



Environment
Canada

Environnement
Canada

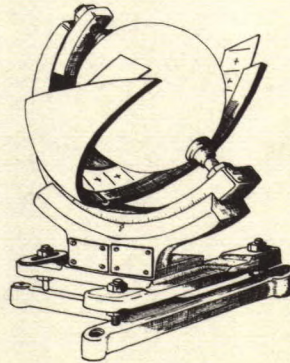
Atmospheric
Environment
Service

Service
de l'environnement
atmosphérique

CANADIAN CLIMATE NORMALS NORMALES CLIMATIQUES AU CANADA

VOLUME 7

**BRIGHT
SUNSHINE**



**INSOLATION
EFFECTIVE**

1951-1980

QC
985
C36
1982
v.7

Canada

Canadian Climate Normals
Normales climatiques au Canada
1951 – 1980

Volume	Title/Titre	Issued/Publié	Price/Prix
1	Radiation/Rayonnement	1982	\$ 3.00
2	Temperature/Température	1982	\$ 6.00
3	Precipitation/Précipitations	1982	\$ 8.00
4	Degree Days/Degrés-jours	1982	\$ 6.00
5	Wind/Vent	1982	\$ 5.00
6	Frost/Gel	1982	\$ 3.00
7	Bright Sunshine/Insolation Effective	1982	\$ 3.00
8-10	(To be determined/à déterminer)		

To order copies of these publications or other climate information see instructions for ordering on inside back cover.

Pour commander des exemplaires de ces publications ou obtenir d'autres renseignements climatologiques, voir les instructions à cet effet en troisième page de couverture.



Environment
Canada

Environnement
Canada

Atmospheric
Environment
Service

Service
de l'environnement
atmosphérique

ENVIRONMENT CANADA
LIBRARY, NOVA COAST PLAZA
PO BOX 2310 5019-52 ST.
YELLOWKNIFE, NT X1A 2P7

CANADIAN CLIMATE NORMALS NORMALES CLIMATIQUES AU CANADA

VOLUME 7

**BRIGHT
SUNSHINE**

**INSOLATION
EFFECTIVE**

1951-1980

A publication of the Canadian Climate Program
Publication du Programme climatologique canadien

CANADIAN CLIMATE NORMALS
NORMALES CLIMATIQUES AU CANADA

1951 – 1980

VOLUME 7
BRIGHT SUNSHINE
INSOLATION

© Minister of Supply and Services Canada 1982

Available in Canada through

Authorized Bookstore Agents
and other bookstores

or by mail from

Canadian Government Publishing Centre
Supply and Services Canada
Ottawa, Canada, K1A 0S9

Catalogue No. EN 56-60/7-1982
ISBN 0-660-51899-6

Canada: \$3.00
Other Countries: \$3.60

Price subject to change without notice.

Reprinted 1984

© Ministre des Approvisionnements et Services Canada 1982

En vente au Canada par l'entremise de nos

agents libraires agréés
et autres librairies

ou par la poste au:

Centre d'édition du gouvernement du Canada
Approvisionnement et Services Canada
Ottawa, Canada. K1A 0S9

N° de catalogue EN 56-60/7-1982
ISBN 0-660-51899-6

Canada: \$3.00
à l'étranger: \$3.60

Prix sujet à changement sans avis préalable

Réimprimé en 1984

CANADIAN CLIMATE NORMALS

1951 - 1980
VOLUME 7
BRIGHT SUNSHINE

PREFACE

This publication containing average bright sunshine totals for periods of record to 1980 is the seventh volume in a new series, *Canadian Climate Normals*. Bright sunshine data for the period 1941 to 1970 were published previously in *Daily Bright Sunshine* CLI-6-72.

Bright sunshine data for each station were obtained by accumulating daily totals by month over the period of record 1951 to 1980 and are listed for stations with at least five years of observations. Stations are arranged alphabetically within province and territory.

NORMALES CLIMATIQUES CANADIENNES

1951 - 1980
TOME 7
INSOLATION EFFECTIVE

PRÉFACE

Voici le tome 7 de la nouvelle série *Normales climatiques au Canada*. Il contient les moyennes des durées totales d'insolation effective calculées sur des périodes de relevés allant jusqu'à 1980. Les données sur l'insolation pour la période s'étendant de 1941 à 1970 ont déjà été publiées dans *Daily Bright Sunshine*, CLI-6-72.

Pour chaque station, c'est en accumulant les totaux quotidiens de chaque mois de la période de relevés s'étendant de 1951 à 1980 qu'on a obtenu les données. Les stations qui figurent ici comptent au moins cinq ans d'observations; elles sont disposées dans l'ordre alphabétique par province et par territoire.

CANADIAN CLIMATE NORMALS

**1951 - 1980
VOLUME 7
BRIGHT SUNSHINE**

NORMALES CLIMATIQUES CANADIENNES

**1951 - 1980
TOME 7
INSOLATION EFFECTIVE**

1. Introduction

In the 1880s sunshine instruments were installed at six stations in eastern Canada. Since then, the network has grown steadily. For over one hundred years, observations of bright sunshine have been made in the same manner and using basically the same instrument. It is important to note that the amount of "bright sunshine" is less than the amount of "visible sunshine" because the sun's rays are not intense enough to record especially just after sunrise and towards sunset.

This publication contains tables of mean monthly and annual totals of bright sunshine for 320 stations. The means are calculated for the 30-year period 1951 to 1980. The actual period of record used to compute each average is indicated by a code number that is displayed following the corresponding annual value in the tables.

2. Bright Sunshine Observations

In Canada, bright sunshine observations are made using the Campbell-Stokes sunshine recorder, which was first developed in 1863. The principle involved in recording sunshine with this instrument is similar to burning a sheet of paper by focusing sunshine on it with a hand-held magnifying glass.

The Campbell-Stokes recorder consists essentially of a glass sphere that is 10 cm in diameter, mounted concentrically in a portion of a spherical bowl. The sun's rays are

1. Introduction

Au cours des années 1880, on a installé des instruments de mesure de l'insolation à six stations de l'est du Canada. Depuis lors, le réseau s'est étendu de façon constante. Il y a plus de cent ans qu'on observe l'insolation de la même façon et à l'aide, en gros, du même instrument. Il importe de noter que la durée de l'"insolation effective" est moindre que la durée de l'"insolation visible" parce que, immédiatement après le lever du soleil et avant son coucher, les rayons ne sont pas assez intenses pour être enregistrés.

La présente publication contient les tableaux des totaux moyens mensuels et annuels de l'insolation pour 320 stations. Les moyennes sont calculées pour la période de 30 ans qui s'étend de 1951 à 1980. Dans les tableaux, le numéro de code qui suit la valeur annuelle indique la période de relevés réelle employée pour le calcul de chaque moyenne.

2. Observations de l'insolation effective

Au Canada, on mesure l'insolation à l'aide de l'héliographe Campbell-Stokes, mis au point en 1863. Cet instrument enregistre l'insolation selon le principe de la loupe qui, en focalisant les rayons solaires, permet de brûler une feuille de papier.

L'héliographe Campbell-Stokes se compose essentiellement d'une sphère de verre de 10 cm de diamètre montée concentriquement dans une coupelle hémisphérique où deux rainures permettent de fixer les cartons diagrammes. La sphère de verre focalise les

focussed by the glass sphere on a card held in position by a pair of grooves in the bowl. The focussed rays scorch the card or burn a trace right through it. The card size used depends on the length of the day and is available in three classes corresponding to the time of the year: equinox, summer or winter solstice. Figure 1 shows the Campbell-Stokes recorder and a scorched sunshine card for the summer season.

Cards are changed daily so that the duration of sunshine for each hour of the day can be scaled. Observers are instructed to count the number of tenths of hours of sunshine, as indicated by the burn on the card, and to record this total on an observational form. The hourly duration of sunshine for each day of the month is listed on a monthly report. At the end of each month the documents and the sunshine cards are sent to the Atmospheric Environment Service where the data are checked and processed.

3. The Data Tables

Tables of mean monthly and annual bright sunshine data are presented for all stations in Canada that have at least five years of data for the period 1951 to 1980.

