 22	.....	21	15 03.0	-12 19	11.1