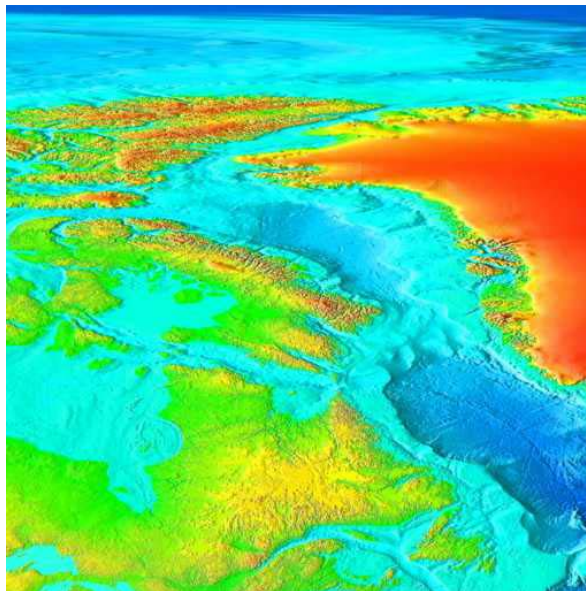


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FINAL REPORT

**“A first evaluation of the strength and weaknesses of statistical
downscaling methods for simulating extremes over various
regions of eastern Canada”**
(Proposal SVE17)



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in collaboration with

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Abstract

Climate change scenarios and methods are often used to describe and anticipate gradual shifts in average conditions, without estimating changes in the magnitude and occurrence of extreme weather events (e.g., extremes of temperature and rainfall). This project, funded by the Climate Change Action Fund of the Government of Canada, is aimed at identifying and testing two existing statistical downscaling (SD) methods with respect to their potential to reproduce the probabilities of extreme events in the reconstruction of observed climate (prior to using these methods to construct future climate scenarios based extremes). The focus of this study is on temperature and precipitation based extreme indices. Strengths and weaknesses of a stochastic weather generator (LARS-WG) and a regression-based downscaling approach (e.g., SDSM) are evaluated and characterized by appraising the credibility of their results over different Eastern Canadian climatic regions, including Eastern Hudson Bay, Northern Québec and the Labrador Sea coastlines region, the Gulf of St-Lawrence, and the central and the Southern parts of Québec. The extreme indices correspond to the frequency of occurrence and magnitude of extreme precipitation and temperature values derived from observed as well as statistically downscaled Global Climate Model (GCM) and NCEP reanalysis daily data sets.

First of all, a regional analysis of temperature and precipitation data of 20 meteorological stations covering the province of Québec and its surroundings is performed before evaluating the performance of SD methods. The analysis period was set from 1941 to 2000 and the computation is made based on monthly, seasonal and annual statistics. This analysis comprises trends and inter-annual variability of basic climate variables, such as the averages of minimum, maximum and mean daily temperature as well as precipitation at monthly scale. To complete the analysis, trends have been calculated and tested for significance on 18 climate indices providing information on the frequency, intensity and length of dry spells, as well as the magnitude and occurrence of extremes for precipitation indices. Analysis of temperature parameters refers to variability, season length, and cold and warm extremes in terms of magnitude, occurrence and duration.

For temperature, the analysis shows a significant increase in minimum temperature during summer at many stations, whereas other seasons are rarely affected by such a trend. The pattern in maximum temperatures is more variable throughout the regions and the periods: no change in the Labrador region, increases during summer in the Hudson Bay area, and decreases in autumn in southern and eastern parts of Québec. Looking at the year-to-year temperature variability, an important change appears in the east where a persistent increase in winter temperature seems to have taken place over the last 30 years. The behaviour of the upper tail of temperature indicates that temperatures (minimum and maximum) have become even warmer in most of seasons except for fall, while a few significant changes are observed in the lower tail. For precipitation, basic variables showed significant trends more often than extreme indices. Increases in precipitation amounts are attributed mostly to changes in the frequency of precipitation but not in their intensity. Significant changes in precipitation are mostly noticeable during spring and autumn, and although summer is usually an important season in terms of amount of precipitation, trends are not significant at most of the stations during this season.

Regression-based downscaling of temperature, using NCEP predictors as inputs, are in good agreement with observations, whereas the weather generator tends to produce values systematically over-spread both in the upper and lower tails of the distribution of monthly mean and standard deviation of temperature. For almost all temperature indices, SDSM driven with NCEP reanalyses produced more accurate results than LARS-WG, over all the calibration and validation (independent data) period. Although the distribution of the growing and the frost season length, and that of the

freeze and thaw cycle are well reproduced up to the inter-quantile range, both SDSM and LARS-WG systematically overestimated the variability of these indices. Moreover, in spite of the fact that temperature extremes are generally well simulated, an excessive number of outliers appears in winter and fall for minimum and maximum temperature extremes of both SDSM and LARS-WG compared to observed values in the North and Maritimes regions. In the South, the outliers appear mainly in spring and summer for the minimum extreme temperature. In the North, the cold extreme temperature distributions vary substantially from the calibration to the validation periods in all seasons, inducing a decrease in the performance of the downscaling results over the validation period. The seasonal diurnal temperature range is generally well simulated for all stations, except for LARS-WG of which the inter-quantile range and the variability in low and high values are overestimated compared to observed data.

For precipitation, SD models have generally well reproduced the median as well as the standard deviation of monthly mean precipitation. However, the inter-quartile range and high percentiles are generally underestimated, whereas all SD models produce many outliers when compared to observed data series, especially LARS-WG. For the vast majority of seasonal and annual indices of precipitation, clear changes in the distribution of the observed variables are noticed from the calibration period to the validation period. Consequently, these changes induce a decrease in the performance of the simulation of median and inter-quartile values, especially in the North during the validation period. The percentage of wet days is relatively well reproduced by all models, both in the median and the inter-quartile range with the best results obtained for the summer. However, the greater number of outliers simulated by these models suggests an overestimation of higher values, especially for the consecutive dry days and simple daily intensity index. For the two extreme indices of precipitation, SD models reproduce the medians relatively well, whereas overestimating the inter-quartile in the north during spring and summer seasons. A great number of outliers are also simulated in the upper tail of the distribution, which suggests an overestimation of the number of extreme values. The results obtained from LARS-WG are generally similar to those obtained from SDSM, except for a stronger overestimation of the 1.5 inter-quartile range in case of the weather generator. In the Maritimes station, the biases in the simulated distribution are generally larger than for other stations as the extremes indices reach higher values, but the relative errors are quite similar to other regions and seasons.

In the context of the evaluation of the GCM-driven SDSM and downscaling issues for climate scenarios development, SD results are also evaluated in their capacity to improve upon the use of raw outputs from global climate model simulations (e.g., the Canadian CGCM1 and the Hadley Center HadCM3 GCMs) of present-day climate (i.e. 1961-1990 for which all daily data are available) and its variability. Some form of downscaling (i.e., LARS-WG or SDSM) is obviously preferable to using GCMs output directly, as strong biases are present in both the temperature and precipitation regime of the global models, especially in the north and around the Hudson Bay in winter season. It was shown that the two downscaling methods were able to reproduce and to improve relatively well the temperature regime compared to GCMs simulations, including extremes of temperature and highly sensitive indices of variability, and to a lesser extent the precipitation regime. For this latter variable, the improvement obtained with SD methods is less obvious compared to GCM raw data.

Moreover, strong differences in the downscaling performances appear between regions, months and seasons, especially for temperature. The lowest typical errors values are obtained during the months of April to November, with values are most commonly below 4°C. In winter, results for the Hudson Bay are the worst, whilst the errors decrease from the Labrador to the Maritime and to the South regions, except with one series of simulation with CGCM1-driven SDSM. In winter, the downscaled maximum temperature appears to have generally a lower bias than minimum temperature,

but the relative errors are quite similar for both. The results of the downscaling obtained with CGCM1 driven predictors are often better than those obtained with HadCM3 for minimum, maximum and mean temperatures, whereas the biases of the CGCM1 raw data of temperature are more often higher than those of HadCM3. The biases of results obtained with LARS-WG are generally similar to those obtained with SDSM using GCMs predictors, except for those during the winter season where LARS-WG performs better than SDSM.

For precipitation, the differences between regions and seasons are less obvious than those of temperature but strongly vary for all types of precipitation indices. In general, the best results for monthly mean precipitation downscaling are obtained in the south over summer, and the largest discrepancies in the simulated mean precipitation regime appear with LARS-WG results, both in Hudson Bay and in the South. The intra-monthly variability of precipitation is not really improved by SD methods compared to raw GCM fields. For the majority of precipitation indices, the SDSM results using GCM predictors are quite similar to those using NCEP ones. For example, errors of wet-day occurrence are almost always low ($< 10\%$) for SDSM with NCEP predictors (on CGCM1 or HadCM3 grid) and with GCM predictors, except for those in winter in Hudson Bay region where added values from downscaling process are not captured. During the winter, all GCMs and downscaling methods applied for Hudson Bay area were characterized by error values in simulated consecutive dry days nearly twice that of the errors in the other regions. But the worst errors for this index have generally appeared in the South, from the relative errors. For the daily precipitation intensity index, the larger errors were mostly associated with the Maritime region, where the errors often exceed those obtained with raw GCM outputs (i.e., degradation of the GCM information in the downscaling process). For precipitation extremes, regional means of errors were least in the Hudson Bay region and highest in the Maritime region, with values exceeding 8 mm/days in the latter.

In general, all downscaling results confirm that the downscaling performance and predictability of the climate variables strongly vary with seasons and from regions to regions, as a consequence of the size and positioning of predictor variables, and between different periods of record. Since the selection of an appropriate set of predictors and their accuracy vary strongly among GCMs (as in our case when using CGCM1 and HadCM3 atmospheric variables), one of the most important recommendations is to make a scrupulous assessment of climate model information, i.e. rigorous investigation of potential predictors, prior to all downscaling exercises. In that perspective, more than one series of predictors must be used in order to apply the SD models to a wide range of independent data source. As also confirmed in our study, re-evaluation of added values or new insights that have been gained through the use of downscaling techniques is essential prior to climate scenarios development since an increased precision of downscaling does not necessarily imply to increased confidence in regional or local climate information, compared to raw GCM outputs. Finally, regression-based SD is found to perform less well for precipitation than temperature. In agreement with previous studies, the two SD methods capture the precipitation occurrence better than wet day amount and/or extremes. A major limitation is also shown for the stochastic weather generator, whereas the precipitation and temperature variability, and persistence tend to be overestimated, with systematic overestimation of the extreme values (i.e., an over-dispersion problem). Nevertheless, further work is needed to select and develop relevant predictors for the downscaling of precipitation, as this weather variable is not well reproduced, and as preliminary work suggests that some potential improvement may be possible with the relevant physically atmospheric forcings which can be used as new series of predictors. As suggested in the main objective of this project, our study strongly confirms that it is essential to be aware of the generic strengths and weaknesses attached to the various families of SD methods, as all methods must not be used as a black box.

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General introduction

Changes in the frequency and intensity of extreme events are likely to have more of an impact on the environment and human activities than changes in mean climate. During the last decade, climate events with strong impacts on the environment and on economic activities have been experienced in Québec and across Canada. For example, major floods such as the Saguenay deluge of July 1996 as well as the Red River flood in Manitoba in spring 1997 illustrate the risks to ecosystems, human health and welfare, and infrastructure from short-duration weather extremes. A vital question for Québec and Canada is, therefore, whether such events will occur more frequently in the future.

The starting point for most climate scenarios development is based on the Global Climate Models (GCMs) simulation outputs, and more recently on the high resolution Regional Climate Models (RCMs). Most GCMs have horizontal resolutions of hundreds of kilometres (around 350 km) whilst RCMs have in the order of tens of kilometres (more often used at 50 km). However, many impact assessments need point scale information or local climate variables which are highly sensitive to fine-scale climate variations and feedbacks that are parameterized in coarse-scale models (e.g., Wilby *et al.*, 2004; Mearns *et al.*, 2003). Hence, there is an essential need for more reliable high-resolution scenarios, especially for extreme climate information, i.e., at a spatial scale much finer than that provided by global or regional climate models (e.g., Wilby *et al.*, 2004). To date, however, few scenarios consider changes in the magnitude and occurrence of extremes, and they mainly focus on changes in mean climate (e.g., Hulme and Jenkins, 1998). Two principal reasons for this are (i) the lack of suitable test methods for developing scenarios that include information about climate extremes and variability changes, and (ii) the limited availability of climate model simulations with reliable output at the necessary spatio-temporal resolution.

Fine resolution climate change information for use in impact studies can be obtained from statistical downscaling (SD) methods. These techniques offer an alternative approach to obtaining information about climate variability and extremes (Hewitson and Crane, 1996; Wilby and Wigley, 1997; Wilby *et al.*, 1998a; Mearns *et al.*, 1999; Murphy, 1999; Wilks and Wilby, 1999; Zorita and von Storch, 1999; Goodess *et al.*, 2003). SD methods are especially useful in heterogeneous environment such as coastlines or islands with steep environmental gradients where there are strong relationships with synoptic scale forcing (e.g., Wilby *et al.*, 2004). These methods assume that the regional or local climate is conditioned by the large-scale climate state and regional/local physiographic features, such

as topography and land-sea distribution (e.g., von Storch, 1995, 1999). In this context, regional or local climate information may then be derived by determining a statistical relationship which relates the large-scale climate variables (or “predictors”) to regional and local variables (or “predictands”). Such a model is derived using observed data, with a GCM (or multiple GCMs) then providing the large-scale climate information to enable the derivation of future climate at the local scale. The basic assumption here is that the statistical relationships developed for the present climate will remain valid under future climate conditions. Applications of these methods have generally been restricted to the use of a single driving GCM (e.g., Wilby *et al.*, 2004). There is also a real danger to use or apply SD methods uncritically as “black boxes”, particularly when employing regression-based modelling techniques (e.g., Wilby *et al.*, 2004). Downscaling should only be used when there are physically sensible linkages between the large-scale forcing and the behaviour of local meteorological variables. Best practice requires rigorous evaluation of SD methods using independent data.

In this context, this project is focused on the evaluation of two SD methods, namely SDSM (Statistical Down-Scaling Model, Wilby *et al.*, 2002), a linear regression-based method, and LARS-WG, a stochastic weather generator (Semenov and Barrow, 2002). Both methods have been mostly developed and used in Europe, and recently in Canada for limited applications over a specific area (e.g. Coulibaly and Dibike, 2004). Hence, before using these methods to generate or construct climate changes scenarios in Eastern Canada, we need to evaluate their generic strengths and weaknesses for the reconstruction of the observed climate state in our region. More specifically, their ability to reproduce temperature and precipitation variability and extremes should be tested over the region (with emphasis on the province of Québec) using atmospheric variables output from two different GCMs. From this perspective, the main objectives of this project are to:

- Develop useful information for impacts and adaptation studies on the recent variability in extremes of temperature and precipitation over the Québec region;
- Rigorously and systematically compare and evaluate/validate the two statistical downscaling methods for the detection of observed extremes;
- Identify the more robust downscaling techniques, determine the intrinsic uncertainties related to these techniques and suggest possible improvements;
- Provide expertise and make recommendations to the I&A (Impact and Adaptation) community as to the use and limits of statistical downscaling tools for climate scenarios development.

In order to characterize the recent information about the variability in the occurrence of

temperature and precipitation extremes, we have developed eighteen extreme indices as presented in Chapter 1 with trends analysis over the last six decades (i.e., 1941-2000). Eleven of these climatic extreme indices are then used as evaluation criteria for statistical downscaling results presented in Chapter 2 together with others basic variables such as monthly mean and standard deviation of temperature and precipitation. In Chapter 2, we also perform an inter-comparison between the statistical downscaling methods using data for the period of 1961-1990 and identify the more robust methods to downscale extremes. Each downscaling method is tested and compared over different climatic conditions across the Québec region. The statistical downscaling methods are calibrated/evaluated using predictor variables from NCEP reanalysis data for the period of 1961-1990 (for the calibration and the verification of the SDSM method). The downscaling performance on all indices is analyzed by using two statistical criteria: the Root Mean Square Error and the Mean Absolute Error. Box plots are also used to provide a visual comparison of the distribution of indices calculated from simulated versus observed values. Also, two series of GCMs' outputs, namely CGCM1 (Flato *et al.*, 2000) and HadCM3 (Gordon *et al.*, 2000), are used as predictors for SDSM to assess the regression-based approach with GCMs input information. The raw GCMs data of precipitation and temperature variables are also analyzed and compared with that of the downscaled data over the baseline (1961-1990) period to identify the added value as a result of the downscaling effort. Hence, we will assess the effect of climate model biases at local scale and analyze potential improvement from downscaling results corresponding to the considered variables and climatic regions. A summary on the most reliable downscaling methods, their strengths and limitations to extremes indices reconstruction, and recommendations for the I&A community are also presented.

Chapter 1

Regional analysis of climate variability and extreme indices of daily temperature and precipitation over Eastern Canada for the second half of the 20th century

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1.1 Introduction

A consensus exists among most climatologists that the advent of global warming will be accompanied by changes in the frequency and intensity of climatic extremes. This is of great importance since changes in the onset, duration and intensity of extreme events could have important impacts on the environment and human activities. However, because of their rarity, and very high variability in space and time, detection of changes in climate extremes is difficult to achieve. Decision making thus needs to consider not only trends of mean climate but also recent trends in the extremes of climate in order to better plan for climate change.

In this context, researchers have recently used climate indices to document recent climate change in terms of extremes and variability (e.g. Groisman *et al.*, 2003; Frich *et al.*, 2002, Klein Tank and Können, 2003). This approach not only has the advantage to develop relevant information for impacts and adaptation studies, but also favours a better evaluation of recently observed climate variability. Moreover, the use of daily data is essential for the study of extremes and indices as it allows describing the information about climate variability in a more valuable form than those provided with the usual monthly or seasonal mean values. Analyses of short period extremes in the present climate and the detection of evidence of changes in their frequency and intensity generally require high quality high frequency (at least daily) data sets (e.g. IPCC, 2003). Indices calculated from these climatic variables are also very valuable to assess climate models because they provide information that translates more easily into impact information than raw simulated outputs. In fact, if one plans to use climate model output with the aim of realizing a climate change impact study, it is clearly desirable to validate the output with indices. Therefore, and as part of this CCAF project, on the evaluation of statistical downscaling models, analyses of precipitation and temperature indices, as well as their trends, will first be presented in this study.

Relevant analysis of climate indices has been accomplished over the Arctic and sub-arctic regions by Groisman *et al.* (2003) who showed important spatial differences in the area during the 1950-2000 period: while the frequency of extreme precipitation events is increasing in Eurasia, no significant change is detected over northern Canada. However, during the same period (1950-1998), total precipitation has increased in Canada especially in the north during winter, spring and fall (Zhang *et al.* 2000). The increasing trend in precipitation due to increase in the number of non-heavy events in Canada has been also reported by Vincent and Mekis (2004) and Zhang *et al.* (2001).

Groisman *et al.* (2003) have analyzed trends in selected extreme temperature indices. The area-

averaged frequency of very cold nights over the Arctic shows a significant decrease during winter spring and summer but not in autumn. Using gridded monthly data, Zhang *et al.* (2000) have documented trends in mean temperature. Very distinct regional patterns are observed: during the second half of the 20th century, a warming occurred in south and west during winter and spring while a cooling is observed in the northeast. The extreme temperature trends for stations data documented by Bonsal *et al.* (2001) showed that the 5th percentiles of minimum and maximum temperature have similar trends with a cooling in the north east. However, the higher percentile trend (95th percentile) is rarely significant. The cooling is an unusual feature compared at the trends observed in the other part of the world during the last decades. Summer season is characterized by a more regular warming of minimum and maximum temperature over the whole country (Zhang *et al.* 2000) which is also present in the high and low percentile of minimum temperature (Bonsal *et al.* 2001). Autumn is characterized by less significant changes in temperature except in the southeast sector where a cooling occurred.

Recently, Vincent and Mekis (2004) have presented an analysis of useful extreme indices in terms of their relevance for climate change impact studies however they did not address seasonal trends. Seasonality must be studied in order to better specify the changes in time and anticipate the impacts. A regionally based analysis will also help in the same sense.

Eighteen extremes and climate variability indices have been analyzed for Québec regions in considering their usefulness in the context of Nordic climate, their utilities in principal impacts and adaptation studies over the regions of interest and their relevance to document the recent observed climate variability related to the precipitation and temperature regime evolution. To place the trend analysis in a larger context, we have also analyzed basic variables, namely the average temperature and precipitation amount.

1.2 Methodology

1.2.1 Data

As suggested in the third IPCC (2001) assessment report on climate change, changes in extremes are often sensitive to inhomogeneous climate monitoring practices, making assessment of change more difficult than assessing the change in the mean. Therefore the analysis presented in the following report uses the daily homogenized maximum, mean and minimum temperature dataset of Environment Canada, prepared by Vincent *et al.* (2002), and the daily adjusted total precipitation dataset (Mekis and

Hogg, 1999). Twenty stations covering Quebec territory were selected; a few stations from the surrounding provinces (Ontario and Newfoundland) were added to complete the dataset when possible (fig.1.1 and table 1.1). These homogenized temperature data sets allow us to analyse trends over the latter decades when stations have been plagued with changes in climate monitoring practices and station relocation. For precipitation data, corrections account for wind under catch and evaporation according to type of rain gauge. A metadata report describing the meteorological stations used in the present study is presented in Appendix A.

The period covered by this analysis was set between 1941 and 2000, equivalent to two normal periods of 30 years in which the majority of meteorological dataset, including northern stations, is present. As shown in figure 1.1, the twenty stations were grouped into four regions namely the Hudson Bay region, the Labrador region, the maritime region and the southern region. Climate conditions differ from one region to the other as indicated by the temperature and precipitation normals illustrated in figure 1.2. The reader can notice that the four stations presented in this figure 1.2 will be systematically used throughout this text to illustrate their respective region. Spatial differences regarding precipitation distribution is most apparent between the northern and southern stations: northern stations having total precipitation amounts varying from 10 mm during the driest month to 64 mm during the wettest one (for Inukjuak) while precipitation in the southern station varies from 56 mm to 100 mm (for Dorval). Comparison of total annual mean precipitation from east to west indicates less total precipitation amounts for continental stations. The temperature plots depict the large range of average temperature distributions throughout the annual period: the difference between the warmest and coldest month is about 30°C (for minimum and maximum temperatures).

1.2.2 Basic variables and climate indices

As pointed out by Easterling *et al.* (2000), it is desirable to analyse mean conditions before looking at extremes. Therefore, a trend analysis of the average minimum, mean and maximum temperature as well as the average total precipitation has been accomplished. To complete the characterization of mean conditions, monthly analysis was also done. To document the change in the intra-seasonal variability, the standard deviation of temperature variables has been calculated.

From the climate indices used in various studies (Vincent and Mekis (2004), Frich, *et al.* (2002), Groisman *et al.* (2003), Easterling *et al.* (2000), Klein and Könen (2003), Zhang *et al.* (2001)) as well as the indices used in the European STARDEX project (Statistical and Regional dynamical Downscaling of Extremes for European regions, see <http://www.cru.uea.ac.uk/cru/projects/stardex>) and the

ETCCDMI workshops (Expert Team on Climate Change Detection Monitoring and Indices, see <http://cccma.seos.uvic.ca/ETCCDMI>), 18 indices have been identified to characterize climate variability and extremes in this current study (Table 1.2) some of which are also used for the validation of statistical downscaling models presented in the subsequent chapter. Four criteria were considered for the choice of indices: 1) the indices must represent Nordic climate conditions, 2) they must be relevant to climate change impact studies 3) extreme indices are relatively moderate (i.e. we are using the 10th and 90th percentiles as opposed to the 5th and 95th) and 4) the indices are adapted to the main characteristics of climate conditions at regional scale. The last point is met by defining thresholds relative to the empirical distribution of parameters for each station (e.g. 10th and 90th percentile) instead of a fixed threshold (e.g. precipitation over 10 mm) which might be inappropriate in some climate region. The selection of indices provides a good mix of information: precipitation indices characterize the frequency, intensity, length of dry spells, magnitude and occurrence of wet extremes; temperature indices refer to variability, season lengths and cold and warm extremes in terms of magnitude, occurrence and duration.

The STARDEX and ETCCDMI software (respectively SDEIS and RClimdex) and documentation have been used to develop the computation procedure of some indices. Detailed definitions are presented in Appendix B. Percentiles are computed with the Blom empirical formula for temperature distributions, and the Cunane formula for the precipitation distribution (see Appendix B for details). A linear interpolation between empirical values is used to estimate the percentile value. For two indices, namely growing season length and frost season length, standard fixed threshold (5°C and 0°C respectively) are used. For indices depicting extreme event duration (heat wave, cold wave and maximum precipitation duration), we fixed the minimum length threshold at a period of 3 days.

Characterising the occurrence of events using percentiles implies the use of a common reference period which was set as 1961-1990. The indices referring to this period are the number of days with precipitation > 90th percentile, the number of days with minimum temperature < 10th percentile, the number of days with maximum temperature > 90th percentile and the heat and cold wave index. For temperature, the 1961-1990 daily reference was obtained from 150 values with the centered 5 days window method. For precipitation, the reference value is calculated from the whole distribution of rain days during a given season between 1961 and 1990. Precipitation indices were computed for daily events greater than 1 mm. Consequently, a dry day is defined as a day with precipitation less than 1 mm. Such as mentioned by Haylock and Goodess, (2004), this threshold was also used because lower thresholds can be sensitive to problems such as underreporting of small rainfall amounts. Since the

trace correction in the daily adjusted precipitation dataset can exceed 1 mm, an additional criteria has been used to consider all trace days as dry.

The indices are analyzed for seasonal periods defined by the standard climatic division: DJF (winter), MAM (spring), JJA (summer) and SON (fall). However, the temporal time frame differs for the five following indices: the two indices qualifying a season length (frost and growing season), the cold and heat wave indices which are computed only for the season of interest (winter and summer respectively) and the number of days with freeze and thaw cycles which is analyzed on a monthly basis. Finally, if more than 20% values are missing for a given year (season or month) the indice is not computed for that year (season or month). To avoid having trends due to missing observations, indices based on count days per period are brought back in percentage of days.

1.2.3 Trend probability and estimation

The non-parametric Kendall-tau's test was used to compute trend probability (see Appendix B for details). This test is more relevant to the study of extremes since the individual value is not taken into account, but only the direction of change (positive or negative) so the test is less sensitive to outliers (which are very frequent in extremes). All trends are assessed at the 5% significance level. The slope has been estimated with the non-parametric Sen slope's test (see Appendix B for details). Compared to the least squares regression method, the Sen slope is less sensitive to the non-normality of the distribution and thus outliers are less influent. The slope estimation was deemed useful for 2 reasons: 1) the existence of a trend identified with the Kendall-tau test is confirmed only if the slope differs from 0 and 2) it provides an estimation of the magnitude of the trend. In order to facilitate the regional analysis, we have defined a threshold that establishes that a regional trend signal exists when more than 1/3 of stations, within a specific region, show a significant trend. Henceforth, this threshold will be referred to as the *1/3 rule*.

1.3 Results

First, we shall present analysis of trends for the basic temperature variables followed by the inter-annual climate variability for a few time-series. Then, trend analyses for indices of extremes are presented. The same structure is used with the precipitation results. Detailed tables for all variables and indices computed over the 1941-2000 period are available in Appendix C; only the most significant

results are mentioned in the current section. A complementary trend analysis of all basic variables and indices for the 1961-1990 period was also performed to help in the analysis of statistical downscaling methods. These results are presented in Appendix D but are not presented in the present report.

1.3.1 Temperature

a) Trends in Average and Standard deviation (seasonal and monthly scales)

Figure 1.3 presents histograms of the percentage of stations per region having significant trends for average minimum and maximum temperatures. We can clearly see that significant trends in summertime average minimum temperature are present in all the four regions. This trend is particularly noticeable over the south west region where 6 out of 7 stations report a significant increase in minimum temperature. This region is highly urbanised and nocturnal conditions are influenced by an increase in heat retention capacity and urban development. The average minimum temperature during the other seasons for all regions is characterized by very few stations showing significant trends. Seasonally averaged maximum temperatures show predominant changes during fall with a trend in decreasing seasonal highs in the maritime and south west regions and except for the Hudson Bay region, summer trends of maximum temperature are rarely significant. Overall, we note that in the northern region, there is no negative trend for either minimum or maximum temperatures for any given season. This region does not seem to be cooling.

Analysis on a monthly scale (appendix C, table C4) showed that the main changes were observed for summertime minimum temperature distributions. However, these changes occur at different periods with respect to the regions: for southern region, minimum temperatures have become warmer in the early part of summer whereas warming is more present by the end of summer in northern regions.

Trend in intra-seasonal variability seems minimal as standard deviations for the series of minimum and maximum temperatures show very little significant trends (appendix C, table C1).

b) Inter-annual variability of temperature average (seasonal scale)

In the previous section, we have analysed the long-term trends over the 1941-2000 period without analysing the variability at the inter-annual or decadal scale. However, it is of interest to look at these time-scales for which important fluctuations are observed in long-term trends. Such low frequency periodic signals can be observed for the mean temperature. The time series of the seasonal anomalies (relative to the 1961-1990 baseline period) of the average minimum temperature for the representative stations are presented in figure 1.4 (the signal is mainly the same for the maximum temperature, not

shown here). The most important inter-annual seasonal variability is observed during winter mainly in both the eastern and northern regions (Hudson, Labrador and Maritime). In fact, an important year-to-year variability in the mean minimum temperature is apparent at the beginning of the time series, while around the 1970s, the variability decrease on an annual basis with a more persistent pattern and with a more distinctive decadal cycle. This fact is observed for the 4 Labrador stations and 3 of the 6 maritime stations. The other main characteristics appear to be mainly the systematic upward trend for all stations and seasons during the last 15 years or more.

c) Trends in temperature indices (seasonal scale)

Daily variability

Daily variability has been evaluated through two indices namely the average diurnal temperature range and the freeze and thaw cycle. For the first one, an interesting fact comes to our attention in the Maritime region where the average diurnal temperature range index shows a positive trend for some stations and negative for others during winter and summer (figure 1.5). Within stations of the other regions, this index does not behave in the same manner: significant negative trends are observed more often during fall in the Southern Quebec regions. In the Labrador, the index tends to increase during spring.

Freeze-thaw indices (table C4 of Appendix C), show very few significant trends among regions. In fact, the Labrador region is the only region where more than a third of stations show consistent trends in this index, which indicates a decrease in the number of days with daily minimums below 0°C and maximums above the freezing mark during the month of June.

Extreme temperature indices

Figure 1.6 summarizes the findings for extreme temperature indices. Compared to the change in the average temperature, the percentage of stations with significant trend is smaller in the case of extreme indices. According to the 1/3 rule, there is no significant regional change in the magnitude of the extreme temperature in the Labrador region, except the frequency of very warm days with a significant increase during summer. We can note in table C3 of Appendix C that the heat wave duration index, another summer extreme temperature indicator, also gives a positive trend for 2 of the 4 stations in the Labrador region. In the Hudson Bay region, the noticeable changes also occur during summer when significant increases in the frequency and magnitude of very warm days are observed. A decrease in the frequency of very cold days during summer is present for the three stations studied. In the maritime, a significant decrease in the frequency of very warm days is observed during fall, the only

season where trend indices exceed the 1/3 rule. Finally, in the southern region, significant trends in extreme temperature are more frequent during winter: the upper and lower tails of the minima and maxima has changed significantly as the number of days rising thresholds (except for the 10th percentile of maximum temperature). In summary, over all regions, the summer season exhibits the more frequently significant changes in the extreme temperature indices during the 1941-2000 period. Few significant trends also appear during winter mainly in the South region.

To depict a spatial pattern of major changes during the 1941-2000 period for the extreme temperature indices, we present maps of three indices in figure 1.7. During winter, almost no trend is significant for the extreme temperature indices in the north except at Kuujjuaq where a cooling of very warm days is observed. However, in the south, some positive trends are significant for different stations. During summer, the warming occurs at higher latitude and the trends of minimum temperatures are more frequently significant. When changes are significant, the magnitude of the trend is higher during winter (about 0,5°C/decade) compared to the magnitude during summer (about 0,2 °C/decade) as evaluated by the Sen slope.

Season length

The two indices used to analyse the season length (growing season length and frost season length) showed that trends are rarely significant (Appendix C, table C3).

1.3.2 Precipitation

a) Trends in average precipitation (seasonal and monthly scales)

The percentage of stations with significant changes in the daily average precipitation amount over 1941-2000 is shown in figure 1.8. In the Labrador region, we denote an increase in the precipitation amounts during spring, summer and fall. In the Hudson Bay, the behaviour of trends is site specific and vary in opposite manners within this large area: when significant, Moosonee's trend is always negative while the trend in mean precipitation is on the increase for Inukjuak. Kuujjuarapik, located geographically in the middle of the two other stations varies either way. The differences in precipitation trends in this area was also confirmed by Zhang *et al.* (2000) who showed a decrease in the precipitation totals in the surroundings of Moosonee during winter and spring while trends in the north-western part of Quebec are either very small or positive, depending on the season. Therefore, whereas the grouping of the meteorological stations per region was quite coherent for the temperature features, we cannot proceed in the same manner for precipitation indices as this parameter has greater spatial variation. Finally, in the Maritime and South regions no significant change is observed in the

average daily precipitation amount for almost all seasons.

At the monthly scale, meanwhile the seasonal average precipitation is changing significantly for many stations especially in the two northern regions, the monthly precipitation shows very few significant trends, as illustrated in table C6, appendix C.

b) Inter-annual variability of precipitation amount (seasonal scale)

The inter-annual variability of mean precipitation is illustrated in figure 1.9 by the time series anomalies of the four representative stations. As opposed to temperature time series, no pattern of change in the persistence comes out, the inter-annual variability being important for all time series with no apparent pattern in the magnitude of change from year to year.

However, strong decadal cycles or “slow oscillations” can be observed for all seasons and regions, except for summer season (spring in the Labrador region). In fact, in summer, the wettest season for many parts of the studied territory as shown by the normals in figure 1.2, the decadal cycle is less present than during the other seasons where the synoptic atmospheric forcing (i.e. the influence of the large scale atmospheric circulation on the regional climate and weather) is more prominent. Also, as opposed to temperature anomalies, no season stands out in terms of the magnitude of the precipitation anomalies. The time series suggest that since the middle of the 80’s, mean daily precipitation amounts are increasing during winter in southern Quebec but trends for other seasons are not as clearly defined.

In the northern part, cyclical similarities between stations are less present. At Inukjuak, we denote an increase in the daily mean precipitation since 1960 during winter, spring and fall, at Kuujuaq, the recent trends vary from year to year and cycles are less clear.

c) Trends in precipitation indices (seasonal scale)

Frequency (Number of wet days)

Looking at the precipitation indices presented in figure 1.8, changes in the percentage of wet days appear to be the most significant trends when compared with other indices. The Maritime and Hudson Bay regions show significant trends for most seasons. An increase in the number of wet days seems generalized in the Maritime region (except in summer). Behaviour of this index is more variable in the Hudson’s Bay region, most probably due to the great spatial differences between stations. Hence, there seems to be an increase in the number of wet days in Inukjuak during winter and fall, whereas the opposite occurs at Mossonee. In the Labrador, while the amount of precipitation increases, their frequency does not show as much significant trends. Finally, in the South, the number of wet days does not change much, during all seasons, over the studied period.

Extremes wet and dry

The pattern of changes in the maximum number of consecutive dry days (fig 1.8) agrees with the percentage of wet days but significant trends are less present. In the Maritime region, there is a net decrease in the fall and spring dry spell length. A decrease in the fall dry spell length is also observed in the South region. The only case where the number of consecutive dry days increases is in the Hudson Bay region during spring.

Looking at the extremely wet days, it is clear that trends are rarely significant nor for the amount of precipitation during those days or for the occurrence of those heavy precipitations.

In summary, fall and spring being the two seasons with the more frequent significant changes in precipitation indices, trend maps of three indices during these seasons are presented in figure 1.10. During both seasons, the occurrence of wet days is increasing along the St. Lawrence River corridor while the length of dry spell either does not vary or seems to be decreasing. Changes in the magnitude of heavy precipitation during very wet days (90th percentile) rarely show significant trends.

1.4 Discussion and conclusion

As with many other studies (e.g. IPCC, 2001; Frich *et al.*, 2002; Vincent and Mekis, 2004), our results show that the most important changes in climate seem to be occurring as nocturnal warming (daily minimum temperatures). Zhang *et al.* (2000) had shown that the warming of minimum temperatures occurs mostly during summer and is restricted to the southern area of the province of Quebec for the 1950-1998 period. The present study, however, indicates that this warming trend is also frequently present over the four studied regions.

Unlike Zhang *et al.* (2000), little significant trends in cooling for northern regions have been observed during winter and spring. This divergence in results could be explained by the difference in time coverage since we have added ten years of data (1941-1950) and this decade was a warming one as shown by the anomalies time series. This illustrates the sensitivity of trend analysis to the time period chosen. Another explanation comes from the spatial coverage of observing networks: in northern areas, spatial coverage is sparse and important differences may arise due to vicinity of location to open water sources, topographical differences and latitude. Furthermore, Zhang's study used gridded interpolated data across regions whereas observed station data was used in the present study. However, our analysis confirms the cooling observed in fall in southern region, as noted by this previous study, but also in our case in the Maritimes region, both in maximum and minimum temperature.

A similar conclusion can be drawn regarding extreme temperatures: Bonsal *et al.* (2001) concluded that extremely cold and extremely warm temperatures were getting colder in the northeastern part of Canada during winter. In our case, only one northeastern station, namely Kuujjuaq, is getting colder. However, it seems to be important to notice that most of the stations with significant cooling of the low extremes are located in the Maritime Provinces in Bonsal's results where we have analyzed only one eastern station outside Québec, namely Daniel's Harbour. For the extreme temperature, we have also noticed more frequent warming for the upper tail of the distribution compare to the lower one.

We saw an important decadal cycle in the average temperature particularly in the eastern part of the study area during winter. Correlating this cycle with an index of atmospheric pressure such as the NAO would certainly be of interest. Finally, we saw that the season length indices gave very few significant trends. This is not too surprising, since a temperature change during spring and fall could result in no change in the total length. In the future work, looking at the date of both tails could give more relevant information than looking at the length.

Our analysis of seasonal mean precipitation agrees quite well with the conclusions of Zhang *et al.* (2000) who limited their analysis to the 1950-1998 period: significant trends are observed during spring and fall. Both seasons are characterized by an increase in precipitation amount except for the southern part of Hudson Bay region where a decrease is observed. The other precipitation feature having frequent significant trends in our study is the percentage of wet days. This change occurs mostly in the Maritime region during winter, spring and fall where there is an increase in the occurrence of precipitation however. However, this feature has little impact on average precipitation amount which does not change much in that region. At the opposite, in the Hudson Bay region, wet days are less frequent during spring.

Vincent and Mekis (2004) had shown important annual change in precipitation frequency in the east of Canada over 1950-2001. On a seasonal basis, the 1941-2000 trends differ: we saw that changes are non-significant for most stations except in the Maritime region. Changes in precipitation extremes are also non-significant on a seasonal basis. This is supported by the yearly based analyses of Vincent and Mekis (2004) and Groisman *et al.* (2003). The latter showed that while the frequency of heavy precipitation increases over Eurasia, changes in North America are non-significant. Finally, it is very interesting to note that during summer, one of the two wettest seasons in Québec, precipitation patterns in terms of average and extreme do not change a lot.

All the analyses presented here come from 20 meteorological stations which limits the scope of

the trends analysis and must be confirmed from more complete study with a higher volume of available observed data. This work is currently in completion with 49 available observed stations located in eastern Canada (Gachon *et al.*, in preparation).

The indices analyzed here have two major uses: the first one is to investigate the climatic variability and changes and the second one is to help to produce useful climate change scenarios information from climate models output and from statistical downscaling methods in a more readily useable format in terms of impacts on health, water resources, agriculture, public security, ecology, etc. Without any doubt, the use of indicators to produce climate scenarios from all downscaling methods (namely regional climate model and statistical one) would be relevant since the regional or local scale information is the more appropriate one for impacts studies compared to global climate models outputs.

				CGCM1		HadCM3	
Nom station	ID	Lat(°N)	Long(°W)	Lat(°N)	Long(°W)	Lat(°N)	Long(°W)
Inukjuak	A	7103283	58,47	57,52	78,75	57,5	78,75
	CV	7103282					
Kuujuarapik	A	7103536	55,28	53,81	78,75	55	78,75
Moosonee		6075425	51,27	50,09	82,5	52,5	82,5
Goosebay	A	8501900	53,32	53,81	63,75	52,5	60
Cartwright		850110	53,72	53,81	56,25	52,5	56,25
Kuujuaq	A	7113534	58,1	57,52	67,5	57,5	67,5
Schefferville	A	7117825	54,8	53,81	67,5	57,5	67,5
Amos		7090120	48,57	50,09	78,75	47	78,75
Val d'Or	A	7098600	48,05	46,38	78,75	47	78,75
Causapscal		7051200	48,37	50,09	67,5	47,5	67,5
Daniel Harbour		8401400	50,23	50,09	56,25	50	56,25
Gaspe	A	7052605	48,78	50,09	63,75	47,5	63,75
Mont-Joli	A	7055120	48,6	50,09	67,5	47,5	67,5
Natashquan		7045400	50,18	50,09	60	50	60
Sept-Îles	A	7047910	50,22	50,09	67,5	50	67,5
Dorval		7025250	45,28	46,38	75	45	71,25
Drummondville		7022160	45,88	46,38	71,25	45	71,25
Maniwaki	A	7034482	46,3	46,38	75	47,5	75
	CV	7034480	46,38	46,38	75		
Montreal McGill		7025280	45,5	46,38	75	45	75
McTavish		7024745					
Bagotville	A	7060400	48,33	50,09	71,25	47,5	71,25

Table 1.1. List of stations used in this study with the reference of the nearest grid-point of the GCM output used as predictors in statistical downscaling results presented in Chapter 2.

Categories	Designation	Description (unit)	Time scale
Precipitation analysis			
Basic variables			
Average	pav [*]	Average precipitation (mm/day)	Season/Month
Indices			
Frequency	Prcp1 [*]	Wet days (precipitation>1 mm)	Season
Intensity	SDII [*]	Precipitation intensity (rain/rainday)	Season
Extremes	CDD [*]	Max no of consecutive dry days (precipitation<1 mm)	Season
	R3d [*]	Greatest 3 days total rainfall	Season
	Prec90pc [*]	90 th percentile of rainday amounts	Season
	R90p	%days with precipitation > 90 th percentile calculated for wet days on the basis of 61-90 period)	
Temperature analysis			
Basic variables			
Average	tnav [*]	Average minimum temperature	Season/Month
	tav [*]	Average mean temperature	Season/Month
	txav [*]	Average maximum temperature	Season/Month
Standard deviation	tnstd [*]	Standard deviation of minimum temperature	Season/Month
	tstd [*]	Standard deviation of mean temperature	Season/Month
	txstd [*]	Standard deviation of maximum temperature	Season/Month
Indices			
Daily variability	Fr/Th [*]	%days with freeze and thaw cycle (Tmax>0°C and Tmin<0°C)	Month
	DTR [*]	Average diurnal temperature range	
Season length	FSLc [*]	Continuous frost season length :Tmean<0°C more than 5 days and Tmean>0°C more than 5 days	Season Annual
	GSL [*]	Growing season length: Tmean > 5°C more than 5 days and Tmean<5°C more than 5 days	Annual
Cold extremes	CWDI3d	Sum of sequences > 3 days where Tmin< daily Tmin normal - 5°C	Winter
	Tmin10pb [*]	10 th percentile of daily minimum temperature	
	Tmax10pb	10 th percentile of daily maximum temperature	Season
	TN10p	% days Tmin<10 th percentile calculated for each calendar day (61-90 based period) using running 5 day window	Season Season
Warm extremes	HWDI3d	Sum of sequences > 3 days where Tmax> daily Tmax normal + 3°C	Summer
	Tmin90pb	90 th percentile of daily minimum temperature	
	Tmax90pb [*]	90 th percentile of daily maximum temperature	Season
	TX90p	%days Tmax>90 th percentile calculated for each calendar day (61-90 based period) using running 5 day window	Season Season

Table 1.2. Indices and basic variables of precipitation and temperature analyzed in the report. Items marked with * are used in the subsequent section for the evaluation of statistical downscaling model. The ETCCDMI nomenclature is used.

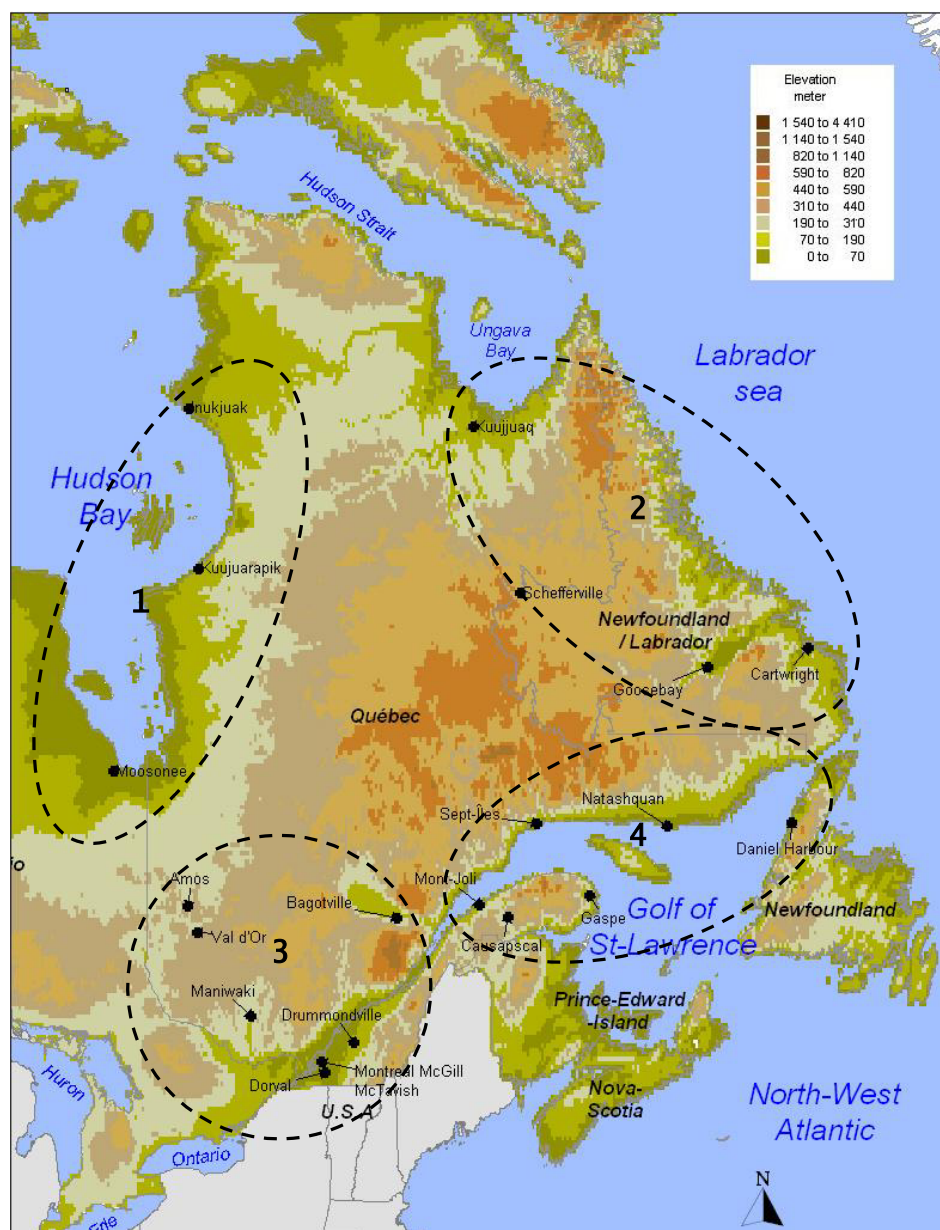


Figure 1.1. Location of the 20 stations used in the study.

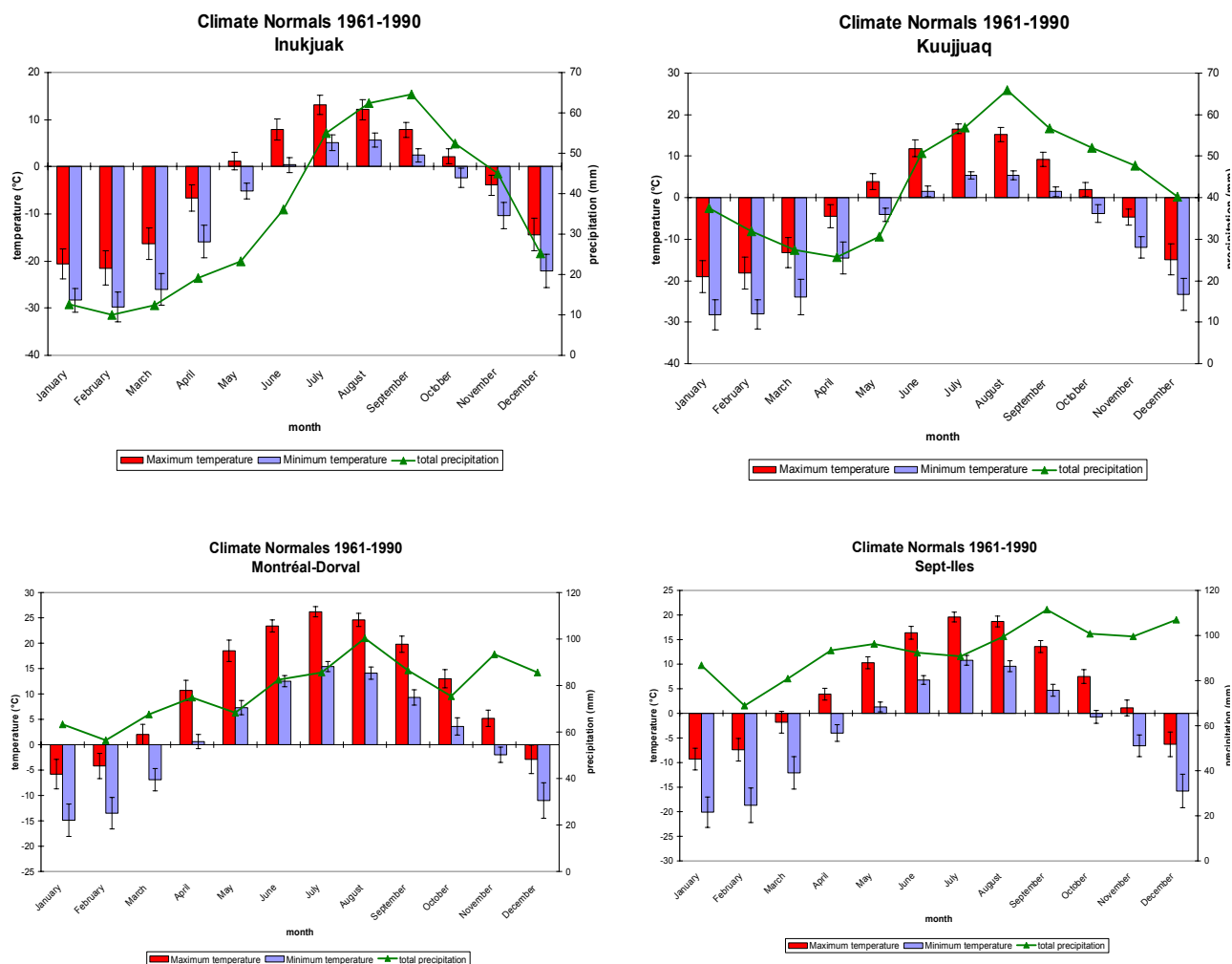


Figure 1.2. Temperature and precipitation normals (1961-1990) for Inukjuak, Kuujuaq, Montréal-Dorval and Sept-Îles.

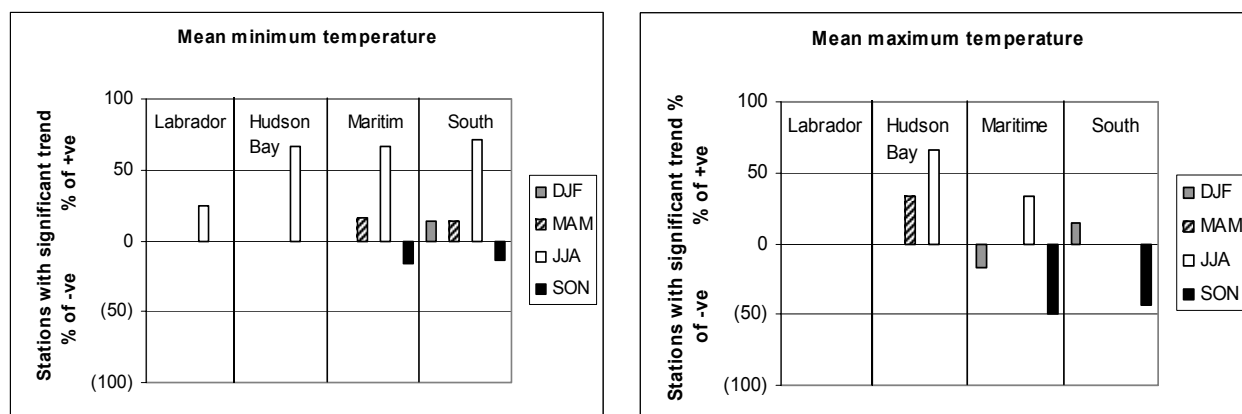


Figure 1.3. Percentage of stations per regions having significant trends for average minimum and maximum temperature over 1941-2000 (significance at 5% level, Sen slope $\neq 0$) grouped per season: DJF (winter), MAM (spring), JJA (summer) and SON (fall).