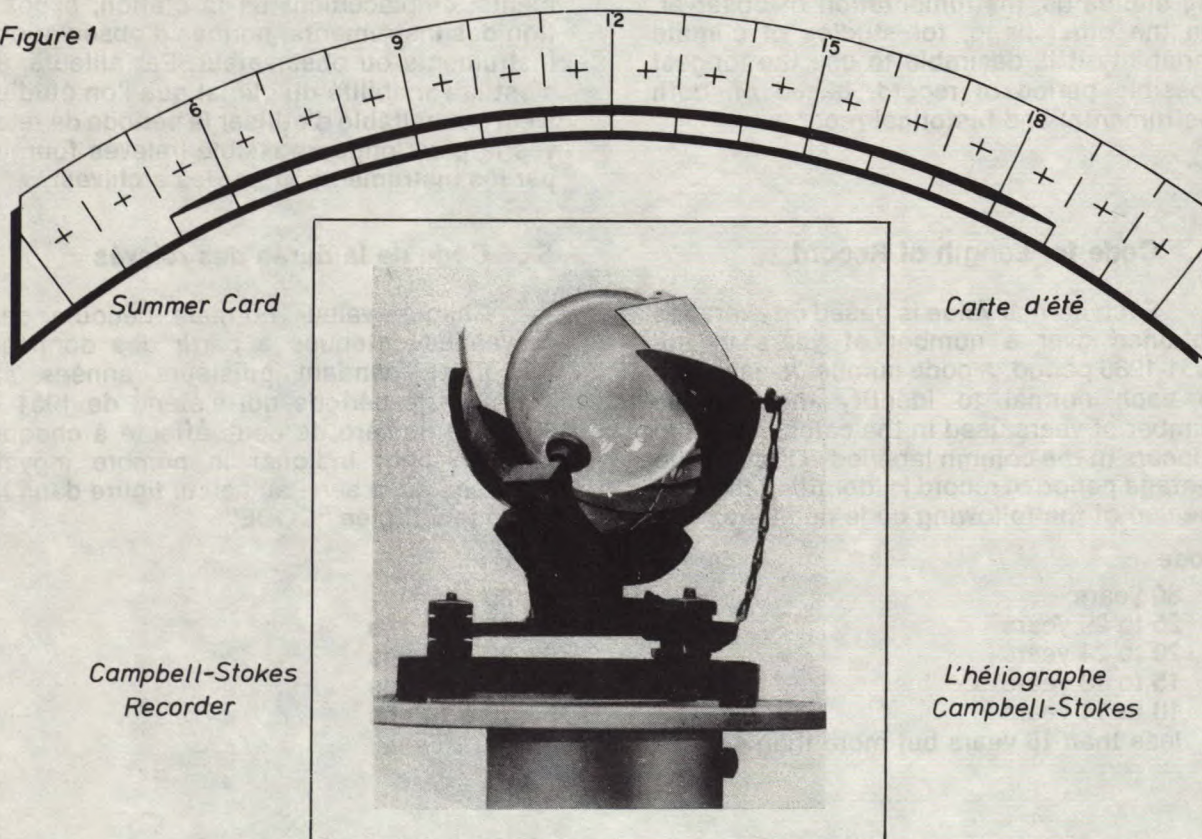
rayons solaires sur le carton et la focalisation entraîne la brûlure ou la décoloration du carton au point où se forme l'image du soleil. Le format des cartons diagrammes dépend de la longueur du jour; il existe trois types de diagrammes correspondant chacun à la période de l'année: équinoxe, solstice d'été, solstice d'hiver. La figure 1 montre l'héliographe Campbell-Stokes et un diagramme d'été utilisé.

On change les diagrammes chaque jour afin d'établir la durée de l'insolation pour chaque heure du jour. Les observateurs comptent le nombre de dixièmes d'heure d'insolation indiqué par la brûlure du carton et portent ce total sur un formulaire d'observation. La durée horaire d'insolation effective pour chaque jour du mois figure dans un rapport mensuel. À la fin de chaque mois, on fait parvenir ces documents et les cartons au Service de l'environnement atmosphérique, où les données sont vérifiées et traitées.

3. Tableaux de données

Les moyennes de données mensuelles et annuelles sur l'insolation effective fournies par les tableaux proviennent des observations effectuées par toutes les stations du

Figure 1



Monthly data were compiled for the available period of record from 1951 to 1980 and averaged to produce the mean number of hours of bright sunshine for each station. The annual figure is the total of the twelve monthly values.

4. Climate Normals

Climatologists have generally adopted an arbitrary 30-year period as a standard reference period for normals. The use of 30 years produces fairly constant values with little difference occurring between successive normal periods. However, it should be noted that the choice of 30 years and the use of the term "normal" climate can be misleading. The number of years needed to obtain a stable normal depends on the element, season and region. It should also be remembered that the period of record is not unrelated to the purpose. For example, if statistics are intended to represent average conditions over the very recent past, then a short period of record, say 10 to 15 years, lessens the possibility of inconsistencies in the time series arising from changes in: station location, instrument exposure, observing standards, instrumentation or observer. On the other hand, for studies of climate variability it is desirable to use the longest possible period of record, based on both instrumental and historical records.

5. Code for Length of Record

Each normal value is based on averages obtained over a number of years in the 1951-1980 period. A code number is assigned to each normal to identify the average number of years used in the calculation and appears in the column labelled "CODE". The average period of record is identified through the use of the following code numbers.

Code

- 1 30 years
- 2 25 to 29 years
- 3 20 to 24 years
- 4 15 to 19 years
- 5 10 to 14 years
- 6 less than 10 years but more than 4 years

Canada qui comptent au moins cinq ans de relevés au cours de la période allant de 1951 à 1980. On a fait la moyenne des données mensuelles compilées pour la période de relevés existante pour obtenir le nombre moyen d'heures d'insolation effective pour chaque station. La valeur annuelle est le total des douze valeurs mensuelles.

4. Normales climatiques

En général, les climatologues ont adopté une période de référence standard arbitraire de 30 ans pour les normales. L'emploi de telles périodes donne des valeurs assez constantes, les périodes de normales successives présentant peu de différences. Il convient toutefois de remarquer que le choix de 30 ans et l'emploi du terme climat "normal" peuvent induire en erreur. Le nombre d'années nécessaire pour obtenir une normale stable dépend de l'élément, de la saison et de la région. La période de relevés doit aussi correspondre au but recherché. Par exemple, si l'on recherche des statistiques pour présenter les conditions moyennes au cours des dernières années, une courte période de relevés, disons 10 à 15 ans, réduit les risques d'incohérences découlant de divers changements: emplacement de la station, exposition des instruments, normes d'observation, instruments ou observateur. Par ailleurs, si c'est la variabilité du climat que l'on étudie, il est souhaitable d'utiliser la période de relevés la plus longue possible (relevés fournis par les instruments et par les archives).

5. Code de la durée des relevés

Chaque valeur normale découle des moyennes obtenues à partir des données recueillies pendant plusieurs années au cours de la période qui s'étend de 1951 à 1980. Le numéro de code affecté à chaque normale pour indiquer le nombre moyen d'années qui a servi au calcul figure dans la colonne intitulée "CODE".

Code

- 1 30 ans
- 2 25 à 29 ans
- 3 20 à 24 ans
- 4 15 à 19 ans
- 5 10 à 14 ans
- 6 4 à 10 ans

6. Acknowledgements

Publication of any climate normal involves the work of many persons, beginning with those who recorded the original observations. Quality control, archiving, proofreading and publishing are just a few of the tasks that were performed. Years of faithful and accurate weather observation are required to generate the data from which the normals may be calculated. S. Di Pucchio with the assistance of D. Aston and D.W. Phillips prepared this booklet of bright sunshine normals. Thanks are due to M. Ascenzi, M. Kaye, E. Eensalu and M. Voss who did the manual abstraction. W. Johnson designed the front cover.

6. Remerciements

La publication des Normales climatiques est un travail collectif qui commence par les observations. Viennent ensuite le contrôle de la qualité, l'archivage, la lecture d'épreuves et la publication. Pour obtenir les données permettant le calcul des normales, il faut des années d'observations météorologiques fidèles et exactes. C'est S. Di Pucchio qui a rédigé, avec l'aide de D. Aston et D.W. Phillips, le présent tome des Normales de l'insolation effective. Il nous faut remercier M. Ascenzi, M. Kaye, E. Eensalu et M. Voss, qui ont extrait manuellement les données. Ajoutons que c'est W. Johnson qui a conçu la page de couverture.

