

# THE CANADIAN ALMANAC

## FOR THE YEAR 1880.

#### Chronological Cycles.

Golden Number Épaet Solar Cyele	19 Dominical Letters DC   18 Roman Indiction 8   18 Julian Period 6593
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#### Epochs.

The year 5641 of the Jewish Era begins Sept. 6 1	880   The 44th of Queen Victoria's Reign begins June 20, 1850
The year 1298 of the Mahometan Era begins on	The 14th of the Dominion of Canada begins July 1, 1880
December 4 1	880   The 105th of the Indep. of the U.S. begins July 4, 1889

#### Fixed and Movable Festivals and Anniversaries.

Ash Wednesday. Feb   St David. Ma   St. Patrick. Mai   Lady Day. Mai   Lady Day. Mai   Easter Sunday Mai   St. George Api   Holy Thursday Mai	. 11	Whitsunday	May	16
	reh 1	Birth of Queen Victoria	May	24
	reh 17	Midsummer Day	June	24
	reh 25	Dominion Day	July	1
	reh 28	Michaelmas Day	Sept.	29
	ril 23	Birth of Prince of Waies	Nov.	9
	r 6	St. Andrew	Nov.	30

### Explanation of the Articles in the Calendar.

The pages are calculated for Toronto, Quebec, Fredericton and Halifax, and for ordinary purposes will serve with sufficient accuracy for every city in the Dominion of Canada.

The times of 2 SUN'S RISING AND SETTING are given for the upper limb, and are corrected for refraction for Toronto,  $Q^{*}$  (redericton, Halifax and Fort Garry.

The civil both for the rising and setting of the Moon's centre are given for every day for Toronto, Quebec Fredericton, adifax and Fort Garry.

The column, SUN on MERIDIAN, gives the time that a watch should show when the shadow of a sun dial is on the noon mark.

Moon's AGE.-This column shows to the nearest tenth of a day the Moon's age at Toronto, noon.

The column, MOON ON THE MERIDIAN, gives the mean time at which the Moon's centre passes the meridian of longitude 4h. 46m. W. When in the column headed Moon's rising or setting, or Moon on meridian, the leiters A.M. occur, unaccompanied by any number, they denote that the numbers given for the succeeding days relate to the morning, and those for the preceding days to the afternoon, and that the Moon does not rise or set or cross the meridian (so the case may be) on that day.

The Moon's MERIDIAN ZENITH DISTANCES are given to the nearest tenth of a degree for a point in latitude 45' and longitude 4h. 46m. W. They are not corrected for parallax or refraction.

The column, UPPER TRANSIT OF POLE STAR, shows for every day the mean time at which the Pole Star makes its upper transit across the meridian of longitude 4h. 46m. W. It passes the meridian in the morning from April 10 to October 9. It passes the meridian twice on October 9; and in the afternoon during the rest of the year.

The time at which the lower transit of the Pole Star occurs may be found by adding 11h. 58m. 2s. to the time of the preceding upper transit.

The six last columns will serve with sufficient accuracy for the whole of Canada.

From the time of the upper transit of the Pole Star may be found the time of its greatest western or eastern elongation, by adding or subtracting the constants given in the annexed Table.

atitude	1	42°	Ī	43°	44°	45°	46°		47° 1	48°	49	•	5	0°
Constant	h ō	m s 54 6 	h 5	m s h 53 55 5 -1.8	m s <sup>h</sup> 53 44 5 —1.8	m s 53 33 	hms 55321 —2.0	h 5	m s h 53 9 5 2.0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	n m 52	s 1 43 5 -2,3	1 n 5 5	n s 52 29

MOON'S PHASES.—This Table gives the times for the four meridians when the Moon passes the geocentric longitudes of  $0^\circ$ ,  $9^\circ$ ,  $9^\circ$ , 180°, and 270° east of the sun. It gives also the times of her greatest and least distance from the earth.

Twillong.—In this Table are given the times at which twilight begins in the morning and ends in the evening, *i.e.*, the times when the Sun's centre is  $18^{\circ}$  below the horizon.

GREATEST ELONGATION OF THE POLE STAR.—This column gives the greatest asimuth of the Pole Star east or west from the meridian as observed at a place in latitude 45°. When the greatest elongation corresponding to any other latitude is required, the number given in the column should be corrected by means of the following Table.

Latitude	420	43°	440	450	46°	470	480	490	60°
1st Correction for Degrees	-5' 38"		-1' 59"	0' 00''	+ 2'4"	+4'16"	+ 6' 35"	+ 9'2"	+11'37"
of latitude	+ 1″.8	+ 1".9	+ 2".0	+ 2".1	+ 2".2	+ 2".3	+ 2".4	+ 2".6	+ 2".7
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January Februar March ...

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