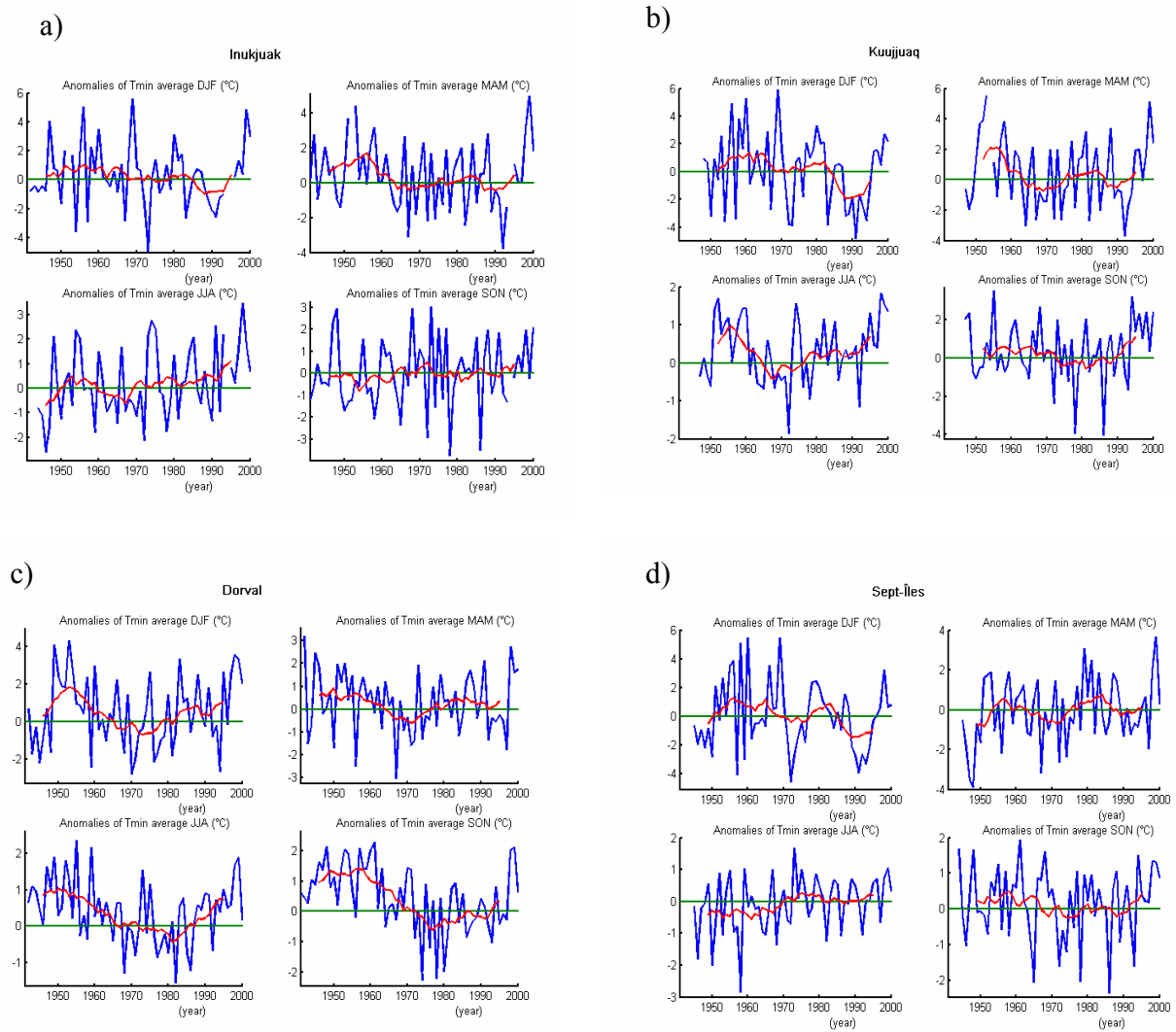


Figure 1.4. Anomalies of minimum temperature (relative to the 1961-1990 baseline period) on a seasonal basis for (a) Inukjuak, (b) Kuujuaq, (c) Dorval and (d) Sept-Îles. Blue line shows the anomalie for each season, red line shows the 11 years moving average.

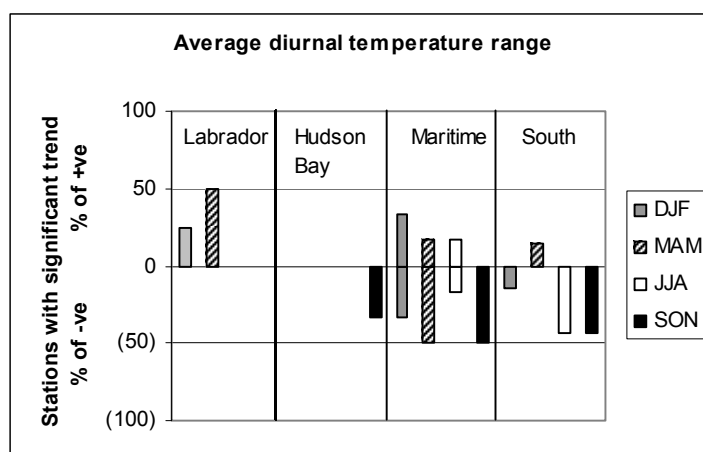


Figure 1.5. Percentage of stations per regions having significant trends for average diurnal temperature range over 1941-2000 (significance at 5% level, Sen slope $\neq$ 0) grouped per season: DJF (winter), MAM (spring), JJA (summer) and SON (fall).

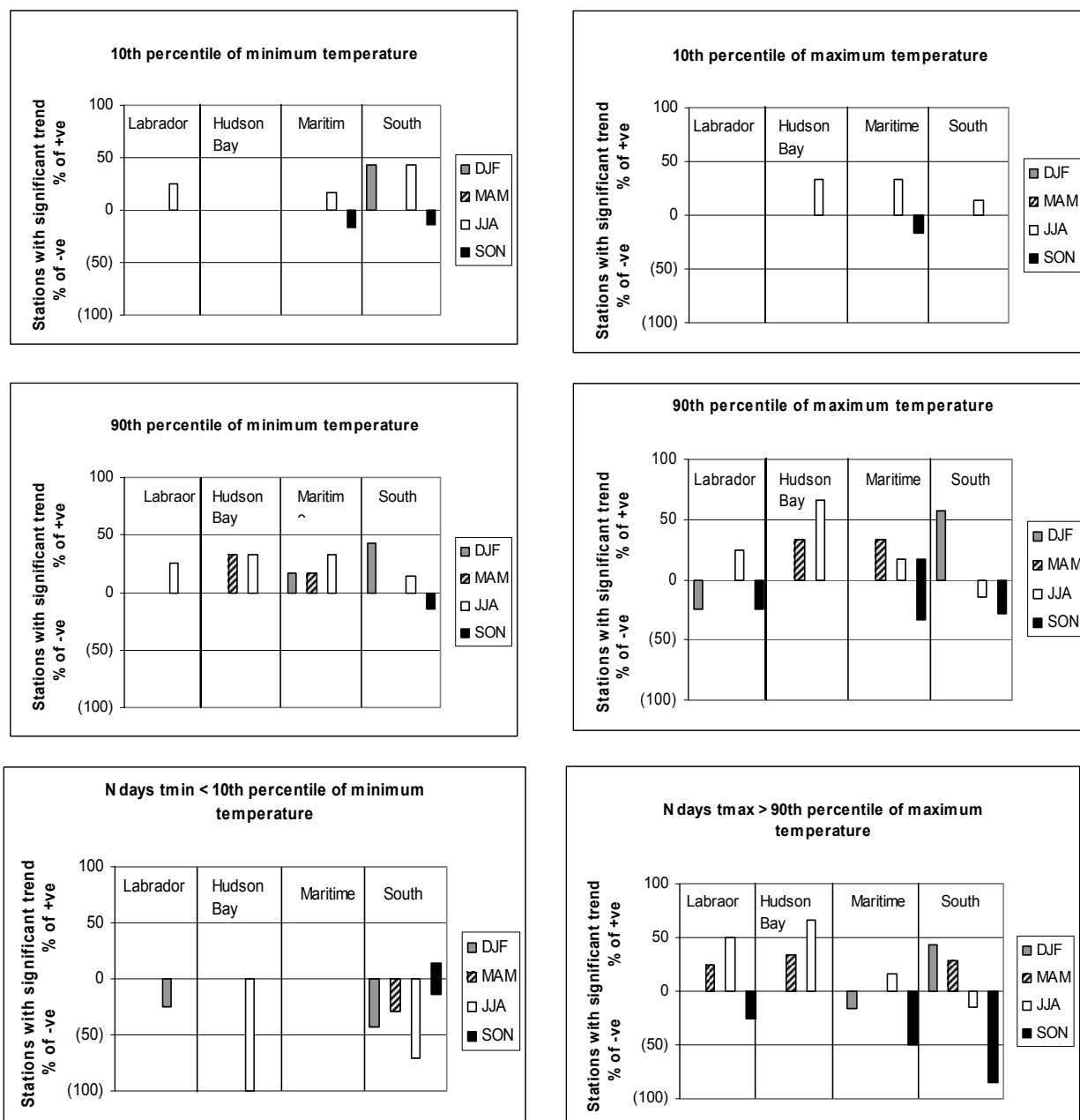


Figure 1.6. Percentage of stations per regions having significant trends for extreme temperature indices over 1941-2000 (significance at 5% level, Sen slope $\neq$ 0) grouped per season: DJF (winter), MAM (spring), JJA (summer) and SON (fall).

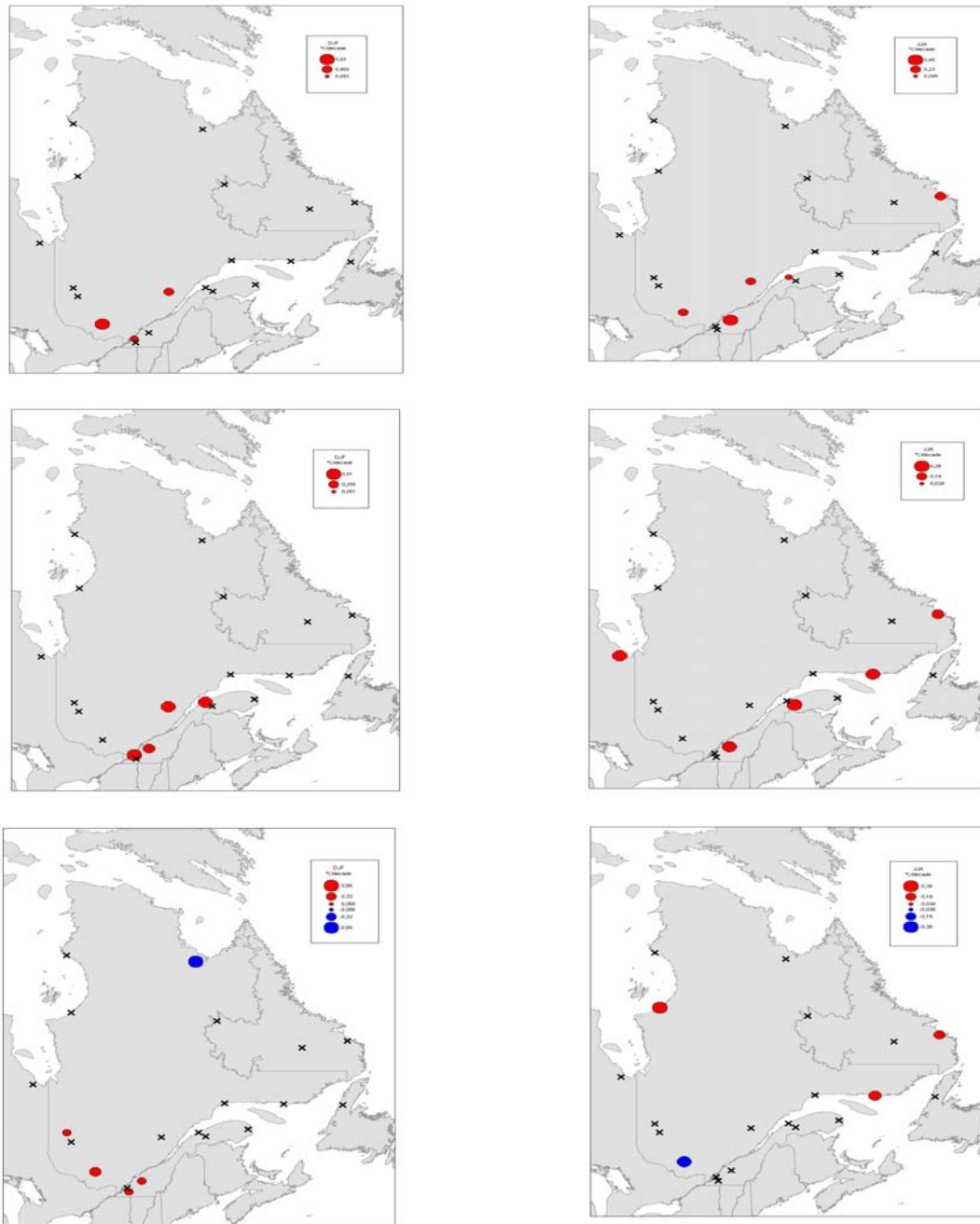


Figure 1.7. Trends for three extreme temperature indices during winter (left) and summer (right). Top panel: Tmin10pb, middle panel: Tmin90pb and low panel: Tmax90pb (Tmax10pb not shown because there is almost no trend). Dots are showing significant trends they are scaled according to the trend magnitude. Red dots indicate an increase, blue dots indicate a decrease. Black crosses correspond to no significant trend at the 95% level.

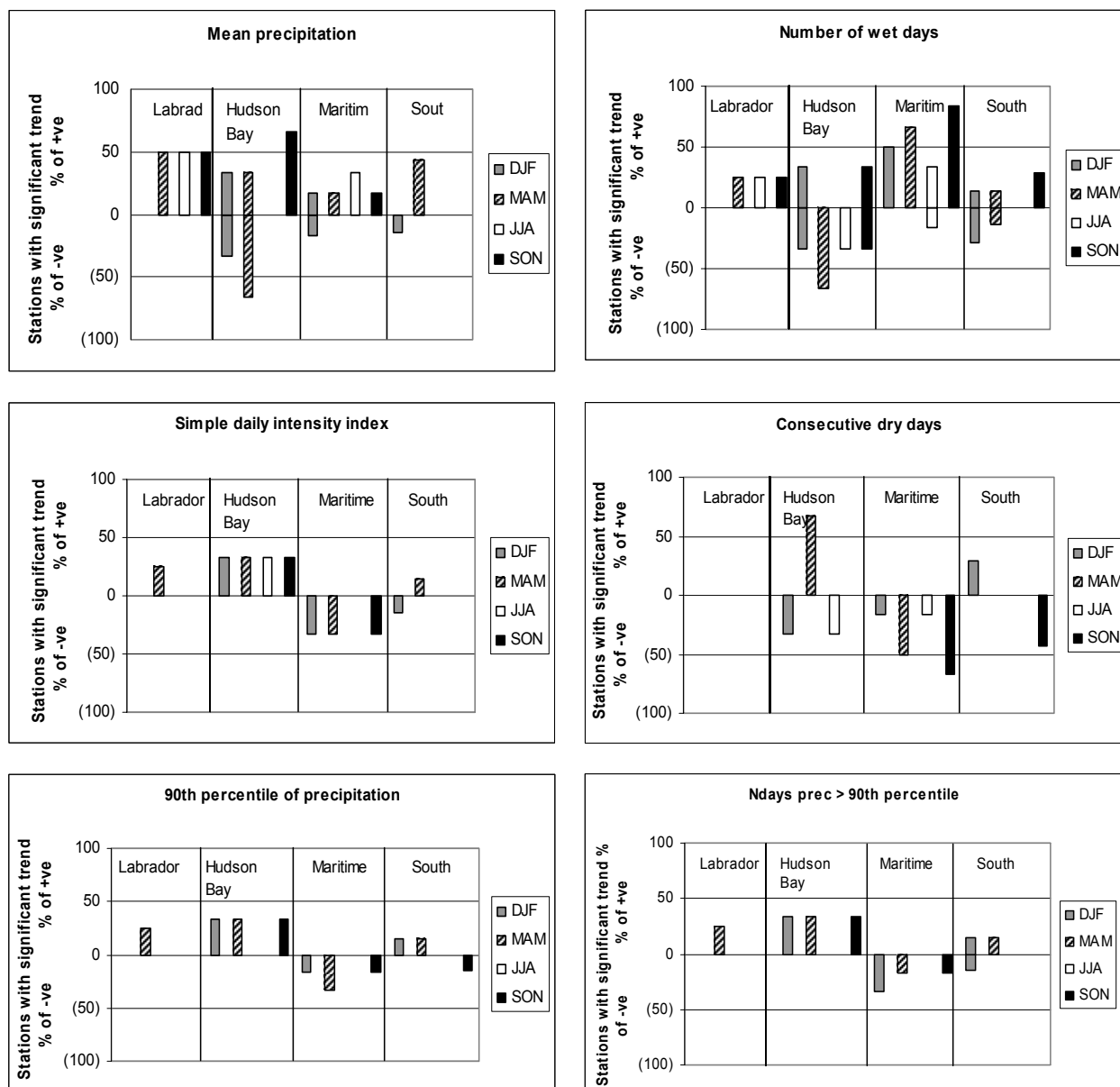


Figure 1.8. Percentage of stations per region having significant trends for precipitation analysis over 1941-2000 (significance at 5% level, Sen slope $\neq$ 0) grouped per season: DJF (winter), MAM (spring), JJA (summer) and SON (fall).

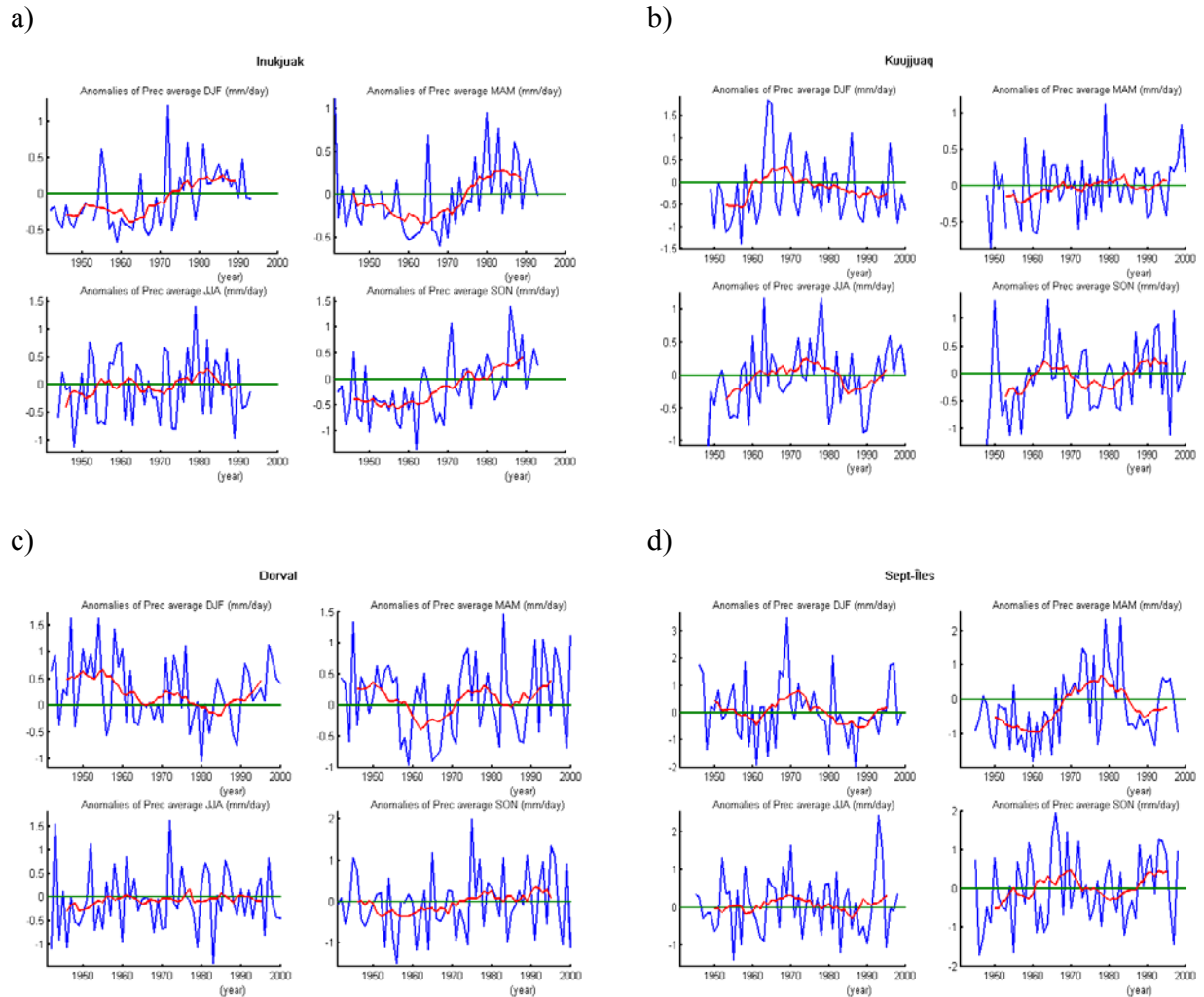


Figure 1.9. Anomalies of average daily precipitation (relative to the 1961-1990 baseline period) on a seasonal basis for (a) Inukjuak, (b) Kuujuaq, (c) Dorval and (d) Sept-Îles. Blue line shows the anomalies for each season, red line shows the 11 years moving average.

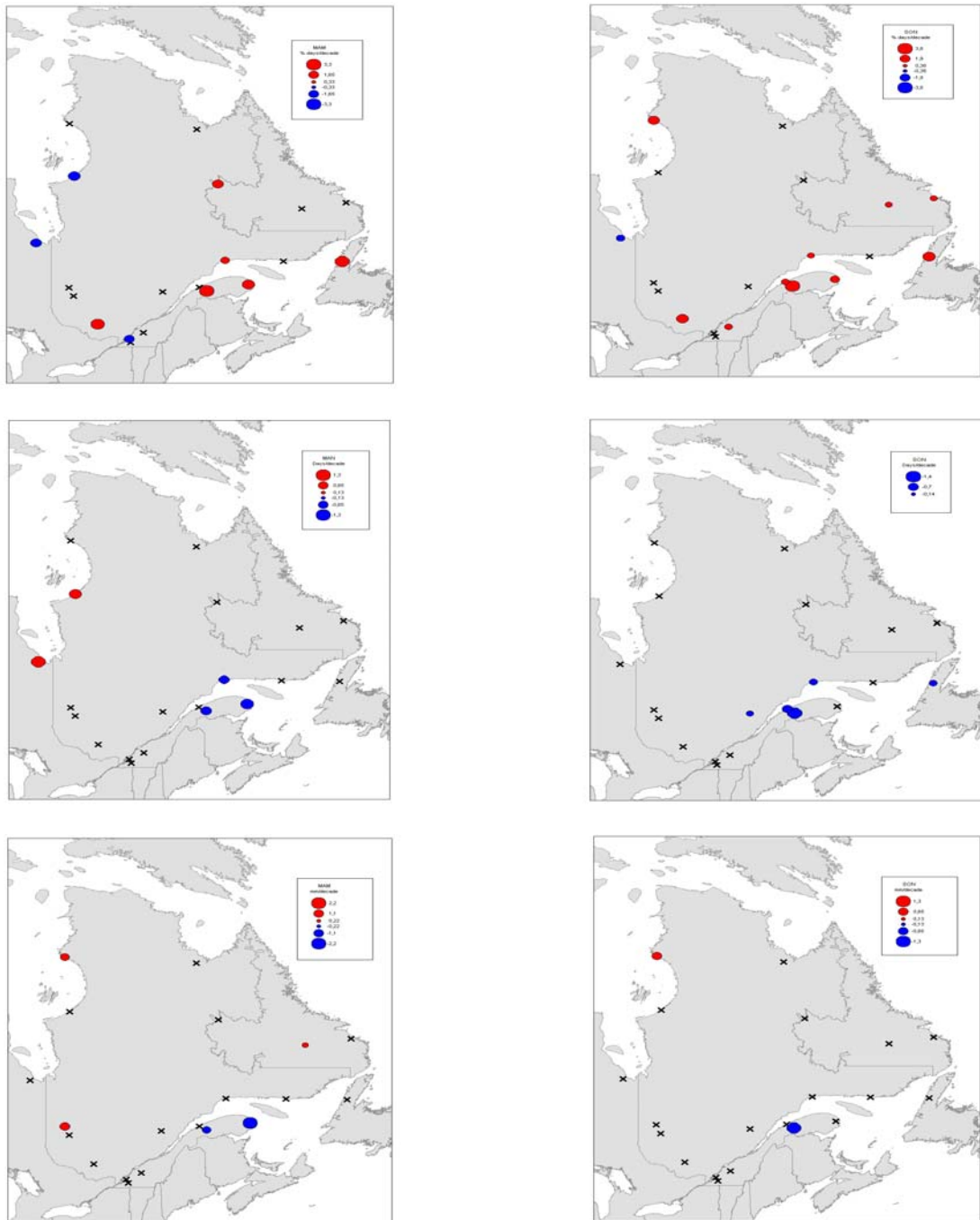


Figure 1.10. Trends for three precipitation indices during spring (left) and fall (right). Top panel: Precip1, middle panel: CDD and low panel: Prec90pc. Dots are showing significant trends they are scaled according to the trend magnitude. Red dots indicate an increase, blue dots indicate a decrease. Black crosses correspond to no significant trend at the 95% level.

Chapter 2

Evaluation of statistical downscaling methods used to reconstruct the recent climate variability based extremes in eastern Canada

Contributed authors

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2.1 Introduction

When dynamically downscaled time series are not available, the statistical downscaling (SD) methods offer an alternative approach to obtain information about climate variability and extremes at high resolution (at point or local scale). As suggested in the general introduction of this report, these methods involve developing quantitative relationships between large-scale atmospheric variables, the predictors, and local surface variables, the predictands. Many types of statistical techniques have been developed and applied for downscaling climate variables, e.g. regression techniques (e.g. SDSM, Wilby *et al.*, 2002; Goodess *et al.*, 2003) and artificial neural networks (e.g. Coulibaly and Dibike, 2004), with the majority of studies concentrating on the downscaling of precipitation since the modelling of this variable is particularly problematic, while reliable precipitation information is vital for many impact studies. A summary of most of the existing downscaling methods can be found in Chapter 10 of the IPCC Third Assessment Report (Giorgi *et al.*, 2001), in Wilby and Wigley (1997), and most recently in Wilby *et al.* (2004). This last reference is a *Guidelines Document for the Use of Climate Scenarios Developed from Statistical Downscaling Methods* that is available from the IPCC Data Distribution Centre (http://ipcc-ddc.cru.uea.ac.uk/guidelines/guidelines_home.html) and offers a well synthesized view of the up-to-date SD techniques and the main recommendations on the key assumptions and limitations applying to their usage for climate scenarios development and impacts and adaptation studies.

In this chapter, we evaluate two main SD techniques under the broad categories “regression models” (i.e. SDSM) and “weather generator” (i.e. LARS-WG). In spite of their general relative strengths and weaknesses put forward in the IPCC TAR WG1 section 6.1 (Giorgi *et al.*, 2001) and in Table 1 of the guidelines prepared by Wilby *et al.* (2004), these two methods have not been evaluated rigorously over a wide range of climatic conditions in Nordic regions such as in Canada. Few studies have been tested these tools for downscaling extremes indices of temperature and precipitation (e.g. Goodess *et al.*, 2003; or see the recent STARDEX project in Europe, <http://www.cru.uea.ac.uk/cru/projects/stardex>). Previous studies concentrated more often on the downscaling of mean climatic conditions, as for example the work of Coulibaly and Dibike (2004) in the Saguenay region, whereas SD models are often calibrated in ways that are not particularly designed to handle extreme events (e.g. Wilby *et al.*, 2004). Our study will help to answer the question arising as to which family of SD methods should be employed for climate scenarios development and our

comparative study should indicate if the skill of SD techniques depends on the chosen application (e.g. according to the skill of the downscaling of different climate indices-based extremes which are used for various applications) and on the regions of interest.

Downscaling should be performed using outputs from a wide range of climate model experiments in order to represent the uncertainties related to different model structures, parameterization schemes, water bodies, etc (e.g. Mearns *et al.*, 2001). Taking into consideration the fact that the predictor variables of different climate models have been prepared in the same way (i.e with a standardization procedure, see in the following section) and that they represent identical atmospheric phenomena, we have repeated downscaling experiments using the same SDSM model and calibration process with NCEP reanalysis fields, with two different sources of driving variables (i.e. predictors) from CGCM1 and HadCM3 daily output for the 1961-1990 baseline period. Because the accuracy of GCMs at reproducing observed climatology and atmospheric variables varies between models and is not uniform across space and time, we tested on various regions in Quebec to evaluate the skill of downscaling variables in different climatic conditions and in using independent driving data sources.

Having developed a set of downscaling results, it is essential to evaluate the added information obtained from downscaling methods compared to raw GCM outputs. The most straightforward test to evaluate this added value is to assess the realism of GCM and downscaled variables relative to observed climatology under present conditions, at the temporal and spatial scale representative of the needs for climate information relative to specific impacts (e.g. Hay *et al.*, 2000), mainly at point or basin scale. For this reason, an evaluation of each GCM grid-box output of climate indices of temperature and precipitation is made in the following sections with comparison with observed meteorological station data and downscaled variables. Before using SD methods, it is essential to have prior knowledge of climate model limitations when screening potential predictors. As suggested in Wilby *et al.* (2004), predictors have to be chosen based on both their relevance to the downscaled predictand and their accurate representation by climate models (e.g. Wilby and Wigley, 2000). Verification of climate model output at the space and time scales of use is a preliminary step to all downscaling exercises because SD methods propagate the uncertainty in the driving fields of the GCM, and do not improve on the base skill of the GCM (e.g. Hewitson and Crane, 2003). As discussed in section 2.3, a verification of the near surface variables as temperature has been realized prior to the present downscaling work.

Therefore, the viability of SD techniques depends critically upon access to high-quality predictands at the space and time of expected use. Only few meteorological stations have data sets that

are 100% complete and/or entirely homogeneous. In our case, we have used as much as possible some quasi-complete dataset of Environment Canada from Vincent and Mekis (2004), which were homogenized and rehabilitated temperature and precipitation (see chapter 1). This dataset has the potential to prevent further sources of uncertainty due to the changes in climate monitoring practices or due to the non-homogeneity of individual site records.

A common approach to SD model validation is to split the records into one portion for model calibration and the remainder for validation. The period of 30-year 1961-1990 is generally used as a baseline (see IPCC, 2001) because it is of sufficient duration to define a reliable climatology and corresponds to the actual highest quality of records in recent years (from homogenized work and other high quality control) after a decline of number of standard climate station density in the 1990s (through automation process). In this study, the period 1961–1975 is used for calibration and the period 1976–1990 for validation.

The preparation of the potential predictors from NCEP reanalyses (used to calibrate the SDSM model) and from the GCMs' output involves data extraction re-gridding and standardisation. This process has been realized in collaboration with the CCIS project team. The re-gridding is needed because the grid-spacing (i.e. horizontal resolution) and/or coordinate systems of re-analysis data sets used for SD model calibration do not generally correspond to the grid-spacing of the GCM outputs. For example, the NCEP/NCAR reanalyses (e.g. Kalnay *et al.*, 1996) have a grid-spacing of 2.5° latitude by 2.5° longitude whereas the CGCM1 has a coarser resolution of around 3.7° latitude by 3.7° longitude and the HadCM3 a resolution of 2.5° latitude by 3.75° longitude. Driving a statistical downscaling model with GCM outputs requires an interpolation procedure of the reanalyses fields used for model calibration to the grid resolution of the GCM atmospheric predictors. Moreover, the standardisation of GCM predictors is widely used prior to SD to reduce biases in the mean and variance of GCM atmospheric fields relative to observations (or reanalysis data; e.g. Wilby *et al.*, 2004). The procedure involves subtraction of the mean and division by the standard deviation of the predictor for a predefined baseline period (i.e. 1961-1990). The NCEP reanalysis predictors were re-gridded to conform to the grid-spacing of CGCM1 and HadCM3, using the weighted average of neighbouring grid-points. Means and standard deviations used for standardisation were derived from the baseline period 1961-1990. The CCIS project has worked on supplying such gridded predictor variables as the once used in this study.

2.2 Statistical downscaling description and methodology

2.2.1 Stochastic weather generator (LARS-WG: Long Ashton Research Station Weather Generator)

One well known weather generator tool is LARS-WG, a stochastic weather generator which can be used for the simulation of weather data at a single site under both current and future climate conditions (Racsko *et al.*, 1991; Semenov *et al.*, 1998; Semenov and Brooks, 1999). This stochastic weather generator is *not* a predictive tool that can be used in weather forecasting, but is simply a means of generating time-series of synthetic weather that is statistically “similar” (i.e. it reproduces some statistical characteristics) to the observations. It is used to produce multiple-year climate change scenarios at the daily time scale which incorporate changes in both mean climate and in climate variability, i.e. taking into account the change in standard deviation (Semenov and Barrow, 1997). The version of LARS-WG used in this study (version 3.0, see Semenov and Barrow, 2002) has been improved compared to the previous version developed by Racsko *et al.* (1991) in order to produce a robust model capable of generating synthetic weather data for a wide range of climates.

LARS-WG is based on representations of conditional precipitation occurrence and wet days amount, temperatures and solar radiation. It utilises semi-empirical distributions for the lengths of wet and dry spells, daily precipitation amount and daily solar radiation. Daily temperatures (maximum and minimum) are considered as stochastic processes with daily means and daily standard deviations conditioned on the wet or dry status of the day. Random seeds control the stochastic component of LARS-WG, giving it the possibility to generate a number of various realizations of the weather time series. Details of the downscaling process of temperature and precipitation with LARS-WG are given in Semenov and Barrow (2002). The process of generating synthetic weather data can be divided into two main steps:

1. The model calibration: the observed station data are analyzed to determine their statistical characteristics. This information is stored in two parameter files which are used in the next generation process;
2. Generation of Synthetic Weather Data: the parameter files derived from observed weather data during the model calibration process are used to generate synthetic weather data combining the same statistical characteristics as the original observed data, with a *scenario* file containing information about changes in mean precipitation amount, the length of wet and dry series, and the changes in mean and the standard deviation of temperature. Hence, synthetic data

corresponding to a particular climate change scenario may also be generated by applying GCM-derived changes in precipitation, temperature and solar radiation to the LARS-WG parameter files. For (1) calibration period, i.e. 1961-1975, and (2) validation period, i.e. 1976-1990, we evaluated the synthetic data generated by LARS-WG in comparison with observed conditions using scenario files containing no changes. Changes used in scenario generation were also extracted from the period 1976-1990 (by reference to the 1961-1975 period) and used thereafter for LARS-WG simulations during the validation period. We have considered the changes in the distribution of the observed data (not shown¹) and the changes in the GCMs from simulated values (i.e. the monthly changes in the different statistical parameters such as wet and dry series duration, precipitation amount and mean and standard deviation of temperature). These changes from the CGCM1 simulations have been used in the scenario files to generate synthetic data for the period 1976-1990 that can be compared with the observed data of the same time period to validate the weather generator.

2.2.2 Regression downscaling model SDSM: Statistical Down-Scaling Model

The regression model used in this study is based on a conceptual representation of empirical relationships between local predictands and the large scale atmospheric variables or predictors. This model, namely the SDSM software developed by Wilby and Dawson (2001) and coded in Visual Basic 6.0., is one of the statistical tools freely available to the broader climate change impacts community. The main strength of this regression based downscaling is its relative ease of application, but it usually explains only a fraction of the observed climate variability (especially in precipitation series; e.g. Wilby and Dawson, 2001). Furthermore, downscaling current or future extreme events using regression methods tends to be problematic since these events, by definition, lay towards the tail ends of the frequency distribution or beyond the range of the calibration data set (Wilby *et al.*, 2004).

The SDSM software reduces the task of statistically downscaling daily weather series into five main processes (see details in Wilby and Dawson, 2001), namely:

¹ We have calculated the changes of the distributions directly from the observed station data (differences in the considered monthly variables between the period 1976-1990 and the previous one 1961-1975) and these changes have been used in the scenario file. We have hence evaluated if changes in the monthly mean and standard deviation reflect changes in the climate.

1. Quality control and data transformation: allows handling of missing and imperfect data for most situations and transforms predictors and/or the predictand prior to model calibration (e.g., logarithm, power, inverse, lag, binomial, etc);
2. Screening of predictor variables: this step identifies empirical relationships between gridded predictors (such as mean sea level pressure) and single site predictands (such as station precipitation). This operation assists the user in the selection of appropriate downscaling predictor variables. It facilitates the examination of seasonal variations in predictor skill;
3. Model calibration: this operation takes a user-specified predictand along with a set of predictor variables, and computes the parameters of multiple linear regression equations. We can select whether monthly, seasonal or annual sub-models are required; whether the process is unconditional or conditional. In an unconditional process a direct link is assumed between the predictors and predictand. In a conditional process, there is an intermediate process between regional forcing and local weather (e.g., local precipitation amounts depend on the occurrence of wet-days, which in turn depend on regional-scale predictors such as humidity and atmospheric pressure);
4. Weather generation: this operation generates ensembles of synthetic daily weather series given near observed (e.g. NCEP reanalysis) atmospheric predictor variables. The procedure enables the verification of calibrated models (using independent data) and the synthesis of artificial time series representing current climate conditions;
5. Scenario generation (GCM predictors): this operation produces ensembles of synthetic daily weather series given atmospheric predictor variables supplied by a GCM (either for current or future climate experiments), rather than observed or reanalysis predictors. The input files for both the weather generation step and the scenario generation need not be the same length as those used to obtain the regression coefficients during the model calibration phase.

As for LARS-WG, the period of 1961-1975 was used for the SDSM model calibration and the remaining 15 year period of 1976-1990 was used to validate the model. The calibration is realized with the NCEP predictors with scrupulous investigation of the most relevant predictor variables chosen to have the best statistical agreement between observed and simulated predictand. We have also systematically analyzed the percentage of explained variance by each predictors/predictand pairs (i.e. predictors selected for the downscaling of minimum and maximum temperature, and those for precipitation amount and occurrence). However, because the links between the predictor variables and

predictand vary both in space and time, the most appropriate combination of predictors has been chosen for each station by considering the skill of the simulated predictand over a twelve month period. In this context, simple procedures such as partial correlation coefficients analysis and backward stepwise regression with an alternative ridge regression process have been developed to automatically screen the most promising predictor variables for downscaling daily precipitation and temperature over the Labrador and the Maritimes region (see Fig. 1.1; e.g. Hessami *et al.*, 2005). This type of automated selection has been compared with the subjective choice of predictors by users of the SDSM software (results not shown here). The simulated variables of temperature and precipitation with these two procedures are found to be comparable revealing that the automated procedure has the similar performance as that of SDSM (see the comparison in Hessami *et al.*, 2005).

For the calibration period, we use two series of predictors from the same NCEP reanalyses, one interpolated on to the CGCM1 grid and the other interpolated on to the HadCM3 grid. This is because, as mentioned in section 2.1, we used these two GCMs outputs to generate synthetic weather data series. The simulation results are analyzed to evaluate the effect of the interpolation procedure as well as to see if the results of both GCMs are consistent with that of the NCEP reanalyses as a reference. After calibration, SDSM is run with information from the same 15-years period to generate 100 series of synthetic daily values for each station for verification purpose (over the 1961-1975 period). The number of realization was varied initially and 100 simulations were chosen as they allow to obtain a range of satisfying results. Indeed greater amount of simulations does not bring about more precision, but the generation of 100 simulations shows a convergence in values, or rather an important decrease of the dispersion in the simulated values as opposed to using 20, 50, or less than 100 synthetic data simulated series.

The model is validated over a separate time window (1976-1990). Hence, the calibrated models are run with information from the period of 1976-1990 to also generate 100 series of synthetic daily values over the remaining 15-year period for each station. The model-generated daily data and observed daily data for each period were analyzed using evaluation indices and statistics criteria that are discussed below. The LARS-WG models also generated 100 series of synthetic values over the same two times windows (1961-1975 and 1976-1990) to be consistent with the results generated by SDSM for comparison purpose.

After calibration and having verified the SDSM model performance using NCEP predictor variables for each station and predictands, it is then necessary to generate similar ensembles of synthetic daily weather series using predictor variables obtained from the CGCM1 and HadCM3

models that simulate the present climate (e.g. for the 1961-1990 period). Provided that the predictor variables of these two different climate models have been standardized in the same way as NCEP reanalyses and that they represent identical atmospheric phenomena, we repeated downscaling experiments to generate synthetic daily series with SDSM over the complete period 1961-1990 and compared with those using NCEP reanalyses. Hence, we evaluated if the performance of downscaling results are improved and/or degraded when predictors are taken from GCMs rather than NCEP.

In addition to implementing SDSM in this study, a new regression-based tool was developed, called the “Automatic Statistical Downscaling” (ASD) model. In ASD, the choice of predictors is based on backward stepwise regression and partial correlation coefficients. This approach allows for a fully automated predictor selection process.

Regression-based downscaling methods such as SDSM use multiple linear regressions, however the non-orthogonality of the predictor vectors can make the least squares estimates of the regression coefficients unstable. To alleviate the problems associated with correlated predictors, the ASD model gives the possibility to use the ridge regression. Ridge regression allows the estimation of biased of regression coefficients. These biased estimators are more robust than ordinary least squares estimates for small perturbation in the data (e.g. estimators are less affected by variations in the estimated data). ASD was tested on all stations in Region 2 and 4. A comparison of the two approaches showed that neither of the models outperformed the other. However, using different statistical downscaling models and multi-sources GCMs data can provide a better range of uncertainty for climatic and statistical indices. Detailed results of this comparative study can be found in Hessami *et al.* (2005).

2.2.3 Models evaluation criteria for the downscaling of daily precipitation and temperature

Daily total precipitation (water equivalent) as well as daily minimum, maximum and mean temperatures are the predictand variables analysed from the downscaling experiments, in terms of their basic distribution (i.e. from monthly mean and standard deviation downscaling results) and of their variability (in term of occurrence, magnitude and frequency of selected indices given in Table 2.1). This analysis is performed using climatic indices as presented in Chapter 1. All downscaling results are evaluated from both LARS-WG and SDSM and they are compared to each observed station data and compiled for each of the four regions of interest (see Fig. 1.1). The series downscaled from the NCEP

and the GCMs predictors provide an opportunity to evaluate the performance of the SDSM models in comparison with the observed regional series and those obtained from LARS-WG. Each series is combined into monthly for mean and standard deviation values, and seasonal or annual values according to the related climate indices (see Table 2.1 for the indices used to evaluate the SD results).

<i>Indices</i>	<i>Definition</i>	<i>Unit</i>	<i>Time Scale</i>
Prcp1	Percentage of wet days (Threshold $\geq$ 1 mm)	%	season
SDII	Mean precipitation amount at wet days	mm	season
CDD	Maximum number of consecutive dry days	days	season
R3d	Maximum 3-days precipitation total	mm	season
Prec90pc	90th percentile of rain day amount	mm	season
DTR	Mean of diurnal temperature range	°C	season
FSLc	Frost season length: Tmin<0°C more than 5 days and Tmin>0°C more than 5 days	days	year
GSL	Growing season length: Tmean>5°C more than 5 days and Tmean<5°C more than 5 days	days	year
FrTh	Days with freeze and thaw cycle (Tmax>0°C, Tmin<0°C)	days	month
Tmax90pb	90th percentile of daily Tmax	°C	season
Tmin10pb	10th percentile of daily Tmin	°C	season

Table 2.1 - Precipitation and temperature indices used to evaluate the performance of statistical downscaling models (issued from the complete list of climate indices given in Table 1.2 and analyzed in Chapter 1).

a) Statistical test criteria

Two statistical criteria such as Root Mean Square Error and Mean Absolute Error of the indices given in Table 2.1 and of basic diagnostics as monthly mean and standard deviation are used to evaluate the performances of the models, i.e. the suitability of the fitted or simulated distributions relative to the given set of observations, as defined:

- The Root mean square error (RMSE) is computed over monthly, seasonal or annual values (according to the temporal resolution of the considered climate variables, as defined in Table 2.1) from observed and simulated climates and averaged over the 100 simulations, as follows:

$$RMSE = \sqrt{\frac{1}{n} \sum_{i=1}^n (X_{Obs,i} - X_{Est,i})^2}$$

where: $X_{Obs,i}$: the i^{th} observed value (monthly, seasonal or yearly accumulated values),
 $X_{Est,i}$: the i^{th} estimated/simulated value (monthly, seasonal or yearly values),
 n : the number of data.

A relative RMSE divided by the climatological standard deviation of each station (and for each basic variable and climate index given in Table 2.1) has been also calculated and given in Appendices E and F. This latter corresponds to the RMSE obtained when a series is replaced by its long-term mean. This allows the comparison of the results between seasons and regions in considering the locally inter-annual variability of each variable and climate index over the 1961-1990 climatological period.

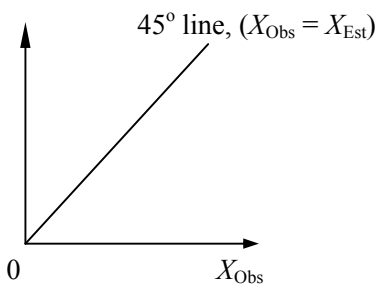
- The Mean Absolute Error (MAE) which computes the mean of the systematic absolute differences between the observed and simulated values (also averaged over 100 simulations), is a measure of bias:

$$MAE = \frac{1}{n} \sum_{i=1}^n |X_{Obs,i} - X_{Est,i}|$$

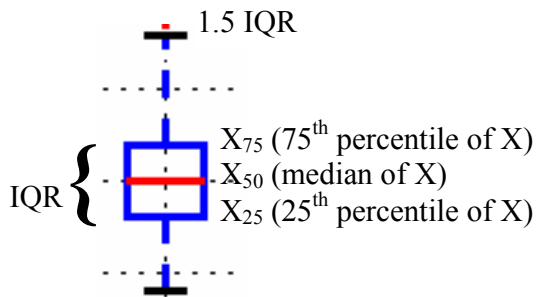
b) Graphical displays

Some graphs and histograms are also used to visually evaluate the downscaling results. Graphical techniques as Q-Q plot and box plot were used to visually assess the adequacy of the simulated values. Quantile-quantile (Q-Q) plots are used as means of comparing observed data to a theoretical or computed distribution. To construct the Q-Q plot, each $X_{Obs,i}$ is paired with $X_{Est,i}$ which is computed from the assumed cumulative distribution function (CDF). The set of points $(X_{Obs,i}, X_{Est,i})$ is plotted on normal graph with a 1:1 straight line extending from the origin. In theory, all points should fit on the 1:1 line (i.e. along the 45° line as exemplified below) if the assumed CDF is the true distribution. The Q-Q plots were only performed for a few stations and climatic variables to further analyse the adequacy of the simulated results, and the overall fit of the simulated distributions.

• Q-Q plot:



- Box-plot:



where IQR corresponds to the Inter-Quantile Range.

The classical box plots were used to assess the performance of each distribution represented by 100 simulations (from LARS-WG and SDSM) in estimating the observed distribution for all basic variables and climatic indices, both over the calibration (1961-1975) and the validation (1976-1990) periods with NCEP predictors (for SDSM model). Also, box plot analysis is performed over the entire 30 year period (1961-1990) to evaluate the adequacy of the downscaled results in using GCMs predictors, and to compare the raw GCMs outputs of precipitation and temperature variables with observed values as a reference. The size of the box indicates the spread around the median. For simulated values, large boxes or outliers imply high uncertainty in the reproduced samples, i.e. if the observed values fall outside the box constructed from the computed values, then the modeled distribution has overestimated or underestimated the true values. This gives us a useful indication around the scattering of each simulated series compared to the observed ones, and provides a better estimation of the uncertainty around the mean values computed by averaging all 100 simulations. As we will show in the following section, the selection of the appropriate statistical models depends mainly on the features of climatic conditions at each site and must be evaluated with many simulated distributions to find the most suitable model that provides accurate extreme temperature and precipitation estimates. Hence, the box and Q-Q plots complete the analysis with statistical test criteria suggested above to further our assessment of the suitability of the model results.

2.3 Downscaling models results

In the following, we first discuss and compare the results over the calibration period (1961-1975)

and then over the validation period (1976-1990), using NCEP predictors as input atmospheric variables for SDSM. We also evaluate the results over the complete 1961-1990 period when using GCMs predictors in SDSM. These results are also compared with raw GCMs temperature and precipitation, to evaluate the new insight that has been gained through the use of downscaling methods and to analyze the typical biases of the two GCMs (HadCM3 and CGCM1) over all stations and regions.

GCM verification for the predictor of interest has been undertaken as a first step with near surface temperature from CGCM1 and HadCM3 (i.e. diagnostic values at 2 or 1.5 m), as this variable is on the list of regular potential predictors. We have found that GCM grid-box values of this air temperature can not be used as predictor to derive station-scale values of the same variable (e.g. local surface temperature) to prevent the introduction of strong biases in statistical downscaling process from the host GCM (see in the following section), whereas the “ideal” SD predictor variable must be strongly correlated with the target variable based upon physically sensible linkages or with “physical sense”. In fact, near surface air temperature issued from one of two host GCMs used as an input in SDSM appears to be strongly affected by problems with the simplified land surface scheme model (i.e. in using a simplified bucket model with one single layer, a problem largely documented in recent GCMs evaluation, e.g. Chen *et al.*, 1997; Schlosser *et al.*, 2000), especially in early winter and in early spring during the period of freeze and thaw cycles of the soil, respectively. During that period, the surface temperature of the soil in the climate model is closed to 0°C, which biases the low air temperature of the model (see Verseghy *et al.*, 1993; Gachon, 1999, p. 103). Hence, we have excluded this last variable as potential predictors to downscale the temperature (see the list of chosen predictors given in section 2.3.1). These biases are illustrated in the following section with the box plots of monthly mean values of GCMs temperature.

In the following discussion, temperature and precipitation results are presented in two different sub-sections, as in Chapter 1. As shown in Table 2.2, the amount of explained variance (R^2) for the calibration period (using NCEP predictors interpolated on the CGCM1 and HadCM3 grids) strongly varies between 0.10 to 0.32 for precipitation and between 0.63 to 0.96 for temperature. These relatively low explained variances for precipitation underline the difficulty in downscaling this variable (compared to temperature), as also suggested in other studies (e.g. Wilby and Wigley, 2000; Wilby *et al.*, 2003). It should be noted that ASD computes R^2 values by first calculating 12 monthly values (e.g. means for temperature and totals for precipitation) and uses these monthly values to calculate the explained variance. This approach is somewhat different than the one used for SDSM and comparisons may be limited because of this difference. The following two sub-sections present first the results of

downscaling of the basic variables with mean and standard deviation values at a monthly scale, and thereafter the analysis of the simulated climatic extremes indices as defined in Table 2.1.

For the graphical display of the results, four stations (i.e. Inukjuak in region 1, Kuujjuaq in region 2, Montreal-Dorval in region 3, and Sept-Îles in region 4) are used as representative examples as in Chapter 1. The tables of RMSE and MAE summarize the errors over all stations for the entire 1961-1990 period. Finally, histograms of RMSE are also produced to summarize the results over all 4 regions and over the complete 1961-1990 period, using the mean values of RMSE calculated from all stations located in each region as defined in Figure 1.1.

2.3.1 Downscaling temperature

As suggested in Table 2.2, the most commonly used predictors for the downscaling of temperature (both for minimum, maximum and mean temperature) are the mean sea level pressure, the vorticity at the surface, 850 and 500 hPa, and the 850 hPa geopotential height. As mentioned earlier, predictors for all stations of regions 2 and 4 are selected using ASD developed by Hessami *et al.* (2005) (see Table 2.2). As all series of NCEP predictors have been interpolated on two different GCM grids (CGCM1 and HadCM3) and this interpolation process can generate slight differences in the predictor values of the nearest NCEP grid box location of each station, the automated selection can provide different sets of NCEP predictor variables for the downscaling of the same predictand variables (for example, predictor selection for the Cartwright station is different; see Table 2.2 a and b). For all stations located in regions 1 and 3, the selection is performed by the subjective choice of the user through the classical SDSM tool (e.g. Wilby and Dawson, 2001). Thus, the choice of predictors remains the same for the same predictand and station, irrespective of NCEP interpolated fields over HadCM3 or CGCM1 grid.

a) Results for temperature: monthly mean and standard deviation

- **Calibration (1961-1975) and the validation (1976-1990) periods: results from LARS-WG and SDSM using only NCEP predictors**

As shown in the box plots of Figures 2.1 to 2.4 for the monthly mean values of the four stations

(Inukjuak, Kuujjuaq, Montréal-Dorval, and Sept-Îles), the performance of the SDSM model using NCEP predictors is almost as good over the validation period as it is over the calibration period, with no systematic increase in the number of outliers compared to observed ones. During certain months where substantial changes are observed between the two periods (i.e. net difference in the median or interquantile range values from 1961-1975 to 1976-1990), the results are more biased over the validation period especially in the north, during spring and summer months (see for example, median values at the Kuujjuaq station in April and June, Figure 2.2). As suggested in the box plots from the SDSM simulations, the month of September reveals a systematic overestimation of the upper tails of the temperature distribution (both for minimum, maximum and mean values), and the same pattern is observed in December in the lower tails (see results 2 and 3 of Figures 2.1 to 2.4). But in general, the results with SDSM using NCEP predictors are in good agreement with observations both for the median and in the interquantile range values. LARS-WG (box plot #4 in the figures), on the other hand, tends to systematically produce singular values both in the upper and lower tails of the temperature distribution and the results show less ability than those of SDSM for all monthly mean temperature variables, both for the calibration and the validation periods (see in the subsequent section more quantitative assessment in the RMSE and MAE).

Standard deviations of temperature (Figures 2.5 to 2.8) were generally well reproduced by SDSM using NCEP predictors (with typical errors of less than 1.5°C for the median and IQR values). There were a few overestimations for the highest standard deviations (e.g. $>6^{\circ}\text{C}$). The standard deviations of minimum and maximum temperature are well simulated, except for minimum values in winter months which show an underestimation of the IQR in the Labrador sector (see the validation period 1976-1990 at Kuujjuaq from January to March in Figure 2.6). In general, the results are almost as good over the validation period as for the calibration period, and although LARS-WG performs relatively well, it tends to overestimate the variability with many singular higher values.

- **Over the complete period (1961-1990): results from SDSM using GCMs' predictors**

Box plots from figures 2.9 to 2.12 show the downscaled temperatures (means and standard deviation) from the entire period (1961-1990) with SDSM using GCM predictors and the raw data information from CGCM1 and HadCM3 outputs. In general, the downscaling of temperature improves the raw GCMs information over all months, especially in the south and in the maritime regions. However, the biases in simulated distribution of temperature are more important in the Hudson Bay region and during the winter months (i.e. from November to March) compared to other regions and

seasons, both in minimum and in maximum temperatures. In that region and season, the improvement of downscaling results compared to raw GCMs data is less obvious (Figure 2.9). This difference may be the consequence of some discrepancies in the atmospheric circulation fields from the two GCMs in this sector (not revealed using NCEP predictors). Previous work has shown that the regional key atmospheric factors responsible for the main characteristics of the temperature regime are not well simulated by the global models. For instance, the effect of Hudson Bay oceanic conditions on the climate in the adjacent land areas in the end of fall, early winter is poorly reproduced. Results of the present study also suggest that although the near surface temperature of the CGCM1 model is generally more biased than the HadCM3 field (see Figure 2.9 and as suggested before, the biases around 0°C during the freezing and thawing conditions in the end of fall early spring as shown in all Figures 2.19 to 2.12), the downscaling of temperature with SDSM using CGCM1 predictors do not necessarily imply poor performance compared to results with HadCM3. The latter combination of model and predictors provides strongly biased results (i.e. the atmospheric predictors of the HadCM3 model seems to be more biased in winter than those simulated by the CGCM1 model near the Hudson Bay region). Furthermore, the use of GCMs predictors with SDSM give results that are less similar to observations than those obtained using NCEP predictors and the overall temperature distribution is more poorly reproduced than when using LARS-WG for both periods.