**TOTAL BRIGHT SUNSHINE (HOURS) 1951-80
INSOLATION EFFECTIVE TOTALE (HEURES) 1951-80**

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	CODE
BRITISH COLUMBIA COLOMBIE-BRITANNIQUE	JAN	FEV	MARS	AVR	MAI	JUIN	JUIL	AOUT	SEPT	OCT	NOV	DEC	ANNEE	CODE
ABBOTSFORD A	67.7	76.6	111.9	163.9	208.9	217.0	290.6	245.3	173.6	136.7	72.3	54.2	1818.7	5
AGASSIZ CDA	42.3	68.2	101.9	135.2	177.9	174.0	246.5	210.8	157.1	105.8	58.3	35.3	1513.3	1
ALBERNI LUPSI CUPSI	24.5	51.1	96.6	142.4	226.2	198.5	278.0	235.7	150.5	83.0	29.5	15.0	1531.0	4
BLUE RIVER A	46.6	58.0	96.1	167.3	198.0	197.3	245.4	225.8	132.5	91.0	46.4	29.5	1533.9	5
BURNS LAKE	64.4	92.7	131.4	183.5	222.9	238.0	257.5	227.8	135.8	103.5	55.8	42.0	1755.3	5
CASLEGAR A	44.8	68.4	123.0	172.6	232.0	241.7	316.1	274.7	189.9	124.9	57.1	30.7	1875.9	4
COWICHAN BAY	46.2	76.3	127.7	169.0	228.5	222.9	293.3	250.3	187.5	117.7	58.8	38.6	1816.8	1
COWICHAN LAKE FORESTRY	29.4	57.9	94.5	125.5	175.4	165.7	230.3	199.6	150.9	98.8	46.5	24.1	1398.6	1
CRANBROOK A	78.7	102.5	165.2	217.0	255.8	284.4	330.0	278.0	216.1	169.7	83.2	63.1	2243.7	5
CRESCENT VALLEY	40.2	73.5	125.3	163.1	213.9	215.8	304.7	252.3	185.7	108.7	54.1	29.4	1766.7	4
DEASE LAKE	62.8	106.1	127.8	190.7	210.8	216.6	199.1	201.8	126.2	86.8	60.2	41.2	1634.3	4
ESTEVAN POINT	62.9	86.6	132.6	162.8	228.8	215.4	235.7	192.6	174.7	118.4	75.7	54.4	1735.6	6
FORT ST JOHN A	76.7	110.8	159.7	232.6	285.6	281.9	302.4	272.2	177.7	139.1	88.5	64.9	2192.1	2
GERMANSSEN LANDING	49.6	75.1	130.9	198.9	248.1	264.9	265.6	233.4	138.1	81.5	42.7	33.5	1762.3	5
HANEY UBC RF SPUR 17	37.4	84.7	111.9	120.2	183.2	197.1	242.1	212.0	161.1	95.8	51.0	36.8	1533.3	6
HOPE A	16.7	47.8	101.0	160.8	181.6	223.5	258.1	222.0	172.2	104.6	29.1	3.8	1521.2	6
KAMLOOPS A	58.0	93.6	145.6	198.4	252.0	255.9	315.7	280.0	194.7	135.7	70.5	47.7	2047.8	1
KELOWNA A	44.0	69.0	133.5	203.0	236.6	271.0	311.3	259.0	205.0	150.3	57.5	41.1	1981.3	6
KIMBERLEY COMINCO	57.2	101.0	165.1	197.3	258.8	266.2	333.9	290.7	190.6	166.3	78.4	46.1	2151.6	5
KITIMAT TOWNSITE	50.9	62.5	112.5	142.8	194.8	192.7	206.5	179.7	122.5	61.7	42.2	30.8	1399.6	3
KITIMAT 2	27.4	41.8	70.1	123.1	161.1	162.4	168.8	136.6	80.0	57.4	22.6	19.7	1071.0	6
LYTTON	61.8	87.0	145.4	204.5	254.9	268.0	295.0	240.5	185.0	136.0	65.0	44.3	1987.4	5
MACKENZIE A	55.7	72.0	124.9	206.0	245.6	251.1	270.0	240.0	133.4	116.4	48.2	36.5	1799.8	5
MCBRIDE NORTH	52.7	77.9	114.3	199.6	202.4	222.4	244.5	201.0	127.3	101.9	68.3	39.0	1651.3	6
MCCULLOCH	63.2	91.8	141.2	201.2	241.1	243.5	306.3	283.8	198.2	150.3	65.5	46.4	2032.5	5
NANAIMO A	50.3	78.7	125.9	166.3	231.7	218.6	287.4	244.6	177.1	122.0	65.1	43.4	1811.1	2
OLIVER STP	49.7	84.4	148.0	201.1	255.6	257.7	309.8	270.6	209.1	146.3	66.7	40.6	2039.6	2
PEACHLAND BRENDA MINES	62.8	78.4	122.1	199.2	236.6	236.8	328.0	259.3	203.8	161.6	60.4	44.5	1993.5	5
PENTICTON A	48.0	75.2	140.2	211.2	246.1	262.6	311.3	270.7	211.2	157.1	59.8	38.8	2032.2	6
PORCUPINE A	64.3	74.6	101.4	144.1	187.0	171.9	197.5	183.8	138.0	98.1	62.0	45.4	1468.1	5
PRINCE GEORGE A	58.8	87.0	137.7	202.7	251.9	260.1	293.2	252.5	160.4	109.7	64.8	47.1	1925.9	1
PRINCE RUPERT	43.1	58.5	82.4	120.5	145.0	101.6	126.4	111.7	91.8	51.4	36.3	16.6	985.3	5
PRINCE RUPERT A	48.0	63.3	93.9	135.0	189.2	150.7	142.7	138.3	116.6	64.8	49.6	32.0	1224.1	4
PUNTZI MOUNTAIN	90.6	126.6	166.1	211.6	248.4	240.8	294.6	250.4	172.4	144.6	74.4	63.9	2084.4	6
REVELSTOKE A	44.0	55.5	101.6	178.6	212.7	216.3	267.8	242.5	151.3	89.9	41.5	26.7	1628.4	5
SAANICHTON CDA	53.6	81.1	131.6	175.0	243.7	240.8	309.0	258.6	192.1	122.6	70.6	45.7	1924.4	1
SALMON ARM	21.4	52.4	110.4	164.9	225.6	222.0	289.1	249.6	162.3	88.2	30.4	11.1	1435.1	2
SANDSPIT A	57.8	82.3	121.0	159.6	210.4	174.8	186.5	174.5	138.5	90.5	64.0	40.3	1692.5	2
SMITHERS A	54.5	83.6	122.4	177.3	224.7	248.1	242.8	233.6	130.6	91.2	45.6	38.8	1693.2	6
SMITHERS CDA	50.9	79.7	123.5	173.2	206.3	206.3	234.1	209.0	152.4	84.5	48.5	33.7	1602.1	4
STEWART A	29.4	40.5	68.6	120.0	142.5	142.6	116.1	145.6	69.0	35.2	24.8	15.1	949.4	6
SUMMERLAND CDA	49.1	83.6	148.9	198.7	249.8	261.7	320.6	277.1	206.4	140.6	63.6	39.8	2039.9	1
TERRACE A	52.1	72.1	108.5	148.1	180.4	191.2	174.7	202.2	126.5	62.3	56.3	30.1	1404.5	6
TOFINO A	66.1	72.2	138.6	179.6	215.5	219.7	223.8	187.8	169.9	134.1	64.1	52.1	1723.5	6
TOPLEY LANDING	54.6	87.3	134.6	178.2	226.1	232.8	242.6	219.2	131.4	95.0	47.9	32.0	1681.7	5
TRAIL TADANAC	24.4	60.7	119.9	155.2	209.0	220.6	310.2	267.3	182.9	113.0	38.4	15.3	1716.9	1
VANCOUVER BCHPA	54.1	83.0	121.0	156.5	222.8	226.2	294.3	244.4	176.1	125.0	67.3	47.4	1818.1	3
VANCOUVE INT'L A	53.5	87.2	129.3	180.5	246.1	238.4	307.1	256.2	183.1	121.0	69.3	47.9	1919.6	1
VANCOUVER PMO	30.7	63.8	107.8	187.0	235.8	186.1	288.7	243.8	168.6	104.7	49.1	26.1	1692.2	6
VANCOUVER UBC	54.7	82.9	128.5	167.7	239.7	235.8	297.3	243.8	180.6	123.3	68.9	49.0	1872.2	3
VERNON	35.9	72.2	140.2	200.6	239.1	216.8	321.6	280.2	199.9	113.8	53.6	29.5	1903.4	5
VERNON BX	37.5	71.5	143.0	164.4	230.3	257.3	300.8	251.2	198.7	108.8	51.3	27.7	1842.5	6
VERNON SOUTHWEST	52.7	88.3	148.9	197.0	271.4	266.6	339.3	325.8	200.1	110.6	48.9	31.3	2080.9	6
VICTORIA GONZALES HTS	68.1	96.0	151.0	201.8	276.8	274.8	341.8	288.4	205.7	144.9	83.0	58.7	2191.0	1
VICTORIA INT'L A	63.8	86.0	144.0	180.3	255.9	257.5	329.0	273.8	194.7	144.3	77.8	51.6	2058.7	5
WILLIAMS LAKE A	69.4	108.0	161.6	208.5	257.2	284.4	312.0	278.9	186.1	135.8	73.0	49.2	2124.1	3