As shown also in Figures 2.9 to 2.12, the improvement in the downscaling of the standard deviation of temperature is more effective in the end of fall and early winter. As suggested by the distribution of the raw GCMs values, whereas the beginning of the frost season is poorly reproduced in the two GCMs output especially in the Hudson Bay region, the downscaled IQR and the median values for both minimum, maximum and mean temperatures are relatively well reconstructed. Figure 1.2 from the observed data shows that the higher intra-monthly variability of the winter months for all stations (December to March) is better captured using the downscaling results. However, SDSM results using GCM predictors show a poorer performance than when using NCEP predictors, especially in winter months and in the north (see Figures 2.5 and 2.6).

Tables 2.3, 2.4 and 2.5 show the RMSE of monthly mean temperature (minimum, maximum and mean, respectively) for each month and for all stations. The RMSE are more important in the north (Hudson Bay and Labrador regions) than in the south (South and Maritime regions), and in winter months. Also, RMSE values seem to be higher for minimum temperature than for maximum and mean temperatures. In general, as suggested from the box plots analysis, SDSM results using NCEP

predictors give lower RMSE than those obtained with LARS-WG and with SDSM using GCMs predictors (between 0.6 to 2°C, between 1.3 to 5.7°C, and between 1.3 to 10.6°C, respectively). The range of RMSE is very large and seasonally distributed, from maximum values in winter and early spring (i.e. through December to April), and minimum during the rest of the year. The two series of GCM raw temperature data appears to have the strongest RMSE during winter and around Hudson Bay, which confirms the results shown in the box plots. In spite of the obvious improvement, the downscaled temperatures remain strongly biased during that season and for that region.

As shown in Tables 2.3. to 2.5, the MAE over all stations is quite similar to the RMSE in general, suggesting that the simulated values (both the downscaled results and the raw GCMs output) are mainly affected by a systematic bias, as confirmed in the box plots analysis (see Figures 2.9 to 2.12), and to a lesser proportion by an overestimation of temperature variability. When using GCM predictors, the highest differences between MAE and RMSE appears in winter and with the HadCM3 output variables in the Hudson Bay region (especially from December to March), as suggested by the box plots analysis showing, systematically, under or overestimation of the interquantile range and the extremes distribution (see Figure 2.9 at Inukjuak). As for the RMSE, the MAE is generally higher for minimum temperature compared to maximum or mean temperature.

The RMSE of the standard deviation of monthly mean temperatures, shown in Tables 2.6, 2.7 and 2.8 (for minimum, maximum and mean temperatures, respectively), confirms also that the errors in simulated variability are more important in winter and for the minimum temperature. However, all downscaling results using GCM predictors suggest a decrease in RMSE in all seasons and stations compared to GCM data, suggesting that the use of SD models improves markedly the estimation of temperature variability. The relatively low values of RMSE obtained from May to December (generally below 2°C) suggest that the major characteristics of the minimum and the maximum temperature cycle are well captured over the majority of the year. As shown also in Tables 2.6 to 2.8, the MAE suggests a similar pattern as RMSE with quite common values.

- **Synthesis of the results over all 4 regions**

In this section, as RMSE are more often quite similar to MAE, only histograms of RMSE over all regions are shown. Figures 2.13 to 2.15 show RMSE of simulated monthly mean temperature spatially averaged over each of the four regions, and appendix E gives the relative RMSE for monthly temperature (minimum, maximum and mean values). The lowest values are obtained during the

months of April to November, with RMSE values most commonly below 4°C. These histograms also confirm that the Hudson Bay and the winter season exhibit the worst results (see Figure E-1, appendix E), whilst the RMSE decreases from the Labrador to the Maritime and to the South regions, except in December and January months in this latter region (see Figure E-1, appendix E). The downscaled maximum temperature appears to have generally more often a lower RMSE than minimum temperature over all months (as also confirmed in the relative RMSE shown in Figures E-1 and E-2, appendix E). The results of the downscaling with CGCM1 driven predictors are often better than those obtained with HadCM3, both for minimum, maximum and mean temperatures. The RMSE results obtained with LARS-WG are generally similar to that obtained with SDSM using GCMs predictors, except during the winter season where LARS-WG performs better than SDSM.

The Figures 2.16 to 2.18, show the histograms of the RMSE of monthly standard deviation averaged over each of the four regions. These results confirm that errors in the simulated standard deviation of the minimum temperature are higher from January to March and lower during the rest of the year. For maximum temperature, the RMSE histograms suggest that the models perform better for downscaling intra-monthly variability than minimum temperature, except from February to April in Hudson Bay (as shown also by stations in Table 2.6). In this last region, SDSM results using HadCM3 predictors do not improve the raw GCM temperature variability, and an increase in RMSE values is observed. This is also true for maximum and mean temperature as shown in Figures 2.17 and 2.18 and for the majority of stations in Tables 2.7 and 2.8. However, the downscaling results improve the raw GCM information for all others months and temperature variables (both minimum, maximum and mean values), and the RMSE is generally below 2°C.

b) Results of climate indices of temperature: seasonal and annual scales

- **Calibration (1961-1975) and the validation (1976-1990) periods: results from LARS-WG and SDSM using only NCEP predictors**

FSL, GSL and Fr/Th indices:

The results of the two annual indices concerning the growing season length and the frost season length shown in Figures 2.19 to 2.22 reveal a relatively good agreement with observed values, with similar performance between calibration and validation periods. The distribution of the two indices is

well reproduced up to the inter-quantile range, but upper and lower whiskers (10th and 90th percentiles) are exaggerated by all three downscaling approaches. Results of the frost season length indices obtained with LARS-WG in Kuujuaq and Sept-Îles are strongly biased with an important underestimation of the observed values and a shifting of all the distribution (see also the relative RMSE in Labrador region in Appendix E, Figure E-2). In general, LARS-WG tends to generate a greater number of outliers for GSL and FSL indices than SDSM. Both SDSM and LARS-WG systematically overestimate the variability of these indices.

The simulated distributions of the freeze and thaw cycle shown in Figures 2.19 to 2.22 are also similar to those of the observed data, except during the spring and fall (i.e. in March-April and September-October according to the region) where simulated values over- and underestimated the true values. As revealed also in the observed values from 1961-1975 to 1976-1990, the temporal changes in these climate indices are important and may induce some discrepancies in the results over the validation period, due to the non-stationary state of this index.

Extreme and DTR indices:

Among all stations, temperature extremes (both the 10th and 90th percentiles of minimum and maximum temperature, respectively) shown in Figures 2.23 to 2.26 are well simulated in general, both for SDSM and LARS-WG. In both the North and Maritimes regions, a great number of outliers appear in winter and fall for minimum and maximum temperature extremes. For the Montreal station, the outliers appear mainly in spring and summer for the minimum extremes temperature. In the north, the cold extremes temperature distributions vary substantially from the calibration to the validation periods in all seasons, as shown in the differences between 1961-1975 and 1976-1990 at Inukjuak (e.g. Figure 2.23) and at Kuujuaq (Figure 2.24). This non-stationary behaviour in extremes minimum temperature is also one of the key factors responsible for the decrease in the performance of the downscaling results over the validation period. In general, SDSM results using NCEP predictors exhibit a better simulated distribution in minimum and maximum extremes temperature than those obtained with LARS-WG where a greater than observed number of outliers are shown. The seasonal DTR is generally well simulated for all stations, except with LARS-WG for which IQR and variability in low and high values are overestimated compared to observed data.

- **Over the complete period (1961-1990): results from SDSM using GCMs' predictors**

Surprisingly, as shown in Figures 2.27 to 2.30, SDSM results for climate indices using GCM predictors exhibit similar good performance with SDSM as when NCEP predictors are used, except for the frost season length in Inukjuak for which the results are more biased than for other regions, especially when CGCM1 predictors are used. The median values and IQR are generally well reproduced in spite of systematic overestimation of variability and a greater than observed number of outliers for GSL and FSL indices. The results for the freeze and thaw cycle vary considerably between months and regions, with generally good performance in the South during winter (through December to March in Montreal-Dorval, see Figure 2.29), and in the North during the fall. For this index, the results for the months of December and March reveal poor performance in the North. Extreme indices of minimum and maximum temperature are well reproduced and their improvements compared to raw GCM outputs are evident, except at Inukjuak where bad results are obtained in winter, spring and summer for Tmin10pb, and in winter and spring for Tmax90pb indices (Figure 2.27). For the DTR, summer results exhibit the best results in all stations with higher biases in winter.

RMSE and MAE of Fr/Th, DTR, FSL and GSL, Tmin10pb, and Tmax90pb are reported in Tables 2.9 to 2.13 for all stations. These calculated errors reveal that the downscaling methods overestimate the maximum temperature in winter (both for the mean and 90th percentile values). Furthermore, there is a bias which results in the artificial creation of a Freeze and Thaw cycle from January to March in the Hudson Bay region when in fact, no such events were observed. This is the reason for the high values of RMSE and MAE in this region with no real improvement during these months compared to raw GCM outputs. For the rest of the year, the downscaling models appear to better reproduce these indices. 11The RMSE and MAE of DTR are generally low with higher values in winter as suggested by the box plots analysis. Also, as confirmed in Table 2.10, those values downscaled from GCM predictors are closer to those downscaled from NCEP, especially during the spring, summer and fall and in the South. For the FSL and GSL indices, typical biases are closed to 20 days suggesting an important improvement compared to raw GCMs data, especially for the FSL index and in the Labrador, Maritimes and South regions (as suggested in Table 2.10). The downscaling of extremes minimum and maximum temperature shown in Tables 2.12 and 2.13 suggests a large decrease in RMSE and MAE over the large majority of stations, in particular in the South and maritimes regions. Some results with SDSM using GCM predictors exhibit quite different performances in the North, especially in winter and spring, suggesting a high uncertainty in the downscaling of the extremes temperature according to

the GCM input information and in northern regions. As for monthly mean temperature, MAE are closer to RMSE values confirming that the downscaling results of climate indices are systematically more biased than affected by high variance of these temperature variables, as for the monthly mean values.

- **Synthesis of the results over all 4 regions**

To help to compare results between regions, appendix E gives the relative RMSE for the climate indices of temperature for GCMs-driven SDSM and LARS-WG and for each month and/or season, according to the time scale definition of each index given in Table 2.1. As shown in Figures 2.31 to 2.33, the RMSE results averaged over all the 4 regions confirm that the Fr/Th cycle are well simulated for low observed values. Higher RMSE appear in spring and in fall for all regions, with a shift in the performance of the downscaling methods according to the delay of the frost season from Northern to Southern regions. As shown in Figure 2.31, LARS-WG produced very similar RMSE as those obtained with SDSM using GCM predictors, except in August where LARS-WG obtains the worst results in Hudson Bay (see the relative RMSE in Appendix E, Figure E-4). As shown in Figure 2.32, the DTR index is generally well downscaled except in the Labrador region with SDSM using CGCM1 predictors where results are more biased than those from the raw GCM data (see also the relative RMSE for winter in appendix E, Figure E-5). The strong majority of the results exhibit RMSE less than 2°C, with similar values in all SDSM results, no matter which predictors are used. As suggested previously, the FSL index is better downscaled than the GSL one. In all cases, these indices are highly sensitive to the performance of the simulated temperature regime both for maximum and minimum values. The difficulty of both CGCM1 and HadCM3 to adequately simulate the temperature regime induces some strong biases in all seasons and regions as suggested in all histograms from the raw GCMs values (Figure 2.32). Surprisingly, although the minimum and maximum temperatures are simulated independently in all SD methods, this does not induce any particular high RMSE in the DTR results, except in Labrador region in winter as shown for CGCM1-driven SDSM in Figure 2.32 and in Figure E-5 (Appendix E). It should be noted that we have analyzed for all stations the percentage of daily values where simulated minimum temperature is greater than the maximum and this is generally below 10% (not shown).

As shown in Figure 2.33, the RMSE of the downscaling of extremes minimum and maximum temperature is more often generally low with values below 3°C, except near the Hudson Bay in winter and spring for Tmin10p, and in winter for Tmax90p. The extremes of maximum temperature are generally less biased compared to those for minimum temperature, in particular during winter, as

previously mentioned for monthly mean temperatures and as confirmed in the relative RMSE shown in Figure E-5 (Appendix E). The summer results reveal the lower RMSE and confirm the relative skill of the SD methods to downscale extremes cold and warm periods in this season, as suggested in the box plots. However, as shown in appendix E (Figure E-5), the relative RMSE over this season is high in Hudson bay region, and in general, the weakest relative RMSE appears in fall over mainly all regions, both for Tmax90p and for Tmin10p.

2.3.2 Downscaling precipitation

As suggested in Table 2.2, the most commonly used predictors for the downscaling of precipitation are surface zonal velocity, meridional velocity at 850 hPa, surface vorticity, geopotential height and specific humidity at 500 hPa. As suggested previously, the explained variance is very low compared to temperature, and decreases generally from South (i.e. R^2 maximum value of 0.32 at Montreal-Dorval) to North (i.e. R^2 minimum value of 0.10 at Inukjuak, see Table 2.2). As a first step, this reveals the more stochastic nature of precipitation occurrence and magnitude and the difficulty to capture the characteristics of the variability of the precipitation regime in the downscaling process.

a) Results of basic variables of precipitation: monthly mean and standard deviation

- **Calibration (1961-1975) and the validation (1976-1990) periods : results from LARS-WG and SDSM using only NCEP predictors**

Figures 2.34 to 2.37, SD models are able to reproduce in general the median characteristics of monthly mean precipitation as its standard deviation. However, IQR and higher percentiles are generally underestimated. All SD models produce many more outliers than observed series, especially with LARS-WG. The distribution of the observed values for almost all stations, show changes in the precipitation regime from the calibration period to the validation period (i.e. 1976-1990). This shift induces some increase in the discrepancies between observations and SDSM results over the second period compared to previous one, with a decrease performance in the simulation of median values especially during the fall. The use of the regression fitted during the calibration period is inherently based on the hypothesis of stationary of the regime, which implies that the statistical relation between

variables remain constant. In a non-stationary regime, this condition is difficult to uphold. In spite of these limitations, the main features of the monthly mean precipitation is well reproduced with SDSM using NCEP predictors over all stations and throughout the year. The results do not suggest a variable performance of the downscaling of mean precipitation between particular regions and/or months, as noted for the mean temperature, which showed stronger biases have appeared in the North (especially around Hudson Bay) and in winter months.

- **Over the complete period (1961-1990): results from SDSM using GCMs' predictors**

As shown in Figures 2.38 to 2.39, the results over the entire period (1961-1990) with SDSM using GCM predictors reveal an equivalent good performance as with NCEP predictors over the majority of the year, except in winter months over Maritimes and Northern stations. The skill to downscale the median values over the rest of the year is apparent with an improvement compared to raw GCM data. But as with NCEP predictors, the IQR is generally underestimated. Many outliers appear also over the majority of the year, especially in maritime station as Sept Îles where both the observed mean daily quantity and variability of precipitation are higher than elsewhere and the scattering in the simulated values is excessive (see Figure 2.39). In that region, the results seem to be also systematically more biased, especially during fall and winter months and both for the mean and standard deviation values as shown in Tables 2.14 and 2.15. Surprisingly in the south, the downscaling results reproduce relatively well the observations both in the median and in IQR values throughout the year, and the improvement of the raw GCMs data of precipitation is more obvious than in other stations (see Figure 2.39 and Table 2.14).

Strong differences between the two GCMs in simulating the precipitation regime (from the raw data) were found around Hudson Bay and the Strait. In that region, downscaling results in winter vary also between GCMs driven series (Figure 2.38), as for the downscaling results of temperature. These differences are less obvious in other regions and over the majority of the year, the downscaling results are quite similar with the two GCM predictors.

As shown in Tables 2.14 and 2.15, the higher RMSE and MAE appear in summer months both in mean and standard deviation values over all stations, as these months are characterized more by mesoscale system than synoptic one, including convective precipitation events not well simulated by GCMs. Nevertheless, over all stations in the South, the improvement in summer mean precipitation downscaling is evident compared to raw GCM fields, with quite similar results to those obtained when

using of NCEP predictors. Therefore, the fall and winter months reveal also some large discrepancies for all Maritime stations, as exemplified by the box plots analysis at Sept Îles. As for temperature, the MAE are slightly smaller than RMSE in general, with no strong differences between the two, suggesting that the errors are more linked to systematic biases than to the problem in variability and/or in extreme simulated values.

- **Synthesis of the results over all 4 regions**

Figures 2.40 and 2.41 showing the mean RMSE values calculated over each of the four regions confirm that the best results for monthly mean precipitation downscaling occur in the south over all the year and the stronger biases in general is linked to the Maritimes region with higher precipitation events and amounts. However, as shown in Figure F-1 (appendix F), the relative RMSEs from GCMs-driven SDSM are not higher in that region compared to others, whereas Hudson Bay region suggests more clearly the worst results in summer and in January. This is a consequence of the fact that of the two GCMs simulate key atmospheric predictors in that region with less skill than in other regions, at the spatial or temporal scales used to condition the downscaled response of both the mean precipitation regime and the temperature one, as shown in the previous section. This is also true for the intra-monthly variability of precipitation over all regions, which is not really improved by SD methods compared to raw GCM fields, as shown in Figure 2.41. It can also be seen in this figure that the SDSM results using GCM predictors are quite similar to those using NCEP ones, as suggested in the box plots analysis.

Therefore, the biases with LARS-WG are more important in general than with SDSM, especially in the South and in Hudson Bay regions (as confirmed in the relative RMSE shown in Figure F-1, appendix F). However, except for these two regions, the results with LARS-WG are quite similar to those obtained with SDSM for the downscaling of monthly standard deviation of precipitation (see Figure 2.41, and Figure F-1 in appendix F).

- b) Results of climate indices of precipitation: seasonal and annual scales**

- **Calibration (1961-1975) and the validation (1976-1990) periods: results from LARS-WG and SDSM using only NCEP predictors**

As shown in Figures 2.42 to 2.49, the vast majority of seasonal and annual indices calculated for various stations suggest net changes in the distribution of the variables between the 1961-1975 and the

1976-1990 periods. Consequently, these changes induce a decrease in the performance of the simulation of median and IQR values especially in the North. Therefore, the performance of SD methods strongly varies with respect to the considered indices.

Wet and dry days, and precipitation intensity indices:

The percentages of wet days are relatively well reproduced by all models. Simulated and observed median and IQR values are similar with the best results obtained for the summer. However, the greater number of simulated outliers suggests an overestimation of higher values. These systematic outliers are more common for CDD and SDII indices (e.g. Figure 2.42). However, for the last two indices, the median and IQR values are also relatively well reproduced. In general, LARS-WG obtained the same kind of results as SDSM with similar performance. However, contrary to the results obtained with other variables, some evident differences appear between the two SDSM series using the same NCEP predictors but interpolated on two different GCMs grids, suggesting an effect of the interpolation procedure on the adequacy of the predictors (i.e. mainly through the size and positioning of the predictor field), used to condition the downscaled response. The CGCM1 grid produces lower median values than HadCM3 (as for example in summer at Inukjuak, shown in Figure 2.42).

Greatest 3-days and 90th percentile indices:

The SD models reproduce relatively well the medians of the two extreme indices of precipitation. However, there are overestimations of the IQR in the north during spring and summer seasons (see Inukjuak and Kuujuaq stations in Figures 2.43 and 2.45, respectively). A great number of outliers are also simulated in the upper tail of the distribution, suggesting an overestimation of the number of extreme values. The results with LARS-WG are generally similar to those obtained with SDSM with only a stronger overestimation of the 1.5 IQR with the weather generator. In the Maritimes station (i.e. Sept Îles shown in Figure 2.49), the biases in the simulated distribution are generally larger than for other stations as the extremes indices reach higher values. The higher discrepancies have also been observed in monthly mean precipitation amount and its standard deviation.

- **Over the complete period (1961-1990): results from SDSM using GCMs' predictors**

Figures 2.50 to 2.53 show that SDSM systematically produced a greater number of outliers than

both the downscaled data and raw GCM outputs for all indices. Interestingly, in spite of the higher number of extremes, SDSM results show a great number of underestimation of the IQR for rainfall extremes.

Wet and dry days, and precipitation intensity indices:

As shown in Figure 2.50, stronger biases of wet days percentage appear at Inukjuak in the winter with overestimation of both median values and the higher values, whereas these biases are less frequent in other stations around Hudson Bay, as suggested in the RMSE by stations shown in Table 2.16. Over other stations and seasons, the wet days are relatively well simulated with SDSM driven by GCMs predictors, with major improvements compared to raw GCMs data. CGCM1 raw outputs are also more erratic and show important biases in the median percentage of wet days in all regions and stations as shown in Figures 2.50 to 2.53 and in Table 2.16. The CDD median values are well reproduced in the spring, summer and fall by SDSM, but median results for that index are more variable in the winter. Simulated SDII values are often positively biased, especially for both SDSM models at Kuujuaq (Figure 2.51) and Sept Îles (Figure 2.53). As confirmed in the Tables 2.17 and 2.18 with the RMSEs and MAEs, all results over all stations do not suggest a net improvement in the downscaled CDD and SDII compared to raw GCMs data.

Greatest 3-days and 90th percentile indices:

Precipitation totals (greatest 3 days) are generally well reproduced (median and IQR) when downscaled with SDSM. The HadCM3 raw results for this index often show less variability than observed or downscaled (e.g. Figure 2.51 and 2.53). The variability of the 90th percentile of rain day amount was underestimated by both SDSM-downscaled series and raw GCM outputs. Simulated IQR are generally lower than observed, especially during winter in the North. There were slight biases in median 90th percentile values. For instance, summer downscaled medians were higher than observed in all four regions. CGCM1 raw data produced smaller than observed median 90th percentile values for most seasons in the South (Figures 2.52 and 2.53). As also shown in Tables 2.19 and 2.20, RMSEs and MAEs calculated over all stations are quite similar between downscaled results and raw GCM outputs.

- **Synthesis of the results over all 4 regions**

Mean regional RMSE values for various indices are shown in Figures 2.54 to 2.56. As for temperature indices, to help to compare all results for the precipitation indices from GCMs-driven SDSM and LARS-WG over all regions, the relative RMSE are also given in appendix F (Figures F-2 and F-3). RMSEs of wet days are highest (between 10 and 22%) for CGCM1 raw outputs for nearly all regions and seasons (Figure 2.54). They are almost always lowest ($< 10\%$) for SDSM with NCEP predictors (on CGCM1 or HadCM3 grid), and with GCM predictors, except in the winter in Hudson Bay region where added values from downscaling process are not captured. In that particular season and region, the relative RMSE is also higher compared to other ones, as shown in Figure F-2 (Appendix F). LARS-WG produced RMSE values of the same order of magnitude (around 10%) as SDSM in most cases for that index, except in the South where errors are more higher than SDSM results, as shown in the relative RMSE in spring, summer and fall (see Figure F-2 in appendix F).

CDD RMSE values typically varied between 4 and 12 days, with the highest values almost always occurring in the Hudson Bay region (Figure 2.54). During the winter, all models and downscaling methods were characterized by RMSE values nearly twice as high in the Hudson Bay area than in other regions. However, as shown in Appendix F (Figure F-2), the relative RMSE is quite similar over all seasons suggesting that SDSM performance is generally comparable in winter months than over the rest of the year. Slightly lower CDD RMSEs (i.e. one to two days less) were obtained using SDSM driven by NCEP predictors than with SDSM driven by GCM predictors. This reveals a poor performance in the downscaling process of this index. LARS-WG downscaled CDD showed equal or higher CDD RMSE than SDSM results, especially in the South in winter (see Figure F-2, appendix F).

SDII RMSEs are reported in Figure 2.55. For this index, the highest values of RMSE ($> 3\text{mm}$ per wet days) were mostly associated with the Maritime region. In general, as confirmed in the relative RMSE (see Figure F-2, appendix F), the worst results for this index appeared in that region except in summer where less satisfying results are in Hudson Bay with CGCM1-driven SDSM. Again, Errors were lowest for values downscaled with SDSM using NCEP predictors ($< 2\text{ mm/wet days}$ except for the Maritime region). Results obtained with LARS-WG varied, but generally, SDII errors for this model were higher than those of SDSM with NCEP predictors, but lower than SDSM with GCM predictors. RMSE values for the latter were the highest and often exceeded the error obtained with raw GCM outputs (i.e. degradation of the GCM information in the downscaling process).

The R3Days index was characterized by RMSE values ranging from 10 to 35 mm/day (Figure 2.56). Again, there appears to be a spatial pattern, with higher errors in the Maritime region than the three others for all models, as confirmed in fall and winter in the relative RMSE shown in Figure F-3 (Appendix F). During the spring and winter, RMSE values are least in the Hudson Bay region, but the relative RMSE values suggest that the errors are weaker in that region in fall compared to other regions and seasons over all downscaling results (see Figure F-3, appendix F). CGCM1 RMSEs are highest for most regions and most seasons and especially during the summer. Again SDSM with NCEP predictors show the lowest RMSE values in most cases.

Regional means of RMSE for Prec90P were least in the Hudson Bay region in general (as confirmed in the relative RMSE for winter, spring and fall, as shown in Figure F-3, appendix F) and highest in the Maritime region, with values exceeding 8 mm/days in the latter. But as suggested in the relative RMSE, only the winter season gave the worst results in that region, whereas the poorest performance over all regions and seasons appeared in summer in Hudson Bay with CGCM1-driven SDSM (see Figure F-3, appendix F). Seasonal and spatial patterns of RMSE for this index are similar to those observed with the greatest 3-days precipitation amounts (Figure 2.56). HadCM3 raw outputs produced greater RMSEs than CGCM1 raw outputs on many instances (e.g. winter, spring and summer seasons, Figure 2.56). The lowest RMSE values, obtained using SDSM with NCEP predictors, varied between 3 and 5 mm/days in most regions and exceeded 6 mm/days in the Maritime region.

2.4 Summary of comparison of downscaling results

This chapter described results obtained by using the regression-based method SDSM both with NCEP and with two GCMs series of predictors, and with the stochastic weather generator LARS-WG to reconstruct the observed extremes. Those indicated that these methods are generally adequate to downscale the temperature regime, and to a lesser extent, precipitation. In summary, the comparison of downscaling results over four different climatic regions in Eastern Canada has allowed to highlight the following points:

- **For temperature:**
 - SD models reproduce most of the monthly temperature statistics, including standard deviation both for minimum, maximum, and mean temperature (i.e. median, inter-quantile range and

extremes values); however, LARS-WG systematically overestimates the spreading of the upper and lower tails of the distribution;

- For all temperature indices, SDSM driven with NCEP reanalyses performs more often better than LARS-WG, over both calibration (i.e. 1961-1975) and validation (i.e. 1976-1990) periods;
- SD models reproduce accurately the growing season and the frost season lengths, and the freeze and thaw cycle up to the inter-quantile range, but systematically overestimate the variability of these indices. However, LARS-WG failed to accurately downscale the frost season length in Labrador and Maritimes regions;
- The seasonal diurnal temperature range is generally well simulated for all regions, except with LARS-WG for which inter-quantile range and variability in low and high values are overestimated compared to observed data;
- SDSM and LARS-WG simulate temperature extremes relatively well, in general, but with an excessive number of outliers during winter and fall for minimum and maximum temperature extremes compared to observed ones, especially in the North and Maritimes regions. In the south, this excess appears mainly during spring and summer for the minimum extremes temperature;
- In the North, the cold extreme temperature distributions vary substantially from the calibration to the validation periods in all seasons, inducing a decrease in the performance of the downscaling results over the validation period;
- Over the present-day climate (i.e. 1961-1990), the two SD techniques are obviously preferred to using the GCMs (CGCM1 and HadCM3) outputs directly, as strong biases are present in the temperature regime in the climate model values (especially for CGCM1), especially in the North and around the Hudson Bay during the winter season;
- SD methods are able to reproduce and to somewhat improve the temperature regime compared to GCMs raw outputs, including extremes of temperature and highly sensitive indices of variability. However, the NCEP-driven SDSM performs better than GCM-driven models;
- The typical lowest root mean square errors of monthly temperature downscaling results are obtained during the months of April to November, with most values below 4°C. The Hudson Bay region and the winter season exhibit the worst downscaling results, whilst the errors decrease from the Labrador to the Maritime and to the South regions, except with one series of simulation with CGCM1-driven SDSM;

- The downscaled values of the daily maximum temperature has generally a lower bias than the daily minimum temperature in the winter months, but the relative RMSEs are quite similar for both, over the majority of the year;
- The results of the downscaling with CGCM1 predictors are often better than those obtained with HadCM3, for minimum, maximum and mean temperatures, even though the biases of the raw CGCM1 temperature data are more often higher than those of HadCM3;
- The bias results obtained with LARS-WG are generally similar to that obtained with SDSM using GCMs predictors, except during the winter season where LARS-WG performs better than SDSM.

- **For precipitation:**

- SD models are able to reproduce in general the median characteristics of monthly mean precipitation as its standard deviation, but the inter-quantile range and higher percentiles are generally underestimated (with NCEP-driven SDSM and overestimated with GCM-driven) but with a greater number of outliers than observed series, especially with LARS-WG;
- For the vast majority of seasonal indices of precipitation, net changes appear in the distribution of the variables between the calibration and the validation periods. These changes induce a decrease in the performance of the simulation of median and inter-quantile values especially in the North during the validation period;
- SD methods better capture the precipitation occurrence than amount and/or extremes. The improvement obtained with GCM-driven SDSM is not clear when comparing with GCM raw data for the later indices of precipitation;
- The percentage of wet days is relatively well reproduced by all models, both in the median and inter-quantile simulated values with the best results obtained for the fall. Errors are almost always lowest (< 10%) for SDSM with NCEP predictors (on CGCM1 or HadCM3 grid), and with GCM predictors, except in the winter in Hudson Bay region where added values from downscaling process are not captured;
- An excessive number of outliers is simulated by SD models, suggesting an overestimation of higher values, especially for the consecutive dry days and simple daily intensity indices. During the winter, all combinations of GCMs and downscaling methods have resulted in the error values of simulated consecutive dry days in the Hudson Bay area nearly twice that of the other

regions. But the worst results for this index have generally appeared in the South, from the relative RMSE results;

- For most extreme indices, SD models reproduce the medians relatively well, but with an overestimation of the inter-quantile, especially in the north during spring and summer seasons;
- The results obtained with LARS-WG are generally similar to those with SDSM except a stronger overestimation of the 1.5 inter-quantile range for precipitation indices in case of the weather generator;
- In the Maritimes station, the biases in the simulated distribution are generally larger than for other regions as the extremes indices reach higher median values. The best results for monthly mean precipitation downscaling occur in the south over summer. However, the largest discrepancies in the simulated mean precipitation regime appear with LARS-WG results in Hudson Bay and in the South;
- For the majority of precipitation indices, SDSM results using GCM predictors are quite similar to those using NCEP.

The reliability of downscaling results may be altered by the presence of model errors and uncertainties in the estimates of mean and standard deviation, but also in all the distribution of variables including the median, inter-quantile range and high and low percentiles. The assessment of model errors quantified by the RMSE and MAE have allowed to quantify the typical biases in the mean and the relative part of the variability in the total errors, i.e. the simulated variance with respect to observed one for each basic variable and climate index of temperature and precipitation. However, the quantification of uncertainty has not been explicitly assessed in the downscaled climatic variables, in the estimates of means and variances in terms of their confidence intervals. This can be done using resampling techniques (e.g. bootstrap) as in Coulibaly and Dibike (2004) or in Goldstein *et al.* (in preparation). Nevertheless, as we have used the box plot visualisation technique to analyze all the downscaled distribution from each of the 100 simulations, the uncertainties around the median, inter-quantile range and lower and higher percentiles have been “semi-quantitatively” assessed. This has also allowed to highlight the fact that in many cases, the variance of simulated results is higher than that of observed data, and to analyze the skill of downscaling models to reproduce the variability and the persistence of the information.

In Table 2.21, the summary of the strengths and weaknesses of the two specific statistical downscaling methods for the reconstruction of observed extremes and climate indices of variability is

presented by taking in to account their respective performance, in terms of the statistical criteria (i.e. RMSE and MAE) and the box plot visualisation technique, over each of the stations located in their respective region defined in Figure 1.1. According to the objectives of this project, the main focus in this summary has been on the reliability of the downscaled results (focussing on GCM-driven SD methods) in terms of reproducing extremes climatic indices rather than the basic variables of monthly mean and standard deviations of temperature and precipitation. In this respect, the possibility of accurate reconstruction of the average observed climate with the SD methods has been assessed by numerous previous studies which confirmed that they are mostly successful at reproducing the mean climate compared to handling extreme events. In the previous sections, the capacity of SD methods to reconstruct the mean observed climate have been evaluated as well.

From Table 2.21, the main strengths and weaknesses of SDSM and LARS-WG have been assessed with respect to their potential application in climate scenarios development, based on their capacity to downscale the GCM outputs, i.e. their strengths (i.e. able to improve the reliability of climate information when compared to raw GCM data). If these methods failed to downscale the information or may not overcome some model biases, the weakness of each method for each considered variable is indicated. If the strength/weakness of the SD method is uncertain because one of the series of simulation suggests poor performance, the information is not considered as robust.

a) Indices	Season	Regions				Comments on SD Methods performance
		1	2	3	4	
SDSM (GCMs-driven) & LARS-WG						
DTR	Winter	✓	✓*	✓	✓	Strength to reduce the biases from GCMs, skill for median & IQR
		✓	✓	✓	✓	Skill for median BUT with overestimation of variability & outliers
	Spring	✓	✓	✓	✓	Strength to reduce the biases from GCMs, skill for median & IQR
		✓	✓	✓	✓	Skill for median BUT with overestimation of variability & outliers
	Summer	✓	✓	✓	✓	Major improvement, same skill as NCEP-driven over all stations
		✓*	✓	✓	✓	Skill for median BUT with overestimation of variability & outliers
	Fall	✓	✓	✓	✓	Major improvement, same skill as NCEP-driven over all stations
		✓*	✓	✓	✓	Skill for median BUT with overestimation of variability & outliers
Tmax90	Winter	✓*	X	X	X	Moderate skill for median & problem with variability & outliers
		✓	X	✓	✓	Skill for median, problem with IQR, variability & outliers (1)
	Spring	✓*	✓	✓	✓	Skill for median & IQR (except North) & problem with upper tail
		✓*	✓	✓	✓	Skill for median & IQR BUT problem with over-dispersion
	Summer	✓	✓	✓	✓	Skill for median & IQR, same skill as NCEP-driven in maritimes
		✓*	✓	✓	✓	Skill for median, IQR & tails with few excessive outliers (1)
	Fall	✓	✓	✓	✓	Skill for median BUT overestimation of variability (except in 1)
		✓*	✓	✓	✓	Skill for median & IQR with overestimation of variability (3)
Tmin10	Winter	✓*	✓	✓	✓	Moderate skill for median & problem with variability & outliers
		✓	✓*	✓	✓	Skill for median & IQR & problem with variability & outliers
	Spring	✓*	✓	✓	✓	Moderate skill for median & problem with variability & outliers
		✓*	✓	✓	✓	Moderate skill for median & problem with variability & outliers
	Summer	✓	✓	✓	✓	Skill for median, IQR & tails except in the North
		✓*	✓	✓	✓	Skill for median & IQR, problem with variability & outliers
	Fall	✓	✓	✓	✓	Skill for median & IQR (except in 1), few problem of variability
		X	✓	✓	✓	Skill for median & IQR, problem with variability & outliers
FSL	Annual	✓*	✓	✓	✓	Skill for median & IQR, problem with variability & outliers
		✓	X	✓	X	Skill for median & IQR (1-3), problem with variability & outliers
GSL	Annual	✓*	✓	✓	✓	Skill for median & IQR, problem with variability & outliers
		✓	✓	✓	✓	Skill for median & IQR, problem with variability & outliers
Fr/Th	Monthly	✓*	✓*	✓*	✓*	Skill for median & IQR, BUT problem with variability & outliers
		✓*	✓*	✓*	✓*	Skill for median & IQR, BUT problem with variability & outliers

Table 2.21. Summary of the strengths (✓) and weaknesses (X) of two specific statistical downscaling methods for the reconstruction of observed extremes; * = strength/weakness of the method is uncertain from one series of simulation (i.e. the improvement in one series of the downscaling results is unclear compared to GCM raw data and/or a major problem with variability and persistence appears). All regions are defined in Figure 1.1 and the indices definition is given in Table 2.1 and appendix 1. Table a) is for temperature indices and b) for precipitation ones. In parentheses the given number corresponds to the region where the related problem appears more often. The comments concerning SDSM are in black and those for LARS-WG are in red.

b) Indices	Season	Regions				Comments: SDSM (GCMs-driven) & LARS-WG
		1	2	3	4	
Prep1	Winter	✓*	✓	✓	✓	Moderate skill for median, problem with variability-high values
		✓*	✓	✓	✓	Skill for median & IQR, problem with variability & upper tails
	Spring	✓	✓	✓	✓	Skill for median & IQR, few problem with variability & outliers
		✓*	✓	✓*	✓	Skill for median & IQR, problem with variability & high-low
	Summer	✓*	✓	✓	✓	Skill for median & IQR, few problem with variability & outliers
		✓	✓	✓*	✓	Skill for median & IQR, problem with variability (3) & outliers
SDII	Winter	✓*	✗	✓*	✗	Skill for median, problem with IQR, variability (2) & outliers
		✓*	✓	✓	✗	Moderate skill for median, problem with variability-high values
	Spring	✓*	✗	✓*	✗	Skill for median, problem with IQR, variability (4) & outliers
		✓*	✓	✓*	✗	Moderate skill for median, problem with variability-high values
	Summer	✓*	✓*	✓*	✗	Weak skill for median, problem with IQR, variability & outliers
		✓*	✓*	✗	✓*	Moderate skill for median, problem with variability-high values
CDD	Winter	✗	✓*	✓*	✓*	Skill for median, problem with IQR, variability (1) & outliers
		✓*	✗	✗	✓*	Moderate skill for median, problem with variability-high values
	Spring	✗	✓*	✓*	✓*	Skill for median, problem with IQR, variability (1) & outliers
		✗	✓*	✓*	✗	Moderate skill for median, problem with variability-high values
	Summer	✓*	✓*	✓*	✓*	Skill for median, problem with IQR, variability (1) & outliers
		✓*	✓*	✓*	✓*	Moderate skill for median, problem with variability-high values
R3d	Winter	✓*	✗	✗	✗	Weak skill for median, problem with IQR, variability & outliers
		✓*	✗	✗	✓*	Moderate skill for median, problem with variability-high values
	Spring	✓*	✓*	✓*	✗	Moderate skill for median, problem with variability-high values
		✓*	✗	✓*	✓*	Weak skill for median, problem with IQR, variability & outliers
	Summer	✓*	✓*	✓*	✗	Moderate skill for median, problem with variability & outliers
		✓*	✓*	✓*	✗	Weak skill for median, problem with IQR, variability & outliers
Prec90p	Winter	✓*	✗	✓*	✓*	Weak skill for median, problem with IQR, variability & outliers
		✗	✗	✓*	✓*	Weak skill for median, problem with IQR, variability & outliers
	Spring	✓*	✗	✓*	✗	Weak skill for median, problem with IQR, variability & outliers
		✓*	✗	✗	✗	Weak skill for median, problem with IQR, variability & outliers
	Summer	✓*	✓*	✗	✓*	Weak skill for median, problem with IQR, variability & outliers
		✗	✓*	✗	✓*	Weak skill for median, problem with IQR, variability & outliers
	Fall	✓*	✓*	✓*	✗	Weak skill for median, problem with IQR, variability & outliers
		✓*	✓*	✓*	✗	Weak skill for median, problem with IQR, variability & outliers

2.5 Recent developments/improvements and Recommendations

SD models are often calibrated and developed in ways that are not particularly designed to handle extreme variables, especially for precipitation. Also, each method has its own limitation and advantage, as LARS-WG tends to have a problem with variability and persistence both in the temperature and in the precipitation regime (over-dispersion problem, see Table 2.21), and the regression-based method tends to perform less well for precipitation than temperature. As the performance of SD method is to some extent strongly determined by the nature of the local predictand, an “optimum or ideal” SD model may or may not be appropriate for specific applications without some development or refinement of the existing downscaling technique. For example, a local variable, such as monthly mean temperature that is reasonably normally distributed, does not require a model more sophisticated than multiple regression, since large scale climate predictors tend to be also normally distributed assuming linearity of the relationship. By contrast, a local variable that is strongly heterogeneous and discontinuous in space and time such as daily precipitation requires more sophisticated non-linear approach or transformation of the raw data (e.g. Wilby *et al.*, 2004).

Therefore, the choice of predictor variables is one of the most important and determining steps in the development of SD results, whereas this decision largely influences the performance or the characteristic of the downscaled information. The selection process is complex for essentially two reasons: firstly, the explanatory power of individual predictor variables may be low (especially for daily precipitation) or it may vary both spatially and temporally (see Figure 5 in Wilby *et al.*, 2004); secondly, the availability/development and the thorough assessment of candidate predictors may be difficult without a minimal understanding of the underlying physical processes by the user, as the expert judgement or local expertise bases are also invaluable sources of information when choosing sensible combinations of predictors from the available data and whereas the ideal predictor variable must be strongly correlated with the target variable (i.e. makes physical sense, e.g., Wilby *et al.*, 2004). In general, the available atmospheric predictors are constrained by the data archived from GCM experiments because the range of re-analysis products generally exceeds that retrievable for individual GCM runs. Also, in our case, the existing series of predictors available for our project has been supplied by CCIS and restricted to the availability of CGCM1 and HadCM3 data sources along with the corresponding NCEP variables. From that perspective, a work on the development of new set of predictors has been initiated during the project to construct other relevant secondary variables from the range of re-analysis NCEP products to test their utilities as candidate predictors for precipitation.

Moreover, as suggested in section 2.2.2, a stepwise regression and partial correlation coefficients has been used in the new ASD model to screen the most promising predictor variables by a fully automated selection process. In order to alleviate the problems associated with correlated predictors, the ASD model provides the possibility to use the ridge regression, and this method is being evaluated at the moment in an inter-comparison study with the classical multiple regression technique.

In this context, the recent developments made on the stochastic weather generator LARS-WG to solve the identified problem with respect to outliers of extreme values and to improve the transformation process of the raw data before the stochastic downscaling step of precipitation are presented in the following section. We also present recent developments made on the identification of candidate predictors used in SDSM to better resolve the precipitation amount, and especially the occurrence and frequency of precipitation extremes.

2.5.1 Recent developments on SD methods

a) Added features and research related to LARS-WG

The weather generator LARS-WG has been rewritten to use the semi-empirical distribution to model the precipitation and temperature as developed in Racsco *et al.* (1991) and Semenov and Barrow (1997). The implementation of LARS-WG for downscaling in the Québec region has provided a unique opportunity to evaluate both the assets and drawbacks of this stochastic weather generator. Some of the features of LARS-WG may require further work, while new features have already been included in a prototype currently being developed.

- **Precipitation**

As stated before, the calibration of LARS-WG requires the construction of semi-empirical monthly distributions (histograms) from several years of observed data at each site for Precipitation (P), number of consecutive wet days (CWD) and the number of consecutive dry days (CDD). For each distribution, 21 parameters need to be calibrated: eleven boundaries of intervals that encompass all observed data ($a_0, a_1, \dots, a_{10}$) and ten representing the number of events ($h_1, \dots, h_{10}$) in each interval (Racsco *et al.*, 1991). It has been found that the intervals categorizing extremes (high end of the histogram) often include much fewer values than central intervals and thus, the tails of the distribution are characterized by high uncertainty. These few extreme observations available for the calibration period are perhaps not always representative of the full spectrum of extremes to be expected. For instance, Figure 2.57

shows the empirical distribution of precipitation events in January for the Schefferville station, with one outlier (35 mm). The current version of LARS-WG builds an interval based solely on that extreme value.

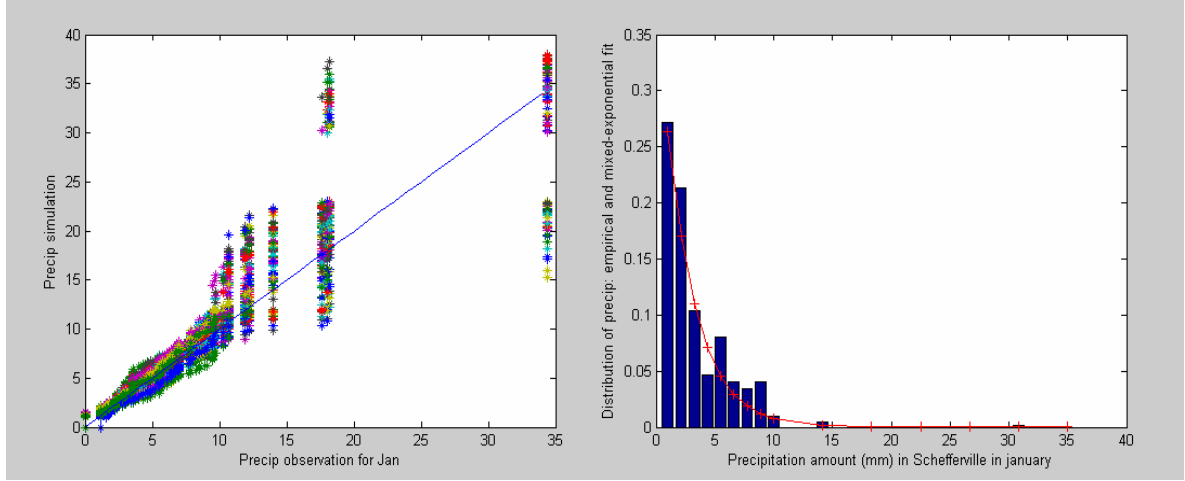


Figure 2.57 Histogram of precipitation at Schefferville for the month of January (right) showing one extreme value at 35 mm and observed vs. simulated precipitation values (left) drawn from this empirical distribution by the original LARS-WG method.

In order to alleviate this problem, a new approach is proposed. Most empirical precipitation distributions can be fitted by either an exponential, Gamma or a mixed-exponential distribution. As a first attempt, a mixed-exponential distribution (Equation 1) was calibrated on all the observations and used to model the last decile of the histogram, while the empirical distribution remained in use for the first 9 deciles.

$$P(x) = \theta_0 \theta_1 e^{-\theta_1 x} + (1 - \theta_0) \theta_2 E^{\theta_2 x} \quad (1)$$

When tested using the January precipitation data of the Schefferville station, this approach has provided a better fit between observed and simulated values as shown in Figure 2.58 (compared to Figure 2.57).

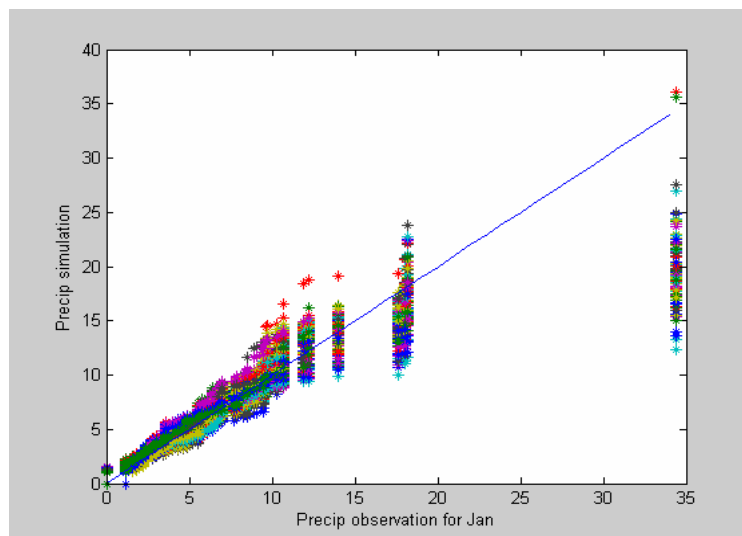


Figure 2.58 Observed vs. simulated precipitation values drawn from the empirical distribution (9 first deciles) and the mixed exponential distribution (10th decile) by the prototype WG.

- **Temperature**

In the case of temperatures, daily means were not used directly by LARS-WG, instead it allows observed daily Tmin or Tmax as input. But, it may be interesting to include daily mean temperature as an input. The prototype weather generator under development has this added feature.

The number of Fourier series harmonics used in the original LARS-WG is fixed at 9. Preliminary analysis in the Québec region has shown that temperatures could be simulated more accurately if the number of harmonics were increased. Both mean and standard deviation during the calibration and validation periods were better simulated using a greater number of harmonics (e.g. Figure 2.59 for Tmax).

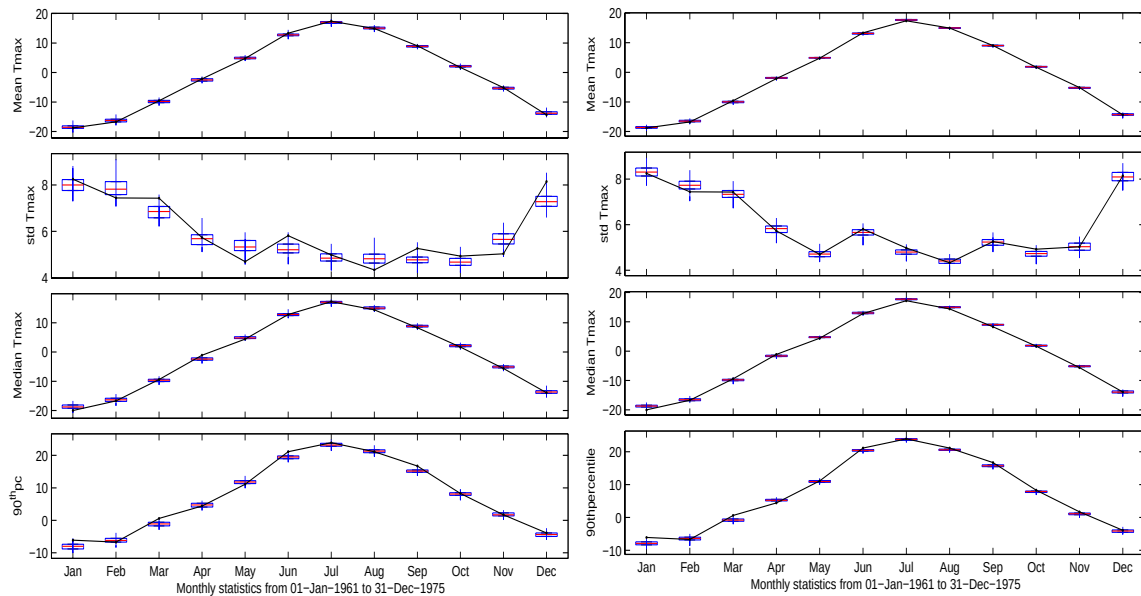


Figure 2.59 Comparison of observed (line) and simulated (box plots) maximum temperatures using the original LARS-WG (left) and the prototype Weather Generator (right) with a greater number of harmonics. From the upper to the lower panels, monthly mean, standard deviation, median and 90th percentiles values are shown, respectively.

b) Development of new predictor variables for the improvement of precipitation: example at Dorval station in winter and in summer

The circulation predictor variables (u- and v-winds, vorticity, divergence) currently used in the SDSM statistical downscaling model are derived from the NCEP reanalyses sea level pressure (surface variables) or geopotential heights (at 850 and 500 hPa levels), using the geostrophic approximation, which assumes an equilibrium between the Coriolis and pressure forces. In the free atmosphere, the wind and vorticity are almost geostrophic, with an error of the order of 10%, but this is not true for the divergence, whose geostrophic and ageostrophic parts are of the same order of magnitude. In the planetary boundary layer, where the friction force occurs, the geostrophic approximation is not accurate to describe the wind and divergence fields. However, the vorticity in this layer is highly correlated with its geostrophic component.

In order to remedy for these deficiencies of the geostrophic variables defined or calculated at different levels in the same manner, a new set of variables has been computed without assuming a geostrophic flow, i.e. the vorticity and divergence derived values are not constructed from the geostrophic wind but from the total simulated wind, including its geostrophic and ageostrophic component. The wind values have been taken directly from the NCEP reanalyses, i.e. not derived from

pressure gradients, and then vorticity and divergence have been simply calculated from this NCEP wind. We compare in the following the results with SDSM driven by NCEP predictors, in using (i) the reconstructed wind (as used above and in all section 2.3) and (ii) the wind directly extracted from NCEP archived dataset. We focus only on the downscaling of precipitation.

• Results in using new predictors

As shown in section 2.3 and in Table 2.2 for the downscaling of precipitation, SDSM has been used with such NCEP predictors including vorticity, divergence and u-wind at surface, together with v-wind at 850hPa and geopotential height at 500hPa. The comparison of downscaling results based on the two sets of predictors, i.e. with reconstructed wind fields (geostrophic predictors) and with NCEP reanalysed winds (new predictors), is shown in Figure 2.60.

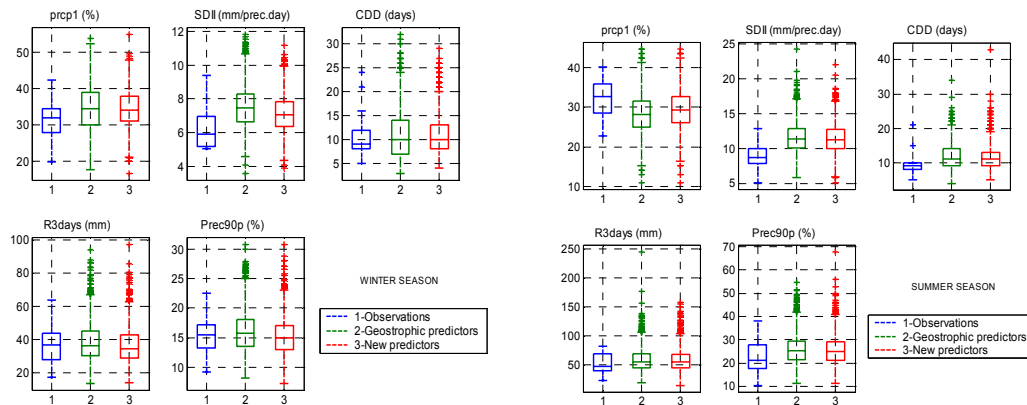


Figure 2.60 Box plots of precipitation indices (see Table 2.1 for their definition), for the validation period 1976-1990 at Montreal-Dorval. Winter season on the left, and Summer season on the right. For each climate index, box plots of observed precipitation, SDSM downscaled precipitation using geostrophic predictors, and SDSM downscaled precipitation using recomputed predictors (new predictors) are shown, respectively from the left to the right.

As shown in Figure 2.60, inter-quantile range in the winter season is reduced for each climate index when using the new predictors. In addition, median of the SDII index is significantly better simulated, according to the observed value. With respect to the summer season, inter-quantile range is not reduced when new predictors are used, except for the CDD index. However, boxplot of the prcp1 index is significantly improved in terms of the median value. Moreover, as shown in Figure 2.61 of the cumulative precipitation over the winter, the overestimation in the simulated values of the extremes precipitation is reduced with new set of predictors. This reveals the possibility to better capture the upper tail of the distribution and reduce the number of excessive outliers compared to observations by

avoiding the geostrophic approximation in the calculations of predictors.

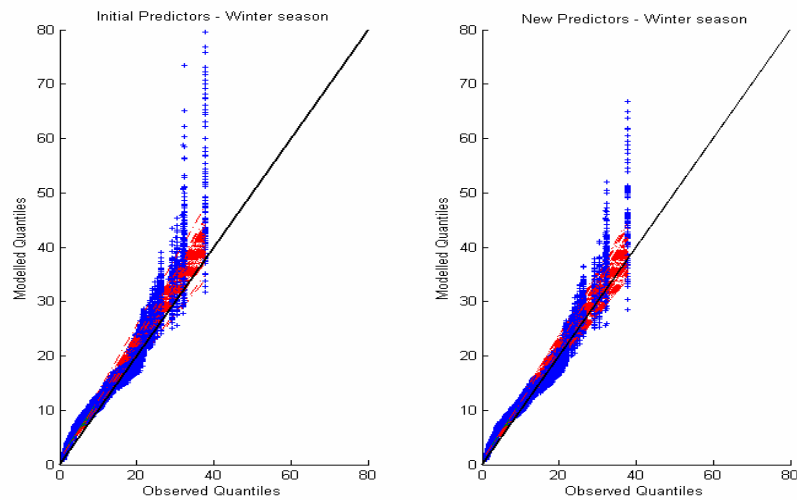


Figure 2.61 Q-Q plot of winter precipitation between observed and simulated values with SDSM for Montreal-Dorval over the validation period 1976-1990 (in mm/day in, Montreal). The left panel shows the results with SDSM in using the reconstructed geostrophic winds (initial predictors) and the right panel with the prognostic NCEP wind (without geostrophic approximation, i.e. new predictors). Red lines are IQR values and blue crosses correspond to all values of the distribution.

- **Discussion and conclusion around the development of potential predictors**

The recomputation of the SDSM atmospheric predictors from the NCEP reanalysis wind, instead of the use of the geostrophic approximation, seems to improve significantly the downscaling of precipitation at Dorval station, in terms of inter-quantile range, median, and tails of the distribution with respect to five precipitation indices and cumulative precipitation in winter. Other preliminary results (not shown) with new sets of predictors are also promising to improve the extreme precipitation over the majority of the year by using, for example, more levels between the surface and the mid troposphere and also by computing additional secondary variables from the differential between two consecutive levels. All such developments of optimum candidate predictors are permitted obviously because the availability of the reanalysis data sets has significantly increased in recent years. However, it is important to keep in mind that the basic variables used to develop the secondary variables should also exist in the GCM outputs.

Therefore, further work is needed to develop new sets of predictors and to evaluate those. It is also important to investigate other non conventional levels and developing other variables such as dynamic and thermal advection terms which play a key role in the atmospheric system development (i.e. vorticity characteristics at different levels in the atmosphere, e.g., Gachon *et al.*, 2003) and in the

occurrence and intensity of precipitation. For example, as shown in Wilby and Wigley (1997) and Wilby *et al.* (1998) who have compared six SD approaches (two neural nets, two weather generators, and two vorticity-based regression methods) for multiple sites across the USA using observed and GCM data, the vorticity-based regression methods were found to perform best.

Unfortunately, in spite of the fact that the screening of predictors is a crucial step for all downscaling exercises and hence the verification of climate model output at the space and time scales of use, there have been relatively few systematic assessments of different predictors (e.g. Charles *et al.*, 1999; Huth, 1999; Wilby and Wigley, 2000; Winkler *et al.*, 1997). As SD techniques propagate the uncertainty in the driving fields of the GCM and do not improve on the base skill of the GCM (Hewitson and Crane, 2003), this exercise is requisite to verify the realism of inter-variable relationships used by SD methods. For example, quantities such as temperatures or geopotential heights are often better represented by GCMs at the regional scale than derived variables such as precipitation. But as shown in the strong majority of stations, their biases in the beginning and at the end of the winter season could be very large, especially in the north. Therefore, such predictors as low level air temperature of the GCMs are excluded as potential predictors in all the downscaling exercise here. Prior to the downscaling exercise, a systematic work must be undertaken to evaluate key atmospheric predictors from all GCMs variables. In that perspective, the availability of the Canadian RCM could be an interesting source of potential predictors for statistical downscaling, as RCM resolve better the determining forcings at regional scale with mesoscale circulation and feedback not present in all GCMs. Also, the new regional reanalysis (at 32 km of horizontal resolution) from the NCEP/NCAR products over all the North America is another invaluable source of potential predictors.

2.5.2 Recommendations on the use of LARS-WG and SDSM for climate scenarios development

From the analysis of the downscaling results presented in this report and in agreement with previous studies or guidelines (e.g. Wilby and Wigley, 1997; Semenov and Barrow, 1997; Wilby *et al.*, 1998; Goodess *et al.*, 2003; Wilby *et al.*, 2004), the following recommendations and conclusions emerge regarding the use of the two SD methods studied here for the construction of climate scenarios based extremes:

- The advantages (✓) - disadvantages (✗) of the stochastic weather generator LARS-WG are:
 - ✓ Long and multiple time series can be generated which is useful for uncertainty analysis or long

simulations for extremes;

✓ Good performance for the downscaling of temperature indices for most areas;

✓-X Good skill to downscale the median and IQR values of temperature and precipitation, but systemic problem with variability & outliers (over-dispersion problem), i.e. persistence issue;

X Extremes are poorly reproduced without any new development in the transformation of raw data, i.e. better construction of semi-empirical monthly distributions;

X Unable to anticipate or to take into account the effect of secondary variables on changing precipitation parameters;

X Problem appears in derived index of temperature as frost season length in two regions (Labrador and Maritimes).

➤ The advantages (✓) - disadvantages (X) of the regression-based downscaling model SDSM are:

✓ Long and multiple time series can be generated and useful for uncertainty analysis or long simulations for extremes;

✓ A wide range of potential predictors can be used and applied to GCM and/or RCM output;

✓ Good skill for the temperature downscaling with more often better performance than LARS-WG for the downscaling of temperature indices for most areas;

✓-X Moderate skill for precipitation downscaling in terms of the median value, but poor representation of observed variance and extremes. Better capacity to downscale the precipitation occurrence than the precipitation amount and variability;

✓-X May overcome certain biases from the underlying GCM, but may also stay affected by major biases from GCMs in certain areas, especially in the Nordic regions (May be possible to “correct” predictors for systematic model biases?);

X Difficult to identify best suite of predictors for present-day climate, especially for precipitation related to extreme;

X May assume linearity and/or normality of data;

X Assumes stationary relationships between predictor and predictand (unchanged in the future?)

X Sensitive to specific methodology, choice of predictor variables, and users.

➤ Poor performances of temperature regime from the raw GCM data and downscaling results have been identified in the north. In that region, SD models are strongly affected by biases in the

underlying GCM, and more works are needed in the future to assess systematically the accuracy of candidate predictors in that particular area;

- Ideally, downscaling methods should reflect the underlying physical mechanisms and processes, but statistical downscaling is unlikely, for example, to treat convective rainfall events in a physically realistic way or to incorporate land-surface forcing. Rather, the local climate response is driven entirely by the free atmospheric predictor variables supplied by the GCM;
- It is important to use the largest-possible climate model ensemble, i.e. evaluate model skill using independent data and multiple GCMs as inputs variables;
- Some form of downscaling (i.e., SDSM or LARS-WG) is preferred to using HadCM3 or CGCM1 output directly.

2.6 General conclusion and recommendations for future work

The trends analysis made on observed climate data covering eastern Canada has shown few changes in extremes and variability of temperature (minimum, maximum and mean values) and precipitation during the 1941-2000 period. For temperature, the analysis shows a significant increase in minimum temperature only during summer at many stations. The pattern in maximum temperatures is more variable throughout the regions and the periods: no change in the Labrador region, increases during summer in the Hudson Bay area, and decreases in autumn in southern and eastern parts of Québec. The behaviour of the upper tail of temperature distribution indicates that temperatures (minimum and maximum) have become warmer in most of the seasons except for fall, while a few significant changes are observed in the lower tail. For precipitation, basic variables showed significant trends more often than extreme indices. Increases in precipitation amounts are attributed mostly to changes in the frequency of precipitation but not in their intensity. Significant changes in precipitation are mostly noticeable during spring and autumn, and although summer is usually an important season in terms of amount of precipitation, trends are not significant at most of the stations during this season. All these changes must be confirmed or infirmed in using other stations, as this study has been restricted to using 20 stations covering a huge space in eastern Canada. Few recent works are underway to pursue this analysis (e.g., Gachon *et al.*, in preparation), whereas the recent study of Trambly *et al.*

(2005) has confirmed the cooling in the upper tail of the maximum temperature in Gulf of St-Lawrence area in fall, with an increase in wet days and a general decrease of intensity and extremes of precipitation during that season.

In general, all downscaling results confirm that the downscaling performance and predictability of the climate variables strongly vary with seasons and from regions to regions, as a consequence of the size and positioning of predictor variables, and between different periods of record. Since appropriate set of predictors and their accuracy vary strongly among GCMs (as in our case when using CGCM1 and HadCM3 atmospheric variables), one of the most important recommendations is to make a scrupulous assessment of climate model information, i.e. rigorous investigation of potential predictors, prior to all downscaling exercises. In that perspective, as potential predictors must be well represented in the GCM simulation thus allowing it to capture multi-year variability, more than one series of predictors must be used in order to apply the SD models to a wide range of independent data source. In our case, in spite of the fact that CGCM1 has performance in the simulation of the temperature regime in the north less satisfying when compared to HadCM3, the downscaling results with CGCM1-driven SDSM tend to have fewer biases than those obtained with HadCM3. It is then important to keep in mind that the combination of relevant predictors is a determining factor in the suitability of the downscaling results and not solely one potential candidate of predictor as the low level temperature of the global model (which is not used in this case).

As exemplified in the SD results, the assessment of SD methods with the two GCMs input variables has made it possible to evaluate the uncertainties associated with two different GCMs structures and their ability to reproduce the climatic characteristics of the atmosphere in the major part of eastern Canada. As also confirmed in our study, re-evaluation of added values or new insights that have been gained through the use of downscaling techniques is essential prior to all climate scenarios development since increased precision of downscaling does not necessarily imply an increased confidence in regional or local information compared to global climate model one.

Finally, SD regression-based technique is found to perform less well for precipitation than temperature. In agreement with previous studies, the two SD methods capture the precipitation occurrence better than wet day amount and/or extremes. SDSM seems to perform better than LARS-WG in general for the major part of the climate indices of temperature. A major limitation is also shown for the stochastic weather generator, whereas the precipitation and temperature variability, and persistence tend to be overestimated, with systematic overestimation of the extreme values (i.e., an over-dispersion problem). Nevertheless, further work is needed to select and develop relevant

predictors for the downscaling of precipitation, as this weather variable is not well reproduced, and as preliminary work suggests that some potential improvement is possible with the relevant physical atmospheric forcings which can be used as new series of predictors. In that perspective, the use of the Canadian Regional Climate Model outputs as candidate predictors for statistical downscaling should be explored, especially to improve the downscaling of precipitation as this variable needs mesoscale forcing and feedback better resolved in a regional than in a global climate model.

As suggested in the main objective of this project, our study strongly confirms that it is essential to be aware of the generic strengths and weaknesses attached to the various families of SD methods, as all methods must not be used as a black box. Also, as suggested in the recent international project as STARDEX in Europe, some important benefits will emerge when several statistical downscaling methods are compared or when statistical downscaling are compared with dynamical (i.e. RCM-based) ones (see Goodess *et al.*, 2003). In all cases, the uncertainties due to the choice of downscaling method should be explored, recognizing that a given RCM solution or SD one may not be nearer the truth. Finally, while taking into account the limitations of the regression-based SD methods, it seems important to continue to improve or to develop more sophisticated regression approach as ridge regression (e.g., Hessami *et al.*, 2005) or other methods. The downscaling of precipitation could benefit from this new development in order to alleviate the problem associated with the assumption of normality of the predictand variable, in parallel to exploring relevant predictors at mesoscale that are responsible for the occurrence, frequency and duration of extreme events. As the downscaling of these complex events must require a team work with different approaches, only a multidisciplinary team composed of statisticians, climatologists, meteorologists, climate modellers, hydrologists and engineers should help to develop and to test innovative statistical downscaling tools relevant for risk assessments, in sharing the outcomes and experiences with the broader climate sciences and impact communities.

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Table 2.2 Predictors choice for temperature (minimum, maximum and mean) and precipitation during the SDSM calibration (1961-1975) and explained variance (R^2) for each station and corresponding variables.

a) NCEP predictors interpolated on the CGCM1 grid

	T-MIN		T-MAX		T-MOY		Precip	
	Predictors	R^2	Predictors	R^2	Predictors	R^2	Predictors	R^2
(1) Inukjuak	1,7,19,25	0.67	1,3,19,25	0.74	1,3,19,25	0.77	12,24,25	0.10
(1) Kuujuarapik	1,9,19,25	0.64	1,7,19,25	0.76	1,9,19,25	0.75	1,5,23	0.16
(1) Moosonee	1,2,19	0.63	1,3,19,25	0.74	1,3,19	0.75	5,23,24	0.24
(2) Cartwright*	1,5,16,18,19	0.92	1,4,5,17,19	0.91	1,4,5,18,19	0.94	3,5,9,11,23	0.24
(2) Goosebay*	1,5,15,18,19	0.94	1,5,6,15,19	0.95	1,5,15,18,19	0.96	3,9,10,15,23	0.23
(2) Kuujuaq*	1,5,11,18,19	0.94	1,4,5,19,24	0.95	1,5,18,19,24	0.96	2,8,15,16,23	0.22
(2) Schefferville*	1,3,5,15,19	0.94	1,5,7,18,19	0.96	1,3,5,16,19	0.97	2,16,17,18,23	0.32
(3) Amos	1,19,25	0.74	1,16,19,25	0.75	1,19,25	0.85	11,12,23,25	0.13
(3) Val d'Or	1,11,19	0.66	1,3,5,19	0.76	1,3,11,19	0.78	2,5,17,23	0.28
(3) Montreal Dorval	1,3,11,19	0.72	1,3,5,19	0.79	1,3,5,19	0.83	3,12,17,23	0.32
(3) Montreal McGill	12,23,24,25	0.79	12,23,24,25	0.77	12,23,24,25	0.84	3,4,6,11,12,16,17,23	0.26
(3) Drummondville	12,19,23,24,25	0.77	12,19,23,24,25	0.71	12,19,23,24,25	0.82	3,4,11,12,16,17,23	0.20
(3) Maniwaki	12,23,24,25	0.73	12,23,24,25	0.77	12,23,24,25	0.84	4,11,12,17,23,24,25	0.32
(3) Bagotville	1,12,25	0.68	1,16,14,19	0.72	1,9,19	0.78	3,5,19,23	0.23
(4) Causapscal*	1,3,5,9,19	0.91	1,5,16,18,19	0.95	1,5,12,18,19	0.96	7,9,16,21,23	0.13
(4) Daniel Harbour*	1,5,7,19,21	0.91	1,4,5,15,19	0.94	1,5,11,18,19	0.94	2,11,12,18,23	0.20
(4) Gaspé*	1,3,5,18,19	0.92	1,5,15,18,19	0.93	1,5,9,18,19	0.96	3,9,10,14,17	0.17
(4) Mont Joli*	1,5,9,18,19	0.94	1,5,10,18,19	0.94	1,5,12,18,19	0.96	2,9,16,17,23	0.21
(4) Natashquan*	1,2,5,18,19	0.93	1,5,15,18,19	0.93	1,5,15,18,19	0.95	2,12,16,17,23	0.26
(4) Sept Iles*	1,5,16,18,19	0.95	1,5,15,18,19	0.93	1,5,15,18,19	0.96	5,9,12,16,23	0.24

b) NCEP predictors interpolated on the HADCM3 grid

	T-MIN		T-MAX		T-MOY		Precipitation	
	Predictors	R^2	Predictors	R^2	Predictors	R^2	Predictors	R^2
(1) Inukjuak	1,7,19,25	0.66	1,3,19,25	0.70	1,3,19,25	0.77	12,24,25	0.09
(1) Kuujuarapik	1,9,19,25	0.68	1,7,19,25	0.79	1,9,19,25	0.78	1,5,23	0.19
(1) Moosonee	1,2,19	0.68	1,3,19,25	0.79	1,3,19	0.82	5,23,24	0.21
(2) Cartwright*	1,5,7,15,19	0.90	1,5,17,18,19	0.89	1,5,7,17,19	0.94	3,5,12,19,22	0.27
(2) Goosebay*	1,5,15,18,19	0.94	1,5,17,18,19	0.93	1,5,7,17,19	0.95	3,12,15,17,22	0.23
(2) Kuujuaq*	1,3,5,19,23	0.94	1,5,11,18,19	0.94	1,3,5,19,23	0.96	2,12,16,19,22	0.22
(2) Schefferville*	1,5,18,19,23	0.94	1,3,5,16,19	0.95	1,3,5,18,19	0.96	2,9,12,16,19	0.25
(3) Amos	1,19,25	0.74	1,16,19,25	0.67	1,19,25	0.79	11,12,23,25	0.13
(3) Val d'Or	1,11,19	0.70	1,3,5,19	0.80	1,3,11,19	0.82	2,5,17,23	0.30
(3) Montreal Dorval	1,3,11,19	0.72	1,3,5,19	0.79	1,3,5,19	0.83	3,12,17,23	0.32
(3) Montreal McGill	12,23,24,25	0.68	12,23,24,25	0.69	12,23,24,25	0.74	3,4,6,11,12,16,17,23	0.24
(3) Drummondville	12,19,23,24,25	0.68	12,19,23,24,25	0.64	12,19,23,24,25	0.73	3,4,11,12,16,17,23	0.20
(3) Maniwaki	12,23,24,25	0.69	12,23,24,25	0.73	12,23,24,25	0.80	4,11,12,17,23,24,25	0.30
(3) Bagotville	1,12,25	0.65	1,16,14,19	0.64	1,9,19	0.74	3,5,19,23	0.26
(4) Causapscal*	1,2,5,19,23	0.92	1,3,5,16,19	0.95	1,3,5,16,19	0.96	9,12,16,17,22	0.15
(4) Daniel Harbour*	1,5,17,19,23	0.91	1,4,5,15,19	0.94	1,5,11,15,19	0.95	2,11,15,18,22	0.20
(4) Gaspé*	1,3,5,18,19	0.92	1,3,5,16,19	0.94	1,3,5,18,19	0.96	12,17,19,22,23	0.18
(4) Mont Joli*	1,3,5,16,19	0.94	1,3,5,12,19	0.95	1,3,5,16,19	0.96	2,9,12,16,22	0.17
(4) Natashquan*	1,2,5,17,19	0.93	1,5,7,17,19	0.94	1,5,15,17,19	0.95	10,12,16,17,22	0.31
(4) Sept Iles*	1,5,16,19,23	0.95	1,5,12,18,19	0.93	1,5,16,18,19	0.96	2,5,9,16,22	0.22

c) List of identified predictor numbers for NCEP interpolated on the CGCM1 grid

No.	Predictors	No.	Predictors
1	Mean sea level pressure	14	500hPa divergence
2	Surface airflow strength	15	850hPa airflow strength
3	Surface zonal velocity	16	850hPa zonal velocity
4	Surface meridional velocity	17	850hPa meridional velocity
5	Surface vorticity	18	850hPa vorticity
6	Surface wind direction	19	850hPa geopotential height
7	Surface divergence	20	850hPa wind direction
8	500hPa airflow strength	21	850hPa divergence
9	500hPa zonal velocity	22	Near surface relative humidity
10	500hPa meridional velocity	23	Specific humidity at 500hPa
11	500hPa vorticity	24	Specific humidity at 850hPa
12	500hPa geopotential height	25	Near surface specific humidity
13	500hPa wind direction	26	Mean temperature at 2m

For the NCEP predictors interpolated on the HADCM3 grid, the specific humidity variables are replaced by relative humidity (i.e. the specific humidity fields corresponding to HadCM3 are not available), namely :

- 23** Relative humidity at 500hPa
- 24** Relative humidity at 850hPa
- 25** Near surface relative humidity

*For this station, an automated regression-based SD model develop from the SDSM tool (see Hessami *et al.*, 2005) has been used to automatically select with backward stepwise regression the predictors. In SDSM, the explained variance R^2 is computed from the mean value of the amounts of explained variance over 12 months, whereas the automated regression-based SD model takes the output of 12 monthly models and corresponding observations and then computes the mean amount of explained variance. When using a similar methodology, the amount of explained variances are the same for the two models (see Hessami *et al.*, 2005).

Table 2.3 RMSE and MAE of monthly minimum temperature for each station over the 1961-1990 period in °C for :

1 - CGCM1, 2 - HadCM3, 3- SDSM/NCEP-C, 4 - SDSM/NCEP-H, 5 - SDSM/CGCM1, 6 - SDSM/HadCM3, and 7 - LARS-WG (all these acronyms are defined in Figure 2.13).

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
JANUARY	HUDSON BAY (3 stations)	Inukjuak	20.6	20.2	15.8	14.5	1.3	1.0	1.3	1.0	8.3	7.7	9.2	7.2	3.6	2.9
		Kuujuaq	8.5	7.6	19.2	18.3	1.4	1.2	1.4	1.1	6.0	5.1	10.6	8.9	4.1	3.3
		Moosonee	9.8	8.8	5.5	4.3	1.9	1.5	1.5	1.2	6.4	5.6	4.6	3.5	5.7	4.7
	LABRADOR (4 stations)	Cartwright	19.6	19.2	7.2	6.0	1.7	1.2	1.9	1.4	5.0	4.1	6.4	5.4	4.8	3.9
		Goosebay	4.8	3.9	6.6	5.1	1.8	1.5	1.7	1.3	4.1	3.3	5.7	4.8	4.7	3.8
		Kuujuaq	8.6	7.5	6.4	5.0	1.4	1.1	1.4	1.1	4.4	3.6	5.9	5.1	4.7	3.9
		Schefferville	8.3	7.4	6.5	5.0	1.8	1.5	1.4	1.2	4.1	3.2	6.6	5.8	4.9	4.0
	SOUTH (7 stations)	Amos	7.7	6.4	5.6	4.8	1.5	1.1	1.9	1.5	6.4	5.2	3.9	3.1	4.5	3.6
		Val d'Or	14.8	12.9	4.7	3.9	2.0	1.7	1.8	1.4	6.6	5.4	4.1	3.4	4.4	3.6
		Montreal-Dorval	8.7	6.8	4.1	3.3	1.6	1.3	1.9	1.5	5.9	4.7	3.8	3.2	4.2	3.4
		Montreal-McGill	7.1	5.6	4.4	3.5	1.2	1.0	1.4	1.1	5.8	4.6	3.6	2.9	3.8	3.1
		Drummondville	9.7	7.8	4.0	3.3	1.6	1.3	1.8	1.4	6.4	5.1	4.3	3.7	4.3	3.5
		Maniwaki	11.9	10.1	3.7	3.1	1.5	1.3	1.5	1.2	6.9	5.5	4.1	3.5	4.6	3.7
		Bagotville	6.0	4.9	4.9	4.1	1.5	1.2	1.9	1.5	4.4	3.5	3.6	2.9	4.1	3.3
	MARITIME (6 stations)	Causapscal	5.4	4.4	4.3	3.5	1.4	1.1	1.3	1.0	3.9	3.0	3.3	2.6	3.6	2.9
		Daniel-Harbour	7.4	6.5	9.2	7.9	1.8	1.4	1.7	1.4	3.5	2.7	4.6	3.8	3.5	2.8
		Gaspé	15.8	15.6	13.2	12.9	1.5	1.2	1.4	1.2	3.3	2.6	3.3	2.7	2.9	2.4
		Mont-Joli	3.6	2.8	4.8	3.9	1.2	0.9	1.1	0.9	3.2	2.4	2.7	2.2	3.2	2.6
		Natashquan	18.0	17.8	5.9	4.7	1.4	1.1	1.4	1.1	3.3	2.6	5.1	4.1	4.0	3.2
		Sept-Îles	5.7	4.9	4.6	3.8	1.2	0.9	1.2	1.0	4.2	3.2	4.6	3.8	4.2	3.2
FEBRUARY	HUDSON BAY (3 stations)	Inukjuak	11.0	9.8	8.9	7.8	1.4	1.1	1.3	1.1	6.0	5.0	7.0	5.7	5.0	4.0
		Kuujuaq	9.1	8.3	12.5	11.0	1.4	1.1	1.3	1.1	4.2	3.4	11.5	9.6	4.4	3.5
		Moosonee	8.8	8.1	6.1	4.9	2.1	1.6	1.8	1.3	5.0	4.2	6.2	4.9	5.2	4.3
	LABRADOR (4 stations)	Cartwright	19.2	18.8	7.0	5.6	1.9	1.4	1.9	1.5	4.3	3.6	5.7	4.6	4.8	3.9
		Goosebay	4.9	4.2	6.3	5.2	1.8	1.2	1.8	1.4	4.5	3.6	5.6	4.5	5.1	4.1
		Kuujuaq	8.4	7.6	5.6	4.4	1.5	1.2	1.4	1.1	4.2	3.3	5.7	4.5	4.7	3.8
		Schefferville	7.5	6.6	5.7	4.4	1.7	1.3	1.7	1.3	4.0	3.2	5.8	4.6	4.5	3.6
	SOUTH (7 stations)	Amos	5.8	4.8	5.6	4.5	1.3	1.1	1.5	1.2	4.9	4.0	5.3	4.3	5.1	4.1
		Val d'Or	7.4	6.6	5.3	4.3	1.9	1.6	1.7	1.4	4.6	3.9	5.1	4.2	4.7	3.8
		Montreal-Dorval	3.5	2.8	4.5	3.6	1.8	1.3	1.8	1.4	3.3	2.7	4.0	3.2	4.0	3.3
		Montreal-McGill	4.0	3.3	4.8	4.1	1.3	1.0	1.6	1.3	2.9	2.3	3.7	2.8	3.6	2.9
		Drummondville	3.8	2.8	4.0	3.0	1.8	1.2	1.7	1.3	3.1	2.4	4.0	3.2	4.1	3.3
		Maniwaki	6.6	5.2	4.8	3.8	2.3	1.8	2.1	1.6	4.3	3.3	5.5	4.4	5.1	4.1
		Bagotville	3.5	2.9	4.4	3.4	1.7	1.4	2.1	1.7	3.8	3.0	4.7	3.6	4.1	3.2
	MARITIME (6 stations)	Causapscal	3.7	3.1	4.9	4.1	1.9	1.5	1.7	1.4	3.8	2.8	4.1	3.3	3.9	3.1
		Daniel-Harbour	5.5	4.7	7.0	6.1	1.8	1.4	1.9	1.5	3.8	2.9	4.9	3.8	4.5	3.6
		Gaspé	11.4	11.0	11.9	11.4	1.8	1.4	2.0	1.6	3.1	2.4	3.8	2.9	3.3	2.7
		Mont-Joli	3.9	3.0	4.0	3.0	1.3	1.0	1.3	1.1	2.8	2.2	3.4	2.6	3.5	2.7
		Natashquan	15.6	15.2	5.8	4.8	1.9	1.5	2.0	1.5	3.8	3.0	5.0	4.2	4.4	3.6
		Sept-Îles	4.2	3.8	5.0	3.9	1.5	1.1	1.4	1.1	3.8	3.1	4.9	3.9	4.4	3.5
MARCH	HUDSON BAY (3 stations)	Inukjuak	7.3	6.7	6.7	5.4	1.1	0.9	1.2	0.9	3.8	2.9	5.9	4.9	4.7	3.7
		Kuujuaq	7.9	7.3	8.3	6.7	1.4	1.2	1.3	1.1	3.9	2.9	10.0	8.6	4.8	3.9
		Moosonee	8.0	7.4	5.2	4.4	2.0	1.5	1.7	1.3	4.0	3.1	5.6	4.7	5.1	4.1
	LABRADOR (4 stations)	Cartwright	15.7	15.2	6.3	5.0	1.5	1.2	1.8	1.4	4.3	3.6	5.3	4.3	4.8	4.0
		Goosebay	4.7	3.7	5.7	4.3	1.8	1.3	1.7	1.4	4.8	3.9	5.2	4.4	5.0	4.1
		Kuujuaq	6.2	5.5	5.4	4.5	1.7	1.3	1.6	1.2	4.7	3.5	5.7	4.7	5.2	4.2
		Schefferville	6.0	5.3	5.0	3.5	1.4	1.1	1.3	1.0	4.2	3.3	5.1	4.1	4.8	3.9
	SOUTH (7 stations)	Amos	4.0	3.3	4.9	4.1	1.2	0.9	1.5	1.2	3.4	2.6	4.8	4.0	3.7	3.0
		Val d'Or	6.7	5.9	4.6	3.9	1.5	1.2	1.3	1.1	3.5	2.6	4.5	3.7	3.9	3.1
		Montreal-Dorval	3.0	2.4	5.6	4.8	1.4	1.1	1.5	1.2	3.2	2.6	3.2	2.6	3.0	2.4
		Montreal-McGill	4.0	3.4	5.2	4.0	1.3	1.0	1.5	1.2	2.5	1.9	3.3	2.7	2.8	2.3
		Drummondville	3.1	2.5	5.3	4.5	1.4	1.1	1.6	1.3	3.3	2.4	3.6	2.8	3.1	2.4
		Maniwaki	4.9	4.1	4.1	3.5	2.0	1.6	1.9	1.5	3.5	2.8	5.1	4.0	4.0	3.2
		Bagotville	4.2	3.1	3.9	3.1	1.2	0.9	1.6	1.4	4.4	3.4	4.4	3.3	3.8	3.0
	MARITIME (6 stations)	Causapscal	4.0	3.1	3.7	3.0	1.5	1.2	1.4	1.1	3.8	2.9	3.8	2.9	3.7	3.0
		Daniel-Harbour	5.5	4.6	5.8	4.3	1.4	1.1	1.4	1.1	3.8	3.2	4.0	3.5	4.2	3.5
		Gaspé	5.9	5.3	7.6	7.1	1.5	1.2	1.5	1.3	3.2	2.5	3.1	2.7	3.1	2.5
		Mont-Joli	5.7	4.8	4.9	4.1	1.1	0.9	1.1	0.9	2.5	2.1	2.8	2.3	3.0	2.5
		Natashquan	9.9	9.2	4.5	3.5	1.5	1.2	1.6	1.2	3.9	3.2	3.9	3.2	4.1	3.3
		Sept-Îles	4.1	3.2	4.6	3.6	1.2	1.0	1.2	0.9	3.7	2.9	3.8	3.1	4.1	3.4
APRIL	HUDSON BAY (3 stations)	Inukjuak	4.0	3.1	6.1	4.9	1.2	0.9	1.2	0.9	5.6	4.7	5.5	4.3	4.3	3.4
		Kuujuaq	6.7	5.3	5.6	4.8	1.8	1.4	1.4	1.2	6.4	5.4	5.8	4.1	4.3	3.5
		Moosonee	7.7	7.1	4.7	3.4	1.8	1.5	1.7	1.4	4.0	3.4	4.3	3.5	3.4	2.8
	LABRADOR (4 stations)	Cartwright	9.8	9.3	3.9	3.4	1.7	1.3	1.8	1.4	3.2	2.6	3.4	2.9	3.5	2.9
		Goosebay	4.5	3.7	4.9	4.1	1.7	1.2	1.8	1.3	3.4	2.8	3.2	2.6	3.7	3.0
		Kuujuaq	4.5	3.6	4.8	4.0	1.8	1.2	1.6	1.3	4.5	3.7	4.6	3.7	4.9	4.0
		Schefferville	4.8	3.9	5.1	4.3	1.8	1.4	1.4	1.2	4.5	3.7	4.6	3.9	4.6	3.7
	SOUTH (7 stations)	Amos	4.0	3.4	3.9	3.4	1.0	0.8	1.3	1.0	4.0	3.5	3.4	2.6	2.9	2.3
		Val d'Or	4.1	3.7	3.5	3.0	1.1	0.9	1.1	0.8	3.7	3.3	3.2	2.5	2.8	2.3
		Montreal-Dorval	1.7	1.4	4.0	3.2	1.0	0.8	1.0	0.8	2.8	2.5	2.2	1.8	2.1	1.7
		Montreal-McGill	3.2	2.9	3.9	3.1	0.9	0.7	0.9	0.7	2.7	2.4	2.1	1.7	2.0	1.6
		Drummondville	1.6	1.2	3.9	3.1	0.9	0.7	0.9	0.8	2.8	2.3	2.2	1.8	2.1	1.7
		Maniwaki	2.7	2.2	3.5	2.7	1.0	0.8	1.0	0.8	2.8	2.2	2.5	2.1	2.6	2.1
		Bagotville	3.9	3.0	2.5	2.0	1.4	1.2	1.4	1.1	3.5	3.0	2.2	1.8	3.7	3.0
	MARITIME (6 stations)	Causapscal	3.4	2.5	2.7	2.3	0.9	0.7	0.9	0.7	2.2	1.7	2.2	1.8	2.7	2.2
		Daniel-Harbour	3.4	2.9	3.3	2.7	1.0	0.8	1.1	0.9	2.4	1.9	2.3	2.0	2.7	2.2
		Gaspé	2.0	1.7	4.2	3.9	1.0	0.8	1.0	0.8	2.2	1.8	1.8	1.5	2.3	1.9
		Mont-Joli	4.5	3.6	2.6	2.2	0.9	0.7	0.9	0.7	1.9	1.4	1.7	1.4	2.0	1.6
		Natashquan	4.0	3.5	2.8	2.3	1.2	1.0	1.2	1.0	2.8	2.2	2.5	2.1	2.7	2.3
		Sept-Îles	3.4	2.5	3.2	2.8	0.8	0.6	0.8	0.6	2.4	1.8	2.0	1.6	2.7	2.2

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
MAY	HUDSON BAY (3 stations)	Inukjuak	4.0	3.4	2.3	1.9	0.9	0.7	0.9	0.7	5.4	5.0	2.1	1.7	2.9	2.4
		Kuujuarapik	4.2	3.7	1.5	1.3	0.9	0.7	0.9	0.7	3.3	2.9	1.6	1.2	2.9	2.3
		Moosonee	5.2	4.7	2.5	2.2	1.0	0.8	0.9	0.7	2.8	2.4	2.3	2.0	2.9	2.4
	LABRADOR (4 stations)	Cartwright	5.9	5.7	2.0	1.8	0.8	0.7	0.9	0.8	1.7	1.5	1.3	1.0	1.9	1.5
		Goosebay	2.3	1.8	3.1	2.5	0.9	0.7	1.0	0.8	1.9	1.5	1.7	1.3	2.4	1.9
		Kuujuuaq	4.4	3.8	2.7	2.1	0.8	0.7	0.8	0.7	2.2	1.9	2.6	2.1	2.9	2.3
		Schefferville	3.3	2.9	2.9	2.2	1.1	1.0	0.9	0.8	2.4	2.0	3.0	2.3	2.7	2.2
	SOUTH (7 stations)	Amos	2.7	2.1	2.2	1.7	0.7	0.6	0.7	0.6	4.3	3.7	2.2	1.7	2.6	2.1
		Val d'Or	4.6	3.9	2.1	1.7	0.9	0.7	0.8	0.7	4.0	3.4	2.1	1.6	2.4	1.9
		Montreal-Dorval	2.7	2.1	3.2	2.9	0.7	0.6	0.8	0.6	2.5	2.1	1.9	1.8	1.9	1.8
		Montreal-McGill	3.5	2.8	4.4	3.9	0.7	0.5	0.7	0.6	2.6	2.1	2.1	1.8	2.0	1.6
		Drummondville	2.7	2.3	3.0	2.6	0.9	0.7	1.0	0.7	2.9	2.3	2.2	1.8	2.1	1.7
		Maniwaki	3.9	3.3	1.9	1.6	0.6	0.5	0.7	0.5	2.6	2.2	2.0	1.7	2.0	1.6
		Bagotville	2.5	2.1	1.9	1.6	0.7	0.6	0.8	0.7	3.0	2.5	1.9	1.6	3.0	2.4
	MARITIME (6 stations)	Causapsal	2.9	2.3	2.7	2.3	1.1	0.9	0.9	0.7	2.2	1.7	1.8	1.4	2.2	1.7
		Daniel-Harbour	4.1	3.5	1.6	1.3	0.8	0.6	0.8	0.7	2.0	1.6	1.5	1.2	2.1	1.8
		Gaspé	1.9	1.7	3.9	3.7	0.8	0.7	0.8	0.7	2.0	1.6	1.4	1.1	1.6	1.3
		Mont-Joli	2.2	1.9	1.5	1.2	0.7	0.6	0.7	0.6	1.7	1.4	1.4	1.2	1.6	1.3
		Nataashquan	2.8	2.6	2.0	1.7	0.7	0.5	0.7	0.5	1.6	1.3	1.3	1.0	1.6	1.2
		Sept-Iles	2.7	2.0	1.5	1.2	0.6	0.5	0.6	0.5	1.6	1.3	1.5	1.1	1.7	1.4
JUNE	HUDSON BAY (3 stations)	Inukjuak	3.4	2.9	2.7	2.3	1.1	0.9	1.1	0.9	3.2	2.5	2.3	1.7	2.5	2.0
		Kuujuarapik	6.7	6.3	3.5	3.2	1.1	0.9	1.0	0.8	2.4	1.9	3.6	3.2	2.5	2.0
		Moosonee	6.5	6.1	1.9	1.6	1.4	1.2	1.2	1.0	3.5	3.1	2.0	1.6	3.1	2.5
	LABRADOR (4 stations)	Cartwright	3.9	3.8	2.2	1.9	0.8	0.6	0.9	0.7	1.4	1.1	1.3	1.1	1.3	1.1
		Goosebay	3.3	2.8	2.3	1.9	1.0	0.8	1.0	0.8	1.8	1.5	1.9	1.6	1.8	1.4
		Kuujuuaq	4.1	3.4	2.2	1.8	0.9	0.7	0.9	0.7	1.5	1.3	1.8	1.5	1.7	1.4
		Schefferville	4.4	3.7	2.2	1.9	1.1	0.9	1.0	0.8	1.9	1.6	2.3	1.9	1.9	1.5
	SOUTH (7 stations)	Amos	3.8	3.3	1.4	1.1	0.6	0.5	0.8	0.6	3.2	2.7	1.9	1.6	2.1	1.7
		Val d'Or	5.7	5.3	1.6	1.3	0.9	0.7	0.8	0.7	3.8	3.1	1.7	1.4	2.1	1.7
		Montreal-Dorval	2.2	1.8	3.5	3.2	0.8	0.7	0.8	0.7	1.6	1.3	1.6	1.3	1.7	1.4
		Montreal-McGill	2.3	1.9	4.8	4.6	0.6	0.5	0.7	0.5	1.6	1.4	1.5	1.2	1.6	1.3
		Drummondville	2.3	1.9	3.3	3.0	0.7	0.5	0.8	0.7	1.9	1.6	1.6	1.3	1.8	1.4
		Maniwaki	4.8	4.3	2.2	1.7	0.8	0.6	0.8	0.6	2.0	1.6	1.7	1.4	1.9	1.5
		Bagotville	2.2	1.8	2.3	1.9	0.8	0.7	0.8	0.7	1.9	1.6	1.6	1.3	1.9	1.6
	MARITIME (6 stations)	Causapsal	4.0	3.6	2.3	2.0	1.0	0.8	1.0	0.8	1.6	1.3	1.7	1.3	1.8	1.4
		Daniel-Harbour	5.2	4.8	2.0	1.7	1.1	0.9	1.1	0.9	1.5	1.2	1.5	1.1	1.5	1.2
		Gaspé	2.4	2.1	3.3	2.9	0.9	0.7	0.9	0.7	2.1	1.8	1.9	1.5	1.7	1.3
		Mont-Joli	2.4	2.0	1.7	1.4	0.8	0.6	0.8	0.6	1.8	1.4	1.6	1.3	1.6	1.3
		Nataashquan	2.4	2.2	1.5	1.2	0.8	0.7	0.9	0.7	1.2	1.0	1.3	1.0	1.3	1.0
		Sept-Iles	4.0	3.7	1.5	1.2	0.6	0.5	0.6	0.5	1.4	1.1	1.3	1.1	1.3	1.0
JULY	HUDSON BAY (3 stations)	Inukjuak	2.2	1.7	4.7	4.3	1.3	1.1	1.3	1.1	2.7	2.2	2.2	1.7	2.0	1.6
		Kuujuarapik	9.5	9.4	4.0	3.8	0.9	0.8	0.9	0.7	1.8	1.5	2.1	1.8	1.7	1.3
		Moosonee	8.2	8.0	1.8	1.6	1.1	0.9	1.1	0.9	2.8	2.5	1.7	1.5	2.1	1.7
	LABRADOR (4 stations)	Cartwright	2.5	2.3	2.6	2.1	0.9	0.7	1.0	0.8	1.5	1.2	1.7	1.4	1.6	1.3
		Goosebay	4.1	3.8	3.8	3.3	0.8	0.6	0.7	0.6	1.5	1.2	2.2	1.9	1.7	1.4
		Kuujuuaq	7.4	7.2	1.3	1.1	0.9	0.7	0.8	0.7	1.1	0.9	1.2	0.9	1.7	1.3
		Schefferville	6.2	6.0	2.8	2.4	0.6	0.5	0.6	0.4	1.3	1.0	1.8	1.4	1.5	1.2
	SOUTH (7 stations)	Amos	5.9	5.7	1.5	1.1	0.6	0.5	0.6	0.5	2.0	1.7	1.7	1.3	1.9	1.6
		Val d'Or	7.7	7.5	1.6	1.4	0.8	0.6	0.8	0.6	2.6	2.2	2.0	1.7	1.8	1.5
		Montreal-Dorval	3.5	3.1	3.5	3.2	0.8	0.7	0.8	0.6	1.7	1.4	1.5	1.2	1.5	1.2
		Montreal-McGill	1.7	1.4	5.1	4.8	0.7	0.5	0.7	0.6	1.4	1.2	1.4	1.2	1.4	1.1
		Drummondville	3.2	2.8	3.5	3.2	0.7	0.6	0.8	0.6	1.7	1.3	1.4	1.2	1.5	1.2
		Maniwaki	6.9	6.7	2.0	1.6	0.6	0.5	0.6	0.5	1.8	1.5	1.5	1.2	1.7	1.4
		Bagotville	3.9	3.5	2.3	1.8	0.6	0.5	0.6	0.5	1.5	1.2	1.6	1.3	1.7	1.4
	MARITIME (6 stations)	Causapsal	5.8	5.6	2.4	1.9	0.8	0.7	0.9	0.7	1.6	1.3	1.9	1.6	1.9	1.6
		Daniel-Harbour	5.5	5.3	2.2	1.8	0.7	0.6	0.7	0.6	1.3	1.0	2.0	1.6	1.6	1.3
		Gaspé	2.4	2.3	2.5	2.1	0.7	0.6	0.7	0.6	1.3	1.1	2.0	1.6	1.6	1.3
		Mont-Joli	3.9	3.7	1.9	1.5	0.7	0.6	0.7	0.6	1.4	1.2	1.7	1.4	1.6	1.3
		Nataashquan	2.4	2.1	2.0	1.7	0.8	0.7	0.8	0.7	1.5	1.2	1.9	1.6	1.7	1.4
		Sept-Iles	5.2	5.0	2.2	1.9	0.8	0.5	0.6	0.5	1.2	1.0	1.4	1.2	1.4	1.2
AUGUST	HUDSON BAY (3 stations)	Inukjuak	3.0	2.5	3.9	3.6	0.9	0.7	0.9	0.7	1.7	1.4	1.9	1.5	2.0	1.6
		Kuujuarapik	9.0	8.9	3.6	3.3	0.9	0.7	0.9	0.7	1.4	1.1	1.8	1.4	1.9	1.5
		Moosonee	8.8	8.6	2.0	1.6	1.2	1.0	1.0	0.9	2.8	2.3	1.9	1.5	2.2	1.8
	LABRADOR (4 stations)	Cartwright	3.7	3.5	1.8	1.2	0.7	0.5	0.7	0.6	1.2	1.0	1.3	1.1	1.4	1.1
		Goosebay	5.4	5.2	4.5	4.2	0.7	0.6	0.8	0.7	1.3	1.1	1.6	1.4	1.7	1.4
		Kuujuuaq	7.6	7.5	2.6	2.3	0.7	0.6	0.6	0.5	1.3	1.0	1.4	1.2	1.7	1.4
		Schefferville	8.0	7.8	3.6	3.3	0.8	0.7	0.6	0.4	1.5	1.3	1.6	1.2	1.8	1.4
	SOUTH (7 stations)	Amos	7.2	7.1	1.5	1.2	0.7	0.5	0.7	0.6	1.6	1.3	1.5	1.2	1.9	1.5
		Val d'Or	8.6	8.5	1.7	1.4	0.8	0.6	0.7	0.6	2.0	1.5	1.8	1.5	2.0	1.6
		Montreal-Dorval	4.6	4.3	3.9	3.6	0.6	0.5	0.7	0.6	2.0	1.7	1.4	1.1	1.7	1.4
		Montreal-McGill	2.5	2.1	5.1	4.9	0.5	0.4	0.6	0.5	1.9	1.5	1.5	1.2	1.7	1.4
		Drummondville	4.5	4.3	4.0	3.7	0.7	0.6	0.8	0.6	2.1	1.7	1.6	1.3	1.8	1.4
		Maniwaki	7.8	7.6	2.5	1.9	0.6	0.5	0.6	0.5	2.3	1.8	1.8	1.5	2.0	1.6
		Bagotville	5.2	4.9	2.7	2.2	0.7	0.6	0.6	0.5	2.4	2.0	1.6	1.3	2.3	1.9
	MARITIME (6 stations)	Causapsal	7.0	6.7	2.1	1.6	1.3	0.9	1.4	0.9	1.8	1.3	1.8	1.5	2.2	1.7
		Daniel-Harbour	5.7	5.5	2.9	2.3	0.8	0.6	0.7	0.6	1.3	1.0	1.6	1.3	1.6	1.3
		Gaspé	4.8	4.6	4.4	4.1	0.8	0.7	0.9	0.7	1.7	1.4	1.6	1.3	1.8	1.4
		Mont-Joli	5.4	5.2	2.1	1.7	0.6	0.5	0.6	0.5	1.4	1.1	1.5	1.2	1.6	1.3
		Nataashquan	4.8	4.7	1.9	1.6	1.1	0.9	1.2	1.0	1.3	1.0	1.6	1.4	1.8	1.5
		Sept-Iles	6.7	6.5	2.7	2.3	0.8	0.5	0.6	0.5	1.2	0.9	1.2	1.0	1.5	1.2

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
SEPTEMBER	HUDSON BAY (3 stations)	Inukjuak	6,7	6,5	1,4	1,1	0,6	0,5	0,6	0,5	1,8	1,5	1,7	1,4	1,8	1,5
		Kuujuaq	6,5	6,1	1,5	1,3	0,8	0,7	0,7	0,8	1,8	1,6	1,9	1,5	1,8	1,5
		Moosonee	7,3	6,9	2,4	1,8	1,0	0,8	0,9	0,7	2,2	1,8	2,5	2,0	2,5	2,0
	LABRADOR (4 stations)	Cartwright	6,0	5,9	2,1	1,8	0,6	0,5	0,6	0,5	0,9	0,8	1,0	0,8	1,3	1,0
		Goosebay	4,2	3,9	3,9	3,7	0,7	0,6	0,8	0,6	1,3	1,0	1,3	1,1	1,5	1,2
		Kuujuaq	5,9	5,7	2,3	2,0	0,6	0,5	0,6	0,5	1,4	1,2	1,3	1,1	1,6	1,3
		Schefferville	6,9	6,7	2,6	2,2	0,9	0,7	0,7	0,5	1,7	1,4	1,8	1,5	1,9	1,5
	SOUTH (7 stations)	Amos	6,3	6,0	2,4	1,9	0,7	0,6	0,9	0,7	2,3	1,9	2,4	2,0	2,1	1,7
		Val d'Or	8,5	8,3	2,5	2,0	1,0	0,8	0,9	0,8	2,0	1,6	2,6	2,1	2,2	1,8
		Montreal-Dorval	5,0	4,6	3,5	2,9	0,8	0,6	0,9	0,7	2,2	1,8	2,0	1,8	2,1	1,7
		Montreal-McGill	2,8	2,3	4,8	4,4	0,6	0,5	0,7	0,6	1,9	1,6	1,8	1,4	1,9	1,5
		Drummondville	4,5	4,2	3,4	2,9	0,8	0,6	0,9	0,7	1,8	1,3	1,9	1,4	1,8	1,5
		Maniwaki	7,8	7,3	2,8	2,2	0,8	0,7	0,7	0,8	2,3	1,9	2,3	1,7	2,1	1,7
		Bagotville	4,9	4,5	2,4	2,0	0,8	0,6	1,0	0,8	2,1	1,6	1,9	1,5	2,8	2,3
	MARITIME (6 stations)	Causapsal	6,4	6,1	2,0	1,5	1,5	0,9	1,3	0,8	1,9	1,4	2,0	1,5	2,2	1,6
		Daniel-Harbour	4,0	3,8	4,0	3,6	0,7	0,6	0,7	0,6	1,1	0,8	1,4	1,1	1,5	1,2
		Gaspe	7,6	7,5	6,7	6,5	0,9	0,8	0,9	0,7	1,8	1,4	1,5	1,2	1,8	1,4
		Mont-Joli	4,5	4,3	2,2	2,0	0,7	0,6	0,7	0,6	1,3	1,1	1,4	1,1	1,5	1,2
		Natashquan	8,1	8,0	2,4	2,0	1,0	0,8	1,0	0,8	1,3	1,1	1,6	1,4	1,7	1,4
		Sept-Iles	6,3	6,1	2,5	2,1	0,7	0,6	0,7	0,6	1,5	1,2	1,4	1,2	1,6	1,3
OCTOBER	HUDSON BAY (3 stations)	Inukjuak	9,3	9,0	3,6	3,1	0,8	0,7	0,8	0,7	3,1	2,7	2,5	2,1	2,4	2,0
		Kuujuaq	4,5	4,1	3,1	2,7	1,0	0,8	0,9	0,7	1,8	1,5	2,2	1,8	1,8	1,5
		Moosonee	5,1	4,5	2,3	1,8	0,9	0,8	0,9	0,8	2,1	1,7	2,5	2,0	2,6	2,1
	LABRADOR (4 stations)	Cartwright	8,1	8,0	2,5	2,1	0,7	0,6	0,8	0,7	1,5	1,1	1,5	1,2	1,6	1,3
		Goosebay	4,2	3,7	3,2	2,8	1,0	0,8	1,0	0,8	2,0	1,5	2,0	1,6	2,2	1,8
		Kuujuaq	6,0	5,6	2,6	2,2	1,1	1,0	1,1	1,0	2,6	2,0	2,2	1,7	2,4	1,9
		Schefferville	7,0	6,7	2,3	1,8	1,1	0,9	0,9	0,7	2,5	1,8	2,3	1,7	2,5	2,0
	SOUTH (7 stations)	Amos	4,4	4,0	2,3	1,8	0,8	0,6	0,8	0,6	2,2	1,8	2,3	1,8	2,3	1,8
		Val d'Or	6,0	5,6	2,4	1,9	0,8	0,7	0,8	0,6	2,2	1,7	2,5	2,0	2,3	1,8
		Montreal-Dorval	3,2	2,7	3,6	3,1	0,8	0,6	0,9	0,7	2,0	1,7	2,5	1,9	2,3	1,8
		Montreal-McGill	2,3	1,8	4,6	4,2	0,8	0,6	0,8	0,6	2,0	1,7	2,2	1,7	2,0	1,6
		Drummondville	3,1	2,5	3,5	2,9	1,0	0,7	0,9	0,7	1,9	1,6	2,5	1,8	2,1	1,7
		Maniwaki	5,4	5,0	2,5	1,9	0,8	0,6	0,8	0,7	2,1	1,6	2,3	1,7	2,1	1,7
		Bagotville	3,3	2,8	2,2	1,8	0,8	0,6	0,8	0,7	1,8	1,4	1,8	1,3	2,0	1,7
	MARITIME (6 stations)	Causapsal	4,6	4,1	1,7	1,3	1,0	0,8	1,0	0,7	2,0	1,5	1,7	1,3	1,9	1,5
		Daniel-Harbour	4,0	3,4	4,0	3,6	0,7	0,5	0,7	0,6	1,8	1,2	1,6	1,2	1,6	1,3
		Gaspe	8,6	8,5	7,3	7,1	0,7	0,5	0,7	0,6	1,8	1,4	1,6	1,2	1,6	1,3
		Mont-Joli	2,7	2,2	3,0	2,7	0,8	0,5	0,6	0,5	1,8	1,3	1,6	1,2	1,6	1,3
		Natashquan	9,9	9,8	1,9	1,6	0,9	0,8	1,0	0,8	1,7	1,3	1,6	1,3	1,8	1,5
		Sept-Iles	5,2	4,8	2,0	1,7	0,8	0,6	0,7	0,6	1,7	1,3	1,5	1,1	1,9	1,5
NOVEMBER	HUDSON BAY (3 stations)	Inukjuak	13,6	13,3	8,9	8,4	2,2	1,8	2,2	1,8	3,5	3,0	5,0	4,0	3,6	2,9
		Kuujuaq	8,8	8,5	7,5	7,2	1,2	0,9	1,1	0,9	3,1	2,2	6,6	5,6	3,1	2,5
		Moosonee	9,7	9,3	3,6	2,7	1,3	1,1	1,1	0,9	4,1	3,2	3,3	2,6	3,5	2,8
	LABRADOR (4 stations)	Cartwright	10,3	10,1	3,7	3,0	0,9	0,7	1,0	0,8	2,3	1,8	2,1	1,7	2,6	2,0
		Goosebay	7,8	7,4	3,6	2,9	1,1	0,9	1,2	0,9	3,0	2,3	2,9	2,3	3,2	2,5
		Kuujuaq	10,9	10,5	3,6	3,0	1,3	1,0	1,2	1,0	3,1	2,2	3,5	2,6	3,5	2,7
		Schefferville	12,5	12,1	3,7	2,9	1,5	1,2	1,6	1,3	3,5	2,7	4,3	3,5	3,4	2,7
	SOUTH (7 stations)	Amos	7,9	7,6	3,4	2,7	1,0	0,8	1,2	0,9	3,6	2,7	2,9	2,3	2,7	2,2
		Val d'Or	8,8	8,4	3,2	2,6	1,4	1,1	1,2	1,0	3,6	2,6	2,8	2,3	3,0	2,5
		Montreal-Dorval	4,1	3,5	4,6	3,8	0,9	0,7	0,9	0,7	2,4	1,8	2,1	1,7	2,3	1,8
		Montreal-McGill	2,6	2,0	4,9	4,1	0,8	0,6	0,9	0,7	2,3	1,7	2,1	1,7	2,2	1,8
		Drummondville	4,4	3,9	4,3	3,5	0,9	0,7	0,9	0,7	2,4	1,8	2,1	1,6	2,2	1,8
		Maniwaki	6,7	6,2	3,8	3,2	1,3	1,0	1,2	1,0	2,8	2,1	2,3	2,0	2,6	2,1
		Bagotville	6,4	6,0	2,7	2,3	1,1	0,9	1,2	1,0	3,8	2,8	2,3	1,9	3,1	2,5
	MARITIME (6 stations)	Causapsal	6,9	6,5	2,9	2,3	1,2	1,0	1,2	1,0	2,8	2,1	2,2	1,7	2,6	2,1
		Daniel-Harbour	4,1	3,7	6,1	5,5	0,8	0,6	0,8	0,6	1,8	1,4	1,9	1,5	2,1	1,7
		Gaspe	9,8	9,6	7,1	6,8	1,0	0,8	1,2	0,9	2,5	1,9	2,0	1,4	2,3	1,9
		Mont-Joli	4,5	4,0	4,4	3,9	0,7	0,6	0,7	0,6	2,5	1,8	1,9	1,5	2,2	1,8
		Natashquan	11,8	11,6	2,9	2,4	1,0	0,8	1,0	0,8	2,6	2,0	2,0	1,6	2,6	2,1
		Sept-Iles	7,6	7,2	4,2	3,5	0,9	0,8	1,0	0,8	3,1	2,4	2,4	1,9	2,9	2,4
DECEMBER	HUDSON BAY (3 stations)	Inukjuak	20,6	20,2	17,3	16,9	2,5	2,0	2,5	2,0	6,7	5,7	8,3	7,4	4,8	3,8
		Kuujuaq	12,0	10,9	17,1	16,7	1,7	1,4	1,8	1,4	7,8	6,6	10,1	9,2	4,9	3,9
		Moosonee	14,8	13,9	6,3	5,0	1,4	1,1	1,6	1,3	7,9	6,7	5,3	4,3	5,9	4,7
	LABRADOR (4 stations)	Cartwright	16,5	16,0	6,0	5,1	1,5	1,2	1,7	1,4	4,3	3,5	5,0	4,2	4,6	3,8
		Goosebay	9,0	8,2	6,0	5,0	1,7	1,3	1,6	1,3	4,7	3,8	5,3	4,4	5,1	4,2
		Kuujuaq	8,5	7,3	6,2	5,2	1,5	1,2	1,6	1,3	4,7	3,8	4,7	3,8	5,1	4,1
		Schefferville	11,2	10,2	6,7	5,6	2,0	1,6	1,8	1,4	4,6	3,8	5,2	4,0	5,0	4,1
	SOUTH (7 stations)	Amos	14,1	13,3	7,2	5,8	1,3	1,1	1,8	1,5	9,7	8,7	5,9	4,7	4,8	3,7
		Val d'Or	17,4	16,9	6,5	5,1	1,9	1,6	1,6	1,3	8,4	6,8	5,6	4,4	4,8	3,8
		Montreal-Dorval	11,2	10,5	4,4	3,6	1,6	1,3	2,2	1,7	6,6	5,5	4,3	3,2	4,3	3,4
		Montreal-McGill	8,9	8,3	4,3	3,3	1,6	1,2	1,9	1,5	6,8	6,0	3,9	2,9	3,8	2,9
		Drummondville	11,9	11,4	4,4	3,5	1,6	1,3	1,8	1,5	6,9	5,9	4,7	3,6	4,1	3,1
		Maniwaki	15,1	14,5	5,5	4,4	2,3	1,8	2,2	1,8	8,4	7,1	5,6	4,3	5,0	3,9
		Bagotville	11,4	10,7	5,6	4,2	1,7	1,3	2,0	1,6	6,8	5,7	5,2	3,8	6,8	5,5
	MARITIME (6 stations)	Causapsal	11,5	10,8	4,6	3,6	1,5	1,2	1,6	1,3	3,7	3,1	4,0	3,1	3,9	3,2
		Daniel-Harbour	8,6	8,1	7,9	6,8	1,3	1,0	1,3	1,1	3,1	2,4	3,6	2,9	3,3	2,6
		Gaspe	14,2	13,8	11,0	10,5	1,2	1,0	1,6	1,2	3,6	3,0	3,8	3,2	3,5	2,9
		Mont-Joli	7,7	7,0	5,0	4,3	1,0	0,8	1,1	0,9	3,3	2,7	3,2	2,5	3,3	2,7
		Natashquan	17,3	16,9	4,8	4,0	1,3	1,0	1,3	1,0	3,8	3,1	4,3	3,6	4,1	3,3
		Sept-Iles	12,2	11,4	4,3	3,9	1,1	0,9	1,2	1,0	4,1	3,4	4,2	3,4	4,3	3,5

Table 2.4 Same as Table 2.3 but for the monthly maximum temperature.