**TOTAL BRIGHT SUNSHINE (HOURS) 1951-80
INSOLATION EFFECTIVE TOTALE (HEURES) 1951-80**

	JAN JAN	FEB FEV	MAR MARS	APR AVR	MAY MAI	JUN JUIN	JUL JUIL	AUG AOUT	SEP SEPT	OCT OCT	NOV NOV	DEC DEC	YEAR ANNEE	CODE
YUKON TERRITORY YUKON														
FORT SELKIRK	7.5	91.2	168.2	229.7	281.8	280.0	268.0	246.8	142.9	79.7	16.4	7.7	1819.9	5
HAINES JUNCTION	19.3	78.0	161.4	220.7	282.8	275.7	275.4	235.9	139.8	91.5	24.4	1.7	1806.6	1
WATSON LAKE A	45.1	85.3	134.8	216.6	255.2	265.0	262.6	228.0	126.5	95.6	42.9	31.3	1788.9	5
WHITEHORSE A	46.0	91.0	153.1	229.6	259.2	272.8	250.2	230.7	136.5	93.4	58.3	23.0	1843.8	3
NORTHWEST TERRITORIES TERRITOIRES DU NORD-OUEST														
ALERT	0.0	0.0	66.5	389.5	410.1	303.8	299.0	207.2	82.8	8.5	0.0	0.0	1767.4	5
BAKER LAKE	35.8	107.1	189.6	234.5	264.3	262.4	301.1	210.6	107.4	72.3	51.0	7.1	1843.2	6
CAMBRIDGE BAY A	1.1	51.7	184.4	251.5	258.2	267.8	304.6	175.9	82.6	58.2	9.5	0.0	1599.0	5
CLYDE	0.4	40.1	161.4	248.2	251.0	260.7	259.8	191.9	85.0	47.7	4.2	0.0	1550.4	5
COPPERMINE A	4.0	76.6	162.1	215.7	225.0	308.7	318.1	190.6	70.3	46.1	12.2	0.0	1629.4	1
CORAL HARBOUR A	44.0	113.7	198.7	278.2	281.5	282.2	285.0	224.9	107.7	86.6	56.7	28.5	1987.7	1
EUREKA	0.0	0.0	118.0	355.1	520.7	405.0	341.2	240.1	101.8	8.6	0.0	0.0	2090.5	5
FORT SIMPSON A	47.8	96.1	160.3	222.0	274.0	280.6	289.2	246.1	133.7	85.3	51.4	29.3	1915.8	2
FORT SMITH A/A	57.1	113.7	176.7	243.0	285.9	299.1	301.0	261.7	132.0	87.3	43.5	28.3	2029.3	2
FROBISHER BAY A	35.2	96.3	177.4	235.3	199.9	175.2	202.1	161.2	82.4	57.8	45.6	19.6	1488.0	2
INUVIK A/A	7.3	65.2	174.1	248.7	295.0	375.1	339.8	216.2	109.4	50.2	17.8	0.0	1898.8	3
ISACHSEN	0.0	0.3	94.6	324.3	338.6	266.6	232.0	143.4	50.0	7.1	0.0	0.0	1456.9	5
MOULD BAY A	0.0	4.6	109.6	286.2	333.3	245.9	276.1	131.0	45.6	10.7	0.0	0.0	1442.7	5
NORMAN WELLS A	29.5	76.4	168.9	236.7	282.6	311.1	288.7	236.7	119.0	58.9	32.3	13.2	1854.0	3
RESOLUTE A	0.0	17.7	145.9	276.4	292.3	255.8	274.4	159.4	59.1	23.7	0.4	0.0	1505.1	1
SACHS HARBOUR A	0.1	42.6	165.8	264.8	284.6	330.6	335.7	189.8	79.7	38.7	4.3	0.0	1736.7	3
YELLOWKNIFE A	44.0	102.3	195.3	266.4	333.6	394.6	382.1	287.6	152.0	56.2	41.7	20.8	2276.6	5
ALBERTA ALBERTA														
BANFF	55.5	98.0	133.8	154.4	196.2	204.0	255.6	211.1	163.3	131.5	81.4	39.2	1724.0	5
BEAVERLODGE CDA	74.4	108.7	160.2	209.0	271.0	277.0	300.7	263.1	168.8	141.0	89.3	62.3	2125.5	1
BROOKS AHRC	88.4	116.6	158.2	205.8	269.9	287.1	341.7	304.1	201.2	173.1	111.2	76.5	2333.8	2
CALGARY INT'L A	102.0	127.9	162.2	204.9	253.6	267.0	322.2	282.3	194.7	176.0	123.9	97.7	2314.4	1
COLD LAKE A	90.8	125.2	171.8	228.2	272.1	282.7	312.6	255.3	175.4	154.8	94.3	76.4	2239.6	6
CORONATION A	119.0	133.2	183.4	231.2	290.8	310.4	337.2	286.8	207.6	178.5	128.6	83.6	2490.3	6
EDMONTON INT'L A	97.7	118.5	172.1	232.8	283.5	286.7	313.1	284.3	183.3	162.9	102.5	77.5	2314.9	3
EDMONTON MUNICIPAL A	90.0	116.3	167.5	228.3	277.6	271.7	306.4	276.8	182.2	161.8	107.2	77.9	2263.7	1
EDSON/A	83.0	116.3	153.9	204.3	244.8	254.3	281.2	245.6	162.6	150.8	93.3	65.6	2055.7	4
ELLERSLIE	91.0	121.6	165.1	227.8	286.9	285.8	317.9	280.4	175.4	159.4	97.7	71.4	2280.4	4
FAIRVIEW	68.6	108.2	160.6	225.5	270.4	253.7	280.1	256.1	165.5	135.5	81.7	54.0	2059.9	2
FORT MCMURRAY A	88.2	129.3	165.1	231.6	276.4	272.6	285.4	247.7	143.2	124.5	83.2	61.7	2108.9	6
FORT VERMILION CDA	69.8	109.9	174.6	235.0	282.1	289.9	301.4	261.5	156.4	124.2	63.4	38.7	2106.9	1
HIGH LEVEL A	54.0	125.5	175.0	246.4	283.0	304.6	294.0	255.0	149.4	142.0	70.2	37.0	2136.1	6
KANANASKIS	63.0	112.3	162.8	186.7	211.7	238.8	284.2	236.6	171.0	168.2	85.5	49.0	1969.8	6
KEG RIVER	61.5	95.9	138.6	195.9	239.9	241.0	257.2	228.6	139.5	112.2	61.1	35.2	1806.6	2
LACOMBE CDA	87.5	115.0	162.2	198.3	249.6	251.0	291.7	254.5	178.3	154.9	102.3	79.7	2125.0	1
LETHBRIDGE CDA	95.3	122.9	166.8	197.9	263.3	283.9	345.1	299.2	213.5	175.1	116.8	90.2	2370.0	1
MANYBERRIES CDA	89.3	114.3	162.2	194.4	259.1	261.3	338.9	296.9	217.0	170.5	114.9	89.7	2308.5	1
MEDICINE HAT A	93.0	122.2	162.2	200.9	270.5	278.9	347.6	298.3	199.1	173.3	112.2	86.7	2344.9	1
OLDS	86.2	118.4	156.0	191.6	238.1	239.2	287.7	259.6	184.7	160.8	106.8	80.3	2079.4	2
RANFURLY	87.7	117.8	168.5	222.9	266.9	259.3	293.0	259.2	175.0	152.6	92.9	72.6	2168.4	1
SLAVE LAKE A	83.8	113.5	167.8	233.2	281.1	274.8	292.6	245.3	162.3	148.6	99.0	57.7	2159.7	6
SUFFIELD A	98.1	126.0	179.9	209.7	277.7	286.1	350.9	305.5	207.6	185.3	121.8	88.1	2436.7	1
VAUXHALL CDA	99.2	122.4	163.2	197.2	257.0	282.0	343.7	294.9	203.8	170.0	119.0	91.9	2344.3	3

TOTAL BRIGHT SUNSHINE (HOURS) 1951-80
INSOLATION EFFECTIVE TOTALE (HEURES) 1951-80

	JAN JAN	FEB FEV	MAR MARS	APR AVR	MAY MAI	JUN JUIN	JUL JUIL	AUG AOUT	SEP SEPT	OCT OCT	NOV NOV	DEC DEC	YEAR ANNEE	CODE CODE
SASKATCHEWAN														
SASKATCHEWAN														
BAD LAKE IHD 102	118.6	128.4	182.2	219.2	289.4	303.0	332.5	282.0	191.1	169.9	118.7	90.8	2425.8	6
BROADVIEW	119.5	136.3	173.5	208.5	278.1	295.0	333.6	296.3	187.0	159.7	108.1	95.6	2391.2	5
GREE LAKE	84.7	133.9	178.7	241.0	291.4	266.6	279.4	247.5	134.0	97.0	63.0	55.8	2073.0	5
ESTEVAŃ A	121.2	135.0	185.5	210.7	289.4	303.0	356.7	310.7	212.2	188.6	120.2	103.4	2536.6	4
INDIAN HEAD CDA	105.0	131.1	175.3	198.1	239.0	237.0	303.3	265.9	191.8	165.6	92.1	85.0	2189.2	3
INDIAN HEAD PFRA	104.2	126.7	167.9	211.7	273.3	289.1	342.0	293.2	198.6	169.5	101.8	83.7	2361.7	3
MELFORT CDA	97.3	123.7	158.8	208.7	255.4	263.6	302.5	257.2	166.5	147.5	83.3	69.6	2134.1	1
MOOSE JAW A	105.2	125.1	166.6	218.3	279.4	285.2	344.4	297.5	202.8	173.5	110.1	85.8	2393.9	2
NIPAWIN A	107.7	138.4	166.4	246.8	283.7	300.4	331.8	264.8	166.8	143.7	99.0	79.2	2328.7	6
ORMISTON	90.0	107.8	138.2	174.7	265.8	279.8	345.0	297.5	198.5	147.4	97.7	72.0	2214.4	6
OUTLOOK PFRA	99.2	116.7	162.7	207.8	279.2	283.4	333.5	289.9	179.2	156.7	95.1	77.3	2280.7	4
PRINCE ALBERT A	95.9	122.2	164.9	223.6	270.9	261.6	295.7	268.0	166.2	146.5	84.4	70.7	2170.6	2
REGINA A	99.9	121.3	156.4	209.3	277.5	283.0	342.2	294.7	190.8	168.1	104.1	83.9	2331.2	5
SASKATOON SRC/ U of S	103.1	135.1	190.1	232.4	291.9	294.0	341.1	292.6	190.8	175.0	108.8	86.4	2449.7	1
SCOTT CDA	88.3	118.4	162.4	219.5	291.0	267.9	322.7	280.7	183.0	155.9	95.4	66.8	2252.0	1
SWIFT CURRENT A	92.2	114.2	156.5	208.7	277.3	280.8	342.1	296.9	194.2	168.6	110.4	85.1	2327.0	1
SWIFT CURRENT CDA	91.8	122.0	161.5	191.5	272.8	275.0	330.9	292.3	183.0	160.0	107.4	82.5	2270.7	4
WEYBURN	108.0	123.7	169.5	206.8	281.5	296.5	354.0	302.7	211.0	174.8	119.5	84.3	2432.3	4
WYNYARD	112.6	136.5	184.7	229.7	280.9	291.9	324.7	280.2	188.7	148.9	94.2	88.7	2361.7	5
YORKTON A	108.0	128.8	165.5	223.6	281.9	288.6	329.3	284.8	183.9	157.0	90.0	87.0	2328.4	4
MANITOBA														
MANITOBA														
BISSETT	106.3	137.2	191.9	227.5	266.5	255.3	290.7	248.9	155.4	112.0	71.9	83.7	2147.3	5
BRANDON CDA	112.0	126.9	163.0	201.7	258.9	242.0	308.4	273.3	184.1	160.2	91.8	86.9	2209.2	1
CHURCHILL A	80.4	131.7	188.6	203.7	195.3	233.7	285.1	232.1	110.8	61.7	49.5	55.3	1827.9	1
DAUPHIN A	119.0	135.2	177.1	221.8	266.0	272.7	323.2	274.7	178.5	153.2	93.4	93.0	2307.8	1
DELTA UNIVERSITY FS	132.8	146.4	195.4	234.9	289.0	297.6	330.0	290.9	197.4	152.4	98.0	95.5	2460.3	5
GIMLI	122.6	151.8	195.2	247.6	282.5	293.1	326.6	263.8	167.8	144.2	94.8	101.5	2391.5	6
GLENLEA RESEARCH STN	104.2	126.5	160.3	208.2	266.3	277.4	322.5	277.7	174.7	130.2	85.2	83.2	2216.4	5
GRAND RAPIDS	109.6	137.6	180.0	233.1	284.0	281.0	309.7	267.3	168.9	123.1	106.1	91.6	2287.5	6
INDIAN BAY	105.2	139.2	171.1	209.6	260.7	269.0	307.9	282.7	173.1	125.6	78.5	71.0	2173.6	5
LYNN LAKE A	94.0	132.2	186.3	231.6	271.2	264.0	279.0	232.8	117.2	71.3	61.3	61.8	2002.7	5
MORDEN CDA	115.2	135.8	157.8	201.7	252.7	260.1	312.6	272.1	185.7	157.6	95.9	93.6	2240.8	1
PASQUIA PROJECT	90.5	122.3	183.3	248.7	269.3	279.0	287.3	231.3	164.0	122.1	96.0	69.9	2163.7	6
RIVERS A	116.0	141.0	174.1	210.7	261.1	269.9	339.2	294.8	193.0	170.8	93.6	94.7	2358.9	4
THE PAS A	102.7	132.5	175.0	226.1	277.1	273.2	303.8	258.9	157.4	120.1	67.2	73.5	2167.5	2
THOMPSON A	94.2	143.5	194.5	230.8	259.7	263.4	254.4	228.9	126.9	78.8	67.5	67.9	2010.5	5
WINNIPEG INT'L A	121.2	144.2	176.2	219.8	265.6	276.1	315.6	283.3	184.6	151.5	90.7	92.6	2321.4	1
ONTARIO														
ONTARIO														
ALBION FIELD CENTRE	104.7	117.4	142.0	198.8	243.1	258.4	288.6	242.0	163.4	133.9	75.8	66.7	2034.8	5
ARMSTRONG A	105.7	138.9	169.5	196.8	235.9	246.4	274.5	232.8	136.3	103.1	61.1	81.8	1982.8	2
ATIKOKAN	108.0	133.9	170.8	207.1	239.0	239.9	285.7	242.5	167.5	112.1	71.9	76.1	2054.5	4
BRAMPTON	97.8	115.4	143.3	177.9	244.4	268.1	299.1	255.5	195.3	161.0	93.9	83.5	2135.2	5
BURKETON MCLAUGHLIN	84.1	118.8	137.4	172.8	232.9	245.1	280.6	242.5	165.5	127.4	70.0	61.9	1939.0	5
CARIBOU ISLAND					244.0	216.3	256.2	245.7	163.9	121.4	45.1			2
CORNWALL ONT HYDRO	88.8	116.5	151.6	181.7	225.4	244.3	265.6	235.0	167.8	135.7	73.9	66.4	1952.7	3
DELHI CDA	78.7	99.3	120.7	163.6	225.4	244.2	273.0	244.7	178.0	147.3	79.2	60.5	1914.6	1
ELORA RESEARCH STN	82.5	110.5	132.6	196.2	230.5	252.6	278.6	246.2	158.7	127.7	64.5	56.1	1936.4	5
FULLARTON	45.8	87.9	118.1	146.4	242.0	257.1	286.0	226.8	162.0	120.3	53.9	37.1	1785.4	6

**TOTAL BRIGHT SUNSHINE (HOURS) 1951-80
INSOLATION EFFECTIVE TOTALE (HEURES) 1951-80**

	JAN JAN	FEB FEV	MAR MARS	APR AVR	MAY MAI	JUN JUIN	JUL JUIL	AUG AOUT	SEP SEPT	OCT OCT	NOV NOV	DEC DEC	YEAR ANNEE	CODE CODE
ONTARIO														
GUELPH ARBORETUM	71.0	112.0	134.8	183.8	232.8	259.8	267.4	235.5	163.2	135.8	69.8	57.0	1922.9	6
GUELPH OAC	89.6	105.2	134.7	171.6	232.8	250.9	287.6	254.0	173.9	141.4	75.9	70.1	1987.7	3
HAMILTON RBG	94.1	114.4	137.9	182.2	243.4	260.2	287.4	254.7	173.0	141.9	80.3	75.1	2044.6	3
HARROW CDA	82.8	103.8	123.3	168.5	237.1	252.9	277.6	254.0	187.8	162.2	88.5	71.6	2010.1	2
KAPUSKASING CDA	81.4	110.6	141.8	165.8	201.0	221.3	238.8	215.9	121.3	84.2	46.7	58.3	1687.1	1
KEMPTVILLE	103.9	114.6	171.4	206.4	257.5	263.6	302.4	263.5	188.8	152.3	80.8	81.1	2186.3	5
KINGSTON	102.5	117.3	145.7	175.3	256.0	261.1	294.8	260.4	186.7	153.2	93.5	77.7	2124.2	4
KINGSTON A	100.1	128.7	142.2	201.9	229.4	240.3	280.7	254.8	169.2	151.4	77.7	77.2	2053.6	5
KOHLER	70.4	79.2	104.8	145.5	212.9	229.3	252.7	212.9	162.0	149.3	87.9	56.1	1763.0	5
LINDSAY	72.8	101.2	133.0	164.7	227.6	236.3	270.1	224.1	167.9	132.1	73.1	39.9	1842.8	6
LONDON A	70.8	96.9	120.8	166.9	229.5	243.7	274.4	246.0	173.2	141.8	74.6	55.8	1894.4	1
LONGLAC P AND P	87.5	131.2	168.2	195.6	234.2	259.4	266.6	222.7	159.5	94.5	53.0	71.5	1943.9	6
MOOSONEE	82.0	121.7	147.9	173.2	197.4	219.4	236.7	215.1	120.4	87.6	51.3	58.5	1711.2	2
MOUNT FOREST	69.3	106.8	135.4	185.6	242.0	261.8	289.2	251.5	167.1	139.4	58.6	54.7	1961.4	4
NEW LISKEARD	76.4	106.4	146.2	170.6	194.7	185.2	230.6	203.6	127.8	91.1	47.3	55.3	1635.2	3
NORTH BAY A	97.4	124.9	149.2	196.1	244.8	250.7	274.2	234.7	154.5	118.8	65.2	77.1	1987.6	4
OAK RIDGES	84.8	108.1	136.4	172.7	234.0	253.9	287.7	254.8	178.2	140.4	79.1	62.7	1992.8	3
OTTAWA CDA	98.6	119.8	148.2	176.9	238.8	246.9	274.3	242.7	167.7	136.1	79.6	78.9	2008.5	1
PETAWAWA NAT FORESTRY	98.5	128.3	144.0	199.2	236.0	238.3	276.3	245.5	151.0	114.6	66.9	75.0	1973.6	6
RAWSON LAKE	78.7	112.3	134.2	187.1	261.6	236.9	280.8	229.9	136.5	106.3	55.9	63.7	1883.9	6
ST CATHARINES CDA	67.8	78.8	127.1	160.0	232.2	252.2	283.1	253.1	190.9	150.8	86.0	57.2	1939.2	5
SARNIA A	83.8	106.1	128.2	191.2	248.8	271.8	293.8	249.8	195.5	145.0	92.3	65.7	2072.0	5
SARNIA POLYSAR	90.8	106.3	134.3	188.6	236.8	251.4	276.0	214.3	185.4	169.3	70.9	50.2	1974.3	6
SAULT STE MARIE A	76.1	112.7	151.3	195.2	257.8	255.6	288.3	249.2	156.7	118.0	64.1	62.2	1987.2	4
SMITHFIELD CDA	100.3	124.2	155.5	189.9	233.0	262.9	292.4	254.8	184.5	146.5	82.0	78.2	2104.2	4
SOUTH BAY MOUTH	73.8	110.3	142.3	183.6	224.5	238.5	289.6	256.7	158.9	115.9	74.7	67.6	1936.4	4
SUDBURY A	100.5	131.7	152.2	207.2	247.2	246.0	288.0	251.0	150.8	122.2	77.7	84.5	2059.8	6
THUNDER BAY A	118.4	146.7	172.8	215.4	252.2	262.0	303.7	255.9	167.9	127.9	86.5	93.4	2202.8	3
TORONTO	92.1	111.6	145.0	182.3	232.7	252.5	280.5	251.5	191.8	149.1	81.1	75.2	2045.4	1
TORONTO MET RES STN	94.0	123.1	143.9	193.8	230.1	272.8	296.0	247.3	184.2	141.6	79.4	76.8	2083.0	6
TURBINE	72.7	96.4	134.0	180.0	232.1	240.7	274.9	228.1	136.9	107.6	58.0	53.8	1815.2	2
VINELAND STATION	83.0	102.2	139.6	181.5	238.8	258.2	287.0	258.9	191.5	154.7	85.6	67.2	2048.2	2
WHITE RIVER	79.0	110.5	134.4	180.3	197.1	220.8	242.3	211.3	133.0	90.2	44.4	52.1	1695.4	5
WIARTON A	68.0	103.0	138.2	193.2	257.2	289.8	295.4	254.7	169.7	133.6	60.4	46.4	2009.6	6
WOODSTOCK	82.9	93.8	130.1	170.8	238.3	260.0	297.6	263.6	208.7	167.8	87.5	66.7	2067.8	6
QUEBEC														
ALBANEL	93.8	116.2	157.8	184.6	211.3	223.8	227.9	216.0	142.5	99.9	65.6	75.3	1814.7	1
AMOS	82.3	119.2	149.8	175.6	218.8	221.8	236.7	203.7	131.7	84.7	49.7	69.9	1737.9	4
ARMAGH STATION	80.8	110.3	135.7	168.6	216.6	212.4	229.4	219.6	155.6	109.3	71.9	48.8	1759.0	6
BAIE COMEAU	97.5	120.1	150.4	173.7	219.4	233.9	232.2	201.3	156.6	121.3	83.5	84.1	1874.0	5
BARRAGE TEMISCAMINGUE	81.9	108.3	147.2	176.1	255.6	207.1	250.1	226.9	141.2	100.2	59.8	65.6	1790.0	5
BERTHIERVILLE	96.7	112.7	160.7	180.0	228.2	229.6	241.2	226.2	174.1	134.2	77.9	79.7	1941.2	2
BORDER A	78.1	109.6	147.6	167.3	173.9	194.5	199.1	151.9	106.0	71.3	47.3	55.6	1502.2	5
CAPLAN	106.3	128.1	156.3	185.0	209.5	228.1	259.7	240.4	178.2	136.7	90.6	89.6	2008.5	3
CAP SIEZE	66.1	89.7	111.1	146.8	218.3	235.6	255.0	221.1	140.7	98.2	56.3	37.6	1676.5	5
CAUSAPSCAL RECHERCHES	56.0	87.1	125.5	152.8	175.9	201.8	221.8	194.5	144.9	97.1	39.4	24.1	1520.9	4
CHIBOUGAMAU A	86.7	124.7	157.2	188.2	228.5	233.0	249.4	206.9	122.1	71.1	49.5	77.5	1794.8	6
DECEPTION BAY		73.7	158.6	161.5	147.2	133.7	211.6	142.2	68.6	41.4	15.2			6
DISRAELI	78.3	94.5	131.9	157.9	218.4	215.5	234.6	207.8	145.6	104.9	60.4	59.2	1709.0	5
DUCHESNAY	92.5	113.3	134.8	163.7	217.1	214.3	231.8	215.4	155.3	118.3	73.6	73.5	1803.6	3
EASTMAIN	59.3	115.2	144.6	187.7	203.1	226.3	199.3	165.9	97.7	62.0	34.7	38.0	1533.8	6