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
JANUARY	HUDSON BAY (3 stations)	Inukjuak	16,8	16,4	11,7	10,3	1,2	1,0	1,3	1,1	10,3	9,8	9,5	7,3	4,1	3,3
		Kuujuarapik	9,2	8,6	12,3	11,5	1,1	0,9	1,0	0,8	7,0	6,3	10,9	9,2	4,2	3,3
		Moosonee	8,9	8,1	5,2	4,3	0,9	0,7	1,3	1,0	6,3	5,4	4,3	3,3	4,8	4,0
	LABRADOR (4 stations)	Cartwright	11,2	10,7	5,3	4,4	1,4	1,1	1,4	1,1	3,9	3,2	5,6	4,6	3,9	3,1
		Goosebay	4,5	3,8	5,1	4,0	1,1	0,9	1,1	0,9	3,4	2,7	5,2	4,3	4,0	3,2
		Kuujuuaq	7,8	6,6	6,2	4,9	1,4	1,1	1,3	1,0	4,8	4,1	6,5	5,5	4,9	4,1
		Schefferville	8,1	7,3	5,4	4,2	1,1	0,9	1,1	0,8	4,1	3,2	5,4	4,5	4,6	3,7
	SOUTH (7 stations)	Amos	7,3	6,2	4,5	3,8	1,2	1,0	1,1	0,9	6,0	5,0	3,7	3,0	4,2	3,5
		Val d'Or	9,2	8,2	3,7	3,0	0,8	0,6	0,8	0,6	6,1	5,0	3,7	3,0	3,6	3,0
		Montreal-Dorval	5,5	4,4	3,9	3,1	1,3	1,1	1,2	1,0	5,7	4,5	3,8	3,2	4,3	3,6
		Montreal-McGill	5,2	4,3	3,5	3,0	1,3	1,0	1,4	1,1	6,0	4,9	4,0	3,4	3,7	3,1
		Drummondville	5,9	5,0	3,8	3,1	1,2	1,0	1,3	1,0	5,5	4,5	4,3	3,7	3,7	3,0
		Maniwaki	6,2	5,3	3,2	2,7	1,0	0,8	1,1	0,9	5,7	4,6	3,8	3,1	3,5	2,8
		Bagotville	5,5	4,6	3,6	3,0	1,0	0,8	0,9	0,7	5,7	4,7	3,8	3,0	3,5	2,8
	MARITIME (6 stations)	Causapscal	4,3	3,6	2,7	2,2	1,0	0,8	0,9	0,7	3,2	2,5	2,8	2,3	3,2	2,6
		Daniel-Harbour	4,3	3,8	5,9	4,9	0,8	0,7	0,8	0,7	2,7	2,1	3,9	3,0	2,7	2,1
		Gaspe	5,3	5,0	5,0	4,4	1,2	0,9	1,0	0,8	2,8	2,1	2,9	2,4	2,4	1,9
		Mont-Joli	3,7	2,9	2,6	2,2	1,4	1,2	1,0	0,8	3,4	2,7	2,7	2,2	3,3	2,7
		Natashquan	7,7	7,5	4,0	3,0	1,2	0,9	1,2	1,0	2,9	2,3	3,9	3,0	2,9	2,3
		Sept-Iles	4,8	4,3	3,8	3,0	0,9	0,7	0,9	0,7	3,4	2,6	3,3	2,6	3,2	2,6
FEBRUARY	HUDSON BAY (3 stations)	Inukjuak	10,9	10,0	6,7	5,2	1,2	1,0	1,2	1,0	7,1	6,1	8,2	6,6	5,4	4,4
		Kuujuarapik	9,3	8,6	7,0	5,4	1,3	1,1	1,1	0,9	5,0	4,1	9,1	7,4	4,3	3,5
		Moosonee	7,2	6,6	7,3	5,9	1,0	0,8	0,9	0,7	4,7	3,9	5,4	4,3	3,9	3,2
	LABRADOR (4 stations)	Cartwright	10,1	9,6	4,5	3,7	1,1	0,9	1,2	0,9	3,5	2,8	5,0	3,8	3,9	3,1
		Goosebay	4,0	3,4	4,3	3,6	1,1	0,9	1,4	1,1	3,8	3,0	4,9	3,9	4,1	3,3
		Kuujuuaq	7,3	6,4	5,7	4,7	1,1	0,9	1,2	1,0	4,5	3,7	6,2	5,0	4,8	3,8
		Schefferville	6,9	6,2	5,6	4,3	1,0	0,8	1,2	1,0	3,8	3,0	5,7	4,6	4,3	3,4
	SOUTH (7 stations)	Amos	5,0	4,3	4,6	3,8	0,9	0,7	1,1	0,9	3,9	3,2	4,5	3,6	4,1	3,4
		Val d'Or	5,8	5,2	3,8	3,1	0,9	0,8	0,8	0,7	3,9	3,3	4,3	3,5	3,6	2,9
		Montreal-Dorval	2,8	1,9	3,3	2,6	1,0	0,9	1,0	0,8	3,1	2,3	3,4	2,7	3,7	3,0
		Montreal-McGill	2,5	1,8	3,0	2,4	1,0	0,8	1,1	0,9	2,7	2,0	3,7	3,0	3,4	2,7
		Drummondville	3,3	2,6	3,1	2,4	1,2	0,9	1,3	1,0	3,2	2,5	3,7	3,1	3,5	2,8
		Maniwaki	2,9	2,2	3,2	2,6	1,1	0,8	1,1	0,8	2,6	2,1	3,8	3,1	3,4	2,8
		Bagotville	3,2	2,6	3,6	3,0	1,0	0,8	1,0	0,8	3,6	3,0	3,6	3,0	3,2	2,5
	MARITIME (6 stations)	Causapscal	2,5	2,0	2,8	2,2	1,0	0,7	1,0	0,8	2,8	2,2	3,2	2,5	3,2	2,6
		Daniel-Harbour	4,8	4,2	4,0	3,6	1,1	0,8	1,1	0,8	3,0	2,4	4,1	3,0	3,5	2,7
		Gaspe	3,1	2,7	3,4	2,8	0,9	0,7	0,9	0,7	2,3	1,7	3,1	2,5	2,6	2,1
		Mont-Joli	2,4	1,9	2,8	2,3	1,2	1,0	0,9	0,7	2,5	1,9	3,1	2,5	3,1	2,4
		Natashquan	5,7	5,2	3,3	2,6	0,9	0,7	0,9	0,7	2,7	2,1	3,5	2,9	3,0	2,5
		Sept-Iles	2,9	2,5	3,1	2,4	0,9	0,7	0,9	0,7	2,7	2,1	3,3	2,6	2,9	2,4
MARCH	HUDSON BAY (3 stations)	Inukjuak	7,3	6,8	4,9	3,9	1,0	0,8	1,0	0,8	3,8	2,9	5,6	4,6	4,4	3,6
		Kuujuarapik	7,3	6,6	4,3	3,6	1,3	1,1	1,1	0,9	3,4	2,7	5,9	5,2	4,1	3,3
		Moosonee	4,2	3,6	6,2	5,3	0,9	0,7	0,9	0,7	3,0	2,4	4,2	3,5	3,2	2,6
	LABRADOR (4 stations)	Cartwright	6,5	6,0	3,7	3,0	0,8	0,6	1,1	0,9	2,6	2,2	3,5	2,9	2,9	2,4
		Goosebay	2,7	2,0	4,1	3,3	0,8	0,6	1,2	1,0	2,7	2,3	3,8	2,9	3,2	2,6
		Kuujuuaq	5,1	4,5	5,0	4,1	1,1	0,9	1,1	0,9	3,9	3,1	5,0	4,0	4,4	3,6
		Schefferville	4,6	4,0	5,1	3,9	0,9	0,8	0,9	0,7	3,5	2,7	4,4	3,6	3,9	3,2
	SOUTH (7 stations)	Amos	2,5	2,0	3,2	2,7	0,9	0,7	1,1	0,9	2,7	2,1	3,5	3,0	3,1	2,5
		Val d'Or	2,4	2,1	2,9	2,6	0,9	0,7	0,8	0,6	2,6	2,1	3,7	3,2	3,0	2,4
		Montreal-Dorval	3,3	2,8	4,5	3,7	0,9	0,7	1,1	0,9	2,5	2,1	2,9	2,5	2,5	2,0
		Montreal-McGill	3,7	3,2	3,9	3,2	1,2	0,9	1,3	1,0	2,8	2,3	3,2	2,7	2,8	2,2
		Drummondville	3,0	2,4	4,5	3,6	1,1	0,8	1,2	1,0	3,2	2,6	3,2	2,7	2,8	2,2
		Maniwaki	3,1	2,5	4,7	4,2	1,2	1,0	1,0	0,8	2,8	2,3	3,7	2,9	2,8	2,3
		Bagotville	2,7	2,2	2,9	2,5	1,0	0,8	1,0	0,8	2,4	1,9	3,1	2,6	4,0	3,2
	MARITIME (6 stations)	Causapscal	3,2	2,6	3,3	2,6	0,8	0,7	0,9	0,7	2,3	1,8	2,8	2,3	2,7	2,1
		Daniel-Harbour	2,3	2,0	3,3	2,4	0,7	0,5	0,7	0,5	2,5	2,1	2,8	2,4	2,7	2,2
		Gaspe	2,9	2,3	2,5	2,0	0,9	0,7	0,9	0,7	2,1	1,7	2,8	2,4	2,2	1,8
		Mont-Joli	2,4	2,0	2,5	2,0	1,2	1,0	0,8	0,7	2,1	1,7	2,7	2,3	2,5	2,1
		Natashquan	2,2	1,9	2,7	2,0	0,9	0,7	0,8	0,6	2,5	2,0	2,6	2,2	2,5	2,0
		Sept-Iles	2,4	1,9	3,2	2,4	1,0	0,8	0,9	0,7	2,5	2,0	2,6	2,1	2,7	2,2
APRIL	HUDSON BAY (3 stations)	Inukjuak	3,9	3,1	4,0	3,3	1,0	0,8	0,9	0,7	4,6	3,8	4,4	3,5	3,6	2,9
		Kuujuarapik	3,3	2,8	4,1	2,9	1,3	1,0	1,1	0,9	4,8	4,0	4,7	3,7	3,7	3,0
		Moosonee	3,1	2,7	5,8	4,6	1,2	0,9	1,1	0,9	3,2	2,7	4,6	3,7	2,8	2,3
	LABRADOR (4 stations)	Cartwright	3,0	2,3	2,9	2,4	0,8	0,6	0,9	0,7	2,4	2,0	2,5	2,1	2,5	2,1
		Goosebay	4,7	4,2	5,2	4,6	0,8	0,7	1,0	0,8	2,6	2,1	2,4	1,9	2,9	2,3
		Kuujuuaq	3,5	3,0	3,2	2,6	1,1	0,9	1,1	1,0	3,5	2,9	3,6	2,9	4,0	3,2
		Schefferville	2,6	2,1	4,2	3,4	0,8	0,7	0,7	0,6	3,2	2,6	3,0	2,5	3,3	2,7
	SOUTH (7 stations)	Amos	5,8	5,3	4,3	3,4	1,1	0,8	1,2	0,9	3,9	3,4	3,9	3,2	2,9	2,3
		Val d'Or	6,1	5,7	4,3	3,4	1,2	0,9	1,0	0,8	3,6	3,1	4,4	3,5	2,9	2,3
		Montreal-Dorval	9,4	8,1	5,7	4,6	1,1	0,9	1,2	1,0	3,8	3,0	3,8	2,9	2,6	2,0
		Montreal-McGill	9,7	8,5	3,9	3,2	1,3	1,0	1,1	0,9	4,4	3,7	3,4	2,8	2,7	2,2
		Drummondville	9,3	9,0	5,5	4,4	1,4	1,1	1,2	1,0	4,3	3,6	3,2	2,6	2,8	2,2
		Maniwaki	8,8	8,5	5,8	4,6	1,3	1,0	1,3	1,0	4,9	4,1	3,8	3,1	3,0	2,3
		Bagotville	7,7	7,5	3,9	3,1	1,3	1,0	1,3	1,1	3,5	2,9	3,5	2,8	5,0	4,1
	MARITIME (6 stations)	Causapscal	7,1	7,0	4,0	3,3	0,9	0,7	1,0	0,8	2,2	1,8	2,8	2,2	2,5	2,0
		Daniel-Harbour	3,0	2,3	2,6	2,1	0,8	0,6	0,8	0,6	2,6	2,1	2,4	2,1	2,3	1,9
		Gaspe	6,6	6,5	3,5	3,3	1,2	1,0	1,0	0,8	1,9	1,4	2,0	1,6	1,8	1,5
		Mont-Joli	5,4	5,3	3,1	2,6	1,3	1,0	1,0	0,8	2,1	1,6	2,5	1,8	2,2	1,7
		Natashquan	3,4	3,2	2,7	2,4	1,1	0,9	0,9	0,8	1,6	1,3	1,8	1,3	1,7	1,4
		Sept-Iles	3,9	3,7	2,9	2,4	1,1	0,9	1,0	0,8	1,5	1,2	1,5	1,2	1,7	1,4

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
MAY	HUDSON BAY (3 stations)	Inukjuak	2.4	1.9	2.6	2.2	1.0	0.8	1.2	0.9	4.7	4.2	2.2	1.7	2.7	2.2
		Kuujuaq	3.8	3.1	6.9	6.7	1.3	1.1	1.2	1.0	4.7	4.2	2.2	1.8	3.3	2.7
		Moosonee	3.7	3.0	2.6	2.2	1.3	1.0	1.0	0.9	5.1	4.5	3.2	2.7	3.5	2.8
	LABRADOR (4 stations)	Cartwright	2.9	2.4	2.6	2.1	1.3	1.0	1.4	1.1	3.1	2.5	2.5	2.1	2.7	2.2
		Goosebay	8.7	8.1	5.4	4.7	1.1	0.8	1.3	1.0	3.0	2.4	2.8	2.2	3.2	2.5
		Kuujuaq	4.8	4.3	3.6	3.0	1.0	0.8	1.0	0.8	2.3	1.9	3.4	2.5	2.9	2.3
		Schefferville	5.2	4.6	3.4	2.7	1.1	0.9	1.0	0.8	2.5	2.1	3.3	2.6	2.7	2.1
	SOUTH (7 stations)	Amos	5.6	4.5	3.2	2.6	1.4	1.1	1.4	1.1	5.5	4.6	3.6	2.7	3.8	3.0
		Val d'Or	4.6	3.7	3.0	2.5	1.2	0.9	1.1	0.9	4.5	3.6	3.7	2.8	3.2	2.6
		Montreal-Dorval	5.5	4.7	4.6	3.9	0.8	0.6	1.1	0.9	4.3	3.6	2.7	2.2	2.9	2.4
		Montreal-McGill	5.7	4.9	3.5	2.8	1.1	0.8	1.0	0.8	3.6	2.9	3.0	2.5	2.8	2.3
		Drummondville	5.8	4.9	4.5	3.8	1.1	0.9	1.1	0.9	3.7	3.0	2.9	2.3	2.8	2.2
		Maniwaki	5.2	4.3	4.6	3.8	1.1	0.8	0.9	0.8	3.9	3.1	3.1	2.5	3.1	2.5
		Bagotville	9.6	8.7	3.5	2.9	1.4	1.1	1.5	1.2	4.8	4.1	3.1	2.4	5.2	4.3
	MARITIME (6 stations)	Causapscal	9.3	8.6	2.6	2.3	1.2	1.0	1.2	1.0	2.9	2.4	2.5	2.1	2.9	2.4
		Daniel-Harbour	3.6	2.9	2.6	2.2	0.8	0.6	0.8	0.6	2.4	2.1	1.7	1.5	2.3	1.8
		Gaspe	10.4	10.2	7.2	7.0	1.6	1.3	1.2	1.0	2.9	2.5	2.0	1.7	2.5	2.0
		Mont-Joli	7.4	6.7	2.1	1.7	1.4	1.1	1.3	1.1	2.4	2.0	2.3	1.8	2.6	2.1
		Natashquan	5.1	4.9	3.3	3.0	1.2	0.9	0.9	0.7	1.8	1.4	2.0	1.6	1.9	1.5
		Sept-Iles	5.0	4.3	2.4	1.9	1.1	0.8	1.1	0.9	1.7	1.4	1.7	1.4	2.0	1.6
JUNE	HUDSON BAY (3 stations)	Inukjuak	8.1	7.8	8.7	8.5	1.1	0.9	1.3	1.1	4.2	3.3	3.2	2.5	3.7	2.9
		Kuujuaq	4.7	4.0	11.6	11.4	1.4	1.1	1.2	0.9	4.3	3.6	4.8	4.2	3.7	3.0
		Moosonee	2.5	2.0	2.7	2.1	0.9	0.7	0.8	0.7	4.3	3.6	2.6	2.2	3.4	2.7
	LABRADOR (4 stations)	Cartwright	6.0	5.7	2.2	1.8	1.4	1.1	1.4	1.2	3.1	2.5	2.7	2.2	2.5	2.0
		Goosebay	4.5	3.7	5.1	4.5	1.2	1.0	1.3	1.0	3.0	2.3	3.0	2.4	2.7	2.2
		Kuujuaq	5.9	4.9	2.6	2.1	1.3	1.1	1.3	1.1	2.3	1.9	3.2	2.6	2.7	2.2
		Schefferville	3.2	2.6	2.8	2.2	1.0	0.8	1.3	1.0	2.5	2.0	3.0	2.5	2.7	2.2
	SOUTH (7 stations)	Amos	2.8	2.3	2.1	1.8	0.9	0.7	1.0	0.8	3.8	3.2	2.6	2.0	2.8	2.2
		Val d'Or	2.0	1.6	2.3	1.8	0.9	0.7	0.9	0.7	3.1	2.5	2.3	2.0	2.4	2.0
		Montreal-Dorval	4.0	3.7	4.5	4.1	0.8	0.6	0.9	0.7	3.2	2.8	2.1	1.7	1.9	1.5
		Montreal-McGill	4.2	3.9	3.6	3.2	0.9	0.7	0.8	0.6	1.9	1.6	2.2	1.8	1.9	1.5
		Drummondville	4.4	4.1	4.5	4.1	0.9	0.8	0.9	0.7	2.2	1.9	2.3	1.9	2.0	1.6
		Maniwaki	3.5	3.0	4.4	4.0	0.9	0.7	0.8	0.7	2.2	1.8	2.4	1.9	2.3	1.8
		Bagotville	5.9	5.6	4.7	4.3	0.8	0.7	0.9	0.7	4.4	3.9	2.7	2.1	3.2	2.6
	MARITIME (6 stations)	Causapscal	5.4	5.1	3.6	3.1	0.8	0.7	0.8	0.6	2.3	1.9	2.2	1.8	2.1	1.7
		Daniel-Harbour	4.0	3.7	2.8	2.5	0.8	0.6	0.8	0.6	1.7	1.2	1.6	1.2	1.7	1.3
		Gaspe	11.0	10.9	9.5	9.3	1.2	0.9	1.0	0.8	2.4	1.9	2.0	1.7	2.2	1.8
		Mont-Joli	4.1	3.7	2.4	2.0	1.1	0.8	0.9	0.7	2.0	1.6	2.0	1.6	2.1	1.7
		Natashquan	5.9	5.8	2.5	2.1	1.0	0.9	0.9	0.7	1.6	1.3	1.4	1.2	1.6	1.3
		Sept-Iles	1.7	1.4	1.8	1.3	1.1	0.9	1.1	0.9	1.8	1.5	1.8	1.5	1.8	1.5
JULY	HUDSON BAY (3 stations)	Inukjuak	9.3	9.1	10.9	10.7	1.2	1.0	1.6	1.2	2.6	2.0	3.1	2.5	2.8	2.3
		Kuujuaq	5.8	5.6	11.8	11.6	0.9	0.7	0.9	0.7	3.7	3.2	3.1	2.5	2.5	2.0
		Moosonee	2.7	2.4	3.6	3.1	0.9	0.7	0.7	0.5	4.3	3.9	2.5	2.1	2.0	1.6
	LABRADOR (4 stations)	Cartwright	8.5	8.3	2.7	2.2	1.2	0.9	1.3	1.1	2.3	1.9	2.6	2.0	2.4	1.8
		Goosebay	3.1	2.5	6.1	5.7	1.0	0.8	1.1	0.9	2.3	1.9	2.8	2.3	2.3	1.8
		Kuujuaq	1.9	1.5	3.5	3.0	0.9	0.7	0.9	0.7	1.7	1.3	2.2	1.7	2.5	2.0
		Schefferville	1.8	1.4	4.1	3.6	0.7	0.6	0.7	0.6	2.1	1.6	2.4	1.8	2.0	1.6
	SOUTH (7 stations)	Amos	1.9	1.4	2.1	1.9	0.7	0.6	0.7	0.6	3.3	2.9	2.9	2.5	2.3	1.8
		Val d'Or	1.6	1.2	2.4	2.0	0.7	0.6	0.7	0.5	2.5	2.2	2.2	1.8	1.9	1.5
		Montreal-Dorval	3.4	3.1	4.8	4.6	0.7	0.5	0.8	0.6	2.0	1.7	1.8	1.4	1.7	1.3
		Montreal-McGill	3.5	3.3	4.0	3.7	0.8	0.6	0.8	0.6	1.5	1.2	1.7	1.5	1.5	1.2
		Drummondville	3.7	3.4	4.8	4.5	0.9	0.7	0.9	0.7	1.6	1.3	1.8	1.5	1.7	1.4
		Maniwaki	2.5	2.2	4.9	4.6	0.8	0.6	0.7	0.6	1.5	1.2	2.0	1.7	1.8	1.4
		Bagotville	4.3	4.0	4.7	4.4	0.8	0.7	1.9	1.5	3.3	2.9	3.9	3.2	1.9	1.6
	MARITIME (6 stations)	Causapscal	3.8	3.5	3.7	3.2	0.7	0.6	0.7	0.6	1.7	1.4	2.1	1.7	1.8	1.4
		Daniel-Harbour	4.0	3.9	2.4	2.0	0.7	0.5	0.7	0.5	1.4	1.1	1.6	1.3	1.3	1.1
		Gaspe	10.5	10.4	9.6	9.4	1.0	0.7	0.8	0.7	2.0	1.5	2.7	2.1	2.0	1.6
		Mont-Joli	2.8	2.5	2.6	2.4	1.2	1.0	1.1	0.9	1.9	1.6	2.3	1.7	2.0	1.6
		Natashquan	6.0	5.8	2.3	1.9	1.1	0.9	1.0	0.9	1.5	1.3	1.9	1.4	1.6	1.4
		Sept-Iles	1.5	1.2	1.9	1.6	1.0	0.8	1.1	0.9	1.5	1.2	1.6	1.2	1.5	1.2
AUGUST	HUDSON BAY (3 stations)	Inukjuak	4.4	3.9	8.5	8.2	0.9	0.7	1.1	0.9	2.2	1.9	3.0	2.4	2.7	2.2
		Kuujuaq	6.0	5.6	10.1	9.9	1.0	0.8	0.9	0.7	3.0	2.4	3.7	3.1	2.7	2.1
		Moosonee	3.7	3.2	3.7	3.2	0.8	0.6	0.7	0.6	3.1	2.6	2.5	2.0	2.3	1.9
	LABRADOR (4 stations)	Cartwright	6.0	5.8	2.8	2.2	1.2	1.0	1.1	0.9	1.9	1.6	2.2	1.8	2.1	1.7
		Goosebay	1.8	1.4	6.5	6.1	1.0	0.8	1.1	0.9	2.1	1.7	2.3	1.6	2.3	1.8
		Kuujuaq	2.7	2.2	5.3	4.9	0.8	0.6	0.7	0.6	1.8	1.5	2.1	1.7	2.4	2.0
		Schefferville	3.1	2.7	5.4	5.0	0.8	0.6	0.7	0.5	1.8	1.5	2.3	1.9	2.3	1.9
	SOUTH (7 stations)	Amos	2.4	1.9	2.0	1.5	0.7	0.5	0.8	0.6	2.6	2.2	2.6	2.2	2.4	2.0
		Val d'Or	2.7	2.2	2.0	1.6	0.6	0.5	0.6	0.5	2.1	1.7	2.3	1.8	2.2	1.8
		Montreal-Dorval	2.3	1.8	4.4	4.1	0.7	0.5	0.8	0.6	1.8	1.4	1.8	1.4	2.1	1.7
		Montreal-McGill	2.3	1.9	3.2	2.7	0.8	0.6	0.8	0.7	2.1	1.9	1.8	1.5	1.9	1.5
		Drummondville	2.2	1.8	4.3	4.0	0.9	0.7	1.0	0.8	2.2	1.9	1.8	1.5	1.9	1.5
		Maniwaki	1.6	1.3	4.2	3.8	0.8	0.6	0.7	0.6	2.2	1.7	1.9	1.5	2.0	1.6
		Bagotville	2.7	2.3	4.3	3.8	0.8	0.7	0.9	0.7	2.6	2.2	2.6	2.2	1.9	1.6
	MARITIME (6 stations)	Causapscal	2.5	2.2	3.6	3.1	0.8	0.6	0.8	0.6	2.1	1.7	2.2	1.8	2.0	1.7
		Daniel-Harbour	4.3	4.1	1.9	1.3	0.5	0.4	0.6	0.4	1.2	1.0	1.3	1.0	1.3	1.0
		Gaspe	7.6	7.5	6.9	6.7	0.7	0.5	0.7	0.6	1.7	1.4	1.9	1.6	1.8	1.4
		Mont-Joli	1.7	1.4	2.5	2.0	0.9	0.7	0.9	0.7	1.7	1.4	2.0	1.6	1.9	1.6
		Natashquan	3.3	3.1	1.8	1.5	0.8	0.7	0.8	0.6	1.2	0.9	1.5	1.2	1.5	1.2
		Sept-Iles	2.2	1.9	2.2	1.7	0.9	0.7	0.9	0.7	1.4	1.1	1.7	1.3	1.6	1.2

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
SEPTEMBER	HUDSON BAY (3 stations)	Inukjuak	2.5	2.0	4.7	4.4	0.7	0.6	0.7	0.6	1.9	1.7	2.2	1.8	2.0	1.6
		Kuujuarapik	5.6	5.1	5.9	5.5	0.9	0.7	0.8	0.6	2.4	2.0	2.8	2.2	2.6	2.0
		Moosonee	4.7	4.3	3.9	3.2	0.8	0.7	0.7	0.6	2.3	1.8	3.1	2.5	2.6	2.1
	LABRADOR (4 stations)	Cartwright	1.9	1.7	2.7	2.1	0.9	0.7	0.9	0.7	1.4	1.1	1.8	1.6	1.8	1.4
		Goosebay	1.6	1.3	5.4	5.1	0.8	0.6	1.0	0.8	2.1	1.6	2.0	1.7	2.0	1.6
		Kuujuuaq	3.7	3.2	3.8	3.3	0.7	0.6	0.8	0.6	2.2	1.9	2.2	1.8	2.3	1.8
	SOUTH (7 stations)	Schefferville	4.9	4.5	3.8	3.3	0.8	0.7	0.7	0.6	2.3	1.9	2.4	2.0	2.5	2.0
		Amos	3.4	3.0	2.8	2.3	0.7	0.6	1.1	0.9	2.3	1.8	3.0	2.5	2.6	2.1
		Val d'Or	4.4	4.0	2.7	2.2	1.0	0.8	0.8	0.6	2.5	2.0	3.2	2.5	2.6	2.1
	MARITIME (6 stations)	Montreal-Dorval	2.2	1.7	4.0	3.4	0.7	0.5	0.7	0.6	2.2	1.7	2.3	1.9	2.4	1.9
		Montreal-McGill	2.2	1.7	3.1	2.6	0.9	0.8	1.0	0.8	2.8	2.3	2.5	2.0	2.4	1.9
		Drummondville	1.9	1.5	3.6	2.9	0.9	0.7	1.0	0.8	2.6	2.2	2.2	1.8	2.2	1.8
	MARITIME (6 stations)	Maniwaki	2.3	1.9	4.1	3.4	1.0	0.8	0.8	0.7	2.7	2.3	2.5	2.0	2.4	2.0
		Bagotville	1.8	1.3	3.2	2.7	0.9	0.8	1.0	0.8	1.9	1.5	2.5	1.9	2.3	1.9
	MARITIME (6 stations)	Causapsal	2.2	1.5	3.1	2.5	1.3	0.8	1.3	0.8	2.4	1.8	2.5	2.0	2.5	1.9
		Daniel-Harbour	3.8	3.4	2.4	1.8	0.8	0.5	0.6	0.5	1.1	0.9	1.5	1.2	1.4	1.1
		Gaspe	4.5	4.2	4.0	3.7	0.9	0.7	0.8	0.6	2.0	1.6	2.1	1.7	2.2	1.7
	MARITIME (6 stations)	Mont-Joli	1.6	1.3	2.1	1.7	1.1	0.8	0.9	0.7	1.8	1.4	1.9	1.6	2.0	1.6
		Natashquan	1.1	0.9	1.5	1.3	0.8	0.7	0.8	0.7	1.1	0.9	1.3	1.1	1.3	1.1
		Sept-Iles	2.9	2.6	2.0	1.6	0.9	0.8	0.9	0.7	1.3	1.1	1.4	1.2	1.5	1.2
OCTOBER	HUDSON BAY (3 stations)	Inukjuak	5.3	5.0	1.7	1.4	0.6	0.5	0.6	0.5	2.2	1.8	2.0	1.7	1.8	1.5
		Kuujuarapik	4.3	3.7	2.7	2.1	0.7	0.6	0.7	0.5	2.4	1.9	3.1	2.5	2.4	2.0
		Moosonee	4.3	3.6	4.7	3.8	0.8	0.7	0.7	0.6	2.9	2.3	3.4	2.7	3.2	2.6
	LABRADOR (4 stations)	Cartwright	2.8	2.5	2.4	2.1	0.8	0.5	0.6	0.5	1.8	1.2	1.7	1.3	1.7	1.4
		Goosebay	2.1	1.6	4.4	4.0	0.6	0.5	0.7	0.6	1.9	1.5	1.8	1.5	2.0	1.6
		Kuujuuaq	3.8	3.1	3.0	2.6	0.6	0.5	0.7	0.5	2.3	1.9	2.2	1.8	2.2	1.7
	SOUTH (7 stations)	Schefferville	4.9	4.2	2.7	2.2	0.8	0.6	0.8	0.6	2.5	2.0	2.2	1.8	2.4	1.9
		Amos	3.6	3.0	3.1	2.6	0.8	0.6	1.1	0.9	3.1	2.5	3.4	2.9	3.1	2.5
		Val d'Or	4.3	3.7	3.2	2.6	0.8	0.7	0.7	0.6	3.2	2.6	3.7	3.1	2.9	2.4
	MARITIME (6 stations)	Montreal-Dorval	2.7	2.1	4.4	3.6	0.7	0.5	0.8	0.6	2.5	2.0	2.8	2.1	2.2	1.8
		Montreal-McGill	2.9	2.2	3.3	2.7	1.1	0.9	1.2	0.9	2.7	2.2	2.8	2.3	2.6	2.0
		Drummondville	2.7	2.1	4.1	3.3	0.9	0.8	1.0	0.7	2.7	2.1	2.9	2.3	2.5	2.0
	MARITIME (6 stations)	Maniwaki	2.8	2.3	4.7	4.0	1.1	0.9	1.0	0.8	2.9	2.3	3.0	2.4	2.7	2.2
		Bagotville	2.7	2.2	3.1	2.5	0.9	0.7	1.0	0.9	2.6	2.0	2.8	2.3	2.3	1.9
	MARITIME (6 stations)	Causapsal	2.4	2.0	2.9	2.2	0.8	0.6	0.8	0.7	2.5	2.0	2.7	2.0	2.2	1.8
		Daniel-Harbour	4.1	3.8	3.3	3.0	0.8	0.5	0.6	0.5	1.8	1.3	2.0	1.5	1.8	1.5
		Gaspe	1.6	1.5	2.0	1.6	0.8	0.7	0.8	0.6	2.1	1.5	2.2	1.7	1.9	1.5
	MARITIME (6 stations)	Mont-Joli	2.2	1.7	2.5	1.9	0.9	0.7	0.8	0.6	2.2	1.8	2.4	1.8	2.1	1.7
		Natashquan	2.8	2.5	2.1	1.7	0.7	0.5	0.6	0.5	1.8	1.3	1.5	1.2	1.4	1.1
		Sept-Iles	2.7	2.1	3.1	2.6	0.8	0.7	0.8	0.7	1.8	1.5	1.9	1.5	1.7	1.4
NOVEMBER	HUDSON BAY (3 stations)	Inukjuak	7.8	7.2	3.8	3.2	1.4	1.0	1.4	1.0	2.5	2.1	3.5	2.8	2.6	2.0
		Kuujuarapik	4.4	3.8	3.0	2.6	0.8	0.7	0.8	0.7	2.5	1.7	4.8	4.2	2.3	1.8
		Moosonee	4.4	3.7	4.1	3.3	0.8	0.6	0.8	0.7	3.2	2.5	2.8	2.2	2.6	2.1
	LABRADOR (4 stations)	Cartwright	5.3	5.0	3.4	2.8	0.7	0.5	0.7	0.5	1.8	1.4	2.2	1.7	2.2	1.7
		Goosebay	2.6	2.1	3.8	3.3	0.8	0.6	0.9	0.7	2.3	1.8	2.7	2.1	2.5	2.0
		Kuujuuaq	5.3	4.9	3.4	3.0	1.0	0.7	1.0	0.8	2.3	1.7	2.8	2.1	2.7	2.1
	SOUTH (7 stations)	Schefferville	6.5	6.1	3.0	2.6	0.8	0.6	0.9	0.7	2.5	1.9	2.8	2.2	2.5	2.0
		Amos	3.8	3.2	2.9	2.2	0.9	0.7	0.9	0.7	3.1	2.3	2.8	2.2	2.4	2.0
		Val d'Or	5.0	4.3	2.8	2.2	0.7	0.6	0.6	0.5	3.0	2.2	2.9	2.3	2.5	2.0
	MARITIME (6 stations)	Montreal-Dorval	3.0	2.3	5.3	4.7	0.8	0.6	0.8	0.6	2.8	2.1	2.7	2.4	2.3	1.9
		Montreal-McGill	2.8	2.2	4.1	3.4	0.8	0.6	0.8	0.6	2.4	1.8	2.4	1.9	2.3	1.9
		Drummondville	2.8	2.1	5.0	4.3	0.9	0.7	0.8	0.6	2.7	2.0	2.5	2.1	2.5	2.0
	MARITIME (6 stations)	Maniwaki	2.9	2.1	4.7	4.1	0.8	0.6	0.9	0.7	2.5	1.9	2.5	2.0	2.3	1.9
		Bagotville	2.5	2.0	2.9	2.5	0.8	0.6	0.8	0.6	3.3	2.5	2.5	2.1	2.7	2.3
	MARITIME (6 stations)	Causapsal	2.5	2.0	3.3	2.8	0.9	0.7	0.9	0.7	2.6	2.1	2.5	2.0	2.3	1.9
		Daniel-Harbour	3.5	3.0	5.7	5.2	0.7	0.6	0.8	0.6	2.1	1.7	2.5	2.0	2.4	2.0
		Gaspe	2.6	2.2	2.0	1.7	0.8	0.6	0.8	0.6	2.0	1.6	2.2	1.7	2.2	1.7
	MARITIME (6 stations)	Mont-Joli	2.4	1.9	3.6	3.0	1.0	0.9	0.8	0.7	2.5	2.0	2.4	2.0	2.3	1.9
		Natashquan	4.9	4.6	3.4	2.9	0.7	0.6	0.7	0.6	1.9	1.4	1.9	1.5	1.9	1.5
		Sept-Iles	2.7	1.9	4.3	3.9	0.7	0.6	0.7	0.5	2.1	1.6	2.0	1.6	2.0	1.6
DECEMBER	HUDSON BAY (3 stations)	Inukjuak	13.9	13.5	11.5	11.0	2.0	1.7	2.0	1.7	6.1	5.1	7.0	6.0	4.5	3.5
		Kuujuarapik	9.0	8.1	10.6	10.0	1.3	1.1	1.5	1.2	7.0	5.9	8.4	7.4	4.2	3.3
		Moosonee	9.9	9.2	4.3	3.4	0.8	0.6	1.2	1.0	8.2	7.1	5.3	4.1	4.6	3.7
	LABRADOR (4 stations)	Cartwright	9.5	9.1	4.3	3.7	0.8	0.7	0.9	0.7	3.3	2.6	4.2	3.3	3.5	2.7
		Goosebay	6.3	5.5	4.4	3.7	0.9	0.7	0.8	0.7	4.1	3.3	4.9	3.9	4.2	3.4
		Kuujuuaq	7.5	6.4	4.7	3.9	1.5	1.1	1.5	1.1	4.4	3.5	4.9	3.7	4.8	3.8
	SOUTH (7 stations)	Schefferville	9.6	8.9	4.2	3.4	1.1	0.9	1.4	1.1	4.0	3.2	4.1	3.2	4.1	3.3
		Amos	8.5	7.9	5.1	4.2	1.1	0.9	1.0	0.8	7.1	6.2	4.2	3.4	3.5	2.9
		Val d'Or	8.9	8.3	4.4	3.6	0.8	0.6	0.7	0.6	6.3	5.2	4.1	3.3	3.7	2.9
	MARITIME (6 stations)	Montreal-Dorval	4.5	3.5	3.8	3.0	1.0	0.8	1.0	0.9	5.1	4.1	3.1	2.6	3.2	2.5
		Montreal-McGill	4.1	3.0	3.6	2.9	1.2	0.9	1.4	1.1	5.9	5.1	3.6	2.9	3.6	2.7
		Drummondville	4.8	3.9	3.8	3.0	1.2	0.9	1.3	1.1	5.4	4.7	3.6	2.9	3.5	2.7
	MARITIME (6 stations)	Maniwaki	6.0	5.2	3.8	3.0	1.1	0.9	1.2	0.9	6.2	5.4	4.1	3.2	3.5	2.7
		Bagotville	6.6	5.9	3.7	3.0	1.0	0.7	0.9	0.7	6.0	5.2	3.7	2.9	5.7	4.6
	MARITIME (6 stations)	Causapsal	5.2	4.6	3.1	2.4	0.9	0.7	0.7	0.6	3.1	2.6	3.1	2.4	3.1	2.5
		Daniel-Harbour	3.8	3.2	6.0	5.3	0.6	0.5	0.6	0.5	2.6	2.2	3.2	2.5	2.7	2.1
		Gaspe	5.7	5.2	4.6	3.9	0.8	0.6	0.8	0.6	2.9	2.4	3.1	2.5	2.8	2.2
	MARITIME (6 stations)	Mont-Joli	4.6	3.9	3.1	2.5	0.9	0.7	0.7	0.5	2.8	2.4	2.8	2.2	3.0	2.4
		Natashquan	8.3	7.9	3.5	2.9	0.9	0.7	0.9	0.7	2.9	2.4	3.2	2.5	3.1	2.5
		Sept-Iles	6.0	5.4	3.8	3.3	0.7	0.6	0.7	0.6	3.0	2.5	3.1	2.5	3.1	2.5

Table 2.5 Same as Table 2.3 but for the monthly mean temperature.

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
JANUARY	HUDSON BAY (3 stations)	Inukjuak	18.4	18.1	13.7	12.4	1.1	0.9	1.1	0.9	9.9	9.3	10.0	7.8	3.7	3.0
		Kuujuarapik	8.5	7.7	15.8	14.9	1.1	0.9	1.0	0.8	6.2	5.5	11.0	9.3	3.9	3.1
		Moosonee	8.8	7.9	4.7	3.8	1.2	0.9	1.1	0.8	6.6	5.9	4.4	3.4	5.1	4.3
	LABRADOR (4 stations)	Cartwright	15.4	15.0	6.2	5.1	1.5	1.0	1.5	1.1	4.3	3.7	5.6	4.9	4.4	3.8
		Goosebay	4.5	3.8	5.8	4.5	1.3	1.1	1.4	1.1	3.8	3.0	5.0	4.2	4.6	3.7
		Kuujuaq	8.2	7.0	6.2	5.0	1.2	1.0	1.2	1.0	4.6	3.8	6.1	5.2	5.0	4.1
		Schefferville	8.2	7.4	5.9	4.5	1.1	0.9	1.3	1.1	4.1	3.1	5.0	5.2	5.0	4.0
	SOUTH (7 stations)	Amos	7.2	6.0	4.9	4.3	1.1	0.8	1.1	0.9	6.2	5.1	3.7	2.9	4.2	3.4
		Val d'Or	11.9	10.5	4.1	3.4	1.2	1.0	0.9	0.7	6.3	5.2	4.0	3.2	3.8	3.1
		Montreal-Dorval	7.1	5.5	3.9	3.1	1.4	1.2	1.3	1.0	5.7	4.5	3.8	3.2	4.3	3.5
		Montreal-McGill	6.1	4.8	3.8	3.1	1.1	0.8	1.2	1.0	5.9	4.7	3.7	3.1	3.5	2.9
		Drummondville	7.7	6.4	3.8	3.2	1.2	1.0	1.4	1.1	5.8	4.6	4.2	3.5	3.8	3.1
		Maniwaki	9.0	7.7	3.2	2.6	1.1	0.9	1.1	0.9	6.3	5.0	3.8	3.3	3.8	3.1
		Bagotville	5.7	4.6	4.2	3.5	1.0	0.8	1.0	0.8	5.7	4.8	3.8	3.3	3.6	2.9
	MARITIME (6 stations)	Causapscal	4.8	4.0	3.4	2.7	1.2	1.0	1.0	0.8	3.4	2.7	3.0	2.5	3.7	3.0
		Daniel-Harbour	5.8	5.2	7.4	6.4	1.1	0.9	1.1	0.9	3.8	2.7	4.9	4.0	3.1	2.4
		Gaspé	10.5	10.3	9.0	8.7	1.0	0.8	1.0	0.8	2.9	2.2	2.9	2.4	2.7	2.2
		Mont-Joli	3.2	2.5	3.5	2.7	1.1	0.9	0.8	0.7	3.2	2.5	2.5	2.1	3.4	2.8
		Natashquan	12.9	12.6	4.8	3.8	0.9	0.8	1.0	0.8	2.9	2.3	4.5	3.6	3.3	2.7
		Sept-Îles	5.2	4.5	4.1	3.2	1.1	0.9	0.9	0.7	3.7	2.8	3.9	3.1	3.8	3.1
FEBRUARY	HUDSON BAY (3 stations)	Inukjuak	10.8	9.8	7.7	6.2	1.2	0.9	1.1	0.9	6.6	5.6	7.8	6.4	5.0	4.0
		Kuujuarapik	8.8	8.0	9.6	8.0	1.2	0.9	1.1	0.9	4.3	3.5	12.3	10.3	4.2	3.3
		Moosonee	7.5	6.8	6.2	5.1	1.2	1.0	1.1	0.8	5.1	4.3	5.7	4.6	4.4	3.6
	LABRADOR (4 stations)	Cartwright	14.6	14.2	5.7	4.8	1.4	1.0	1.3	1.0	3.8	3.1	5.3	4.1	4.3	3.5
		Goosebay	4.4	3.8	5.2	4.3	1.1	0.9	1.4	1.0	4.1	3.3	4.9	4.0	4.6	3.7
		Kuujuaq	7.8	7.1	5.6	4.5	1.0	0.8	1.1	0.9	4.2	3.4	5.9	4.8	4.7	3.8
		Schefferville	7.2	6.4	5.5	4.2	1.0	0.8	1.6	1.2	3.8	3.0	5.7	4.6	4.4	3.5
	SOUTH (7 stations)	Amos	5.0	4.2	5.0	4.0	0.9	0.7	1.1	0.9	4.1	3.3	5.0	4.0	4.4	3.5
		Val d'Or	6.5	5.8	4.5	3.7	1.2	1.0	1.0	0.8	4.2	3.5	4.6	3.8	3.9	3.2
		Montreal-Dorval	3.1	2.3	3.9	3.1	1.2	0.9	1.1	0.9	3.2	2.5	3.6	2.8	3.8	3.0
		Montreal-McGill	3.1	2.4	3.7	3.1	1.0	0.7	1.2	1.0	2.7	2.1	3.6	2.9	3.3	2.7
		Drummondville	3.5	2.5	3.5	2.6	1.3	1.0	1.4	1.1	3.0	2.3	3.7	3.1	3.6	2.9
		Maniwaki	4.7	3.5	3.7	3.0	1.5	1.2	1.4	1.1	3.4	2.6	4.6	3.8	4.0	3.2
		Bagotville	3.1	2.5	3.9	3.0	1.1	0.9	1.1	0.9	3.7	3.1	3.8	3.1	3.5	2.7
	MARITIME (6 stations)	Causapscal	3.0	2.5	3.8	3.0	1.2	0.9	1.3	1.0	3.1	2.4	3.6	2.9	3.6	2.9
		Daniel-Harbour	5.1	4.4	5.4	4.8	1.5	1.1	1.4	1.1	6.0	3.6	5.9	3.9	4.1	3.2
		Gaspé	7.0	6.6	7.4	6.9	1.1	0.9	1.2	1.0	2.4	1.8	3.3	2.7	2.9	2.3
		Mont-Joli	2.7	2.0	3.2	2.4	1.0	0.8	0.9	0.7	2.5	1.9	3.2	2.5	3.3	2.7
		Natashquan	10.6	10.2	4.5	3.7	1.1	0.9	1.2	0.9	3.1	2.4	4.2	3.5	3.7	3.0
		Sept-Îles	3.5	3.1	4.0	3.1	1.1	0.9	1.1	0.8	3.2	2.6	4.0	3.2	3.7	3.0
MARCH	HUDSON BAY (3 stations)	Inukjuak	7.1	6.6	5.7	4.4	1.1	0.9	1.1	0.8	3.7	2.9	5.7	4.8	4.4	3.5
		Kuujuarapik	7.4	6.7	5.8	4.3	1.0	0.9	1.0	0.8	3.6	2.7	8.8	7.6	4.2	3.4
		Moosonee	5.9	5.4	5.3	4.5	1.3	1.1	1.1	0.9	3.4	2.7	4.7	4.0	3.9	3.1
	LABRADOR (4 stations)	Cartwright	11.1	10.6	4.9	3.8	1.1	0.9	1.0	0.8	3.5	2.9	4.3	3.6	3.8	3.2
		Goosebay	3.6	2.8	4.7	3.6	0.9	0.8	1.0	0.8	3.6	3.0	4.0	3.5	4.1	3.3
		Kuujuaq	5.6	5.0	5.1	4.3	1.3	1.0	1.2	0.9	4.2	3.2	5.3	4.3	4.7	3.9
		Schefferville	5.2	4.7	5.0	3.5	0.8	0.6	1.1	0.9	3.7	2.8	4.6	3.8	4.3	3.4
	SOUTH (7 stations)	Amos	3.1	2.6	4.0	3.4	0.8	0.6	1.1	0.9	2.9	2.2	4.1	3.4	3.2	2.6
		Val d'Or	4.5	4.0	3.7	3.2	1.1	0.9	0.9	0.7	2.9	2.2	3.8	3.3	3.2	2.6
		Montreal-Dorval	2.8	2.3	5.0	4.2	0.9	0.7	1.0	0.8	2.6	2.2	3.0	2.6	2.5	2.0
		Montreal-McGill	3.6	3.1	4.4	3.6	1.2	0.9	1.3	1.1	2.6	2.1	3.2	2.6	2.7	2.1
		Drummondville	2.4	1.8	4.8	4.0	1.1	0.9	1.3	1.0	3.2	2.5	3.3	2.7	2.8	2.2
		Maniwaki	2.7	2.1	4.1	3.5	1.4	1.2	1.3	1.0	3.1	2.5	4.4	3.4	3.2	2.6
		Bagotville	3.3	2.5	3.4	2.8	0.9	0.7	0.8	0.7	2.7	2.2	3.2	2.6	3.7	2.9
	MARITIME (6 stations)	Causapscal	3.3	2.6	3.1	2.5	0.9	0.7	0.9	0.7	2.8	2.2	3.1	2.4	3.0	2.5
		Daniel-Harbour	3.8	3.2	4.4	3.3	0.9	0.7	0.9	0.7	5.7	3.6	5.5	4.0	3.5	2.9
		Gaspé	2.6	2.0	3.3	2.8	0.9	0.7	1.0	0.7	2.4	1.9	2.9	2.5	2.4	2.0
		Mont-Joli	3.9	3.2	3.6	2.9	1.0	0.8	0.9	0.7	2.2	1.8	2.6	2.2	2.6	2.1
		Natashquan	5.7	5.0	3.6	2.7	1.1	0.9	1.1	0.8	3.1	2.5	3.2	2.7	3.2	2.6
		Sept-Îles	3.2	2.5	3.9	2.9	1.2	0.9	1.0	0.7	3.0	2.4	3.2	2.6	3.3	2.7
APRIL	HUDSON BAY (3 stations)	Inukjuak	3.7	2.9	4.9	4.0	1.0	0.8	1.0	0.8	5.0	4.2	5.0	4.0	3.8	3.1
		Kuujuarapik	5.0	4.0	4.0	3.2	1.4	1.1	1.2	0.9	5.8	4.9	5.3	3.8	3.8	3.1
		Moosonee	3.6	2.9	5.1	3.8	1.2	1.0	1.2	1.0	3.4	2.9	4.2	3.5	2.9	2.4
	LABRADOR (4 stations)	Cartwright	6.2	5.7	3.2	2.8	1.1	0.9	1.2	0.9	2.7	2.2	2.7	2.3	2.8	2.3
		Goosebay	4.4	3.8	4.8	4.1	1.1	0.8	1.2	0.9	2.9	2.4	2.6	2.1	3.1	2.5
		Kuujuaq	3.9	3.3	3.9	3.2	1.2	1.0	1.1	0.9	3.9	3.2	4.1	3.3	4.2	3.4
		Schefferville	3.5	2.8	4.5	3.8	0.9	0.7	1.0	0.8	3.7	3.1	3.8	3.2	3.7	3.0
	SOUTH (7 stations)	Amos	2.7	2.3	4.0	3.3	0.8	0.6	1.0	0.8	4.0	3.5	3.6	2.8	2.8	2.2
		Val d'Or	2.1	1.8	3.8	3.1	1.0	0.8	0.9	0.7	3.4	2.9	3.6	2.9	2.6	2.1
		Montreal-Dorval	5.3	5.0	4.8	3.8	0.7	0.6	0.9	0.7	3.5	3.0	2.9	2.4	2.1	1.6
		Montreal-McGill	6.4	6.2	3.7	3.0	1.0	0.8	0.9	0.7	3.6	3.1	2.7	2.3	2.2	1.8
		Drummondville	5.1	4.8	4.6	3.7	1.0	0.8	1.0	0.9	3.5	2.9	2.7	2.2	2.3	1.9
		Maniwaki	3.8	3.4	4.4	3.4	0.9	0.7	0.9	0.8	3.6	3.1	3.1	2.5	2.6	2.1
		Bagotville	5.0	4.6	3.0	2.3	1.0	0.8	1.0	0.8	3.2	2.6	2.5	2.0	4.3	3.5
	MARITIME (6 stations)	Causapscal	4.7	4.3	3.0	2.6	0.7	0.6	0.7	0.6	2.1	1.6	2.3	1.8	2.3	1.8
		Daniel-Harbour	2.3	1.9	2.8	2.3	0.8	0.7	0.8	0.7	4.4	2.9	4.0	2.8	2.4	1.9
		Gaspé	3.3	2.9	1.3	1.2	0.8	0.7	0.8	0.7	2.0	1.6	1.7	1.5	1.8	1.5
		Mont-Joli	4.7	4.3	2.7	2.3	0.9	0.8	0.8	0.7	1.9	1.4	2.0	1.5	1.9	1.5
		Natashquan	1.5	1.2	2.6	2.2	1.0	0.9	1.0	0.8	2.2	1.7	2.0	1.6	2.1	1.7
		Sept-Îles	3.2	2.8	2.9	2.4	0.9	0.7	0.8	0.7	1.8	1.4	1.6	1.4	1.9	1.6