TOTAL BRIGHT SUNSHINE (HOURS) 1951-80
INSOLATION EFFECTIVE TOTALE (HEURES) 1951-80

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	CODE
QUEBEC	JAN	FEV	MARS	AVR	MAI	JUIN	JUIL	AOUT	SEPT	OCT	NOV	DEC	ANNEE	CODE
FERME NEUVE	73.6	117.3	148.6	183.8	235.0	198.8	235.3	205.1	156.1	90.8	51.8	57.0	1753.2	6
FORESTVILLE	102.1	124.3	141.2	173.4	224.6	234.5	241.6	215.2	156.3	115.0	81.5	86.4	1896.1	4
FORET MONTMORENCY	99.4	119.3	131.9	161.3	207.5	207.0	231.7	206.5	144.9	99.4	69.3	77.1	1755.3	4
FORT GEORGE	48.4	99.6	150.4	168.7	188.5	206.1	211.8	169.8	104.8	60.5	23.1	24.0	1455.7	5
GAGNON A	75.6	109.7	141.8	151.9	191.3	196.2	195.6	185.6	97.0	57.6	40.9	53.2	1496.4	5
GRANDES BERGERONNES	94.2	108.7	154.9	179.2	199.4	210.6	225.3	215.0	165.2	122.8	78.3	77.9	1831.5	2
GRINDSTONE ISLAND	62.6	110.1	126.3	142.7	206.5	237.4	247.0	237.0	162.4	114.1	68.5	34.2	1748.8	5
HARRINGTON FOREST FARM	77.7	105.4	139.5	174.3	198.7	201.0	225.2	188.9	144.0	109.3	52.7	48.1	1664.8	5
HEBERTVILLE	75.9	82.4	137.3	164.1	182.3	202.8	193.8	195.7	130.6	109.3	39.0	46.0	1559.2	6
IBERVILLE	75.3	107.7	140.0	185.8	231.9	239.2	255.5	213.8	158.7	130.0	65.8	51.3	1855.0	5
INOUCDJOUAC A	52.0	106.8	160.3	178.2	143.9	193.4	206.0	145.8	88.2	52.0	27.8	26.9	1381.3	2
KUUJJUAQ A	62.7	108.3	163.8	197.2	137.8	180.1	197.2	166.6	99.1	48.8	51.7	53.5	1467.2	5
LAC AUX SABLES	108.3	105.7	152.8	174.5	208.5	224.9	238.4	217.1	147.7	105.6	67.7	73.9	1825.1	6
LAC CACHE	63.6	107.4	136.1	175.5	200.1	222.0	215.1	187.0	125.0	62.9	30.9	35.6	1561.2	6
LAC HUMQUI	80.9	100.1	139.3	147.4	195.6	226.3	233.1	231.5	166.6	109.9	70.4	59.9	1761.0	6
LAC STE CROIX	84.6	104.2	142.8	169.7	204.6	223.1	221.4	197.6	141.5	90.8	49.6	62.5	1692.4	3
LA POCATIERE CDA	101.6	117.8	146.0	175.5	223.4	238.2	257.4	234.4	165.2	123.1	84.9	84.2	1951.7	1
L'ASSOMPTION CDA	97.6	117.7	148.7	179.8	238.3	242.9	267.9	236.1	169.1	134.5	80.5	79.0	1992.1	1
LENNOXVILLE CDA	79.0	105.4	133.1	160.9	222.8	230.5	255.0	225.5	160.9	129.5	68.2	60.0	1830.8	2
MACDONALD COLLEGE	89.4	117.7	167.1	176.8	220.5	237.1	255.1	222.5	179.2	140.2	74.0	72.2	1951.8	5
MANIWAKI	91.8	126.5	145.3	192.1	245.1	247.8	270.1	224.9	151.5	121.2	65.6	69.5	1951.4	4
MANNEVILLE	76.8	117.2	152.2	189.9	211.1	222.9	241.1	210.5	142.3	86.1	49.9	60.2	1760.2	5
MAPLE LEAF EAST	69.9	93.5	114.0	155.0	211.8	221.3	248.0	209.4	152.8	111.1	56.0	48.6	1691.4	4
MATAGAMI/A	78.0	128.4	153.7	183.3	234.4	239.3	249.7	203.7	125.2	93.5	46.6	66.7	1802.5	5
MONT JOLI A	81.4	114.4	129.8	153.5	231.8	241.9	252.3	244.6	153.6	116.4	76.2	59.2	1855.1	6
MONT LOGAN	25.3	48.1	80.9	118.7	140.3	186.6	205.9	151.3	103.8	53.6	24.0	20.2	1158.7	6
MONTREAL INT'L A	106.0	128.4	155.2	188.9	241.5	249.0	274.5	239.6	168.9	136.6	85.8	79.6	2054.0	5
MONTREAL JAR BOT	92.5	118.2	153.8	182.6	234.9	244.7	271.2	237.4	175.1	140.7	76.4	69.4	1996.9	3
MONTREAL JEAN BREBEUF	95.7	116.8	164.0	187.1	232.7	242.4	264.6	232.4	183.3	139.8	73.8	77.8	2010.4	3
MONTREAL MCGILL	96.4	114.3	156.5	178.8	234.0	245.7	269.5	235.7	177.2	137.1	78.3	80.4	2003.9	1
NATASHQUAN	108.8	130.7	142.0	163.0	218.3	228.0	244.8	230.6	156.1	129.5	85.0	88.3	1925.1	5
NEW RICHMOND	107.5	126.6	142.7	169.5	218.3	228.0	248.9	224.6	164.3	124.3	92.4	81.3	1928.4	5
NITCHEQUON	78.5	124.1	151.4	186.6	216.3	216.3	202.6	181.9	98.8	54.9	34.4	58.5	1604.3	5
NORMANDIN CDA	92.1	114.2	155.6	181.9	212.9	227.3	232.8	215.8	141.4	101.7	64.9	79.1	1819.7	1
NOTRE DAME DU LAC	74.0	108.1	142.3	157.7	206.7	215.3	237.4	221.2	159.8	111.7	62.3	39.2	1735.7	6
OSKELANEO	86.9	110.6	147.5	170.7	206.9	224.3	224.2	183.7	135.6	88.2	41.6	65.4	1685.6	5
OJIMET	72.4	90.9	131.2	147.5	190.0	215.7	216.7	198.1	148.6	86.0	53.7	44.9	1595.7	4
PARENT (AUT)	93.1	121.5	138.7	172.9	234.7	221.6	240.0	227.6	125.5	87.6	49.2	67.2	1563.6	5
PERIBONCA	83.9	103.1	158.2	180.2	207.7	222.8	222.5	207.5	145.7	98.0	54.7	68.0	1752.3	2
PETITE RIV ST FRANCOIS	99.8	123.5	128.8	146.4	196.4	199.3	219.6	215.1	158.1	125.3	87.8	76.8	1776.9	6
PORT MENIER	77.6	121.0	137.0	163.8	243.2	243.8	243.8	253.2	172.4	127.4	95.5	62.8	1941.5	6
POSTE DE LA BALEINE A	71.5	124.1	168.6	184.7	183.1	187.1	169.4	166.5	106.7	46.7	38.4	51.0	1497.8	6
POULARIES	92.1	132.3	156.5	180.0	214.7	233.1	241.4	212.6	131.7	77.5	53.1	71.9	1796.9	5
QUAQTAQ	52.8	93.1	179.6	206.4	155.0	187.7	211.3	188.5	86.0	52.3	32.0	29.3	1474.0	6
QUEBEC A	96.6	113.4	140.0	171.8	219.9	224.2	247.5	219.0	153.0	116.3	74.3	75.7	1851.7	2
RAPIDE BLANC	106.3	117.4	132.8	176.2	188.6	202.4	242.5	211.6	127.8	90.3	53.0	76.8	1725.7	6
RIGAUD	91.5	125.7	163.2	198.2	248.8	253.8	258.6	217.5	187.8	145.0	79.8	71.4	2041.3	6
RIMOUSKI	62.1	88.8	128.3	159.4	186.7	214.7	271.1	206.1	161.2	107.6	60.7	44.5	1691.2	4
RIVIERE AU RENARD	95.6	123.8	125.8	166.5	222.9	222.1	234.5	243.6	167.0	123.0	79.0	53.5	1857.3	6
RIVIERE AU TONNERRE	89.3	127.3	149.2	168.8	213.5	233.5	231.4	205.9	166.7	116.6	83.2	83.5	1868.9	6

**TOTAL BRIGHT SUNSHINE (HOURS) 1951-80
INSOLATION EFFECTIVE TOTALE (HEURES) 1951-80**

	JAN JAN	FEB FEV	MAR MARS	APR AVR	MAY MAI	JUN JUIN	JUL JUIL	AUG AOUT	SEP SEPT	OCT OCT	NOV NOV	DEC DEC	YEAR ANNEE	CODE CODE
QUEBEC QUEBEC														
RIVIERE AUX RATS	76.0	114.2	155.0	187.6	198.3	213.3	211.0	193.8	136.3	86.3	41.7	66.2	1679.7	6
STE AGATHE DES MONTS	96.1	125.7	152.5	192.9	246.7	237.7	274.5	236.5	161.9	127.8	70.0	76.8	1999.1	4
ST AMBROISE	98.6	116.4	157.6	198.0	217.2	242.5	236.0	194.7	146.3	90.4	55.6	71.6	1824.9	6
STE ANNE DE BELLEVUE	107.8	132.8	150.7	185.7	242.0	249.2	268.6	236.4	169.4	130.9	79.4	79.8	2032.7	6
ST AUGUSTIN	105.8	121.7	144.2	190.8	243.3	235.1	272.1	228.2	158.6	118.5	81.3	76.0	1975.6	4
ST CASSIEN DES CAPS	96.3	123.3	128.0	163.4	215.4	201.4	241.4	225.5	160.8	106.8	83.6	72.3	1818.2	6
STE CLOTHILDE CDA	91.7	112.1	148.7	173.0	223.9	237.4	259.8	232.6	175.9	133.0	75.4	72.9	1936.4	2
ST COEUR DE MARIE	86.1	111.7	147.9	184.3	228.2	245.9	255.4	223.0	143.8	95.7	51.3	71.0	1844.3	4
ST ELEUTHERE	72.5	110.3	140.3	147.0	214.8	204.4	226.3	227.0	163.0	116.7	78.3	55.8	1756.4	6
ST FRANCOIS IO	110.5	123.3	144.4	156.6	226.3	240.1	255.4	242.7	164.0	124.3	96.8	87.1	1971.5	6
STE GERMAINE	76.9	103.0	126.6	165.7	219.6	217.2	248.2	209.6	165.6	109.8	68.1	51.1	1761.4	5
ST HYACINTHE 2	83.8	103.2	139.0	168.7	226.6	222.2	247.1	219.2	164.9	120.7	66.4	64.9	1826.7	5
ST ISIDORE D'AUCKLAND	70.1	95.1	120.5	160.1	209.2	217.9	245.2	219.6	165.6	108.8	68.0	52.2	1732.3	5
ST LUDGER	70.0	94.4	125.7	159.5	194.0	208.6	242.0	197.9	146.1	99.8	55.8	54.9	1648.7	5
ST MICHEL DES SAINTS	95.0	122.2	113.1	157.2	222.6	216.8	228.2	219.0	144.9	106.2	64.6	87.3	1777.1	6
SAWYERVILLE NORD	69.3	93.3	122.9	158.0	213.5	206.1	245.9	201.2	156.8	106.8	61.2	54.5	1689.5	5
SCHEFFERVILLE A	79.4	113.8	163.9	177.1	167.1	189.4	185.6	152.8	99.0	64.9	44.2	60.1	1497.3	3
SENNETERRE	87.4	121.2	137.0	176.6	225.4	230.0	238.5	211.6	126.4	81.6	48.7	60.6	1745.0	6
SEPT-ILES A/UA	107.8	137.9	153.3	186.7	230.8	234.3	242.9	222.5	157.8	125.8	93.6	97.2	1990.6	4
SHAWVILLE	86.8	124.0	154.2	193.2	230.1	219.7	260.3	231.8	174.9	125.2	65.1	71.9	1937.2	5
SHERBROOKE	83.1	106.9	136.4	167.5	227.6	245.7	266.0	231.2	167.5	131.5	72.2	65.2	1900.8	3
SUTTON JONCTION	76.4	107.3	129.7	165.6	238.6	240.8	269.2	234.3	164.9	124.6	65.0	57.9	1874.3	5
VAL D'OR A	101.1	135.4	156.1	184.3	238.8	242.7	259.8	235.6	141.2	89.1	59.3	84.7	1928.1	5
VALLEE JONCTION	66.1	87.3	111.3	160.3	207.2	198.8	227.8	191.8	135.9	92.7	57.0	48.6	1584.8	5
VICTORIAVILLE	89.9	112.9	156.6	180.8	236.9	240.1	259.0	225.9	175.3	130.1	71.8	72.3	1951.6	3
WEST DITTON	61.9	84.6	107.3	151.5	211.3	203.2	245.6	205.9	147.5	110.5	62.2	46.0	1637.5	5
NEW BRUNSWICK NOUVEAU-BRUNSWICK														
CAMPBELLTON	95.5	121.7	153.3	179.3	223.5	226.7	234.9	230.1	168.3	126.6	77.0	82.2	1919.1	5
CHARLO A	117.5	136.1	147.5	162.2	209.2	234.5	253.9	242.6	160.4	128.0	94.0	92.2	1978.1	5
CHATHAM A	113.7	131.0	146.1	172.4	209.5	228.8	253.1	237.6	178.9	141.9	98.9	98.4	2010.3	1
FREDERICTON CDA	106.6	123.7	140.4	154.0	200.3	205.9	232.9	221.2	167.3	137.8	94.9	93.4	1878.4	1
MACDONALDS CORNER CDA	95.9	123.0	143.0	157.3	203.5	207.1	232.3	216.2	174.7	133.4	83.0	80.9	1850.3	4
MONCTON A	107.4	122.9	137.8	160.0	207.8	225.8	243.2	230.2	165.8	141.6	96.1	90.5	1929.1	2
ROYAL ROAD	114.8	135.8	149.1	162.8	209.3	218.5	251.0	234.6	168.4	133.6	98.4	89.0	1965.3	4
SAINT JOHN A	105.9	124.8	143.5	157.6	203.4	203.0	218.5	212.5	166.0	140.8	97.3	92.0	1865.3	2
SUMMIT DEPOT	37.7	66.5	81.2	107.0	171.3	194.7	208.2	185.3	139.0	100.0	49.6	32.7	1373.2	5
TOWER HILL CDA	102.8	115.3	143.7	145.6	194.3	205.2	234.0	208.0	169.1	143.1	80.0	93.1	1835.0	5
NOVA SCOTIA NOUVELLE-ECOSSE														
ANNAPOLIS ROYAL	57.3	89.7	131.7	156.8	207.4	203.1	233.7	216.8	169.3	134.3	70.4	51.0	1721.5	4
BACCARO	91.9	112.7	146.0	176.3	216.7	191.7	182.8	188.2	167.5	164.8	100.7	81.0	1820.3	3
EDDY POINT	101.4	120.7	139.3	158.1	191.2	221.4	227.3	224.0	172.7	137.0	98.8	78.8	1888.7	6
FRASER BROOK IHD	91.3	101.6	120.0	135.8	184.6	219.3	228.1	196.3	161.0	131.2	71.3	64.8	1705.3	6
HALIFAX	92.8	118.1	139.8	164.9	206.6	203.4	226.4	216.6	182.2	154.4	95.3	84.5	1885.0	4
KENTVILLE CDA	73.2	97.8	128.4	152.1	201.5	217.0	239.3	224.9	174.8	139.3	80.5	55.8	1784.6	2
NAPPAN CDA	89.2	109.6	125.8	149.3	193.6	209.3	231.8	212.8	162.5	131.1	83.6	74.3	1772.9	1
SABLE ISLAND	53.0	73.0	116.8	135.8	163.5	164.2	163.2	178.6	156.2	120.3	70.2	53.8	1448.6	4
SANDY COVE NRC	100.4	122.0	151.5	150.6	201.0	178.2	199.2	210.0	177.3	139.0	118.0	90.6	1835.8	6
SHARPE BROOK IHD	83.5	111.0	147.4	160.2	212.7	234.7	250.8	251.0	169.2	146.4	97.5	60.8	1925.2	6
SHEARWATER A	113.2	129.3	147.3	165.1	209.6	220.9	219.4	225.0	180.4	157.1	108.7	93.0	1969.0	3
SYDNEY A	104.5	117.1	144.4	172.3	219.1	222.0	218.8	221.9	183.1	153.4	104.9	94.8	1956.3	6
SYDNEY A	85.7	110.3	126.3	156.5	199.0	225.7	243.4	225.6	167.4	131.6	75.0	66.5	1813.0	1
TRURO	87.7	107.9	126.2	149.9	196.1	218.1	224.4	212.2	154.5	128.4	84.2	69.7	1759.3	4
YARMOUTH A	71.4	92.7	136.4	178.0	221.8	211.4	206.9	209.2	176.0	149.5	89.0	61.7	1804.0	3