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
MAY	HUDSON BAY (3 stations)	Inukjuak	2.9	2.4	1.8	1.5	0.9	0.7	0.9	0.7	4.8	4.4	2.0	1.6	2.6	2.1
		Kuujuaq	2.6	2.0	3.6	3.3	1.1	0.8	1.0	0.8	4.3	3.9	1.8	1.5	2.9	2.3
		Moosonee	3.5	2.9	2.4	2.0	0.9	0.7	0.8	0.7	3.9	3.4	2.8	2.6	3.0	2.4
	LABRADOR (4 stations)	Cartwright	2.7	2.2	2.1	1.7	0.9	0.7	1.0	0.8	2.3	1.9	1.9	1.4	2.2	1.7
		Goosebay	5.1	4.4	4.1	3.5	0.9	0.7	0.9	0.7	2.3	1.9	2.1	1.7	2.6	2.1
		Kuujuaq	4.5	3.9	3.0	2.4	0.8	0.7	0.9	0.6	2.2	1.9	2.8	2.2	2.7	2.1
		Schefferville	3.2	2.7	3.0	2.3	0.8	0.7	0.9	0.7	2.3	2.0	3.1	2.4	2.5	2.0
	SOUTH (7 stations)	Amos	3.4	2.9	2.5	2.0	0.8	0.6	0.9	0.7	4.8	4.2	2.7	2.1	3.0	2.4
		Val d'Or	3.2	2.6	2.4	2.0	1.0	0.8	0.8	0.6	4.3	3.5	2.7	2.1	2.6	2.1
		Montreal-Dorval	3.9	3.2	3.9	3.3	0.6	0.5	0.7	0.6	3.7	3.1	2.1	1.7	2.4	1.9
		Montreal-McGill	4.8	4.1	3.8	3.2	0.8	0.6	0.8	0.6	3.0	2.5	2.5	2.1	2.3	1.8
		Drummondville	4.0	3.2	3.7	3.1	0.9	0.7	0.9	0.7	3.2	2.5	2.4	1.9	2.2	1.8
		Maniwaki	3.0	2.3	3.1	2.6	0.7	0.5	0.8	0.5	3.1	2.5	2.4	2.0	2.4	1.9
		Bagotville	5.7	5.2	2.5	2.1	0.9	0.7	0.9	0.7	4.0	3.5	2.2	1.8	4.0	3.2
	MARITIME (6 stations)	Causapscal	4.7	4.2	1.7	1.4	0.7	0.6	0.7	0.6	2.5	2.0	1.9	1.6	2.3	1.8
		Daniel-Harbour	3.8	3.2	2.0	1.7	0.6	0.5	0.6	0.5	3.3	2.5	3.0	2.0	2.1	1.6
		Gaspé	4.6	4.4	2.0	1.7	0.8	0.7	0.8	0.6	2.3	1.9	1.5	1.3	1.8	1.5
		Mont-Joli	4.5	4.0	1.7	1.4	1.0	0.8	0.9	0.7	2.0	1.6	1.8	1.5	2.0	1.6
		Natashquan	1.7	1.4	2.5	2.3	0.8	0.6	0.7	0.5	1.6	1.2	1.6	1.2	1.6	1.2
		Sept-Îles	3.0	2.6	1.7	1.4	0.7	0.5	0.7	0.6	1.5	1.2	1.3	1.1	1.7	1.4
JUNE	HUDSON BAY (3 stations)	Inukjuak	5.4	5.1	5.7	5.4	1.0	0.8	1.0	0.8	3.6	2.8	2.7	2.1	2.9	2.3
		Kuujuaq	5.4	4.8	7.5	7.3	1.1	0.8	1.0	0.8	3.3	2.6	4.8	4.4	2.9	2.4
		Moosonee	4.0	3.4	2.1	1.7	0.9	0.8	0.7	0.6	4.0	3.5	2.2	1.9	3.0	2.4
	LABRADOR (4 stations)	Cartwright	1.7	1.2	1.9	1.6	1.0	0.8	0.9	0.8	2.1	1.7	2.0	1.6	1.8	1.5
		Goosebay	2.7	2.1	3.5	3.0	0.9	0.8	0.9	0.8	2.3	1.9	2.4	1.9	2.1	1.7
		Kuujuaq	4.3	3.6	2.3	1.8	1.0	0.9	0.9	0.8	1.9	1.6	2.5	2.0	2.1	1.7
		Schefferville	2.8	2.3	2.4	2.0	0.9	0.7	0.9	0.7	2.2	1.8	2.5	2.1	2.2	1.8
	SOUTH (7 stations)	Amos	1.9	1.5	1.6	1.4	0.5	0.4	0.7	0.5	3.4	2.9	2.1	1.6	2.2	1.8
		Val d'Or	2.9	2.4	1.9	1.5	0.7	0.6	0.6	0.5	3.2	2.7	2.0	1.6	2.1	1.7
		Montreal-Dorval	2.3	1.9	4.0	3.7	0.6	0.5	0.6	0.5	2.9	2.5	1.8	1.4	1.6	1.3
		Montreal-McGill	3.3	2.9	4.2	3.9	0.7	0.5	0.7	0.5	1.7	1.5	1.8	1.5	1.6	1.3
		Drummondville	2.5	2.1	3.8	3.6	0.6	0.5	0.7	0.6	1.9	1.6	1.8	1.5	1.7	1.4
		Maniwaki	1.9	1.6	3.1	2.8	0.6	0.4	0.5	0.4	1.9	1.6	1.8	1.4	1.8	1.4
		Bagotville	2.9	2.4	3.4	3.0	0.7	0.6	0.7	0.6	3.9	3.5	2.2	1.8	2.4	2.0
	MARITIME (6 stations)	Causapscal	1.7	1.3	1.8	1.4	0.6	0.5	0.6	0.5	1.7	1.4	1.7	1.3	1.7	1.4
		Daniel-Harbour	4.6	4.2	2.3	2.0	0.9	0.7	0.9	0.7	1.6	1.2	1.7	1.3	1.5	1.2
		Gaspé	4.7	4.5	3.7	3.2	0.8	0.6	0.7	0.6	2.1	1.8	1.8	1.5	1.8	1.4
		Mont-Joli	2.0	1.6	2.0	1.6	0.9	0.7	0.7	0.6	2.0	1.6	1.7	1.4	1.8	1.4
		Natashquan	2.1	1.9	1.9	1.6	0.8	0.6	0.7	0.6	1.3	1.1	1.2	1.0	1.3	1.0
		Sept-Îles	2.4	2.0	1.5	1.2	0.8	0.6	0.8	0.6	1.5	1.2	1.4	1.2	1.4	1.2
JULY	HUDSON BAY (3 stations)	Inukjuak	5.6	5.3	7.7	7.5	1.2	1.0	1.2	1.0	2.4	1.8	2.4	2.0	2.3	1.8
		Kuujuaq	7.5	7.3	7.9	7.7	1.0	0.8	0.9	0.7	2.0	1.7	2.8	2.3	1.9	1.5
		Moosonee	5.1	4.9	2.5	2.1	0.7	0.6	0.7	0.5	3.3	3.0	1.8	1.5	1.8	1.5
	LABRADOR (4 stations)	Cartwright	3.3	3.1	2.3	1.8	0.9	0.7	1.0	0.8	1.7	1.4	2.1	1.7	1.9	1.5
		Goosebay	1.7	1.5	4.9	4.5	0.7	0.6	0.8	0.6	1.8	1.5	2.3	2.0	1.9	1.5
		Kuujuaq	4.2	3.9	2.2	1.7	0.8	0.6	0.8	0.6	1.3	1.0	1.6	1.2	2.0	1.6
		Schefferville	3.7	3.4	3.4	3.0	0.4	0.4	0.6	0.5	1.6	1.3	1.9	1.5	1.7	1.4
	SOUTH (7 stations)	Amos	2.9	2.5	1.8	1.4	0.5	0.4	0.5	0.4	2.4	2.1	2.1	1.8	2.0	1.6
		Val d'Or	4.1	3.8	1.9	1.7	0.6	0.4	0.5	0.4	2.7	2.3	2.2	1.9	1.7	1.3
		Montreal-Dorval	1.3	1.1	4.1	3.9	0.5	0.4	0.6	0.5	1.9	1.6	1.6	1.3	1.5	1.2
		Montreal-McGill	1.9	1.6	4.5	4.3	0.7	0.5	0.7	0.5	1.4	1.1	1.5	1.3	1.4	1.1
		Drummondville	1.5	1.1	4.1	3.9	0.7	0.6	0.7	0.6	1.6	1.3	1.5	1.2	1.5	1.2
		Maniwaki	2.8	2.2	3.3	2.9	0.5	0.4	0.5	0.4	1.5	1.2	1.6	1.2	1.5	1.2
		Bagotville	1.5	1.3	3.4	3.1	0.6	0.5	0.7	0.6	2.8	2.5	2.2	1.8	1.5	1.2
	MARITIME (6 stations)	Causapscal	1.7	1.5	2.0	1.6	0.5	0.4	0.5	0.4	1.5	1.3	1.9	1.5	1.7	1.4
		Daniel-Harbour	4.8	4.6	2.1	1.7	0.6	0.5	0.6	0.5	2.5	1.5	3.1	2.0	1.4	1.1
		Gaspé	4.3	4.1	4.2	3.8	0.5	0.4	0.5	0.4	1.5	1.2	2.3	1.8	1.7	1.3
		Mont-Joli	1.6	1.4	2.2	1.9	0.9	0.7	0.9	0.6	1.6	1.3	1.9	1.5	1.8	1.4
		Natashquan	2.4	2.0	2.0	1.7	0.8	0.7	0.8	0.7	1.4	1.2	1.8	1.4	1.5	1.3
		Sept-Îles	3.1	2.8	1.9	1.7	0.7	0.6	0.7	0.6	1.2	1.0	1.4	1.1	1.4	1.1
AUGUST	HUDSON BAY (3 stations)	Inukjuak	2.1	1.8	6.2	5.9	0.8	0.7	0.9	0.7	1.9	1.6	2.2	1.7	2.2	1.8
		Kuujuaq	7.3	7.0	6.8	6.6	0.8	0.6	0.8	0.6	1.9	1.4	2.9	2.4	2.2	1.7
		Moosonee	5.9	5.6	2.7	2.3	0.8	0.7	0.7	0.6	2.8	2.3	2.0	1.6	2.0	1.6
	LABRADOR (4 stations)	Cartwright	1.6	1.3	2.0	1.7	0.7	0.6	0.8	0.6	1.4	1.1	1.6	1.3	1.7	1.3
		Goosebay	2.6	2.3	5.5	5.2	0.7	0.6	0.8	0.6	1.5	1.3	1.8	1.4	1.9	1.5
		Kuujuaq	5.0	4.7	3.9	3.6	0.6	0.5	0.5	0.4	1.4	1.2	1.7	1.4	2.0	1.6
		Schefferville	5.4	5.2	4.5	4.2	0.5	0.4	0.6	0.5	1.6	1.3	1.9	1.4	2.0	1.6
	SOUTH (7 stations)	Amos	4.4	4.1	1.6	1.3	0.5	0.4	0.5	0.4	1.7	1.4	2.0	1.7	2.0	1.6
		Val d'Or	5.4	5.1	1.8	1.5	0.6	0.5	0.5	0.4	2.2	1.8	2.0	1.6	1.9	1.6
		Montreal-Dorval	1.9	1.6	4.1	3.9	0.5	0.4	0.7	0.6	1.5	1.2	1.6	1.2	1.9	1.5
		Montreal-McGill	1.5	1.2	4.1	3.8	0.6	0.5	0.7	0.6	1.9	1.6	1.6	1.3	1.7	1.4
		Drummondville	1.9	1.5	4.1	3.8	0.7	0.5	0.8	0.6	2.1	1.8	1.6	1.3	1.7	1.4
		Maniwaki	3.8	3.4	3.2	2.8	0.5	0.4	0.4	0.3	2.2	1.7	1.7	1.3	1.8	1.5
		Bagotville	2.0	1.6	3.4	3.1	0.6	0.5	0.6	0.5	1.9	1.7	2.0	1.7	1.8	1.4
	MARITIME (6 stations)	Causapscal	3.0	2.6	2.5	2.0	1.1	0.6	1.1	0.6	1.7	1.4	1.9	1.5	2.0	1.6
		Daniel-Harbour	5.0	4.8	2.2	1.7	0.5	0.4	0.5	0.4	4.0	2.0	3.9	2.1	1.4	1.1
		Gaspé	1.9	1.7	1.9	1.7	0.5	0.4	0.6	0.5	1.5	1.2	1.6	1.3	1.6	1.3
		Mont-Joli	2.7	2.3	2.3	1.9	0.7	0.5	0.6	0.5	1.5	1.2	1.7	1.4	1.7	1.4
		Natashquan	1.3	1.0	1.6	1.2	0.8	0.6	0.6	0.7	1.1	0.9	1.5	1.2	1.5	1.2
		Sept-Îles	4.3	4.1	2.3	1.9	0.6	0.5	0.6	0.5	1.2	0.9	1.3	1.0	1.4	1.1

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
SEPTEMBER	HUDSON BAY (3 stations)	Inukjuak	4.3	4.0	2.8	2.4	0.6	0.5	0.6	0.5	1.8	1.5	1.9	1.6	1.8	1.4
		Kuujuaq	5.8	5.4	3.3	2.8	0.7	0.6	0.7	0.5	2.1	1.8	2.3	1.9	2.1	1.6
		Moosonee	5.8	5.2	3.0	2.4	0.8	0.6	0.6	0.5	2.1	1.6	2.7	2.2	2.3	1.9
	LABRADOR (4 stations)	Cartwright	2.4	2.2	2.3	1.9	0.6	0.5	0.6	0.5	1.1	0.9	1.3	1.0	1.5	1.2
		Goosebay	2.5	2.2	4.6	4.4	0.8	0.5	0.6	0.5	1.8	1.2	1.5	1.3	1.7	1.4
		Kuujuaq	4.7	4.4	3.0	2.7	0.6	0.5	0.5	0.4	1.8	1.5	1.7	1.4	1.9	1.5
		Schefferville	5.8	5.5	3.2	2.7	0.6	0.4	0.6	0.5	2.0	1.6	2.1	1.7	2.1	1.7
	SOUTH (7 stations)	Amos	4.6	4.1	2.5	2.0	0.5	0.4	0.8	0.7	2.0	1.6	2.6	2.2	2.1	1.7
		Val d'Or	6.2	5.8	2.5	2.0	0.8	0.6	0.7	0.5	2.1	1.7	2.7	2.1	2.2	1.8
		Montreal-Dorval	2.7	2.3	3.7	3.1	0.5	0.4	0.6	0.5	2.0	1.6	2.0	1.6	2.1	1.7
		Montreal-McGill	2.0	1.6	3.7	3.0	0.7	0.5	0.8	0.6	2.3	1.9	2.1	1.6	2.0	1.6
		Drummondville	2.4	2.1	3.4	2.9	0.7	0.6	0.8	0.6	2.0	1.7	2.0	1.6	1.8	1.5
		Maniwaki	4.5	4.1	3.3	2.7	0.7	0.6	0.6	0.5	2.4	2.0	2.2	1.7	2.1	1.7
		Bagotville	2.4	2.1	2.7	2.3	0.6	0.5	0.8	0.6	1.6	1.2	2.0	1.6	2.4	1.9
	MARITIME (6 stations)	Causapscal	3.2	3.0	2.3	1.7	1.2	0.6	1.2	0.6	1.9	1.4	2.1	1.5	2.2	1.7
		Daniel-Harbour	3.8	3.6	3.1	2.6	0.5	0.4	0.5	0.4	4.8	2.4	4.3	2.3	1.4	1.1
		Gaspé	2.2	1.9	1.9	1.6	0.6	0.5	0.7	0.5	1.7	1.3	1.5	1.3	1.8	1.4
		Mont-Joli	2.6	2.3	2.1	1.8	0.8	0.6	0.7	0.5	1.5	1.2	1.6	1.3	1.7	1.4
		Natashquan	4.2	4.0	1.6	1.4	0.8	0.7	0.8	0.7	1.1	0.9	1.3	1.2	1.5	1.2
		Sept-Îles	4.5	4.3	2.2	1.8	0.7	0.6	0.7	0.6	1.3	1.0	1.3	1.1	1.4	1.2
OCTOBER	HUDSON BAY (3 stations)	Inukjuak	7.3	7.0	2.2	1.8	0.6	0.5	0.6	0.5	2.7	2.2	2.2	1.9	2.0	1.7
		Kuujuaq	4.1	3.5	1.9	1.6	0.7	0.6	0.6	0.5	2.0	1.7	2.5	2.1	2.0	1.7
		Moosonee	4.1	3.5	3.3	2.6	0.7	0.6	0.6	0.5	2.4	1.9	3.0	2.4	2.7	2.2
	LABRADOR (4 stations)	Cartwright	5.4	5.2	2.4	2.1	0.5	0.4	0.6	0.5	1.4	1.1	1.4	1.1	1.7	1.3
		Goosebay	2.9	2.4	3.8	3.4	0.7	0.5	0.7	0.6	1.9	1.5	1.7	1.4	2.1	1.7
		Kuujuaq	4.9	4.4	2.7	2.3	0.8	0.6	0.9	0.7	2.5	1.9	2.2	1.7	2.3	1.8
		Schefferville	5.9	5.4	2.4	2.0	0.7	0.5	0.8	0.6	2.4	1.9	2.3	1.7	2.4	1.9
	SOUTH (7 stations)	Amos	3.6	3.0	2.6	2.1	0.6	0.5	0.7	0.6	2.5	2.0	2.7	2.3	2.5	2.1
		Val d'Or	4.7	4.2	2.7	2.2	0.7	0.6	0.8	0.5	2.6	2.1	3.0	2.5	2.4	2.0
		Montreal-Dorval	2.4	1.9	4.0	3.3	0.5	0.4	0.6	0.5	2.2	1.8	2.5	1.9	2.1	1.6
		Montreal-McGill	2.7	2.0	3.8	3.2	0.8	0.7	0.9	0.7	2.3	1.9	2.4	1.9	2.1	1.7
		Drummondville	2.3	1.9	3.8	3.1	0.9	0.7	0.9	0.7	2.1	1.8	2.6	1.9	2.1	1.7
		Maniwaki	3.3	2.7	3.4	2.8	0.7	0.6	0.7	0.6	2.3	1.9	2.5	1.9	2.2	1.8
		Bagotville	2.3	1.8	2.7	2.2	0.6	0.5	0.7	0.6	2.1	1.6	2.2	1.8	2.0	1.6
	MARITIME (6 stations)	Causapscal	2.8	2.1	2.1	1.6	0.8	0.5	0.7	0.5	2.1	1.6	2.1	1.6	2.0	1.6
		Daniel-Harbour	4.0	3.6	3.6	3.3	0.5	0.4	0.5	0.4	3.6	2.2	3.1	2.1	1.7	1.4
		Gaspé	3.9	3.7	3.4	3.1	0.5	0.4	0.5	0.4	1.9	1.4	1.8	1.3	1.7	1.4
		Mont-Joli	2.2	1.6	2.6	2.2	0.6	0.5	0.6	0.5	1.9	1.5	2.0	1.4	1.8	1.5
		Natashquan	6.3	6.2	1.9	1.6	0.7	0.5	0.7	0.5	1.5	1.2	1.5	1.2	1.5	1.2
		Sept-Îles	3.6	3.3	2.5	2.1	0.7	0.6	0.7	0.6	1.7	1.3	1.7	1.3	1.7	1.3
NOVEMBER	HUDSON BAY (3 stations)	Inukjuak	10.6	10.3	6.3	5.8	1.6	1.3	1.7	1.3	3.1	2.6	4.2	3.4	3.0	2.4
		Kuujuaq	6.4	6.1	5.2	4.9	1.0	0.8	0.9	0.7	2.9	2.0	5.0	4.2	2.5	2.0
		Moosonee	6.7	6.2	3.6	2.6	0.9	0.7	0.8	0.7	3.6	2.8	3.0	2.3	2.9	2.3
	LABRADOR (4 stations)	Cartwright	7.8	7.6	3.5	2.9	0.7	0.6	0.7	0.6	2.0	1.5	2.2	1.7	2.4	1.8
		Goosebay	5.0	4.5	3.6	3.1	0.8	0.6	0.9	0.7	2.6	2.0	2.7	2.1	2.6	2.2
		Kuujuaq	8.1	7.7	3.4	2.9	1.0	0.8	1.0	0.8	2.7	1.9	3.1	2.3	3.2	2.4
		Schefferville	9.5	9.1	3.2	2.7	0.9	0.8	1.3	1.1	2.9	2.3	3.8	3.0	3.0	2.4
	SOUTH (7 stations)	Amos	5.6	5.2	3.1	2.4	0.7	0.6	0.8	0.7	3.3	2.4	2.6	2.1	2.4	1.9
		Val d'Or	6.5	6.0	2.9	2.3	0.9	0.7	0.7	0.6	3.1	2.3	2.6	2.1	2.5	2.0
		Montreal-Dorval	2.6	1.9	4.9	4.3	0.7	0.6	0.7	0.6	2.9	2.1	2.4	2.1	2.1	1.7
		Montreal-McGill	2.3	1.6	4.4	3.8	0.7	0.5	0.7	0.6	2.3	1.7	2.2	1.8	2.1	1.7
		Drummondville	2.9	2.1	4.6	3.9	0.7	0.6	0.7	0.6	2.5	1.8	2.2	1.8	2.2	1.8
		Maniwaki	4.1	3.4	4.1	3.5	0.9	0.7	0.9	0.7	2.5	1.9	2.2	1.8	2.3	1.9
		Bagotville	3.9	3.2	2.8	2.4	0.7	0.6	0.8	0.6	3.6	2.7	2.3	2.0	2.8	2.3
	MARITIME (6 stations)	Causapscal	4.1	3.5	3.0	2.4	0.9	0.7	0.9	0.7	2.6	2.0	2.1	1.8	2.5	2.0
		Daniel-Harbour	3.7	3.3	5.8	5.3	0.6	0.5	0.7	0.5	3.2	2.0	2.4	1.9	2.3	1.8
		Gaspé	6.1	5.8	4.2	3.9	0.7	0.5	0.8	0.6	2.1	1.5	1.9	1.4	2.2	1.7
		Mont-Joli	2.9	2.3	3.9	3.5	0.7	0.6	0.6	0.5	2.4	1.8	2.1	1.7	2.2	1.8
		Natashquan	8.3	8.1	3.0	2.6	0.7	0.6	0.7	0.6	2.2	1.6	1.9	1.5	2.3	1.8
		Sept-Îles	4.9	4.3	4.2	3.7	0.6	0.5	0.6	0.5	2.6	1.9	2.2	1.7	2.4	2.0
DECEMBER	HUDSON BAY (3 stations)	Inukjuak	17.2	16.8	14.4	13.9	2.1	1.8	2.1	1.8	6.4	5.4	7.5	6.5	4.5	3.5
		Kuujuaq	10.4	9.4	13.9	13.4	1.5	1.2	1.5	1.2	7.5	6.3	8.9	8.0	4.4	3.5
		Moosonee	12.2	11.4	5.0	3.7	1.0	0.8	1.3	1.1	7.9	6.7	5.0	4.0	5.2	4.2
	LABRADOR (4 stations)	Cartwright	13.0	12.6	5.1	4.3	1.1	0.9	1.2	0.9	3.8	3.0	4.8	3.7	4.3	3.5
		Goosebay	7.6	6.8	5.1	4.2	1.1	0.9	1.1	0.9	4.3	3.5	4.7	3.9	5.0	4.1
		Kuujuaq	8.0	6.9	5.4	4.5	1.4	1.0	1.5	1.2	4.7	3.7	4.6	3.6	5.3	4.3
		Schefferville	10.4	9.6	5.4	4.4	1.4	1.1	1.7	1.3	4.4	3.6	4.8	3.7	4.9	4.0
	SOUTH (7 stations)	Amos	11.3	10.6	6.1	5.0	0.9	0.7	1.2	1.0	8.1	7.2	5.1	4.0	4.0	3.2
		Val d'Or	13.1	12.7	5.4	4.4	1.2	1.0	0.9	0.8	7.3	6.1	4.7	3.8	4.1	3.2
		Montreal-Dorval	7.7	7.0	4.0	3.2	1.0	0.8	1.2	1.0	5.7	4.5	3.4	2.7	3.5	2.8
		Montreal-McGill	6.4	5.6	3.9	3.1	1.2	0.9	1.6	1.3	6.4	5.6	3.7	2.7	3.5	2.7
		Drummondville	8.2	7.6	4.0	3.2	1.3	1.0	1.5	1.2	6.1	5.1	4.0	3.1	3.7	2.8
		Maniwaki	10.5	9.9	4.4	3.6	1.6	1.2	1.6	1.2	7.4	6.3	4.9	3.8	4.1	3.2
		Bagotville	9.1	8.5	4.6	3.5	1.1	0.9	1.1	0.9	6.8	5.9	4.3	3.4	6.2	5.0
	MARITIME (6 stations)	Causapscal	8.3	7.7	3.8	2.9	0.9	0.8	0.9	0.7	3.4	2.9	3.5	2.7	3.7	3.0
		Daniel-Harbour	6.0	5.6	6.9	6.0	0.8	0.7	0.8	0.6	2.9	2.4	2.8	2.4	3.0	2.4
		Gaspé	9.9	9.5	7.7	7.1	0.7	0.6	1.0	0.8	3.1	2.7	3.3	2.8	3.2	2.6
		Mont-Joli	6.1	5.5	3.9	3.3	0.8	0.6	0.8	0.6	3.0	2.5	3.0	2.3	3.3	2.6
		Natashquan	12.8	12.5	3.9	3.4	0.9	0.7	0.9	0.7	3.3	2.7	3.8	3.1	3.8	3.1
		Sept-Îles	9.1	8.4	3.9	3.4	0.9	0.7	0.9	0.7	3.4	2.9	3.7	2.9	3.9	3.2

Table 2.6 Same as Table 2.3 but for the standard deviation of monthly minimum temperature.

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
JANUARY	HUDSON BAY (3 stations)	Inukjuak	2.2	1.7	2.8	2.3	1.0	0.8	1.0	0.8	1.9	1.5	3.6	2.9	2.1	1.7
		Kuujuarapik	1.9	1.5	3.5	3.1	1.1	0.9	1.1	0.8	2.1	1.7	2.7	2.1	1.9	1.5
		Moosonee	2.6	2.0	2.1	1.7	1.5	1.3	1.3	1.1	2.1	1.8	2.0	1.7	2.1	1.7
	LABRADOR (4 stations)	Cartwright	6.2	6.0	3.0	2.7	1.5	1.2	2.0	1.5	3.1	2.6	1.8	1.5	2.2	1.8
		Goosebay	2.5	1.8	2.4	2.0	1.5	1.3	1.8	1.5	3.4	3.0	2.0	1.6	2.6	2.1
		Kuujuuaq	2.7	2.2	1.9	1.5	1.6	1.3	1.6	1.4	3.0	2.6	2.3	1.8	2.6	2.1
		Schefferville	2.6	1.9	1.7	1.2	1.5	1.2	1.4	1.1	3.4	2.9	2.3	1.7	3.0	2.5
	SOUTH (7 stations)	Amos	2.9	2.5	2.3	2.0	1.1	0.9	1.2	0.9	2.5	2.1	2.1	1.7	2.7	2.3
		Val d'Or	3.6	2.9	2.3	1.9	1.3	1.1	1.3	1.0	1.9	1.6	1.9	1.6	1.8	1.4
		Montreal-Dorval	2.3	1.7	1.9	1.6	1.2	0.9	1.4	1.1	1.8	1.4	1.9	1.5	1.7	1.4
		Montreal-McGill	2.4	1.7	2.0	1.6	1.3	1.0	1.4	1.0	1.9	1.6	1.9	1.6	1.8	1.4
		Drummondville	2.9	2.3	2.4	1.9	1.2	1.0	1.3	1.1	1.9	1.6	2.3	1.9	1.9	1.5
		Maniwaki	3.6	3.0	2.6	2.1	1.3	1.0	1.2	1.0	2.6	2.1	2.5	2.2	2.0	1.6
		Bagotville	2.3	1.6	2.3	1.8	1.1	0.9	1.2	1.0	1.9	1.4	2.2	1.8	2.5	2.0
	MARITIME (6 stations)	Causapsca	2.3	1.7	2.0	1.4	1.2	1.0	1.1	0.9	2.4	1.9	2.0	1.6	1.9	1.5
		Daniel-Harbour	2.5	1.8	4.4	3.9	1.1	0.9	1.1	0.9	3.3	2.5	1.6	1.4	1.6	1.3
		Gaspé	5.5	5.2	3.5	3.1	1.1	0.9	1.2	1.0	2.5	2.0	1.7	1.3	2.1	1.7
		Mont-Joli	1.4	1.2	2.2	1.8	0.9	0.7	0.9	0.7	2.0	1.6	1.6	1.2	1.6	1.3
		Natashquan	6.7	6.4	2.1	1.7	1.2	0.9	1.1	0.9	3.7	3.0	1.8	1.5	2.1	1.7
		Sept-Îles	2.2	1.4	2.2	1.6	1.0	0.8	1.0	0.8	3.0	2.5	1.9	1.4	2.2	1.7
FEBRUARY	HUDSON BAY (3 stations)	Inukjuak	2.3	2.0	3.0	2.5	1.1	0.9	1.2	0.9	2.1	1.6	3.9	3.3	3.4	2.7
		Kuujuarapik	2.2	1.6	3.1	2.6	1.2	1.0	1.2	1.0	2.1	1.5	6.4	5.2	2.2	1.8
		Moosonee	2.7	2.0	2.6	2.0	1.6	1.3	1.5	1.1	2.3	1.8	2.8	2.4	2.9	2.4
	LABRADOR (4 stations)	Cartwright	6.2	6.0	4.1	3.4	1.6	1.3	1.7	1.4	3.3	2.7	2.3	1.8	2.2	1.7
		Goosebay	2.0	1.7	3.0	2.3	1.6	1.4	1.7	1.4	2.7	2.1	2.5	2.0	2.3	1.9
		Kuujuuaq	2.5	2.0	3.0	2.1	1.7	1.4	1.6	1.4	2.6	2.1	3.0	2.3	2.4	2.0
		Schefferville	2.2	1.7	2.9	2.2	1.6	1.3	1.6	1.4	2.5	2.1	2.9	2.4	2.3	1.8
	SOUTH (7 stations)	Amos	3.0	2.7	2.2	1.7	1.2	0.9	1.2	1.0	2.3	1.8	2.0	1.6	4.1	3.2
		Val d'Or	2.9	2.6	2.2	1.8	1.6	1.3	1.4	1.1	2.1	1.7	2.1	1.7	2.2	1.7
		Montreal-Dorval	1.7	1.4	2.0	1.5	1.2	1.0	1.3	1.1	1.8	1.5	1.9	1.5	1.7	1.4
		Montreal-McGill	1.4	1.2	1.9	1.4	0.9	0.7	1.0	0.8	1.9	1.6	1.5	1.2	1.6	1.3
		Drummondville	2.3	2.0	1.8	1.5	1.1	0.9	1.2	0.9	1.9	1.5	1.9	1.5	1.8	1.5
		Maniwaki	3.3	2.8	2.4	2.2	1.7	1.4	1.7	1.4	2.5	2.1	2.9	2.3	2.3	1.8
		Bagotville	1.9	1.5	2.3	1.8	1.6	1.3	1.6	1.3	1.7	1.3	2.9	2.3	2.4	1.9
	MARITIME (6 stations)	Causapsca	2.4	2.0	2.6	1.9	1.3	1.0	1.2	0.9	2.8	2.2	2.1	1.6	2.0	1.6
		Daniel-Harbour	1.4	1.2	4.5	4.2	1.3	1.0	1.2	1.0	3.3	2.6	2.1	1.7	1.6	1.2
		Gaspé	3.4	2.6	3.5	3.0	1.2	0.9	1.2	1.0	2.5	2.0	1.8	1.4	1.9	1.5
		Mont-Joli	1.4	1.1	2.9	2.3	1.1	0.8	1.0	0.8	2.4	1.9	1.7	1.3	1.7	1.4
		Natashquan	5.5	5.1	2.9	2.3	1.1	0.9	1.1	0.9	3.4	2.5	2.1	1.6	1.9	1.6
		Sept-Îles	1.9	1.5	2.4	1.9	1.2	1.0	1.1	0.9	3.0	2.5	2.1	1.7	2.0	1.6
MARCH	HUDSON BAY (3 stations)	Inukjuak	2.3	1.9	2.2	1.9	1.0	0.8	0.9	0.8	2.4	2.0	3.5	3.0	2.5	2.0
		Kuujuarapik	2.5	2.1	2.6	2.3	1.2	0.9	1.1	0.9	2.4	1.9	7.3	6.3	2.3	1.9
		Moosonee	2.4	2.0	2.6	2.2	1.3	1.1	1.1	0.9	1.8	1.4	2.9	2.3	2.1	1.7
	LABRADOR (4 stations)	Cartwright	6.3	6.2	2.7	2.2	1.2	1.0	1.4	1.1	2.8	2.3	2.5	2.1	2.0	1.6
		Goosebay	2.5	2.0	2.2	1.7	1.3	1.0	1.2	1.0	2.5	2.0	2.7	2.1	2.0	1.6
		Kuujuuaq	2.2	1.8	1.9	1.4	1.3	1.0	1.3	1.0	2.4	1.9	2.2	1.7	2.2	1.8
		Schefferville	2.7	2.2	2.2	1.7	1.4	1.1	1.3	1.0	2.5	2.0	2.3	1.9	2.3	1.8
	SOUTH (7 stations)	Amos	3.0	2.5	2.6	2.0	1.1	0.9	1.4	1.1	2.4	1.9	3.1	2.6	2.2	1.8
		Val d'Or	2.9	2.4	2.7	2.1	1.2	1.0	1.1	0.9	2.0	1.6	2.6	2.1	2.0	1.6
		Montreal-Dorval	1.9	1.5	2.8	2.3	1.5	1.2	1.5	1.2	1.8	1.4	2.1	1.7	1.8	1.5
		Montreal-McGill	1.7	1.4	2.2	1.6	1.3	1.0	1.2	1.0	2.1	1.7	2.4	2.0	1.6	1.3
		Drummondville	2.1	1.6	2.5	2.0	1.5	1.2	1.5	1.2	2.2	1.8	2.5	2.1	1.9	1.5
		Maniwaki	2.9	2.6	2.3	2.0	2.1	1.6	1.8	1.5	2.6	2.2	3.4	2.5	2.2	1.7
		Bagotville	2.1	1.8	2.4	2.1	1.3	1.0	1.7	1.3	2.0	1.6	3.4	2.6	2.8	2.3
	MARITIME (6 stations)	Causapsca	2.7	2.3	2.2	1.8	1.3	1.0	1.1	0.9	2.5	2.0	2.2	1.8	1.8	1.4
		Daniel-Harbour	2.2	1.8	3.5	3.0	1.3	1.0	1.3	1.1	3.6	3.0	2.5	1.9	2.1	1.6
		Gaspé	3.0	2.4	3.7	3.4	1.1	0.9	1.4	1.1	2.6	2.1	2.2	1.7	1.7	1.4
		Mont-Joli	1.4	1.1	2.5	2.0	0.8	0.7	0.8	0.6	1.7	1.3	1.8	1.5	1.5	1.2
		Natashquan	5.3	4.9	2.4	1.9	1.2	0.9	1.2	0.9	2.9	2.3	2.2	1.8	1.8	1.5
		Sept-Îles	1.7	1.4	1.9	1.5	0.7	0.6	0.7	0.6	2.2	1.7	1.8	1.5	1.8	1.4
APRIL	HUDSON BAY (3 stations)	Inukjuak	2.3	1.8	2.5	2.1	1.3	1.1	1.3	1.1	2.2	1.8	3.8	3.2	2.9	2.4
		Kuujuarapik	2.6	2.1	3.3	2.7	1.8	1.4	1.4	1.2	2.5	2.1	4.5	3.9	2.7	2.3
		Moosonee	4.1	3.6	2.3	1.8	1.4	1.1	1.3	1.1	1.7	1.4	2.3	1.9	2.1	1.7
	LABRADOR (4 stations)	Cartwright	4.5	4.4	2.0	1.6	1.2	1.0	1.3	1.1	2.5	1.9	2.3	1.9	1.6	1.2
		Goosebay	1.4	1.2	2.1	1.6	1.0	0.8	1.0	0.8	1.9	1.5	2.3	1.9	1.7	1.3
		Kuujuuaq	2.0	1.6	2.0	1.6	1.4	1.1	1.3	1.1	2.4	2.0	2.5	1.9	2.2	1.8
		Schefferville	2.2	1.8	1.9	1.5	1.4	1.2	1.1	0.9	2.7	2.2	2.6	2.0	2.1	1.7
	SOUTH (7 stations)	Amos	3.4	2.8	2.4	1.9	0.9	0.7	0.9	0.7	1.7	1.4	1.9	1.5	2.0	1.6
		Val d'Or	4.6	4.3	2.3	1.8	1.0	0.8	0.9	0.8	1.6	1.3	1.8	1.4	1.8	1.4
		Montreal-Dorval	2.7	2.3	2.1	1.5	0.7	0.6	0.8	0.6	1.1	0.9	1.6	1.2	1.3	1.0
		Montreal-McGill	2.8	2.4	2.2	1.7	0.9	0.7	0.9	0.7	1.6	1.4	1.6	1.3	1.4	1.1
		Drummondville	3.0	2.7	2.1	1.6	0.7	0.6	0.8	0.6	1.4	1.2	1.8	1.4	1.3	1.1
		Maniwaki	3.3	2.9	2.1	1.6	1.1	0.9	1.1	0.9	1.5	1.2	1.6	1.3	1.6	1.3
		Bagotville	1.4	1.1	2.0	1.6	1.3	1.0	1.1	0.9	1.1	0.9	1.8	1.4	1.7	1.4
	MARITIME (6 stations)	Causapsca	1.4	1.2	1.9	1.6	1.1	0.9	1.0	0.8	2.1	1.7	1.4	1.1	2.2	1.8
		Daniel-Harbour	2.3	2.0	2.6	2.2	0.9	0.8	0.9	0.8	2.6	2.2	1.5	1.2	1.3	1.0
		Gaspé	1.9	1.6	1.6	1.3	0.9	0.7	0.9	0.7	1.9	1.6	1.3	1.0	1.3	1.0
		Mont-Joli	2.0	1.8	2.3	1.9	0.7	0.5	0.7	0.5	1.3	1.1	1.3	1.0	1.4	1.1
		Natashquan	3.2	3.0	2.2	1.8	1.4	1.1	1.4	1.1	3.1	2.6	1.9	1.6	1.5	1.2
		Sept-Îles	1.7	1.4	2.3	1.9	0.9	0.6	0.8	0.6	1.8	1.4	1.4	1.2	1.7	1.4

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
MAY	HUDSON BAY (3 stations)	Inukjuak	3,1	2,6	2,2	1,9	1,0	0,8	1,0	0,8	1,5	1,2	1,5	1,2	2,0	1,6
		Kuujuarapik	2,0	1,5	3,0	2,7	1,1	0,9	1,1	0,9	1,5	1,1	1,4	1,1	2,5	2,1
		Moosonee	1,3	1,1	1,6	1,3	0,9	0,7	0,8	0,6	1,3	1,0	1,2	1,0	2,2	1,8
	LABRADOR (4 stations)	Cartwright	2,1	1,9	2,0	1,5	0,8	0,7	0,8	0,7	1,7	1,4	1,0	0,8	1,3	1,1
		Goosebay	1,5	1,2	2,3	1,9	0,8	0,6	0,7	0,6	1,5	1,2	1,1	0,9	1,3	1,1
		Kuujuuaq	2,1	1,8	2,0	1,6	1,0	0,8	1,1	0,9	2,0	1,6	1,5	1,2	2,3	1,9
	SOUTH (7 stations)	Schefferville	2,0	1,7	1,7	1,4	0,9	0,7	0,8	0,7	1,9	1,5	1,4	1,2	1,7	1,4
		Amos	1,7	1,4	1,3	1,0	0,8	0,5	0,6	0,5	1,4	1,1	1,3	1,0	2,0	1,5
		Val d'Or	1,4	1,1	1,4	1,1	0,8	0,7	0,8	0,7	1,7	1,4	1,4	1,1	1,4	1,2
	MARITIME (6 stations)	Montreal-Dorval	1,6	1,3	1,4	1,2	0,8	0,5	0,7	0,5	1,2	1,0	1,6	1,3	1,2	0,9
		Montreal-McGill	1,5	1,1	1,4	1,2	0,8	0,5	0,7	0,5	1,3	1,0	1,3	1,0	1,2	0,9
		Drummondville	1,4	1,1	1,4	1,2	0,7	0,5	0,8	0,6	1,4	1,2	1,6	1,3	1,2	1,0
	MARITIME (6 stations)	Maniwaki	1,5	1,1	1,2	1,0	0,8	0,5	0,6	0,5	1,2	1,0	1,3	1,1	1,2	1,0
		Bagotville	1,4	1,1	1,3	1,1	0,7	0,6	0,7	0,6	1,1	0,9	1,2	1,0	1,2	0,9
	MARITIME (6 stations)	Causapscal	1,4	1,2	1,2	0,9	0,8	0,6	0,7	0,6	1,3	1,0	1,1	0,8	1,1	0,8
		Daniel-Harbour	1,4	1,2	1,7	1,4	0,8	0,5	0,6	0,5	1,8	1,5	1,0	0,8	0,9	0,7
		Gaspe	1,8	1,6	1,5	1,2	0,8	0,6	0,8	0,7	1,4	1,2	1,1	0,9	1,2	0,9
	MARITIME (6 stations)	Mont-Joli	1,3	1,1	1,6	1,3	0,8	0,5	0,7	0,5	1,3	1,1	1,1	0,8	1,0	0,8
		Natashquan	1,1	1,0	1,5	1,2	0,4	0,4	0,5	0,4	1,3	1,1	0,8	0,6	0,9	0,8
		Sept-Iles	1,5	1,3	1,6	1,3	0,5	0,4	0,5	0,4	1,1	0,9	0,8	0,7	0,9	0,7
JUNE	HUDSON BAY (3 stations)	Inukjuak	1,3	1,0	1,4	1,3	0,6	0,5	0,6	0,5	2,8	2,6	0,8	0,6	2,4	1,9
		Kuujuarapik	2,0	1,8	2,5	2,2	1,0	0,8	0,9	0,8	1,3	1,0	1,3	1,1	1,7	1,4
		Moosonee	1,3	1,0	1,3	1,1	1,0	0,8	1,0	0,8	1,3	1,1	1,1	0,9	1,6	1,3
	LABRADOR (4 stations)	Cartwright	2,4	2,3	1,3	1,1	0,8	0,5	0,7	0,6	1,0	0,8	1,0	0,8	1,0	0,8
		Goosebay	1,3	1,0	1,1	0,9	0,8	0,6	0,8	0,6	1,2	1,1	1,2	0,9	1,2	0,9
		Kuujuuaq	3,0	2,6	1,0	0,7	0,7	0,6	0,7	0,5	0,9	0,8	1,0	0,8	1,0	0,8
	SOUTH (7 stations)	Schefferville	1,2	1,0	1,1	1,0	0,6	0,5	0,6	0,5	1,2	1,0	1,1	0,9	1,1	0,9
		Amos	0,9	0,7	0,9	0,7	0,6	0,5	0,5	0,4	0,8	0,6	1,1	0,9	1,3	1,0
		Val d'Or	1,0	0,7	0,8	0,7	0,7	0,6	0,7	0,6	1,8	1,4	1,0	0,8	1,1	0,9
	SOUTH (7 stations)	Montreal-Dorval	1,1	0,9	1,1	0,9	0,5	0,4	0,6	0,5	0,9	0,7	1,2	1,0	1,0	0,8
		Montreal-McGill	1,3	1,1	1,4	1,2	0,5	0,4	0,5	0,4	0,9	0,7	1,1	1,0	1,0	0,8
		Drummondville	0,9	0,7	1,1	0,8	0,5	0,4	0,6	0,5	1,0	0,8	1,4	1,2	1,0	0,8
	MARITIME (6 stations)	Maniwaki	1,0	0,8	1,1	0,8	0,8	0,5	0,6	0,5	1,0	0,8	1,5	1,2	1,1	0,9
		Bagotville	0,8	0,6	1,0	0,9	0,7	0,6	0,6	0,5	0,8	0,7	1,2	1,0	1,1	0,9
	MARITIME (6 stations)	Causapscal	1,1	0,9	1,3	1,0	0,9	0,7	0,7	0,5	1,7	1,4	1,1	0,8	1,0	0,8
		Daniel-Harbour	1,6	1,3	1,0	0,8	0,8	0,5	0,5	0,4	1,1	0,9	0,8	0,6	0,8	0,7
		Gaspe	2,6	2,6	2,5	2,4	0,8	0,6	0,8	0,6	1,7	1,4	1,1	0,9	0,9	0,7
	MARITIME (6 stations)	Mont-Joli	0,9	0,7	1,0	0,7	0,7	0,6	0,6	0,5	1,5	1,2	0,9	0,7	1,0	0,8
		Natashquan	1,5	1,5	0,9	0,8	0,5	0,4	0,5	0,4	1,1	0,9	0,7	0,6	0,7	0,6
		Sept-Iles	1,3	1,1	1,1	0,9	0,5	0,4	0,5	0,4	1,1	0,9	0,7	0,5	0,8	0,7
JULY	HUDSON BAY (3 stations)	Inukjuak	1,0	0,7	1,1	0,8	1,1	0,9	1,0	0,9	2,4	2,3	1,3	1,1	1,1	0,9
		Kuujuarapik	1,1	0,8	2,0	1,8	0,8	0,7	0,8	0,7	1,1	0,8	1,0	0,8	1,0	0,8
		Moosonee	1,5	1,3	1,0	0,8	0,7	0,5	0,7	0,6	0,9	0,7	1,0	0,7	0,9	0,7
	LABRADOR (4 stations)	Cartwright	2,4	2,4	1,2	1,0	0,8	0,5	0,8	0,5	0,9	0,8	0,7	0,6	0,8	0,6
		Goosebay	0,8	0,6	1,0	0,8	0,8	0,5	0,6	0,5	1,2	1,0	0,9	0,7	0,8	0,7
		Kuujuuaq	1,2	0,8	0,8	0,7	0,8	0,5	0,6	0,5	0,9	0,7	0,7	0,6	1,0	0,8
	SOUTH (7 stations)	Schefferville	0,9	0,7	1,1	0,9	0,8	0,5	0,6	0,5	1,3	1,0	1,0	0,7	0,8	0,7
		Amos	1,3	1,1	0,8	0,6	0,5	0,4	0,5	0,4	1,0	0,9	0,8	0,7	1,2	1,0
		Val d'Or	1,4	1,1	0,7	0,8	0,8	0,5	0,6	0,5	1,5	1,2	0,8	0,6	0,9	0,7
	SOUTH (7 stations)	Montreal-Dorval	1,0	0,7	0,8	0,7	0,5	0,4	0,5	0,4	0,8	0,6	0,9	0,8	0,8	0,6
		Montreal-McGill	0,8	0,6	1,1	1,0	0,4	0,3	0,4	0,3	0,8	0,6	0,6	0,5	0,7	0,6
		Drummondville	1,1	0,8	0,8	0,6	0,4	0,4	0,5	0,4	0,9	0,7	1,1	0,9	0,9	0,7
	MARITIME (6 stations)	Maniwaki	1,2	1,0	0,9	0,7	0,4	0,4	0,5	0,4	0,8	0,6	1,2	0,9	0,8	0,7
		Bagotville	0,8	0,6	0,9	0,7	0,6	0,5	0,6	0,5	0,7	0,6	1,0	0,8	1,1	0,9
	MARITIME (6 stations)	Causapscal	1,5	1,4	1,1	0,9	0,8	0,5	0,6	0,4	1,4	1,1	0,9	0,7	1,0	0,8
		Daniel-Harbour	1,2	1,0	1,2	1,0	0,8	0,5	0,6	0,5	1,3	1,1	0,7	0,5	0,8	0,7
		Gaspe	2,4	2,3	1,6	1,5	0,8	0,5	0,6	0,5	1,1	0,9	0,7	0,6	1,2	0,9
	MARITIME (6 stations)	Mont-Joli	0,7	0,6	1,0	0,8	0,8	0,5	0,6	0,5	1,1	0,9	0,7	0,6	0,9	0,7
		Natashquan	1,6	1,6	1,0	0,8	0,8	0,5	0,7	0,6	1,1	0,9	0,7	0,6	0,8	0,7
		Sept-Iles	0,8	0,6	1,6	1,4	0,5	0,4	0,5	0,4	0,9	0,7	0,6	0,5	0,7	0,5
AUGUST	HUDSON BAY (3 stations)	Inukjuak	1,0	0,9	0,7	0,5	0,8	0,7	0,8	0,7	1,2	1,1	0,9	0,7	1,3	1,1
		Kuujuarapik	0,8	0,7	1,5	1,4	0,7	0,6	0,7	0,6	0,7	0,6	0,7	0,6	1,0	0,8
		Moosonee	1,5	1,3	1,0	0,8	0,8	0,7	0,8	0,6	0,9	0,8	1,1	0,8	1,1	0,9
	LABRADOR (4 stations)	Cartwright	2,5	2,4	1,6	1,4	0,8	0,5	0,8	0,5	1,0	0,8	0,7	0,6	0,8	0,7
		Goosebay	0,8	0,6	1,2	1,0	0,8	0,5	0,6	0,5	1,0	0,8	0,8	0,7	0,9	0,7
		Kuujuuaq	0,8	0,7	0,6	0,5	0,7	0,5	0,7	0,5	0,9	0,7	0,6	0,5	0,8	0,6
	SOUTH (7 stations)	Schefferville	0,8	0,7	0,8	0,6	0,6	0,5	0,7	0,4	1,1	0,9	0,9	0,7	0,9	0,7
		Amos	1,5	1,4	0,9	0,8	0,5	0,4	0,6	0,5	1,1	0,9	1,0	0,8	1,1	0,8
		Val d'Or	1,5	1,3	1,1	0,8	0,8	0,5	0,6	0,5	0,9	0,8	1,1	0,8	1,0	0,8
	SOUTH (7 stations)	Montreal-Dorval	1,1	0,9	1,1	0,9	0,5	0,4	0,5	0,4	0,9	0,7	1,1	0,9	0,9	0,7
		Montreal-McGill	0,8	0,7	1,6	1,4	0,4	0,3	0,4	0,3	0,8	0,6	1,0	0,7	0,8	0,6
		Drummondville	1,3	1,1	1,0	0,8	0,5	0,4	0,6	0,5	0,9	0,7	1,1	0,9	0,9	0,7
	MARITIME (6 stations)	Maniwaki	1,4	1,2	1,2	0,9	0,8	0,5	0,5	0,4	0,9	0,8	1,6	1,3	1,0	0,8
		Bagotville	1,2	1,1	1,1	0,9	0,5	0,4	0,5	0,4	0,8	0,6	1,2	1,0	1,4	1,2
	MARITIME (6 stations)	Causapscal	1,9	1,8	0,8	0,6	0,8	0,5	0,6	0,5	1,0	0,8	0,9	0,7	0,9	0,7
		Daniel-Harbour	0,8	0,7	1,4	1,2	0,8	0,5	0,6	0,5	1,2	0,9	0,7	0,6	0,8	0,7
		Gaspe	3,4	3,3	2,2	2,1	0,8	0,5	0,7	0,5	1,0	0,8	0,8	0,6	1,1	0,9
	MARITIME (6 stations)	Mont-Joli	1,0	0,8	1,5	1,3	0,6	0,5	0,6	0,5	0,9	0,8	0,8	0,6	0,9	0,7
		Natashquan	2,7	2,7	1,4	1,2	0,8	0,5	0,6	0,5	0,9	0,8	0,7	0,5	1,0	0,8
		Sept-Iles	0,8	0,6	1,8	1,6	0,5	0,4	0,5	0,4	0,7	0,6	0,8	0,6	0,8	0,7