TOTAL BRIGHT SUNSHINE (HOURS) 1951-80
INSOLATION EFFECTIVE TOTALE (HEURES) 1951-80

	JAN JAN	FEB FEV	MAR MARS	APR AVR	MAY MAI	JUN JUN	JUL JUIL	AUG AOUT	SEP SEPT	OCT OCT	NOV NOV	DEC DEC	YEAR ANNEE	CODE CODE
PRINCE EDWARD ISLAND														
ILE-DU-PRINCE-EDOUARD														
BANGOR	88.8	113.5	123.2	152.2	215.1	225.8	248.4	238.7	157.2	118.6	84.2	56.3	1822.0	6
CHARLOTTETOWN CDA	90.0	113.6	134.9	156.6	196.6	220.8	241.3	218.1	176.0	128.3	77.6	64.6	1818.4	1
EAST BALTIC	81.5	114.0	120.9	151.5	208.5	236.0	251.5	243.2	165.0	119.1	73.1	52.5	1816.8	5
HUNTER RIVER	98.6	111.0	141.2	144.5	225.5	251.3	261.6	237.6	164.8	122.0	92.9	69.6	1920.6	6
O'LEARY PEIDA	108.4	128.1	145.4	155.2	219.0	231.2	250.7	243.8	171.0	131.4	96.1	65.2	1945.5	5
SUMMERSIDE A	108.6	125.0	141.6	161.1	205.3	240.7	265.0	240.5	169.4	132.7	95.0	73.7	1958.6	5
TIGNISH	107.0	128.2	145.2	162.8	213.6	238.4	252.4	251.0	182.9	129.5	96.5	59.0	1966.5	5
NEWFOUNDLAND														
TERRE-NEUVE														
AVONDALE CDA						175.9	197.8	180.7	146.0	116.1				2
BURGEO	84.2	99.6	121.7	140.2	162.1	171.6	157.5	165.6	149.3	114.6	79.7	70.5	1516.6	5
CARTWRIGHT	90.2	105.6	125.0	128.1	135.5	179.7	198.4	174.6	107.8	89.2	69.6	60.8	1464.5	6
CHURCHILL FALLS A	99.7	124.4	137.9	154.6	196.0	187.1	201.2	171.2	97.7	66.5	51.9	83.3	1571.5	5
COLINET PEAT BOG CDA						151.7	171.4	161.7	138.7	93.0				3
DANIELS HARBOUR	56.0	74.6	115.2	133.6	184.4	189.8	204.2	179.8	130.5	83.6	49.0	29.7	1430.4	5
GANDER INT'L A	85.1	98.7	104.4	115.8	162.3	183.6	214.2	186.3	146.0	110.7	66.6	68.5	1542.2	1
GOOSE A	88.3	116.9	129.3	139.8	176.3	187.3	196.4	176.4	121.3	93.6	66.0	73.3	1564.9	1
ST JOHN'S A	70.6	83.4	94.6	115.5	158.9	186.6	220.1	186.0	146.5	110.4	68.0	56.8	1497.4	1
ST JOHN'S WEST CDA	73.9	84.9	99.6	113.9	165.9	193.6	226.7	189.1	149.5	107.6	68.9	58.7	1532.3	1
ST SHOTTS	63.0	86.8	113.5	116.3	149.6	131.0	127.8	140.4	138.8	98.7	82.3	54.5	1302.7	6
STEPHENVILLE A	43.8	71.5	105.0	131.1	185.8	189.8	206.6	186.3	133.0	92.1	54.5	32.7	1432.2	5
WABUSH LAKE A	80.6	110.3	147.2	143.4	204.1	190.5	197.3	190.5	92.5	66.0	55.2	68.4	1546.0	6

QC Canadian Climate normals,
985 1951-1980.
C36
1982
v.7 4000485

ENVIRONMENT CANADA
LIBRARY, NOVA COAST PLAZA
PO BOX 2310 5019-52 ST.
YELLOWKNIFE, NT X1A 2P7

TO ORDER CLIMATE PUBLICATIONS

Each year the Atmospheric Environment Service publishes climate data and information in a number of current or historical periodicals. Most of the publications are available on subscription. Many one-time publications containing specialized information on statistical summary sheets, in normals booklets, in bibliographies and in atlases are issued on occasion. Information about the contents and format of these publications and how copies may be obtained is available from the Atmospheric Environment Service upon request.

Generally, the front-line supplier of climate information is the regional climatological specialist or his equivalent. For items of an inter-regional, national or international nature, the enquirer should contact the Canadian Climate Centre. The name and address of the office from which subscriptions or copies of publications may be obtained are shown below.

REGIONAL OFFICES:

Director, Pacific Region
Atmospheric Environment Service
700-1200 W., 73rd Avenue
Vancouver, B.C. V6P 6H9
Attn.: Scientific Services Section

Director, Western Region
Atmospheric Environment Service
Argyll Centre
6325-103 Street
Edmonton, Alberta T6H 5H6
Attn.: Scientific Services Section

Director, Central Region
Atmospheric Environment Service
Room 1000
266 Graham Avenue
Winnipeg, Manitoba R3C 3V4
Attn.: Scientific Services Section

Director, Ontario Region
Atmospheric Environment Service
25 St. Clair Avenue, East
Toronto, Ontario M4T 1M2
Attn.: Scientific Services Section

Director, Quebec Region
Atmospheric Environment Service
100 Alexis Nihon Blvd., 3rd Floor
Ville St.-Laurent, P.Q. H4M 2N6
Attn.: Scientific Services Section

Director, Atlantic Region
Atmospheric Environment Service
1496 Bedford Highway
Bedford, Nova Scotia B4A 1E5
Attn.: Scientific Services Section

CANADIAN CLIMATE CENTRE:

Assistant Deputy Minister
Atmospheric Environment Service
4905 Dufferin Street
Downsview, Ontario M3H 5T4
Attn.: Climatological Services Division

Remittances by cheque or money order should be made payable to the Receiver General for Canada. For a publications list send for a copy of Selected Publications in Climatology and Applied Meteorology.

COMMENT SE PROCURER DES PUBLICATIONS CLIMATOLOGIQUES

Chaque année, le Service de l'environnement atmosphérique publie des données et des renseignements climatologiques dans plusieurs périodiques de données courantes ou passées. On peut s'abonner à la plupart de ces publications. À l'occasion, on fait paraître de nombreuses publications à tirage unique contenant des informations spécialisées sous forme de feuillets de données résumés, de livrets de normales, de bibliographies et d'atlas. On peut se renseigner sur le contenu et la présentation de ces publications, ainsi que sur la façon de s'en procurer des exemplaires en s'adressant au Service de l'environnement atmosphérique.

En général, c'est le spécialiste régional en climatologie ou son homologue qui constitue la source immédiate de renseignements climatologiques. Pour les questions de nature inter-régionale, nationale ou internationale, le demandeur doit communiquer avec le Centre météorologique canadien. Vous trouverez ci-après les nom et adresse des bureaux où l'on peut s'abonner ou se procurer des exemplaires de ces publications.

BUREAUX RÉGIONAUX

Le directeur de la Région du Pacifique
Service de l'environnement atmosphérique
700 à 1200, 73^e avenue ouest
Vancouver (C.-B.) V6P 6H9
A/S Section des services scientifiques

Le directeur de la Région de l'Ouest
Service de l'environnement atmosphérique
Centre Argyll
6325, 103^e rue
Edmonton (Alberta) T6H 5H6
A/S Section des services scientifiques

Le directeur de la Région du Centre
Service de l'environnement atmosphérique
Bureau 1000
266, avenue Graham
Winnipeg (Manitoba) R3C 3V4
A/S Section des services scientifiques

Le directeur de la Région de l'Ontario
Service de l'environnement atmosphérique
25, avenue St. Clair est
Toronto (Ontario) M4T 1M2
A/S Section des services scientifiques

Le directeur de la Région du Québec
Service de l'environnement atmosphérique
100, boul. Alexis Nihon, 3^e étage
Ville-St-Laurent (Québec) H4M 2N6
A/S Section des services scientifiques

Le directeur de la Région de l'Atlantique
Service de l'environnement atmosphérique
1496, Bedford Highway
Bedford (Nouvelle-Écosse) B4A 1E5
A/S Section des services scientifiques

CENTRE CLIMATOLOGIQUE CANADIEN

Sous-ministre adjoint
Service de l'environnement atmosphérique
4905, rue Dufferin
Downsview (Ontario) M3H 5T4
A/S Division des services climatologiques

Payer par chèque ou mandat-poste payable au Receveur général du Canada. Pour obtenir un liste des publications demander un exemplaire de la liste sélective de publications sur la climatologie et la météorologie appliqué.

QC
985
C36
1982
V.7

Canadian climate normals :
1951-1980

Environment Canada Library
5204 - 50th Ave. Suite 301
YELLOWKNIFE NT X1A 1E2

ENVIRONMENT CANADA LIBRARY
YELLOWKNIFE



4000485