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
SEPTEMBER	HUDSON BAY (3 stations)	Inukjuak	2,1	2,0	1,5	1,4	0,5	0,4	0,5	0,4	0,9	0,7	0,6	0,5	0,8	0,6
		Kuujuarapik	1,6	1,4	1,7	1,6	0,7	0,5	0,6	0,5	0,9	0,7	0,8	0,6	1,1	0,9
		Moosonee	1,2	1,1	1,4	1,0	0,8	0,7	0,7	0,6	1,1	0,8	1,2	1,0	1,0	0,8
	LABRADOR (4 stations)	Cartwright	2,3	2,2	1,7	1,5	0,6	0,4	0,6	0,5	1,0	0,8	0,6	0,5	0,8	0,6
		Goosebay	1,0	0,9	1,1	0,9	0,5	0,4	0,5	0,4	1,1	0,9	0,8	0,6	1,0	0,8
		Kuujuaq	1,3	1,1	0,9	0,8	0,8	0,5	0,6	0,5	1,0	0,8	0,8	0,7	0,8	0,7
		Schefferville	1,4	1,2	1,0	0,9	0,6	0,5	0,6	0,5	1,2	0,9	1,0	0,8	1,0	0,8
	SOUTH (7 stations)	Amos	1,0	0,8	1,4	1,1	0,6	0,5	0,7	0,5	1,1	0,8	1,3	1,0	1,1	0,9
		Val d'Or	1,2	1,0	1,6	1,3	0,8	0,6	0,8	0,6	1,1	0,9	1,1	0,9	1,2	0,9
		Montreal-Dorval	1,0	0,7	1,3	1,1	0,7	0,5	0,7	0,6	0,9	0,8	1,4	1,2	1,1	0,9
		Montreal-McGill	1,0	0,9	1,8	1,6	0,6	0,5	0,6	0,5	1,0	0,8	1,1	0,9	1,1	0,9
		Drummondville	1,0	0,8	1,1	1,0	0,8	0,5	0,6	0,5	1,0	0,8	1,3	1,1	1,1	0,9
		Maniwaki	1,1	0,8	1,4	1,2	0,6	0,5	0,6	0,5	1,0	0,9	1,7	1,5	1,2	0,9
		Bagotville	0,9	0,7	1,5	1,2	0,7	0,5	0,7	0,6	1,2	0,9	1,3	1,1	1,3	1,1
	MARITIME (6 stations)	Causapsal	1,3	1,1	1,1	0,8	0,6	0,5	0,6	0,5	1,1	0,9	0,9	0,7	1,0	0,8
		Daniel-Harbour	1,2	0,9	1,8	1,6	0,6	0,5	0,6	0,5	1,2	1,0	0,7	0,6	0,8	0,7
		Gaspe	3,1	3,1	1,9	1,8	0,7	0,5	0,7	0,5	1,2	0,9	0,8	0,7	0,9	0,7
		Mont-Joli	1,1	0,8	2,0	1,7	0,6	0,5	0,6	0,5	0,8	0,7	0,7	0,6	0,9	0,7
		Natashquan	2,7	2,6	1,8	1,5	0,7	0,6	0,7	0,6	1,2	0,9	0,7	0,5	0,9	0,7
		Sept-Iles	1,2	0,9	1,7	1,5	0,6	0,5	0,6	0,5	1,1	0,8	0,8	0,6	0,9	0,7
OCTOBER	HUDSON BAY (3 stations)	Inukjuak	2,3	2,2	2,2	2,0	0,8	0,7	0,8	0,7	1,0	0,8	1,6	1,3	1,2	0,9
		Kuujuarapik	1,0	0,8	1,7	1,5	0,6	0,5	0,6	0,4	0,8	0,6	1,0	0,9	1,0	0,8
		Moosonee	1,4	1,1	1,5	1,2	0,8	0,6	0,8	0,6	1,2	1,0	1,1	0,8	1,8	1,5
	LABRADOR (4 stations)	Cartwright	2,0	1,9	1,6	1,3	0,7	0,6	0,7	0,6	1,5	1,2	1,0	0,8	0,8	0,6
		Goosebay	1,5	1,2	1,4	1,1	0,8	0,6	0,9	0,7	1,5	1,2	1,2	0,9	1,1	0,9
		Kuujuaq	1,8	1,6	1,2	1,0	0,8	0,7	0,8	0,6	1,9	1,5	1,3	1,0	1,1	0,9
		Schefferville	1,9	1,7	1,3	1,1	0,8	0,6	0,8	0,6	1,7	1,4	1,4	1,1	1,2	1,0
	SOUTH (7 stations)	Amos	1,4	1,2	1,1	0,8	0,7	0,6	0,7	0,5	1,2	0,9	1,0	0,8	1,1	0,9
		Val d'Or	1,4	1,1	1,1	0,8	0,7	0,6	0,7	0,6	1,2	1,0	1,0	0,8	1,2	0,9
		Montreal-Dorval	1,1	0,9	1,3	1,0	0,8	0,5	0,6	0,5	1,1	0,9	1,7	1,3	1,2	0,9
		Montreal-McGill	1,0	0,8	1,5	1,1	0,6	0,4	0,6	0,5	1,2	0,9	1,6	1,1	1,1	0,9
		Drummondville	1,2	0,9	1,3	1,0	0,7	0,5	0,7	0,5	1,1	0,8	2,0	1,5	1,1	0,9
		Maniwaki	1,2	0,9	1,2	0,9	0,7	0,6	0,7	0,6	1,1	0,8	1,4	1,1	1,1	0,9
		Bagotville	1,2	1,0	1,2	1,0	0,6	0,5	0,7	0,5	0,9	0,7	1,1	0,9	1,0	0,8
	MARITIME (6 stations)	Causapsal	1,6	1,5	1,1	0,9	0,8	0,6	0,7	0,6	1,3	1,0	1,0	0,8	1,1	0,9
		Daniel-Harbour	1,0	0,7	1,2	1,0	0,6	0,5	0,6	0,5	1,5	1,2	0,8	0,7	0,9	0,7
		Gaspe	2,8	2,7	1,7	1,6	0,8	0,5	0,6	0,5	1,0	0,8	0,8	0,7	0,8	0,6
		Mont-Joli	1,1	0,9	1,5	1,2	0,6	0,5	0,6	0,5	1,2	1,0	0,9	0,7	1,0	0,8
		Natashquan	2,9	2,9	1,1	0,8	0,7	0,5	0,7	0,6	1,3	1,1	0,9	0,7	0,9	0,7
		Sept-Iles	1,1	0,8	1,2	0,9	0,6	0,5	0,6	0,5	1,3	1,0	0,9	0,7	1,0	0,8
NOVEMBER	HUDSON BAY (3 stations)	Inukjuak	4,8	4,6	4,6	4,4	1,3	1,0	1,3	1,0	1,5	1,2	2,2	1,8	1,8	1,5
		Kuujuarapik	4,3	4,0	3,8	3,5	1,1	0,9	1,1	0,9	1,8	1,3	2,5	2,1	2,1	1,7
		Moosonee	5,7	5,4	2,6	2,0	1,3	1,1	1,2	1,0	2,3	1,8	2,3	1,8	2,1	1,7
	LABRADOR (4 stations)	Cartwright	3,6	3,5	1,6	1,3	0,7	0,6	0,7	0,6	2,2	1,6	1,1	0,9	1,3	1,0
		Goosebay	5,2	5,1	1,5	1,2	0,9	0,7	0,9	0,7	2,1	1,6	1,6	1,3	1,7	1,3
		Kuujuaq	3,6	3,0	1,4	1,2	1,0	0,8	1,0	0,8	1,6	1,2	1,2	0,9	1,8	1,4
		Schefferville	5,0	4,6	1,7	1,4	1,1	0,9	1,2	1,0	1,8	1,5	1,8	1,4	1,7	1,4
	SOUTH (7 stations)	Amos	5,3	5,0	2,2	1,8	1,0	0,8	1,0	0,8	2,3	1,8	1,9	1,5	1,9	1,5
		Val d'Or	4,9	4,5	2,4	1,9	1,1	0,9	1,1	0,8	2,0	1,6	1,9	1,5	2,0	1,6
		Montreal-Dorval	3,2	2,9	1,3	1,1	0,9	0,7	1,0	0,8	1,6	1,3	1,5	1,2	1,5	1,2
		Montreal-McGill	3,1	2,8	1,3	1,0	0,8	0,7	0,9	0,7	1,7	1,4	1,5	1,2	1,6	1,3
		Drummondville	3,4	3,1	1,5	1,2	0,9	0,7	1,0	0,8	1,7	1,4	1,7	1,3	1,6	1,3
		Maniwaki	3,9	3,7	1,3	0,9	1,3	1,0	1,1	0,9	1,9	1,6	1,7	1,4	1,6	1,3
		Bagotville	4,8	4,6	1,6	1,3	1,1	0,9	1,1	0,9	1,7	1,5	1,7	1,4	2,3	1,8
	MARITIME (6 stations)	Causapsal	4,5	4,2	1,4	1,1	0,9	0,7	0,9	0,7	1,9	1,5	1,3	1,1	1,7	1,4
		Daniel-Harbour	1,8	1,5	2,6	2,3	0,7	0,5	0,7	0,5	2,0	1,5	1,0	0,8	1,2	1,0
		Gaspe	3,6	3,4	2,2	1,9	0,9	0,7	0,9	0,7	1,7	1,4	1,3	1,1	1,5	1,2
		Mont-Joli	3,5	3,2	1,7	1,4	0,7	0,5	0,7	0,6	1,5	1,2	1,1	0,9	1,5	1,2
		Natashquan	4,2	4,1	1,5	1,2	1,0	0,8	1,0	0,8	1,8	1,4	1,3	1,1	1,5	1,2
		Sept-Iles	4,3	4,1	1,6	1,3	0,9	0,8	0,9	0,7	2,0	1,6	1,4	1,2	1,6	1,3
DECEMBER	HUDSON BAY (3 stations)	Inukjuak	4,9	4,5	4,4	4,1	1,6	1,3	1,7	1,3	1,8	1,4	2,1	1,7	2,2	1,7
		Kuujuarapik	3,0	2,3	5,2	4,9	1,3	1,1	1,5	1,2	1,9	1,6	2,2	1,7	2,1	1,7
		Moosonee	2,6	2,1	2,9	2,4	1,6	1,3	1,5	1,2	2,5	1,9	2,6	2,1	2,3	1,9
	LABRADOR (4 stations)	Cartwright	5,7	5,5	2,0	1,6	1,2	0,9	1,2	1,0	3,0	2,4	1,7	1,4	1,9	1,5
		Goosebay	2,5	2,1	2,0	1,7	1,6	1,3	1,5	1,2	2,9	2,4	2,1	1,8	2,1	1,7
		Kuujuaq	2,0	1,6	2,1	1,8	1,4	1,2	1,4	1,1	2,6	2,1	2,0	1,7	2,0	1,6
		Schefferville	1,9	1,6	2,5	2,1	1,7	1,4	1,7	1,4	2,8	2,3	2,4	2,0	2,1	1,7
	SOUTH (7 stations)	Amos	3,3	2,4	2,6	2,3	1,3	1,1	1,3	1,1	2,5	2,0	1,9	1,5	3,0	2,4
		Val d'Or	7,6	7,3	2,5	2,2	1,5	1,2	1,5	1,2	2,4	1,9	1,8	1,5	2,0	1,6
		Montreal-Dorval	5,3	4,9	1,5	1,2	1,5	1,2	1,5	1,2	1,8	1,5	1,6	1,3	1,7	1,3
		Montreal-McGill	5,0	4,7	1,5	1,2	1,5	1,2	1,7	1,4	2,0	1,7	1,6	1,3	1,7	1,4
		Drummondville	6,1	5,9	1,8	1,5	1,6	1,2	1,7	1,2	1,8	1,5	1,7	1,4	1,6	1,3
		Maniwaki	6,8	6,5	2,4	1,9	1,9	1,5	1,5	1,2	2,4	2,1	2,0	1,6	1,8	1,5
		Bagotville	2,5	1,9	2,7	2,3	1,1	0,9	1,4	1,1	1,8	1,5	2,1	1,7	2,8	2,3
	MARITIME (6 stations)	Causapsal	2,7	2,1	2,0	1,5	1,1	0,9	1,1	0,9	2,3	1,8	1,7	1,4	1,8	1,4
		Daniel-Harbour	4,1	3,9	3,4	3,1	1,0	0,8	1,0	0,8	2,8	2,3	1,3	1,1	1,4	1,1
		Gaspe	5,2	5,1	3,6	3,4	1,0	0,8	1,1	0,9	2,0	1,7	1,5	1,2	1,4	1,1
		Mont-Joli	2,5	2,1	1,8	1,5	0,8	0,7	0,9	0,7	1,9	1,6	1,5	1,2	1,6	1,3
		Natashquan	6,0	5,9	1,7	1,3	1,2	0,9	1,2	0,9	3,0	2,5	1,7	1,5	1,7	1,4
		Sept-Iles	2,6	1,9	2,2	1,7	1,0	0,8	0,9	0,8	2,2	1,8	1,8	1,5	1,8	1,4

Table 2.7 Same as Table 2.3 but for the standard deviation of monthly maximum temperature.

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
JANUARY	HUDSON BAY (3 stations)	Inukjuak	4.1	3.7	2.8	2.2	0.9	0.7	0.9	0.7	1.9	1.6	3.3	2.7	2.0	1.6
		Kuujuarapik	3.4	3.2	4.1	3.7	0.9	0.7	0.8	0.6	2.5	2.0	2.8	2.2	1.8	1.4
		Moosonee	4.0	3.7	1.9	1.6	0.8	0.7	0.8	0.7	2.4	2.0	1.8	1.5	2.1	1.8
	LABRADOR (4 stations)	Cartwright	6.1	6.0	1.8	1.5	1.0	0.8	1.0	0.8	2.6	2.2	1.7	1.4	1.6	1.3
		Goosebay	3.4	3.0	1.7	1.4	0.9	0.7	1.1	0.8	2.4	2.0	1.7	1.4	2.0	1.6
		Kuujuuaq	3.0	2.5	1.7	1.3	1.0	0.8	1.1	0.9	2.4	2.0	1.9	1.6	2.1	1.7
		Schefferville	3.6	3.2	1.7	1.4	0.9	0.7	0.9	0.7	2.8	2.2	2.0	1.7	2.3	1.9
	SOUTH (7 stations)	Amos	3.9	3.6	3.0	2.6	1.0	0.8	1.0	0.8	1.9	1.6	1.9	1.5	2.1	1.7
		Val d'Or	4.7	4.4	3.0	2.6	0.7	0.5	0.7	0.5	2.0	1.7	2.0	1.7	1.5	1.2
		Montreal-Dorval	4.4	4.1	2.6	2.1	0.8	0.7	0.8	0.7	2.0	1.7	1.7	1.4	2.0	1.7
		Montreal-McGill	4.3	3.9	2.7	2.4	1.2	1.0	1.3	1.0	1.7	1.3	1.8	1.4	1.6	1.3
		Drummondville	5.0	4.7	2.8	2.3	1.0	0.8	1.1	0.9	1.6	1.3	2.1	1.7	1.6	1.3
		Maniwaki	4.3	4.0	2.7	2.3	0.9	0.8	1.0	0.8	1.7	1.4	2.3	1.9	1.5	1.2
		Bagotville	3.8	3.5	3.3	2.8	0.8	0.7	0.9	0.7	2.1	1.6	2.2	1.8	2.4	2.0
	MARITIME (6 stations)	Causapscal	3.3	2.8	2.1	1.6	0.8	0.6	0.7	0.6	2.3	1.9	1.9	1.5	1.7	1.4
		Daniel-Harbour	4.1	3.8	2.7	2.4	0.9	0.8	0.9	0.8	2.9	2.3	1.8	1.5	1.8	1.3
		Gaspe	4.6	4.4	2.7	2.2	0.9	0.8	0.9	0.7	2.4	2.0	1.8	1.5	1.8	1.4
		Mont-Joli	3.0	2.7	2.0	1.5	0.8	0.7	0.7	0.6	2.2	1.8	1.9	1.6	1.6	1.3
		Natashquan	5.4	5.3	1.8	1.3	0.9	0.7	0.9	0.7	3.2	2.6	1.9	1.6	1.6	1.3
		Sept-Iles	3.1	2.7	1.9	1.4	0.7	0.6	0.8	0.6	2.4	2.1	1.8	1.4	1.7	1.3
FEBRUARY	HUDSON BAY (3 stations)	Inukjuak	2.3	1.7	2.6	2.2	1.2	0.9	1.3	1.0	2.0	1.6	4.7	3.9	3.2	2.5
		Kuujuarapik	3.6	3.3	2.7	2.3	1.2	0.9	1.1	0.9	2.0	1.5	4.9	3.9	2.0	1.6
		Moosonee	3.9	3.6	2.0	1.6	0.8	0.7	1.0	0.8	2.2	1.7	2.1	1.8	2.0	1.6
	LABRADOR (4 stations)	Cartwright	5.7	5.6	2.0	1.6	0.8	0.7	0.9	0.7	2.8	2.3	2.0	1.6	1.6	1.3
		Goosebay	3.0	2.7	1.5	1.2	0.9	0.7	1.0	0.8	2.4	1.9	2.1	1.7	1.8	1.4
		Kuujuuaq	3.3	2.7	2.4	1.8	1.1	0.9	1.1	0.9	2.2	1.8	2.5	2.0	2.1	1.7
		Schefferville	3.3	3.0	2.2	1.7	0.9	0.7	0.9	0.7	2.0	1.6	2.6	2.3	1.8	1.4
	SOUTH (7 stations)	Amos	3.4	3.1	2.6	2.3	1.0	0.8	1.0	0.8	1.8	1.4	1.9	1.5	3.3	2.5
		Val d'Or	3.8	3.5	2.5	2.2	0.8	0.7	0.8	0.6	1.8	1.4	1.9	1.5	1.8	1.4
		Montreal-Dorval	3.3	3.0	2.0	1.8	0.7	0.6	0.9	0.7	1.7	1.4	1.6	1.2	2.5	2.0
		Montreal-McGill	3.2	2.9	2.2	1.9	0.9	0.7	1.1	0.9	1.8	1.5	1.5	1.1	1.6	1.3
		Drummondville	3.8	3.5	2.2	2.0	0.9	0.7	1.0	0.8	1.4	1.2	1.5	1.2	1.7	1.3
		Maniwaki	3.2	3.0	1.9	1.7	0.9	0.7	1.0	0.8	1.6	1.3	1.6	1.3	1.6	1.3
		Bagotville	2.8	2.6	2.3	2.0	0.8	0.7	0.8	0.6	1.8	1.6	1.5	1.2	2.1	1.7
	MARITIME (6 stations)	Causapscal	2.8	2.6	2.3	1.9	0.9	0.8	0.9	0.7	2.5	2.0	1.7	1.4	1.7	1.4
		Daniel-Harbour	4.1	3.8	1.9	1.6	0.9	0.7	0.9	0.7	3.4	2.6	2.1	1.7	1.7	1.4
		Gaspe	3.7	3.4	2.8	2.3	1.1	0.8	1.1	0.8	2.6	2.1	1.7	1.3	1.8	1.5
		Mont-Joli	2.4	2.1	2.0	1.7	1.0	0.8	0.9	0.7	2.3	1.9	1.6	1.3	1.6	1.4
		Natashquan	4.5	4.4	1.5	1.2	0.9	0.7	0.9	0.7	2.9	2.2	1.8	1.5	1.6	1.2
		Sept-Iles	2.1	1.9	1.5	1.3	0.8	0.6	0.7	0.6	2.3	1.9	1.7	1.5	1.6	1.3
MARCH	HUDSON BAY (3 stations)	Inukjuak	2.7	2.1	2.4	2.0	0.9	0.7	0.9	0.7	2.6	2.1	3.6	3.0	2.2	1.8
		Kuujuarapik	4.2	3.9	2.3	2.0	1.0	0.8	0.9	0.8	2.1	1.7	4.1	3.4	1.9	1.5
		Moosonee	5.1	4.9	2.0	1.6	0.8	0.7	0.8	0.7	1.8	1.5	2.7	2.1	1.8	1.5
	LABRADOR (4 stations)	Cartwright	5.1	4.9	2.1	1.9	0.9	0.7	1.0	0.8	2.5	2.1	2.3	1.9	1.7	1.4
		Goosebay	3.0	2.7	2.2	1.9	0.8	0.6	1.0	0.8	2.2	1.7	2.5	2.0	1.9	1.5
		Kuujuuaq	3.3	2.7	2.1	1.9	0.9	0.7	1.0	0.8	2.1	1.8	2.2	1.8	2.1	1.7
		Schefferville	3.3	2.8	2.2	1.8	0.8	0.6	0.8	0.6	2.5	2.0	2.4	2.0	2.1	1.7
	SOUTH (7 stations)	Amos	4.2	4.0	2.6	2.1	0.8	0.7	0.9	0.7	1.8	1.3	2.1	1.7	1.8	1.4
		Val d'Or	5.0	4.8	2.6	2.2	0.8	0.7	0.8	0.6	1.5	1.2	2.1	1.7	1.5	1.2
		Montreal-Dorval	4.1	3.9	2.4	2.1	0.9	0.7	1.0	0.8	1.5	1.2	1.9	1.6	2.0	1.6
		Montreal-McGill	4.3	4.0	2.3	2.0	1.2	0.9	1.3	0.9	2.0	1.6	2.5	2.0	1.8	1.4
		Drummondville	4.7	4.5	2.6	2.3	1.1	0.9	1.1	0.9	1.9	1.5	2.3	1.9	1.8	1.5
		Maniwaki	4.3	4.1	2.4	2.0	1.0	0.8	1.0	0.8	1.8	1.5	2.4	2.0	1.7	1.4
		Bagotville	3.7	3.4	2.5	2.2	0.9	0.8	1.0	0.7	1.7	1.4	1.9	1.6	2.7	2.3
	MARITIME (6 stations)	Causapscal	3.3	3.0	2.4	2.1	0.8	0.6	0.8	0.6	1.7	1.4	2.1	1.7	1.6	1.3
		Daniel-Harbour	4.2	4.0	2.1	1.8	0.7	0.6	0.7	0.6	2.6	2.1	2.2	1.8	1.6	1.3
		Gaspe	3.4	3.2	2.8	2.4	0.9	0.7	0.9	0.7	1.9	1.6	2.0	1.7	1.5	1.2
		Mont-Joli	2.7	2.4	2.1	1.8	1.0	0.8	0.8	0.6	1.5	1.2	2.0	1.7	1.5	1.2
		Natashquan	3.6	3.4	1.6	1.3	0.8	0.7	0.8	0.6	2.3	1.9	1.7	1.3	1.3	1.1
		Sept-Iles	2.1	1.9	1.5	1.1	0.7	0.6	0.7	0.6	1.8	1.4	1.5	1.2	1.3	1.0
APRIL	HUDSON BAY (3 stations)	Inukjuak	2.2	1.8	2.3	1.9	0.9	0.8	0.8	0.7	2.0	1.6	2.7	2.3	2.2	1.8
		Kuujuarapik	5.6	5.4	3.6	3.0	1.2	0.9	1.1	0.9	1.8	1.4	2.8	2.3	2.2	1.9
		Moosonee	4.6	4.2	2.3	1.9	0.9	0.7	0.8	0.7	1.8	1.5	2.3	2.0	2.2	1.7
	LABRADOR (4 stations)	Cartwright	3.8	3.6	2.1	1.6	0.9	0.7	1.0	0.8	1.8	1.3	1.8	1.3	1.6	1.2
		Goosebay	3.1	2.8	2.3	1.9	0.8	0.6	1.0	0.7	1.5	1.3	1.7	1.3	1.5	1.2
		Kuujuuaq	2.8	2.5	2.5	2.1	0.9	0.7	0.9	0.7	1.9	1.6	2.0	1.6	1.7	1.4
		Schefferville	3.4	3.2	2.1	1.7	0.6	0.5	0.7	0.6	2.0	1.7	2.0	1.6	1.6	1.2
	SOUTH (7 stations)	Amos	5.0	4.6	2.3	1.8	0.9	0.7	1.1	0.8	1.9	1.6	2.2	1.7	2.5	2.0
		Val d'Or	5.4	5.1	2.3	1.7	1.0	0.8	0.9	0.7	1.8	1.5	2.5	2.0	2.0	1.6
		Montreal-Dorval	3.9	3.5	2.2	1.8	0.8	0.6	0.9	0.7	1.7	1.3	1.7	1.3	1.9	1.6
		Montreal-McGill	3.8	3.5	1.9	1.5	0.8	0.6	0.8	0.7	1.7	1.4	1.9	1.5	1.7	1.4
		Drummondville	4.4	3.9	2.2	1.8	0.8	0.7	1.0	0.8	1.6	1.3	2.1	1.7	1.7	1.4
		Maniwaki	4.4	3.9	2.4	1.9	0.9	0.8	0.9	0.8	1.8	1.4	2.2	1.8	2.0	1.6
		Bagotville	4.8	4.7	1.9	1.5	0.8	0.7	1.0	0.8	1.6	1.2	1.6	1.3	2.3	1.9
	MARITIME (6 stations)	Causapscal	4.2	4.1	1.7	1.4	0.7	0.6	0.7	0.6	1.4	1.2	1.4	1.1	1.5	1.2
		Daniel-Harbour	2.6	2.2	1.6	1.4	0.8	0.6	0.8	0.6	2.2	1.8	1.4	1.2	1.3	1.0
		Gaspe	3.3	3.1	2.2	2.0	0.8	0.6	0.8	0.7	1.3	1.1	1.2	1.0	1.2	1.0
		Mont-Joli	3.7	3.6	1.9	1.5	0.9	0.7	0.8	0.6	1.3	1.0	1.3	1.1	1.4	1.1
		Natashquan	2.2	2.0	1.7	1.4	0.6	0.5	0.6	0.5	1.2	1.0	1.1	0.9	1.0	0.8
		Sept-Iles	2.8	2.6	1.6	1.3	0.7	0.6	0.7	0.6	1.1	0.8	1.0	0.8	1.2	0.9

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
MAY	HUDSON BAY (3 stations)	Inukjuak	2,9	2,6	3,4	3,2	0,9	0,7	0,9	0,8	1,4	1,0	1,2	0,9	2,1	1,7
		Kuujuaq	3,9	3,1	6,2	6,0	1,0	0,8	0,9	0,7	1,8	1,2	1,6	1,3	2,2	1,7
		Moosonee	2,8	2,4	2,5	2,1	1,0	0,8	0,9	0,7	1,8	1,3	1,7	1,4	1,8	1,4
	LABRADOR (4 stations)	Cartwright	4,3	4,1	1,2	1,0	1,2	0,9	1,2	1,0	2,1	1,7	1,2	0,9	1,3	1,0
		Goosebay	3,4	2,9	1,3	1,1	0,9	0,7	1,1	0,9	1,7	1,4	1,4	1,1	1,4	1,2
		Kuujuaq	3,2	3,0	1,6	1,2	0,9	0,7	0,9	0,7	1,7	1,3	1,5	1,2	2,1	1,7
		Schefferville	3,7	3,2	1,5	1,2	0,8	0,6	0,7	0,6	1,7	1,3	1,8	1,4	1,5	1,2
	SOUTH (7 stations)	Amos	2,2	1,7	2,4	2,0	0,8	0,7	1,0	0,8	1,6	1,3	1,6	1,4	2,2	1,7
		Val d'Or	1,8	1,5	2,4	2,1	0,8	0,7	0,7	0,6	1,9	1,5	2,0	1,6	1,7	1,3
		Montreal-Dorval	1,7	1,3	1,4	1,0	0,7	0,5	0,8	0,6	1,9	1,6	1,4	1,2	2,2	1,7
		Montreal-McGill	1,8	1,4	1,6	1,2	0,8	0,7	0,8	0,6	1,5	1,1	1,3	1,1	1,4	1,1
		Drummondville	1,9	1,4	1,7	1,4	0,8	0,6	0,8	0,6	1,5	1,2	1,3	1,1	1,4	1,1
		Maniwaki	2,0	1,6	1,7	1,4	0,8	0,6	0,8	0,6	1,7	1,3	1,5	1,2	1,5	1,2
		Bagotville	1,7	1,4	2,1	1,8	0,8	0,7	1,0	0,8	1,8	1,5	1,5	1,2	1,4	1,2
	MARITIME (6 stations)	Causapscal	1,8	1,6	1,7	1,3	0,8	0,7	0,8	0,7	1,9	1,6	1,5	1,1	1,4	1,2
		Daniel-Harbour	1,3	1,1	1,5	1,3	0,8	0,6	0,8	0,7	2,1	1,7	1,2	1,0	1,1	0,9
		Gaspe	3,9	3,7	3,7	3,6	1,1	0,9	1,1	0,8	2,3	1,9	1,3	1,0	1,4	1,1
		Mont-Joli	1,6	1,5	1,4	1,1	0,9	0,7	0,8	0,7	1,6	1,4	1,1	0,9	1,3	1,1
		Natashquan	1,9	1,9	1,3	1,0	0,6	0,5	0,6	0,5	1,4	1,1	1,0	0,7	0,8	0,6
		Sept-Iles	2,0	1,7	1,2	0,9	0,7	0,6	0,7	0,6	1,1	0,9	0,8	0,8	0,9	0,7
JUNE	HUDSON BAY (3 stations)	Inukjuak	4,0	3,9	3,7	3,6	0,8	0,7	1,0	0,8	2,4	2,1	1,1	0,9	3,1	2,4
		Kuujuaq	3,3	3,1	6,0	5,8	1,0	0,8	0,9	0,7	1,7	1,3	1,9	1,6	2,2	1,8
		Moosonee	3,1	2,9	2,4	2,2	1,0	0,8	0,9	0,7	1,4	1,1	1,4	1,2	1,7	1,4
	LABRADOR (4 stations)	Cartwright	5,8	5,6	2,5	2,1	1,0	0,8	1,1	0,8	2,1	1,8	1,6	1,3	1,6	1,3
		Goosebay	2,6	2,3	2,3	1,9	1,1	0,9	1,2	0,9	1,9	1,5	1,5	1,3	1,6	1,2
		Kuujuaq	2,1	1,8	1,9	1,6	0,9	0,7	0,9	0,8	2,0	1,6	1,6	1,4	1,6	1,3
		Schefferville	2,0	1,7	2,0	1,6	0,8	0,7	0,8	0,7	1,9	1,6	1,4	1,0	1,6	1,2
	SOUTH (7 stations)	Amos	1,9	1,6	1,8	1,6	0,7	0,6	0,8	0,6	1,2	0,9	1,3	1,1	1,7	1,3
		Val d'Or	2,0	1,7	1,7	1,5	0,8	0,6	0,7	0,6	1,7	1,4	1,3	1,1	1,2	1,0
		Montreal-Dorval	1,2	1,0	1,0	0,8	0,6	0,5	0,6	0,5	1,5	1,2	1,0	0,9	1,1	0,8
		Montreal-McGill	1,2	1,0	1,1	0,8	0,6	0,5	0,6	0,5	1,0	0,8	1,1	0,9	1,1	0,9
		Drummondville	1,6	1,4	1,2	1,0	0,8	0,6	0,7	0,6	1,1	0,9	1,0	0,8	1,1	0,9
		Maniwaki	1,4	1,2	1,1	0,9	0,8	0,6	0,7	0,6	1,2	1,0	1,3	1,1	1,2	0,9
		Bagotville	1,9	1,7	1,6	1,4	0,7	0,6	0,8	0,7	1,4	1,2	1,2	0,9	1,2	1,0
	MARITIME (6 stations)	Causapscal	1,9	1,7	1,5	1,4	0,9	0,7	0,9	0,7	1,6	1,2	0,9	0,8	1,2	1,0
		Daniel-Harbour	0,9	0,7	1,1	0,9	0,6	0,5	0,6	0,5	1,2	0,9	0,7	0,6	0,9	0,7
		Gaspe	3,4	3,2	3,4	3,2	1,1	0,9	1,1	0,9	2,0	1,6	1,2	1,0	1,4	1,2
		Mont-Joli	1,9	1,7	1,6	1,4	1,1	0,9	0,9	0,7	1,6	1,3	1,1	0,9	1,3	1,1
		Natashquan	2,0	1,9	1,1	0,9	0,6	0,5	0,5	0,4	1,0	0,8	0,7	0,6	0,8	0,6
		Sept-Iles	1,3	1,1	1,0	0,8	1,1	0,9	1,1	1,0	1,4	1,2	1,0	0,8	1,1	0,9
JULY	HUDSON BAY (3 stations)	Inukjuak	2,9	2,6	2,8	2,6	1,0	0,9	1,2	0,9	1,5	1,1	1,6	1,2	1,7	1,2
		Kuujuaq	4,0	3,8	4,5	4,4	0,9	0,7	0,9	0,7	1,7	1,4	1,6	1,3	1,5	1,2
		Moosonee	2,9	2,8	1,3	1,1	0,7	0,6	0,7	0,5	0,9	0,7	1,2	0,9	1,1	0,9
	LABRADOR (4 stations)	Cartwright	5,2	5,1	2,1	1,8	0,9	0,7	1,0	0,8	1,7	1,4	1,1	0,9	1,1	0,9
		Goosebay	3,3	3,2	1,9	1,6	0,8	0,6	0,9	0,7	1,4	1,1	1,3	1,0	1,2	0,9
		Kuujuaq	2,8	2,6	1,4	1,1	0,8	0,6	0,8	0,7	1,5	1,2	1,2	1,0	1,8	1,5
		Schefferville	2,8	2,6	1,2	0,9	0,7	0,6	0,6	0,5	1,5	1,2	1,3	1,0	1,2	0,9
	SOUTH (7 stations)	Amos	2,2	2,1	1,3	1,0	0,6	0,5	0,6	0,5	1,0	0,8	1,0	0,9	1,2	1,0
		Val d'Or	2,1	1,9	1,3	1,1	0,6	0,5	0,6	0,5	1,4	1,2	1,5	1,3	1,0	0,8
		Montreal-Dorval	1,2	1,0	0,7	0,5	0,5	0,4	0,5	0,4	1,2	0,9	0,9	0,7	1,0	0,8
		Montreal-McGill	1,2	0,9	0,8	0,6	0,5	0,4	0,5	0,4	0,8	0,6	0,8	0,6	0,8	0,7
		Drummondville	1,6	1,4	0,9	0,8	0,6	0,5	0,6	0,5	0,9	0,7	0,9	0,8	0,9	0,7
		Maniwaki	1,6	1,3	0,8	0,6	0,6	0,4	0,5	0,4	0,9	0,7	0,9	0,7	0,9	0,7
		Bagotville	2,5	2,3	1,1	0,9	0,6	0,5	0,6	0,5	1,1	0,9	0,3	0,1	1,5	1,3
	MARITIME (6 stations)	Causapscal	2,0	1,8	1,0	0,9	0,6	0,5	0,6	0,5	1,0	0,8	0,7	0,6	0,9	0,7
		Daniel-Harbour	0,8	0,6	1,1	0,9	0,5	0,4	0,5	0,4	0,9	0,7	0,6	0,5	0,6	0,5
		Gaspe	3,1	3,0	2,5	2,4	0,8	0,6	0,7	0,6	1,4	1,1	1,0	0,8	1,1	0,9
		Mont-Joli	2,0	1,8	1,1	0,9	0,8	0,6	0,7	0,6	1,2	1,0	0,9	0,7	1,0	0,8
		Natashquan	1,8	1,7	1,2	1,0	0,6	0,5	0,6	0,5	1,0	0,8	0,7	0,6	0,7	0,6
		Sept-Iles	1,4	1,2	1,0	0,8	0,7	0,5	0,7	0,5	0,7	0,6	0,7	0,6	0,8	0,6
AUGUST	HUDSON BAY (3 stations)	Inukjuak	2,4	2,1	2,1	1,9	1,1	1,0	1,3	1,1	1,2	0,9	1,5	1,2	1,8	1,5
		Kuujuaq	3,1	3,0	3,7	3,6	0,8	0,6	0,7	0,6	1,2	1,0	1,3	1,1	1,5	1,2
		Moosonee	2,6	2,5	1,3	1,0	0,7	0,6	0,6	0,5	1,0	0,8	1,6	1,2	1,2	1,0
	LABRADOR (4 stations)	Cartwright	4,4	4,4	1,2	1,0	0,8	0,6	0,9	0,7	1,8	1,4	1,0	0,8	1,1	0,9
		Goosebay	2,7	2,6	1,2	0,9	0,7	0,6	0,8	0,6	1,1	0,9	1,2	1,0	1,2	0,9
		Kuujuaq	2,5	2,3	0,9	0,7	0,7	0,6	0,7	0,6	1,5	1,1	1,3	1,0	1,3	1,0
		Schefferville	2,5	2,4	0,8	0,6	0,6	0,5	0,5	0,4	1,1	0,9	1,2	1,0	1,2	0,9
	SOUTH (7 stations)	Amos	2,2	2,0	1,2	1,0	0,7	0,6	0,9	0,7	1,0	0,8	1,7	1,3	1,4	1,1
		Val d'Or	1,9	1,7	1,1	0,9	0,7	0,6	0,6	0,5	1,0	0,8	1,9	1,5	1,1	0,9
		Montreal-Dorval	1,4	1,2	0,8	0,6	0,6	0,5	0,7	0,5	1,0	0,8	0,9	0,8	1,7	1,3
		Montreal-McGill	1,3	1,1	1,0	0,8	0,5	0,4	0,5	0,4	0,8	0,6	1,2	1,0	0,9	0,7
		Drummondville	1,7	1,5	0,8	0,7	0,5	0,4	0,6	0,4	0,8	0,6	0,9	0,7	1,0	0,8
		Maniwaki	1,6	1,4	1,1	0,9	0,7	0,6	0,6	0,5	0,8	0,6	1,3	1,1	1,0	0,8
		Bagotville	2,2	2,1	1,1	0,9	0,7	0,5	0,6	0,5	0,9	0,8	1,1	0,9	1,4	1,2
	MARITIME (6 stations)	Causapscal	2,1	2,0	1,0	0,9	0,6	0,5	0,6	0,5	1,1	0,9	0,9	0,7	0,9	0,7
		Daniel-Harbour	0,7	0,5	1,6	1,4	0,4	0,4	0,5	0,4	0,9	0,7	0,7	0,6	0,8	0,5
		Gaspe	3,3	3,2	2,6	2,5	0,8	0,5	0,6	0,5	1,0	0,8	0,8	0,7	1,0	0,8
		Mont-Joli	2,1	2,0	1,0	0,8	0,6	0,5	0,6	0,5	1,1	0,9	0,8	0,6	0,9	0,7
		Natashquan	2,0	2,0	1,2	1,0	0,5	0,4	0,5	0,4	0,9	0,7	0,6	0,4	0,8	0,6
		Sept-Iles	1,3	1,2	1,0	0,8	0,6	0,5	0,6	0,5	0,7	0,6	0,6	0,5	0,7	0,5

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
SEPTEMBER	HUDSON BAY (3 stations)	Inukjuak	2,5	2,4	1,9	1,8	0,8	0,5	0,6	0,5	0,9	0,7	0,7	0,6	1,0	0,8
		Kuujuarapik	1,7	1,4	3,3	3,1	0,9	0,7	0,8	0,7	1,5	1,2	1,5	1,2	1,5	1,2
		Moosonee	1,9	1,6	1,5	1,2	0,8	0,6	0,6	0,5	1,4	1,1	1,6	1,3	1,3	1,0
	LABRADOR (4 stations)	Cartwright	3,9	3,9	1,2	1,0	0,7	0,5	0,7	0,6	1,6	1,3	1,2	1,0	1,0	0,8
		Goosebay	2,1	1,8	1,3	1,0	0,7	0,6	0,8	0,7	1,8	1,4	1,4	1,1	1,3	1,0
		Kuujuuaq	1,7	1,3	1,5	1,2	0,7	0,6	0,7	0,6	2,3	1,8	1,4	1,1	1,3	1,0
		Schefferville	1,9	1,6	1,5	1,2	0,7	0,6	0,6	0,5	2,0	1,6	1,5	1,2	1,2	1,0
	SOUTH (7 stations)	Amos	2,0	1,7	1,4	1,2	0,8	0,5	0,7	0,6	1,3	1,0	1,3	1,0	1,2	1,0
		Val d'Or	2,1	1,8	1,4	1,2	0,7	0,6	0,7	0,5	1,3	1,1	1,9	1,6	1,2	1,0
		Montreal-Dorval	1,5	1,2	0,9	0,7	0,5	0,4	0,7	0,5	1,3	1,0	1,1	0,9	1,1	0,9
		Montreal-McGill	1,5	1,3	1,1	0,8	0,7	0,5	0,7	0,5	1,0	0,8	1,3	1,0	1,1	0,9
		Drummondville	1,7	1,5	1,0	0,8	0,7	0,5	0,7	0,5	0,9	0,8	1,2	1,0	1,1	0,9
		Maniwaki	1,8	1,5	1,2	1,0	0,7	0,6	0,7	0,6	1,1	0,9	1,4	1,2	1,2	1,0
		Bagotville	2,0	1,8	1,2	1,0	0,8	0,5	0,8	0,6	1,2	1,0	1,2	1,0	1,3	1,1
	MARITIME (6 stations)	Causapsal	1,9	1,6	1,1	0,8	0,7	0,5	0,7	0,5	1,5	1,2	1,3	1,0	1,1	0,9
		Daniel-Harbour	0,9	0,7	1,3	1,1	0,5	0,4	0,5	0,4	1,0	0,7	0,8	0,6	0,8	0,6
		Gaspe	3,5	3,4	2,5	2,4	0,7	0,6	0,7	0,5	1,6	1,3	1,0	0,8	1,0	0,8
		Mont-Joli	1,7	1,5	0,9	0,7	0,7	0,6	0,6	0,5	1,2	1,0	1,1	0,9	1,0	0,8
		Natashquan	2,1	2,0	1,4	1,1	0,6	0,5	0,6	0,5	1,1	0,9	0,7	0,6	0,8	0,7
		Sept-Iles	1,0	0,9	1,4	1,2	0,7	0,5	0,7	0,5	0,9	0,7	0,8	0,6	0,8	0,7
OCTOBER	HUDSON BAY (3 stations)	Inukjuak	1,6	1,5	1,6	1,4	0,5	0,4	0,5	0,4	0,7	0,6	1,1	0,9	0,9	0,7
		Kuujuarapik	1,4	1,1	2,6	2,3	0,8	0,6	0,7	0,6	1,3	1,0	1,7	1,3	1,4	1,1
		Moosonee	1,9	1,5	2,5	2,2	0,8	0,6	0,7	0,6	1,8	1,3	1,8	1,4	1,9	1,5
	LABRADOR (4 stations)	Cartwright	2,9	2,8	1,1	0,9	0,6	0,5	0,6	0,5	1,8	1,4	1,1	0,9	0,9	0,8
		Goosebay	1,4	1,2	1,4	1,2	0,8	0,5	0,7	0,6	1,7	1,4	1,3	1,1	1,1	0,9
		Kuujuuaq	1,0	0,8	1,5	1,3	0,6	0,5	0,5	0,4	1,6	1,3	1,3	1,0	1,1	0,9
		Schefferville	1,3	1,0	2,1	1,8	0,7	0,6	0,7	0,5	2,1	1,8	1,4	1,0	1,3	1,1
	SOUTH (7 stations)	Amos	2,3	1,9	1,8	1,4	0,7	0,5	1,0	0,8	1,7	1,5	1,6	1,3	1,4	1,2
		Val d'Or	2,4	2,1	2,0	1,7	0,7	0,6	0,6	0,5	1,7	1,5	1,7	1,4	1,4	1,2
		Montreal-Dorval	1,6	1,3	1,3	1,0	0,6	0,5	0,8	0,6	1,4	1,2	1,4	1,1	1,4	1,1
		Montreal-McGill	1,6	1,3	1,2	1,0	0,7	0,6	0,7	0,5	1,1	0,9	1,5	1,1	1,3	1,1
		Drummondville	1,8	1,5	1,4	1,0	0,7	0,6	0,8	0,6	1,2	1,0	1,6	1,2	1,4	1,1
		Maniwaki	1,9	1,5	1,7	1,4	0,9	0,7	0,8	0,7	1,3	1,0	1,8	1,3	1,5	1,2
		Bagotville	1,9	1,6	1,5	1,3	0,8	0,6	0,8	0,7	1,6	1,3	1,4	1,1	1,4	1,1
	MARITIME (6 stations)	Causapsal	1,8	1,6	1,2	1,0	0,6	0,5	0,6	0,5	1,7	1,4	1,3	1,1	1,3	1,0
		Daniel-Harbour	1,0	0,8	1,4	1,2	0,6	0,4	0,6	0,4	1,8	1,3	1,2	1,0	1,0	0,8
		Gaspe	3,5	3,4	2,3	2,2	0,7	0,5	0,6	0,5	1,8	1,4	1,2	1,0	1,2	1,0
		Mont-Joli	1,8	1,4	1,1	0,9	0,8	0,6	0,7	0,5	1,9	1,5	1,2	1,0	1,3	1,0
		Natashquan	1,8	1,7	1,4	1,1	0,5	0,4	0,4	0,4	1,2	1,0	0,8	0,7	0,8	0,6
		Sept-Iles	1,0	0,9	1,4	1,1	0,7	0,6	0,7	0,5	1,3	1,0	0,9	0,7	0,9	0,7
NOVEMBER	HUDSON BAY (3 stations)	Inukjuak	3,0	2,7	3,0	2,7	1,2	0,8	1,2	0,9	1,6	1,2	1,7	1,3	1,6	1,2
		Kuujuarapik	2,5	2,1	2,7	2,4	0,7	0,6	0,7	0,6	1,7	1,2	1,7	1,4	1,8	1,5
		Moosonee	3,5	2,8	2,4	1,8	0,9	0,7	0,9	0,7	2,6	2,0	2,1	1,5	2,0	1,6
	LABRADOR (4 stations)	Cartwright	3,3	3,1	1,5	1,1	0,8	0,6	0,8	0,7	2,5	1,8	1,4	1,2	1,5	1,2
		Goosebay	3,8	3,4	2,0	1,4	0,7	0,6	0,8	0,6	1,9	1,5	1,6	1,3	1,7	1,4
		Kuujuuaq	3,7	3,3	1,8	1,5	0,9	0,7	0,9	0,7	1,2	1,0	1,3	1,0	1,6	1,2
		Schefferville	4,6	4,3	2,2	1,7	0,7	0,6	0,8	0,6	1,5	1,2	1,4	1,2	1,6	1,3
	SOUTH (7 stations)	Amos	3,5	3,0	2,4	2,0	0,7	0,6	0,9	0,7	2,0	1,5	1,8	1,5	1,8	1,4
		Val d'Or	2,7	2,1	2,5	2,1	0,7	0,5	0,6	0,5	1,9	1,4	1,9	1,5	1,9	1,5
		Montreal-Dorval	2,4	1,9	1,6	1,3	0,8	0,6	0,8	0,6	1,6	1,3	1,4	1,0	1,5	1,2
		Montreal-McGill	2,3	1,8	1,6	1,3	0,8	0,7	0,8	0,8	1,7	1,5	1,6	1,2	1,6	1,3
		Drummondville	2,3	1,8	1,6	1,4	0,9	0,7	0,8	0,7	1,7	1,3	1,6	1,2	1,5	1,2
		Maniwaki	2,5	2,0	2,3	1,9	0,9	0,7	0,8	0,7	1,9	1,7	1,8	1,4	1,6	1,3
		Bagotville	3,4	2,9	2,0	1,5	0,7	0,6	0,8	0,6	1,9	1,5	1,5	1,2	2,2	1,8
	MARITIME (6 stations)	Causapsal	2,8	2,4	2,0	1,5	1,0	0,7	1,2	0,7	2,0	1,6	1,4	1,1	2,0	1,6
		Daniel-Harbour	1,4	1,1	1,6	1,2	0,8	0,6	0,8	0,6	2,3	1,8	1,4	1,2	1,4	1,1
		Gaspe	3,7	3,4	2,2	1,8	0,8	0,6	0,8	0,6	1,6	1,3	1,4	1,1	1,5	1,2
		Mont-Joli	2,7	2,3	1,9	1,4	0,8	0,7	0,9	0,7	2,0	1,6	1,3	1,1	1,7	1,4
		Natashquan	2,7	2,5	1,4	1,1	0,7	0,6	0,7	0,5	1,4	1,1	1,0	0,9	1,2	1,0
		Sept-Iles	2,0	1,6	1,5	1,2	0,6	0,5	0,6	0,5	1,5	1,2	1,2	1,0	1,4	1,2
DECEMBER	HUDSON BAY (3 stations)	Inukjuak	5,5	5,3	4,7	4,5	1,3	1,1	1,4	1,1	1,7	1,3	1,9	1,5	1,9	1,5
		Kuujuarapik	2,6	2,2	4,8	4,6	1,2	1,0	1,1	0,9	1,8	1,5	2,0	1,7	2,0	1,6
		Moosonee	4,4	4,0	2,6	2,2	1,0	0,8	1,2	0,9	2,1	1,7	2,2	1,7	2,0	1,6
	LABRADOR (4 stations)	Cartwright	5,2	5,1	1,8	1,4	0,9	0,7	0,9	0,7	2,8	2,3	1,5	1,3	1,6	1,3
		Goosebay	3,0	2,7	2,4	1,9	0,8	0,7	1,0	0,8	2,4	2,0	1,6	1,4	1,7	1,3
		Kuujuuaq	2,5	2,0	2,8	2,3	1,1	0,9	1,1	0,8	2,4	2,0	2,1	1,7	2,1	1,7
		Schefferville	2,9	2,6	2,5	2,0	0,9	0,7	0,9	0,7	2,3	1,9	1,8	1,5	1,8	1,4
	SOUTH (7 stations)	Amos	4,3	4,0	2,9	2,5	1,0	0,8	0,8	0,8	1,7	1,5	1,6	1,2	2,0	1,7
		Val d'Or	6,0	5,9	2,9	2,7	0,8	0,5	0,6	0,5	2,3	1,9	1,8	1,6	1,8	1,4
		Montreal-Dorval	5,2	5,0	2,1	1,8	0,9	0,7	0,9	0,7	1,8	1,5	1,6	1,3	2,7	2,3
		Montreal-McGill	5,2	5,1	2,2	1,9	1,2	1,0	1,6	1,2	2,1	1,8	1,5	1,2	1,6	1,3
		Drummondville	5,5	5,3	2,3	2,0	1,1	0,9	1,3	1,0	1,7	1,4	1,5	1,3	1,7	1,3
		Maniwaki	5,3	5,2	2,4	2,1	1,2	0,9	1,1	0,9	2,2	1,9	1,5	1,1	1,6	1,3
		Bagotville	4,1	3,9	2,8	2,5	0,7	0,6	0,7	0,6	2,0	1,7	1,7	1,3	2,4	2,0
	MARITIME (6 stations)	Causapsal	3,8	3,5	2,1	1,7	0,9	0,7	0,8	0,6	2,1	1,7	1,5	1,2	1,6	1,3
		Daniel-Harbour	3,0	2,6	2,0	1,7	0,8	0,7	0,8	0,7	2,9	2,4	1,6	1,3	1,4	1,1
		Gaspe	4,0	3,9	2,3	2,0	0,7	0,6	0,7	0,6	2,3	1,9	1,4	1,1	1,3	1,0
		Mont-Joli	3,3	3,1	1,7	1,4	0,9	0,7	0,8	0,6	2,1	1,7	1,4	1,1	1,6	1,2
		Natashquan	4,9	4,8	1,9	1,6	1,0	0,8	0,9	0,7	2,6	2,2	1,7	1,4	1,4	1,1
		Sept-Iles	3,7	3,5	1,9	1,5	0,7	0,6	0,7	0,6	1,8	1,5	1,5	1,2	1,4	1,1

Table 2.8 Same as Table 2.3 but for the standard deviation of monthly mean temperature.

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
JANUARY	HUDSON BAY (3 stations)	Inukjuak	2.4	2.0	2.7	2.2	0.8	0.7	0.8	0.7	1.9	1.5	4.3	3.5	1.9	1.5
		Kuujuarapik	2.1	1.7	3.6	3.2	0.8	0.6	0.8	0.7	2.4	2.0	3.0	2.3	1.7	1.3
		Moosonee	2.7	2.2	1.8	1.4	1.0	0.8	0.9	0.7	2.2	1.7	1.9	1.6	2.0	1.6
	LABRADOR (4 stations)	Cartwright	5.8	5.6	2.3	2.0	1.3	0.9	1.4	1.0	3.2	2.6	1.7	1.4	1.7	1.4
		Goosebay	2.6	1.9	1.8	1.5	1.0	0.8	1.2	0.9	2.9	2.5	1.6	1.2	2.2	1.8
		Kuujuuaq	2.6	2.1	1.6	1.2	1.0	0.8	1.2	0.9	2.6	2.2	2.0	1.7	2.3	1.8
		Schefferville	2.8	2.1	1.5	1.1	0.8	0.7	1.1	0.9	2.9	2.5	2.1	1.7	2.5	2.0
	SOUTH (7 stations)	Amos	2.7	2.4	2.3	1.9	0.8	0.6	0.8	0.7	2.4	2.1	1.9	1.5	2.2	1.8
		Val d'Or	3.6	3.1	2.4	1.9	1.0	0.8	0.9	0.7	1.9	1.5	1.9	1.6	1.5	1.2
		Montreal-Dorval	2.8	2.4	2.0	1.7	0.8	0.7	0.9	0.7	1.9	1.6	1.6	1.4	2.0	1.7
		Montreal-McGill	2.7	2.3	2.0	1.7	1.3	0.9	1.4	1.0	1.9	1.4	1.9	1.5	1.7	1.3
		Drummondville	3.3	2.9	2.2	1.8	0.9	0.8	1.1	0.9	1.7	1.3	2.1	1.7	1.6	1.3
		Maniwaki	3.5	3.1	2.5	2.1	1.0	0.8	0.9	0.8	2.2	1.8	2.5	2.2	1.6	1.3
		Bagotville	2.4	1.9	2.7	2.2	0.8	0.6	0.8	0.6	2.1	1.8	2.0	1.6	2.3	1.9
	MARITIME (6 stations)	Causapscal	2.5	2.0	1.8	1.3	0.8	0.6	0.8	0.6	2.2	1.8	1.8	1.4	1.7	1.4
		Daniel-Harbour	2.5	2.0	3.3	3.0	0.8	0.6	0.9	0.6	3.0	2.2	1.6	1.6	1.4	1.2
		Gaspe	4.6	4.3	2.7	2.3	0.9	0.7	0.9	0.7	2.6	2.2	1.7	1.4	1.8	1.5
		Mont-Joli	1.8	1.4	1.7	1.3	0.7	0.5	0.7	0.5	2.0	1.7	1.6	1.3	1.4	1.2
		Natashquan	5.6	5.5	1.7	1.4	0.8	0.6	0.8	0.7	3.6	2.9	1.8	1.5	1.8	1.4
		Sept-Iles	2.5	1.8	1.9	1.4	0.9	0.8	0.8	0.6	2.7	2.3	1.8	1.4	1.9	1.5
FEBRUARY	HUDSON BAY (3 stations)	Inukjuak	1.8	1.5	2.8	2.4	0.9	0.7	0.9	0.7	2.1	1.6	4.5	3.7	3.0	2.4
		Kuujuarapik	2.5	1.9	2.8	2.3	0.9	0.8	1.2	0.9	2.0	1.4	7.0	5.7	1.9	1.5
		Moosonee	2.8	2.3	2.3	1.7	1.0	0.8	0.9	0.8	2.0	1.6	2.4	2.0	2.2	1.8
	LABRADOR (4 stations)	Cartwright	5.6	5.4	3.0	2.4	1.1	0.9	1.1	0.9	3.1	2.6	2.2	1.9	1.7	1.4
		Goosebay	2.2	1.9	2.1	1.7	1.1	0.9	1.2	1.0	2.5	2.0	2.2	1.7	1.9	1.5
		Kuujuuaq	2.6	2.0	2.6	1.9	1.1	0.9	1.2	1.0	2.2	1.8	2.8	2.2	2.1	1.7
		Schefferville	2.3	2.0	2.5	1.8	1.0	0.8	1.2	1.0	2.1	1.6	2.6	2.3	1.9	1.5
	SOUTH (7 stations)	Amos	2.7	2.3	2.1	1.6	0.8	0.6	1.0	0.8	2.1	1.6	2.0	1.6	3.5	2.7
		Val d'Or	3.0	2.6	2.1	1.7	0.9	0.7	0.9	0.7	1.9	1.5	1.9	1.5	1.8	1.5
		Montreal-Dorval	2.3	2.0	1.6	1.4	0.7	0.6	0.9	0.7	1.7	1.4	1.5	1.2	2.5	1.9
		Montreal-McGill	2.1	1.7	1.7	1.4	0.8	0.6	1.0	0.8	1.9	1.6	1.5	1.1	1.5	1.2
		Drummondville	2.8	2.3	1.7	1.5	0.8	0.6	1.0	0.8	1.6	1.3	1.6	1.2	1.6	1.3
		Maniwaki	2.9	2.5	1.9	1.7	1.0	0.8	1.0	0.8	2.1	1.7	2.3	1.8	1.7	1.4
		Bagotville	2.0	1.7	2.1	1.6	1.0	0.8	1.0	0.8	2.1	1.8	1.7	1.3	2.2	1.8
	MARITIME (6 stations)	Causapscal	2.3	2.0	2.2	1.8	1.0	0.8	0.9	0.7	2.5	2.0	1.9	1.5	1.8	1.5
		Daniel-Harbour	2.5	2.1	3.1	2.8	1.0	0.8	0.9	0.7	3.4	2.7	2.2	1.9	1.5	1.2
		Gaspe	3.2	2.7	2.8	2.3	0.9	0.7	1.0	0.7	2.6	2.1	1.8	1.4	1.8	1.4
		Mont-Joli	1.6	1.3	2.0	1.6	0.9	0.7	0.8	0.7	2.5	2.0	1.7	1.3	1.6	1.3
		Natashquan	4.7	4.5	1.9	1.5	0.8	0.7	0.9	0.7	3.3	2.4	1.9	1.6	1.7	1.3
		Sept-Iles	1.9	1.5	1.9	1.5	0.9	0.7	0.9	0.7	2.8	2.3	1.9	1.6	1.7	1.4
MARCH	HUDSON BAY (3 stations)	Inukjuak	2.0	1.6	2.3	2.0	0.8	0.6	0.8	0.7	2.5	2.1	4.0	3.4	2.2	1.7
		Kuujuarapik	3.1	2.5	2.4	2.1	0.9	0.7	0.9	0.7	2.4	1.9	6.5	5.6	2.0	1.8
		Moosonee	3.0	2.6	2.3	1.8	1.0	0.8	0.8	0.7	1.6	1.2	2.8	2.2	1.9	1.5
	LABRADOR (4 stations)	Cartwright	5.4	5.2	2.1	1.6	0.9	0.7	0.9	0.7	2.7	2.2	2.5	1.9	1.7	1.4
		Goosebay	2.7	2.3	1.8	1.5	0.7	0.6	0.8	0.7	2.2	1.7	2.4	2.0	1.8	1.5
		Kuujuuaq	2.6	2.1	1.9	1.6	0.9	0.8	1.0	0.8	2.1	1.7	2.2	1.8	2.1	1.7
		Schefferville	2.9	2.3	2.1	1.7	0.8	0.6	1.0	0.7	2.4	1.9	2.2	1.8	2.1	1.7
	SOUTH (7 stations)	Amos	3.0	2.6	2.4	2.0	0.7	0.6	0.9	0.7	2.2	1.8	2.6	2.2	1.9	1.6
		Val d'Or	3.4	3.1	2.4	2.0	0.8	0.7	0.7	0.6	1.7	1.3	2.3	1.8	1.7	1.4
		Montreal-Dorval	2.3	1.9	2.2	1.6	0.8	0.7	0.9	0.8	1.4	1.1	1.9	1.5	2.0	1.6
		Montreal-McGill	2.4	1.9	2.0	1.6	1.2	0.9	1.2	0.9	2.0	1.6	2.4	2.0	1.6	1.3
		Drummondville	2.8	2.5	2.2	1.9	1.2	0.9	1.3	1.0	2.0	1.6	2.4	1.9	1.7	1.4
		Maniwaki	3.1	2.7	2.1	1.7	1.5	1.2	1.3	1.0	2.2	1.9	3.1	2.3	1.8	1.5
		Bagotville	2.5	2.1	2.3	1.9	0.8	0.7	0.8	0.6	1.7	1.5	2.0	1.6	2.7	2.2
	MARITIME (6 stations)	Causapscal	2.6	2.3	2.0	1.6	0.7	0.5	0.7	0.6	1.9	1.5	2.1	1.7	1.6	1.3
		Daniel-Harbour	2.9	2.6	2.4	1.8	0.9	0.7	0.8	0.7	3.0	2.3	2.2	1.8	1.7	1.3
		Gaspe	2.8	2.4	2.7	2.5	0.9	0.8	1.0	0.7	2.3	1.8	2.1	1.6	1.5	1.2
		Mont-Joli	1.9	1.6	1.7	1.3	0.7	0.6	0.7	0.5	1.7	1.3	1.9	1.6	1.5	1.2
		Natashquan	4.2	4.0	1.8	1.4	0.9	0.7	0.9	0.7	2.7	2.2	2.0	1.6	1.5	1.2
		Sept-Iles	1.9	1.6	1.6	1.3	0.8	0.6	0.6	0.5	2.0	1.6	1.7	1.3	1.5	1.2
APRIL	HUDSON BAY (3 stations)	Inukjuak	1.5	1.1	2.4	2.0	1.1	1.0	1.2	1.0	2.2	1.8	3.6	3.1	2.5	2.1
		Kuujuarapik	3.8	3.4	3.2	2.7	1.4	1.0	1.1	0.8	2.6	2.1	3.8	3.2	2.4	2.0
		Moosonee	4.1	3.8	2.2	1.8	1.0	0.8	0.8	0.7	1.6	1.3	2.2	1.8	2.0	1.6
	LABRADOR (4 stations)	Cartwright	3.8	3.6	1.8	1.2	0.8	0.7	0.8	0.7	2.1	1.8	2.0	1.6	1.5	1.1
		Goosebay	1.7	1.3	1.6	1.3	0.7	0.5	0.7	0.5	1.8	1.4	1.9	1.5	1.5	1.2
		Kuujuuaq	2.3	1.9	2.1	1.7	1.0	0.8	1.0	0.8	2.0	1.7	2.4	1.8	1.9	1.5
		Schefferville	2.6	2.3	1.9	1.5	0.8	0.6	0.9	0.7	2.2	1.9	2.2	1.7	1.8	1.4
	SOUTH (7 stations)	Amos	3.9	3.6	2.3	1.8	0.7	0.5	0.8	0.7	1.8	1.5	1.9	1.5	2.1	1.7
		Val d'Or	4.7	4.4	2.2	1.7	0.9	0.7	0.8	0.7	1.6	1.3	1.9	1.5	1.7	1.4
		Montreal-Dorval	3.1	2.7	2.1	1.6	0.6	0.4	0.7	0.5	1.5	1.2	1.5	1.2	1.6	1.3
		Montreal-McGill	3.2	2.9	2.0	1.5	0.7	0.6	0.8	0.6	1.7	1.4	1.8	1.4	1.5	1.2
		Drummondville	3.5	3.1	2.1	1.7	0.7	0.6	0.8	0.6	1.6	1.3	2.0	1.6	1.5	1.2
		Maniwaki	3.4	3.0	2.1	1.6	0.8	0.7	0.8	0.7	1.8	1.4	2.1	1.7	1.6	1.4
		Bagotville	2.2	1.9	1.9	1.5	0.7	0.5	0.7	0.6	1.5	1.2	1.4	1.1	1.8	1.5
	MARITIME (6 stations)	Causapscal	1.4	1.2	1.8	1.4	0.6	0.5	0.6	0.5	1.6	1.3	1.4	1.1	1.5	1.2
		Daniel-Harbour	2.1	1.7	1.8	1.4	0.7	0.5	0.7	0.5	2.4	1.8	1.5	1.1	1.2	0.9
		Gaspe	1.9	1.7	1.4	1.1	0.6	0.5	0.6	0.5	1.7	1.4	1.3	0.9	1.0	0.8
		Mont-Joli	1.2	1.0	1.8	1.5	0.6	0.5	0.6	0.5	1.4	1.2	1.2	1.0	1.3	1.0
		Natashquan	2.4	2.3	1.7	1.4	0.9	0.7	0.8	0.7	2.2	1.9	1.5	1.2	1.2	0.9
		Sept-Iles	1.1	1.0	1.9	1.6	0.7	0.6	0.7	0.5	1.4	1.1	1.3	1.1	1.3	1.1

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
MAY	HUDSON BAY (3 stations)	Inukjuak	1,6	1,2	2,6	2,2	0,8	0,7	0,8	0,7	1,4	1,1	1,4	1,1	1,9	1,5
		Kuujuarapik	2,7	2,2	4,3	4,1	0,9	0,7	0,9	0,7	1,7	1,3	1,7	1,4	2,1	1,7
		Moosonee	1,5	1,3	1,6	1,3	0,8	0,6	0,6	0,5	1,3	1,0	1,3	1,1	1,6	1,3
	LABRADOR (4 stations)	Cartwright	2,7	2,6	1,4	1,1	0,8	0,6	0,8	0,6	1,6	1,3	1,0	0,8	1,1	0,9
		Goosebay	1,7	1,5	1,6	1,3	0,6	0,5	0,7	0,6	1,7	1,4	1,2	1,0	1,2	0,9
		Kuujuuaq	1,2	1,0	1,4	1,1	0,7	0,6	0,7	0,6	1,7	1,3	1,4	1,2	2,0	1,5
		Schefferville	1,7	1,4	1,4	1,1	0,5	0,4	0,7	0,5	1,8	1,3	1,5	1,3	1,4	1,2
	SOUTH (7 stations)	Amos	1,7	1,4	1,7	1,3	0,6	0,4	0,7	0,6	1,5	1,2	1,4	1,1	1,9	1,5
		Val d'Or	1,5	1,1	1,8	1,4	0,7	0,5	0,6	0,5	1,7	1,5	1,4	1,2	1,5	1,2
		Montreal-Dorval	1,6	1,2	1,3	1,1	0,4	0,3	0,5	0,4	1,7	1,5	1,3	1,1	1,7	1,4
		Montreal-McGill	1,5	1,2	1,2	1,0	0,6	0,5	0,7	0,5	1,3	1,1	1,3	1,1	1,3	1,0
		Drummondville	1,4	1,0	1,5	1,2	0,8	0,5	0,7	0,6	1,4	1,1	1,4	1,2	1,2	1,0
		Maniwaki	1,6	1,2	1,3	1,0	0,6	0,4	0,6	0,4	1,3	1,1	1,4	1,1	1,2	1,0
		Bagotville	1,6	1,3	1,5	1,1	0,6	0,5	0,7	0,5	1,7	1,4	1,4	1,1	1,3	1,0
	MARITIME (6 stations)	Causapscal	1,5	1,3	1,3	0,9	0,5	0,4	0,5	0,4	1,9	1,6	1,2	1,0	1,2	0,9
		Daniel-Harbour	1,2	0,9	1,4	1,1	0,6	0,5	0,6	0,5	2,0	1,7	1,2	0,9	0,9	0,7
		Gaspe	2,1	2,0	2,0	1,8	0,7	0,6	0,8	0,6	1,8	1,6	1,3	1,0	1,1	0,9
		Mont-Joli	1,5	1,3	1,2	0,8	0,6	0,5	0,6	0,5	2,1	1,8	1,1	0,9	1,1	0,9
		Natashquan	1,1	1,0	1,1	0,9	0,5	0,4	0,4	0,4	1,5	1,2	0,9	0,7	0,8	0,6
		Sept-Iles	1,9	1,6	1,3	1,0	0,5	0,4	0,5	0,4	1,1	0,9	0,8	0,7	0,9	0,7
JUNE	HUDSON BAY (3 stations)	Inukjuak	2,1	2,0	2,4	2,2	0,7	0,6	0,7	0,6	2,3	2,1	0,9	0,7	2,5	1,9
		Kuujuarapik	1,5	1,2	3,8	3,8	0,8	0,7	0,8	0,6	1,4	1,1	1,9	1,6	1,8	1,4
		Moosonee	1,7	1,5	1,8	1,5	0,8	0,6	0,7	0,6	1,3	1,1	1,2	1,0	1,6	1,3
	LABRADOR (4 stations)	Cartwright	3,7	3,6	1,5	1,2	0,7	0,6	0,8	0,6	1,4	1,2	1,2	1,0	1,3	1,1
		Goosebay	1,3	1,2	1,7	1,3	0,8	0,6	0,9	0,7	1,7	1,5	1,3	1,1	1,4	1,1
		Kuujuuaq	2,0	1,7	1,2	1,0	0,7	0,6	0,7	0,5	1,3	1,0	1,2	1,0	1,3	1,0
		Schefferville	1,3	1,0	1,5	1,3	0,5	0,4	0,7	0,5	1,5	1,2	1,1	0,9	1,4	1,1
	SOUTH (7 stations)	Amos	1,0	0,7	1,3	1,0	0,5	0,4	0,5	0,4	1,0	0,7	1,2	1,0	1,5	1,1
		Val d'Or	1,1	0,9	1,3	1,0	0,6	0,5	0,5	0,4	1,4	1,1	1,1	0,9	1,1	0,9
		Montreal-Dorval	0,9	0,7	1,0	0,7	0,4	0,3	0,4	0,4	1,5	1,2	1,0	0,8	1,0	0,8
		Montreal-McGill	0,9	0,7	0,9	0,7	0,5	0,4	0,5	0,4	0,9	0,7	1,1	0,9	1,0	0,8
		Drummondville	0,9	0,7	1,1	0,8	0,5	0,4	0,5	0,4	1,0	0,8	1,1	0,9	1,0	0,8
		Maniwaki	1,0	0,8	1,0	0,8	0,5	0,4	0,5	0,4	1,0	0,8	1,4	1,2	1,1	0,9
		Bagotville	0,7	0,6	1,1	0,9	0,6	0,5	0,6	0,5	1,4	1,2	0,9	0,7	1,0	0,8
	MARITIME (6 stations)	Causapscal	0,9	0,7	1,3	1,1	0,6	0,5	0,5	0,4	1,5	1,2	1,0	0,8	1,1	0,9
		Daniel-Harbour	1,1	0,9	0,9	0,8	0,4	0,4	0,4	0,3	1,1	0,9	0,8	0,6	0,8	0,6
		Gaspe	2,4	2,2	2,3	2,2	0,7	0,6	0,7	0,5	1,9	1,6	1,2	0,9	1,1	0,9
		Mont-Joli	1,0	0,8	1,3	1,1	0,9	0,7	0,7	0,6	1,9	1,5	1,0	0,7	1,1	0,9
		Natashquan	1,4	1,3	0,8	0,7	0,4	0,3	0,4	0,3	1,1	0,9	0,7	0,6	0,7	0,6
		Sept-Iles	1,0	0,7	0,9	0,7	0,8	0,6	0,8	0,6	1,3	1,0	0,9	0,7	0,9	0,7
JULY	HUDSON BAY (3 stations)	Inukjuak	1,7	1,4	1,8	1,4	1,0	0,8	1,0	0,9	1,6	1,3	1,4	1,1	1,3	1,0
		Kuujuarapik	2,0	1,7	3,0	2,9	0,8	0,7	0,8	0,7	1,3	1,0	1,1	0,8	1,2	0,9
		Moosonee	2,0	1,8	1,1	0,9	0,6	0,5	0,5	0,4	0,9	0,7	1,0	0,8	1,0	0,8
	LABRADOR (4 stations)	Cartwright	3,4	3,4	1,0	0,8	0,7	0,5	0,8	0,6	1,2	1,0	0,8	0,7	0,9	0,7
		Goosebay	1,6	1,5	1,1	0,9	0,6	0,5	0,7	0,5	1,4	1,1	1,2	1,0	1,0	0,8
		Kuujuuaq	1,4	1,2	0,9	0,7	0,6	0,5	0,6	0,5	1,2	0,9	0,8	0,7	1,3	1,0
		Schefferville	1,4	1,1	0,8	0,8	0,5	0,4	0,5	0,4	1,4	1,1	1,0	0,8	0,9	0,8
	SOUTH (7 stations)	Amos	1,5	1,3	0,9	0,8	0,4	0,3	0,4	0,3	1,1	0,9	0,8	0,6	1,2	0,9
		Val d'Or	1,5	1,3	1,0	0,8	0,6	0,5	0,5	0,4	1,3	1,1	0,9	0,7	0,9	0,8
		Montreal-Dorval	1,0	0,8	0,6	0,5	0,4	0,3	0,4	0,4	1,2	0,9	0,7	0,6	0,9	0,7
		Montreal-McGill	0,9	0,7	0,7	0,6	0,4	0,3	0,4	0,3	0,8	0,6	0,7	0,6	0,8	0,6
		Drummondville	1,2	1,0	0,8	0,6	0,5	0,4	0,5	0,4	0,8	0,7	0,9	0,8	0,8	0,7
		Maniwaki	1,1	0,9	0,7	0,6	0,3	0,3	0,3	0,3	0,9	0,7	1,0	0,8	0,8	0,6
		Bagotville	1,2	1,0	0,7	0,6	0,5	0,4	0,5	0,4	1,1	0,8	0,8	0,6	1,1	0,9
	MARITIME (6 stations)	Causapscal	1,0	0,8	0,9	0,7	0,4	0,3	0,4	0,3	1,1	0,9	0,7	0,5	0,8	0,6
		Daniel-Harbour	0,8	0,7	0,9	0,7	0,4	0,3	0,4	0,3	1,2	0,9	0,6	0,5	0,6	0,5
		Gaspe	2,1	2,1	1,5	1,4	0,5	0,4	0,5	0,4	1,3	1,0	0,8	0,6	1,0	0,8
		Mont-Joli	1,0	0,8	0,9	0,7	0,6	0,5	0,6	0,5	1,2	1,0	0,8	0,6	0,8	0,7
		Natashquan	1,2	1,2	0,9	0,7	0,5	0,4	0,5	0,4	1,1	0,9	0,7	0,6	0,7	0,5
		Sept-Iles	0,6	0,5	1,0	0,8	0,5	0,4	0,5	0,4	0,7	0,6	0,6	0,5	0,6	0,5
AUGUST	HUDSON BAY (3 stations)	Inukjuak	1,5	1,2	1,2	1,0	0,9	0,8	1,0	0,8	1,0	0,8	1,1	0,9	1,4	1,2
		Kuujuarapik	1,4	1,2	2,3	2,2	0,6	0,5	0,6	0,5	1,0	0,8	0,9	0,7	1,1	0,9
		Moosonee	1,8	1,6	1,1	0,8	0,6	0,5	0,5	0,4	1,0	0,8	1,2	0,9	1,1	0,8
	LABRADOR (4 stations)	Cartwright	3,1	3,0	0,9	0,7	0,6	0,5	0,7	0,5	1,3	1,0	1,0	0,8	0,9	0,7
		Goosebay	1,3	1,1	0,9	0,8	0,5	0,4	0,6	0,5	1,1	0,9	1,1	1,0	1,0	0,8
		Kuujuuaq	1,1	0,9	0,6	0,5	0,5	0,4	0,5	0,4	1,1	0,8	0,9	0,7	0,9	0,7
		Schefferville	1,3	1,1	0,7	0,6	0,4	0,4	0,5	0,4	1,2	1,0	1,0	0,8	1,0	0,8
	SOUTH (7 stations)	Amos	1,5	1,3	0,9	0,7	0,4	0,3	0,5	0,4	1,1	0,9	1,2	1,0	1,2	0,9
		Val d'Or	1,4	1,2	1,0	0,8	0,6	0,4	0,5	0,4	0,9	0,8	1,2	1,0	1,0	0,8
		Montreal-Dorval	1,1	0,9	0,8	0,7	0,4	0,3	0,5	0,4	0,9	0,7	0,8	0,7	1,4	1,1
		Montreal-McGill	1,0	0,8	1,0	0,8	0,4	0,3	0,4	0,3	0,8	0,6	1,1	0,8	0,8	0,6
		Drummondville	1,3	1,1	0,8	0,7	0,4	0,3	0,5	0,4	0,9	0,7	1,2	1,0	0,9	0,7
		Maniwaki	1,2	1,0	1,0	0,8	0,5	0,4	0,4	0,4	0,9	0,7	1,4	1,1	0,9	0,7
		Bagotville	1,3	1,2	0,8	0,8	0,4	0,3	0,5	0,4	0,8	0,7	0,9	0,7	1,2	1,1
	MARITIME (6 stations)	Causapscal	1,3	1,2	0,8	0,7	0,5	0,4	0,5	0,4	1,0	0,8	0,8	0,6	0,9	0,7
		Daniel-Harbour	0,7	0,6	1,3	1,1	0,4	0,4	0,4	0,4	1,4	1,1	1,0	0,9	0,7	0,5
		Gaspe	2,7	2,7	1,8	1,7	0,4	0,3	0,4	0,3	1,0	0,7	0,6	0,5	0,8	0,6
		Mont-Joli	1,3	1,1	0,9	0,7	0,5	0,4	0,5	0,4	1,2	0,9	0,8	0,6	0,8	0,7
		Natashquan	2,0	1,9	1,0	0,8	0,5	0,4	0,5	0,4	0,9	0,7	0,6	0,5	0,8	0,6
		Sept-Iles	0,6	0,5	1,3	1,1	0,4	0,3	0,4	0,3	0,7	0,5	0,6	0,4	0,7	0,5

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
SEPTEMBER	HUDSON BAY (3 stations)	Inukjuak	2,1	2,0	1,6	1,5	0,5	0,4	0,5	0,4	0,9	0,7	0,7	0,5	0,8	0,6
		Kuujuarapik	1,1	0,9	2,3	2,1	0,6	0,5	0,5	0,4	1,1	0,8	1,1	0,9	1,2	1,0
		Moosonee	1,2	0,9	1,4	1,1	0,6	0,5	0,5	0,4	1,2	0,9	1,3	1,0	1,1	0,9
	LABRADOR (4 stations)	Cartwright	2,8	2,8	1,0	0,9	0,5	0,4	0,5	0,4	1,2	0,9	0,8	0,8	0,9	0,7
		Goosebay	1,1	0,9	1,1	0,9	0,5	0,4	0,8	0,5	1,5	1,2	1,0	0,9	1,1	0,9
		Kuujuuaq	1,0	0,8	1,1	0,9	0,5	0,4	0,8	0,5	1,6	1,2	1,1	0,9	1,0	0,8
		Schefferville	1,1	1,0	1,3	1,0	0,5	0,4	0,6	0,5	1,6	1,2	1,2	1,0	1,1	0,9
	SOUTH (7 stations)	Amos	1,1	0,9	1,2	0,9	0,5	0,4	0,5	0,4	1,2	1,0	1,1	0,9	1,0	0,8
		Val d'Or	1,4	1,0	1,2	0,9	0,7	0,5	0,8	0,5	1,2	1,0	1,3	1,0	1,1	0,9
		Montreal-Dorval	1,0	0,8	0,8	0,6	0,5	0,4	0,6	0,4	1,2	0,9	0,9	0,7	1,0	0,8
		Montreal-McGill	1,1	0,8	1,1	0,9	0,6	0,5	0,6	0,5	1,0	0,8	1,1	0,9	1,0	0,8
		Drummondville	1,0	0,8	0,8	0,7	0,5	0,4	0,8	0,5	0,9	0,7	1,3	1,1	1,0	0,8
		Maniwaki	1,1	0,8	1,1	0,9	0,5	0,4	0,5	0,4	1,0	0,8	1,5	1,3	1,1	0,8
		Bagotville	1,0	0,8	1,1	0,8	0,5	0,4	0,6	0,5	1,1	0,9	0,9	0,7	1,1	0,9
	MARITIME (6 stations)	Causapscal	1,0	0,9	1,1	0,9	0,4	0,3	0,4	0,3	1,2	1,0	0,9	0,7	1,0	0,8
		Daniel-Harbour	1,0	0,8	1,3	1,2	0,4	0,4	0,4	0,3	2,2	1,4	1,3	1,0	0,7	0,6
		Gaspe	2,7	2,6	1,7	1,5	0,6	0,5	0,6	0,5	1,4	1,1	0,9	0,7	0,9	0,8
		Mont-Joli	1,0	0,8	1,1	0,9	0,6	0,5	0,5	0,4	1,2	0,9	0,9	0,7	0,9	0,7
		Natashquan	2,0	1,9	1,3	1,2	0,5	0,4	0,5	0,4	1,1	0,8	0,5	0,5	0,7	0,6
		Sept-Iles	1,1	0,8	1,5	1,3	0,5	0,4	0,5	0,4	1,0	0,8	0,7	0,6	0,8	0,6
OCTOBER	HUDSON BAY (3 stations)	Inukjuak	1,8	1,7	1,8	1,6	0,6	0,5	0,8	0,5	0,8	0,7	1,4	1,1	0,9	0,7
		Kuujuarapik	1,1	0,9	2,0	1,7	0,5	0,4	0,5	0,4	1,0	0,8	1,4	1,0	1,1	0,9
		Moosonee	1,5	1,2	2,0	1,7	0,7	0,5	0,6	0,5	1,4	1,2	1,3	1,1	1,7	1,3
	LABRADOR (4 stations)	Cartwright	2,2	2,2	1,1	0,9	0,5	0,4	0,5	0,4	1,7	1,3	0,9	0,7	0,8	0,6
		Goosebay	1,3	1,1	1,2	0,9	0,5	0,4	0,8	0,5	1,6	1,3	1,2	0,9	1,0	0,8
		Kuujuuaq	1,2	0,9	1,2	1,0	0,6	0,4	0,8	0,4	1,6	1,3	1,3	1,0	1,0	0,8
		Schefferville	1,4	1,2	1,5	1,3	0,5	0,4	0,6	0,5	1,9	1,6	1,5	1,1	1,1	0,9
	SOUTH (7 stations)	Amos	1,5	1,2	1,2	1,0	0,6	0,4	0,8	0,5	1,5	1,2	1,2	1,0	1,2	0,9
		Val d'Or	1,7	1,4	1,4	1,1	0,6	0,4	0,5	0,4	1,5	1,2	1,2	1,0	1,2	1,0
		Montreal-Dorval	1,3	1,0	1,3	0,9	0,5	0,4	0,6	0,5	1,4	1,2	1,2	0,9	1,3	1,0
		Montreal-McGill	1,2	0,9	1,2	0,9	0,6	0,5	0,8	0,5	1,2	0,9	1,5	1,1	1,2	1,0
		Drummondville	1,3	1,0	1,3	0,9	0,7	0,5	0,7	0,5	1,1	0,8	1,7	1,2	1,2	1,0
		Maniwaki	1,2	1,0	1,2	1,0	0,6	0,5	0,6	0,5	1,2	0,9	1,5	1,0	1,2	1,0
		Bagotville	1,3	1,0	1,2	0,9	0,6	0,5	0,7	0,6	1,4	1,1	1,1	0,9	1,1	0,9
	MARITIME (6 stations)	Causapscal	1,3	1,1	1,0	0,8	0,6	0,5	0,6	0,4	1,8	1,3	1,0	0,8	1,1	0,9
		Daniel-Harbour	0,7	0,6	1,1	0,9	0,5	0,4	0,5	0,4	2,4	1,6	1,1	0,9	0,9	0,7
		Gaspe	2,6	2,6	1,6	1,5	0,5	0,4	0,5	0,4	1,5	1,1	0,9	0,7	0,9	0,7
		Mont-Joli	1,3	1,0	1,0	0,8	0,6	0,5	0,5	0,4	1,6	1,3	1,0	0,8	1,1	0,9
		Natashquan	2,1	2,0	1,0	0,8	0,5	0,4	0,5	0,4	1,3	1,0	0,8	0,6	0,8	0,7
		Sept-Iles	0,8	0,7	1,1	0,9	0,6	0,5	0,6	0,5	1,3	1,0	0,8	0,7	0,9	0,7
NOVEMBER	HUDSON BAY (3 stations)	Inukjuak	3,7	3,4	3,6	3,3	1,0	0,8	1,0	0,8	1,6	1,2	1,9	1,7	1,7	1,3
		Kuujuarapik	3,3	2,9	3,2	2,8	0,9	0,8	0,8	0,7	1,7	1,3	1,8	1,6	1,8	1,5
		Moosonee	4,5	4,0	2,4	1,8	0,9	0,7	0,8	0,6	2,4	1,8	2,2	1,7	2,0	1,6
	LABRADOR (4 stations)	Cartwright	3,3	3,1	1,3	1,0	0,6	0,5	0,8	0,5	2,4	1,8	1,2	1,0	1,3	1,1
		Goosebay	4,3	4,1	1,6	1,1	0,7	0,5	0,7	0,6	2,0	1,5	1,5	1,2	1,6	1,3
		Kuujuuaq	3,4	2,9	1,6	1,3	0,8	0,6	0,8	0,6	1,2	1,0	1,2	0,8	1,6	1,2
		Schefferville	4,5	4,2	1,9	1,5	0,8	0,6	0,8	0,8	1,6	1,3	1,7	1,3	1,7	1,3
	SOUTH (7 stations)	Amos	4,1	3,7	2,0	1,5	0,7	0,6	0,8	0,7	2,1	1,7	1,8	1,5	1,7	1,4
		Val d'Or	3,6	3,1	2,2	1,8	0,8	0,7	0,7	0,6	1,9	1,4	1,9	1,5	1,8	1,4
		Montreal-Dorval	2,6	2,2	1,2	1,0	0,8	0,6	0,7	0,5	1,5	1,2	1,3	0,9	1,4	1,2
		Montreal-McGill	2,6	2,2	1,3	1,0	0,7	0,6	0,8	0,6	1,7	1,5	1,6	1,2	1,5	1,2
		Drummondville	2,6	2,2	1,3	1,1	0,7	0,6	0,8	0,7	1,7	1,4	1,6	1,3	1,5	1,2
		Maniwaki	2,9	2,5	1,6	1,2	0,9	0,7	0,8	0,7	2,0	1,7	1,7	1,3	1,5	1,2
		Bagotville	3,9	3,5	1,6	1,3	0,7	0,5	0,8	0,7	1,8	1,5	1,4	1,1	2,1	1,7
	MARITIME (6 stations)	Causapscal	3,3	2,9	1,5	1,1	0,6	0,5	0,6	0,5	1,9	1,6	1,3	1,1	1,7	1,4
		Daniel-Harbour	1,4	1,1	1,7	1,5	0,6	0,5	0,6	0,4	2,3	1,8	1,4	1,1	1,2	1,0
		Gaspe	3,3	3,0	2,0	1,6	0,6	0,5	0,7	0,5	1,7	1,4	1,4	1,1	1,4	1,2
		Mont-Joli	2,9	2,6	1,5	1,1	0,6	0,5	0,7	0,5	1,8	1,5	1,3	1,0	1,5	1,2
		Natashquan	3,3	3,1	1,4	1,0	0,8	0,6	0,8	0,6	1,6	1,3	1,2	0,9	1,3	1,0
		Sept-Iles	2,9	2,6	1,4	1,1	0,7	0,6	0,7	0,6	1,7	1,4	1,3	1,1	1,5	1,2
DECEMBER	HUDSON BAY (3 stations)	Inukjuak	4,8	4,6	4,3	4,1	1,4	1,2	1,4	1,1	1,7	1,3	1,9	1,5	1,9	1,5
		Kuujuarapik	2,3	1,9	4,9	4,6	1,3	1,0	1,2	0,9	1,8	1,5	2,1	1,7	2,1	1,7
		Moosonee	2,8	2,3	2,6	2,1	1,2	1,0	1,3	1,1	2,3	1,8	2,4	1,9	2,1	1,7
	LABRADOR (4 stations)	Cartwright	5,1	5,0	1,8	1,3	0,9	0,7	0,9	0,7	2,9	2,4	1,5	1,3	1,6	1,3
		Goosebay	1,7	1,5	1,8	1,4	1,0	0,8	1,1	0,9	2,7	2,3	1,8	1,5	1,7	1,4
		Kuujuuaq	1,9	1,5	2,3	1,9	1,1	0,9	1,1	0,9	2,4	2,0	2,0	1,7	2,0	1,6
		Schefferville	1,8	1,4	2,3	1,8	1,0	0,8	1,2	0,9	2,3	1,9	2,0	1,7	1,8	1,4
	SOUTH (7 stations)	Amos	3,2	2,5	2,5	2,2	1,0	0,8	0,9	0,7	2,2	1,9	1,6	1,3	2,2	1,8
		Val d'Or	6,5	6,3	2,6	2,3	0,9	0,7	0,9	0,7	2,4	1,9	1,8	1,4	1,8	1,4
		Montreal-Dorval	4,9	4,8	1,7	1,3	0,8	0,7	0,8	0,6	1,8	1,4	1,5	1,2	2,5	2,1
		Montreal-McGill	4,8	4,6	1,6	1,4	1,2	1,0	1,6	1,2	2,1	1,8	1,5	1,2	1,6	1,3
		Drummondville	5,4	5,2	1,8	1,5	1,2	1,0	1,4	1,1	1,7	1,4	1,5	1,2	1,6	1,3
		Maniwaki	5,7	5,6	2,2	1,8	1,5	1,1	1,2	1,0	2,3	2,0	1,8	1,4	1,6	1,3
		Bagotville	2,9	2,3	2,7	2,4	0,9	0,7	0,9	0,7	2,1	1,8	1,8	1,4	2,6	2,2
	MARITIME (6 stations)	Causapscal	2,6	2,2	1,8	1,4	0,9	0,7	0,9	0,7	2,3	1,8	1,6	1,3	1,7	1,3
		Daniel-Harbour	3,3	3,0	2,5	2,2	0,7	0,6	0,8	0,6	2,8	2,3	1,4	1,2	1,3	1,0
		Gaspe	4,2	4,1	2,7	2,5	0,7	0,5	0,8	0,6	2,0	1,7	1,3	1,1	1,3	1,0
		Mont-Joli	2,1	1,7	1,4	1,1	0,7	0,6	0,7	0,6	2,1	1,7	1,4	1,2	1,5	1,2
		Natashquan	5,1	5,0	1,5	1,3	0,9	0,7	0,9	0,7	2,8	2,4	1,6	1,4	1,4	1,2
		Sept-Iles	2,7	2,2	1,9	1,4	0,7	0,6	0,7	0,6	2,0	1,7	1,6	1,3	1,5	1,2

Table 2.9 Same as Table 2.3 but for the freeze and thaw cycle (in days).

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
JANUARY	HUDSON BAY (3 stations)	Inukjuak	0,7	0,2	0,5	0,1	0,8	0,3	0,8	0,2	1,5	0,8	3,2	2,0	0,4	0,1
		Kuujuaupik	1,1	0,5	0,8	0,3	0,8	0,4	0,8	0,4	1,8	0,8	5,9	4,3	1,0	0,6
		Moosonee	3,4	2,3	1,3	0,9	1,8	1,1	1,5	1,0	2,9	1,9	2,2	1,4	1,7	1,2
	LABRADOR (4 stations)	Cartwright	5,7	4,6	4,6	3,4	2,4	1,8	2,5	1,9	4,4	3,6	5,1	3,7	4,2	3,2
		Goosebay	3,3	2,0	2,7	1,8	1,5	1,0	1,9	1,3	2,9	2,1	2,7	1,7	3,0	2,3
		Kuujuaq	0,7	0,3	0,9	0,4	1,0	0,5	0,7	0,3	1,2	0,7	0,7	0,3	1,1	0,6
		Schefferville	1,4	0,5	1,4	0,6	0,7	0,2	0,8	0,3	1,8	1,2	1,4	0,6	1,8	1,1
	SOUTH (7 stations)	Amos	3,7	2,7	2,5	2,0	1,7	1,2	1,6	1,1	4,2	3,3	3,3	2,5	2,1	1,6
		Val d'Or	9,0	7,4	2,9	2,3	1,7	1,2	1,9	1,3	4,4	3,4	3,3	2,6	3,0	2,3
		Montreal-Dorval	9,1	7,7	6,7	5,0	3,5	2,8	3,6	2,8	8,8	7,2	5,7	4,9	6,0	4,7
		Montreal-McGill	9,0	7,4	5,7	4,3	3,5	2,7	3,5	2,8	8,3	6,7	5,1	4,2	5,3	4,2
		Drummondville	8,3	6,7	5,3	4,0	3,0	2,4	3,1	2,4	6,6	5,4	5,0	4,3	5,0	3,9
		Maniwaki	8,8	7,3	5,4	4,2	2,1	1,6	2,3	1,7	7,7	6,3	3,7	3,0	4,3	3,4
		Bagotville	3,4	2,5	3,0	2,4	1,8	1,3	1,7	1,2	5,4	4,4	3,2	2,6	2,9	2,3
	MARITIME (6 stations)	Causapscal	3,2	2,5	2,8	2,1	1,8	1,4	1,8	1,4	3,6	2,8	3,0	2,3	3,5	2,7
		Daniel-Harbour	9,1	7,9	5,1	4,0	2,7	2,0	2,7	2,0	4,5	3,6	6,5	4,6	4,7	3,7
		Gaspe	3,9	3,1	5,7	5,1	2,6	2,0	2,2	1,7	4,8	3,7	4,4	3,5	4,0	3,2
		Mont-Joli	3,8	3,1	3,6	2,7	2,5	1,9	1,9	1,5	4,1	3,1	3,7	2,9	4,0	3,1
		Nataashquan	7,1	6,1	3,3	2,8	2,4	1,8	2,5	2,0	4,1	3,3	3,9	3,1	3,4	2,7
		Sept-Iles	3,5	2,6	2,4	1,7	1,7	1,1	1,6	1,1	3,8	3,1	2,6	2,1	3,1	2,4
FEBRUARY	HUDSON BAY (3 stations)	Inukjuak	0,8	0,2	0,8	0,3	0,9	0,4	0,9	0,4	0,7	0,3	2,0	0,9	1,3	0,7
		Kuujuaupik	1,5	0,7	1,4	0,6	1,1	0,6	1,1	0,6	1,5	0,8	3,3	2,1	1,5	0,8
		Moosonee	3,1	2,3	2,9	2,1	1,3	0,9	1,3	0,9	3,0	2,4	3,6	2,9	2,9	2,2
	LABRADOR (4 stations)	Cartwright	5,8	4,9	3,8	3,1	1,7	1,2	1,8	1,3	3,7	2,9	5,0	3,7	3,8	2,9
		Goosebay	3,6	2,5	3,2	2,6	1,8	1,1	1,5	1,1	3,2	2,4	4,3	3,3	3,2	2,3
		Kuujuaq	1,7	0,7	1,6	0,9	0,8	0,4	0,9	0,5	1,8	1,0	1,8	1,0	1,8	0,9
		Schefferville	2,6	0,8	2,5	0,9	1,3	0,5	1,5	0,6	2,6	1,3	2,8	1,2	2,6	1,1
	SOUTH (7 stations)	Amos	3,0	2,3	3,2	2,6	1,7	1,2	1,7	1,3	3,3	2,6	4,6	3,6	3,4	2,6
		Val d'Or	4,6	3,5	3,3	2,5	2,1	1,5	2,1	1,5	4,0	3,2	4,9	3,8	3,6	2,8
		Montreal-Dorval	5,3	4,3	6,2	5,1	2,9	2,3	3,1	2,5	4,8	3,9	4,6	3,7	4,9	4,0
		Montreal-McGill	5,0	3,9	5,4	4,6	2,5	1,9	2,5	2,0	4,4	3,4	4,4	3,5	4,8	3,9
		Drummondville	4,9	3,3	5,1	4,3	2,3	1,8	2,4	1,9	4,2	3,6	4,0	3,3	4,5	3,6
		Maniwaki	4,8	3,6	5,8	4,9	2,2	1,7	2,3	1,8	4,1	3,0	4,8	3,8	4,8	3,9
		Bagotville	3,0	2,3	3,4	2,8	1,8	1,3	1,7	1,3	3,6	2,9	3,4	2,6	3,7	2,7
	MARITIME (6 stations)	Causapscal	3,6	2,8	3,3	2,6	2,1	1,6	2,1	1,6	3,4	2,8	3,2	2,5	3,7	2,9
		Daniel-Harbour	8,2	7,4	4,4	3,5	2,2	1,7	2,2	1,7	3,7	3,0	4,9	3,6	4,4	3,4
		Gaspe	6,0	4,5	4,2	3,5	2,3	1,8	2,2	1,7	4,0	3,2	5,3	4,1	5,0	3,9
		Mont-Joli	3,1	2,4	3,8	3,1	2,5	1,9	2,1	1,6	3,1	2,5	3,5	2,7	3,9	3,1
		Nataashquan	4,1	2,9	4,9	3,6	2,0	1,4	2,0	1,5	4,1	3,1	4,6	3,6	4,3	3,1
		Sept-Iles	3,2	2,1	3,4	2,5	2,0	1,4	1,9	1,3	3,4	2,7	3,6	2,6	3,5	2,7
MARCH	HUDSON BAY (3 stations)	Inukjuak	2,0	1,1	1,8	1,2	1,3	0,7	1,2	0,6	1,4	0,7	1,7	1,2	1,4	0,8
		Kuujuaupik	3,6	2,8	4,0	3,3	2,1	1,6	1,9	1,5	3,3	2,5	3,4	2,9	3,2	2,5
		Moosonee	5,1	4,3	7,7	6,7	2,2	1,7	2,2	1,7	5,1	4,1	5,7	4,5	5,1	4,1
	LABRADOR (4 stations)	Cartwright	8,2	7,1	6,5	5,1	3,0	2,2	3,4	2,7	4,9	3,7	5,8	4,4	5,7	4,5
		Goosebay	7,5	6,6	6,8	5,6	2,7	2,1	3,1	2,5	4,6	3,7	5,6	4,6	5,3	4,2
		Kuujuaq	2,9	2,1	3,0	2,3	1,7	1,1	1,9	1,4	2,6	2,0	3,0	2,2	2,9	2,1
		Schefferville	4,0	3,3	4,3	3,6	1,8	1,3	1,9	1,4	3,2	2,7	4,2	3,5	3,6	2,9
	SOUTH (7 stations)	Amos	4,7	3,6	6,8	5,9	2,7	2,1	3,1	2,4	5,4	3,9	5,3	4,3	5,6	4,4
		Val d'Or	4,5	3,7	7,3	6,0	2,9	2,3	2,8	2,2	4,9	3,6	5,5	4,4	5,2	4,1
		Montreal-Dorval	5,3	4,2	10,3	9,3	3,6	2,9	3,9	3,1	5,0	4,0	4,6	3,7	5,1	4,1
		Montreal-McGill	5,0	4,4	7,0	5,6	3,6	2,9	3,7	3,0	5,7	4,8	5,3	4,3	5,2	4,2
		Drummondville	4,3	3,3	9,9	8,9	3,5	2,8	3,5	2,8	5,1	3,9	4,8	3,9	5,0	4,0
		Maniwaki	5,4	4,4	12,3	11,8	3,0	2,4	3,2	2,5	5,0	4,0	5,5	4,5	5,4	4,4
		Bagotville	7,6	6,6	7,7	6,6	3,1	2,4	3,3	2,5	5,1	3,8	4,9	4,0	8,7	7,3
	MARITIME (6 stations)	Causapscal	11,0	9,8	10,3	9,0	3,3	2,6	3,3	2,6	6,5	5,1	6,4	4,6	6,5	5,2
		Daniel-Harbour	7,0	5,4	6,9	5,8	3,5	2,7	3,6	2,8	5,4	4,3	6,7	5,4	5,6	4,5
		Gaspe	12,8	11,8	11,5	10,5	3,5	2,8	3,7	2,9	6,3	5,0	7,0	5,4	6,1	4,9
		Mont-Joli	6,9	5,9	6,6	5,3	3,9	3,1	3,2	2,6	4,8	3,7	5,7	4,7	5,2	4,1
		Nataashquan	9,8	8,3	6,9	5,1	3,1	2,3	3,1	2,3	5,8	4,3	6,6	5,0	6,2	4,8
		Sept-Iles	7,9	6,1	9,7	8,4	3,2	2,5	3,1	2,4	5,9	4,5	6,8	5,4	6,5	5,0
APRIL	HUDSON BAY (3 stations)	Inukjuak	5,0	3,9	4,7	3,7	2,1	1,6	2,2	1,7	6,2	4,9	4,3	3,3	5,7	4,7
		Kuujuaupik	6,6	5,9	9,0	7,3	3,3	2,7	3,0	2,4	7,9	6,7	6,2	5,0	6,5	5,3
		Moosonee	7,4	6,3	8,4	6,7	3,3	2,6	3,2	2,5	4,9	4,0	5,1	4,2	5,6	4,5
	LABRADOR (4 stations)	Cartwright	16,3	15,6	8,4	7,1	3,8	3,1	4,2	3,3	6,9	5,8	7,5	6,0	6,1	4,9
		Goosebay	9,6	8,2	11,7	10,7	3,4	2,6	3,4	2,7	5,2	4,3	5,3	4,4	5,2	4,2
		Kuujuaq	7,5	6,5	7,3	5,5	3,1	2,4	2,9	2,3	6,0	5,0	5,8	4,6	6,5	5,3
		Schefferville	8,5	7,3	10,3	8,6	3,1	2,5	2,8	2,3	7,0	6,0	6,9	5,7	7,2	5,9
	SOUTH (7 stations)	Amos	7,5	5,5	5,0	4,4	2,6	2,1	2,9	2,3	3,9	3,0	5,0	3,9	6,1	5,1
		Val d'Or	8,1	7,4	5,3	4,5	3,2	2,6	3,2	2,6	4,0	3,0	5,3	4,3	4,9	4,0
		Montreal-Dorval	5,9	4,6	6,4	5,3	3,4	2,7	3,4	2,7	8,4	7,2	6,0	4,9	5,8	4,7
		Montreal-McGill	7,5	6,4	11,2	9,8	3,0	2,3	3,2	2,5	8,4	7,1	5,1	4,0	5,0	4,1
		Drummondville	6,6	5,4	6,0	5,2	3,3	2,5	3,4	2,6	7,2	6,0	6,3	5,4	5,7	4,6
		Maniwaki	9,7	8,3	6,5	5,0	3,1	2,5	3,2	2,6	5,0	4,3	5,6	4,7	5,6	4,5
		Bagotville	5,2	3,9	5,0	4,0	3,5	2,9	3,6	2,9	6,2	5,2	3,9	3,0	5,4	4,4
	MARITIME (6 stations)	Causapscal	9,5	8,1	7,0	5,7	3,4	2,6	2,8	2,2	4,4	3,5	3,8	3,1	4,9	4,0
		Daniel-Harbour	11,0	9,8	6,3	4,8	4,0	3,2	3,9	3,1	8,0	6,2	5,9	5,0	5,9	4,6
		Gaspe	16,8	16,1	17,0	16,4	3,9	3,1	3,9	3,1	5,0	4,3	4,5	3,6	4,4	3,5
		Mont-Joli	6,6	5,0	5,6	4,6	3,5	2,8	4,0	3,2	4,9	3,9	4,7	4,1	5,3	4,3
		Nataashquan	14,2	13,2	5,4	4,2	3,9	3,2	3,8	3,1	6,8	5,9	5,2	4,4	4,9	3,9
		Sept-Iles	8,5	6,9	9,2	7,5	4,1	3,2	4,0	3,1	5,2	4,2	5,4	4,4	5,5	4,5

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
MAY	HUDSON BAY (3 stations)	Inukjuak	6.0	4.9	13.5	12.6	3.8	3.1	4.1	3.2	12.5	11.2	6.4	5.1	7.3	5.9
		Kuujuarapik	9.6	8.3	15.0	14.3	3.4	2.7	3.5	2.9	5.7	4.6	4.3	3.5	6.2	5.0
		Moosonee	12.4	11.1	4.4	3.5	4.4	3.5	4.0	3.3	4.7	3.8	6.5	5.5	7.2	6.1
	LABRADOR (4 stations)	Cartwright	21.1	20.3	9.0	8.0	5.6	4.7	5.8	4.8	8.1	6.6	7.0	5.6	7.3	5.9
		Goosebay	7.2	5.8	6.9	5.4	4.5	3.7	4.5	3.7	6.8	5.5	5.9	4.6	6.9	5.5
		Kuujuuaq	8.5	7.1	6.3	5.2	4.2	3.4	4.2	3.4	6.3	5.3	6.6	5.4	6.8	5.6
		Schefferville	10.0	8.6	6.7	5.3	3.8	3.1	3.8	3.1	5.9	4.9	6.1	5.1	5.9	4.7
	SOUTH (7 stations)	Amos	8.2	7.3	5.2	4.2	3.2	2.5	3.2	2.6	8.0	6.8	4.6	3.6	5.5	4.4
		Val d'Or	7.9	7.1	4.2	3.4	3.1	2.5	2.9	2.3	7.2	6.1	4.7	3.8	5.2	4.2
		Montreal-Dorval	2.6	1.8	5.7	4.9	1.5	1.0	1.6	1.1	2.4	1.8	2.8	2.3	2.3	1.5
		Montreal-McGill	2.5	1.7	4.4	3.8	0.8	0.3	0.8	0.3	1.2	0.7	1.1	0.6	1.3	0.7
		Drummondville	2.4	1.8	5.3	4.4	2.0	1.4	2.0	1.4	3.9	3.0	3.3	2.7	2.7	2.0
		Maniwaki	6.3	5.5	4.2	3.4	2.2	1.8	2.3	1.8	5.7	4.5	4.6	3.7	4.4	3.6
		Bagotville	5.6	4.6	5.9	5.1	3.2	2.6	3.5	2.9	8.0	6.6	5.3	4.3	7.0	5.6
	MARITIME (6 stations)	Causapsal	9.2	8.1	8.0	6.5	3.9	3.1	3.2	2.6	5.8	4.6	4.8	3.6	5.5	4.5
		Daniel-Harbour	11.9	10.1	6.6	5.2	4.5	3.4	4.5	3.5	7.8	6.2	6.1	4.8	8.1	6.5
		Gaspe	12.4	11.4	13.0	12.0	4.1	3.2	4.1	3.2	7.2	5.9	5.2	4.5	5.9	4.8
		Mont-Joli	5.5	4.5	5.1	3.8	3.2	2.6	3.3	2.7	5.0	4.0	4.5	3.6	5.3	4.3
		Natashquan	12.8	12.0	6.6	5.4	3.8	2.9	3.6	2.8	7.7	6.2	5.4	4.2	6.3	5.0
		Sept-Iles	7.7	6.4	6.1	4.9	3.5	2.8	3.5	2.8	6.9	5.7	6.0	4.8	6.7	5.4
JUNE	HUDSON BAY (3 stations)	Inukjuak	8.3	6.7	13.1	11.6	6.7	5.6	6.9	5.8	7.9	6.4	7.6	6.2	10.4	8.8
		Kuujuarapik	15.0	13.9	10.3	8.8	6.8	5.8	6.5	5.5	7.0	5.8	7.3	6.1	9.9	8.5
		Moosonee	6.1	5.2	4.3	3.3	3.8	3.0	3.3	2.7	6.9	5.8	4.2	3.3	4.5	3.6
	LABRADOR (4 stations)	Cartwright	6.6	5.3	5.1	4.0	3.9	3.1	4.1	3.2	4.7	4.0	4.6	3.8	4.9	3.8
		Goosebay	1.9	1.5	4.0	3.5	2.2	1.8	2.1	1.6	2.8	2.1	2.5	2.0	2.1	1.8
		Kuujuuaq	8.3	6.8	7.5	6.0	4.4	3.5	4.0	3.2	6.5	5.3	7.0	5.7	7.2	5.7
		Schefferville	6.9	5.7	6.4	5.4	3.8	3.0	3.0	2.3	4.8	3.8	5.9	4.7	5.3	4.3
	SOUTH (7 stations)	Amos	2.8	1.9	2.5	1.5	1.6	1.2	1.6	1.1	3.8	3.1	2.6	2.0	2.7	2.1
		Val d'Or	1.7	0.9	1.6	1.0	1.6	1.1	1.5	1.1	5.1	4.4	1.9	1.4	2.2	1.5
		Montreal-Dorval	0.2	0.0	0.4	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0
		Montreal-McGill	0.2	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Drummondville	0.2	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.3	0.1
		Maniwaki	0.9	0.5	1.2	0.8	0.8	0.5	0.8	0.5	1.3	0.9	1.3	0.9	1.2	0.8
		Bagotville	0.6	0.3	0.8	0.5	0.5	0.3	0.5	0.3	0.8	0.5	0.7	0.4	0.7	0.4
	MARITIME (6 stations)	Causapsal	3.2	2.9	3.2	2.8	1.9	1.5	1.7	1.3	2.8	2.1	2.2	1.7	2.4	1.9
		Daniel-Harbour	1.8	0.8	1.3	0.8	1.7	1.0	1.6	1.0	2.6	2.0	2.0	1.4	2.1	1.4
		Gaspe	2.4	2.0	2.4	2.0	1.8	1.2	1.6	1.2	2.3	1.8	1.9	1.5	2.1	1.7
		Mont-Joli	0.6	0.2	0.6	0.3	0.9	0.5	0.8	0.4	1.4	0.9	0.8	0.4	0.9	0.5
		Natashquan	1.1	0.6	1.2	0.8	1.0	0.7	1.0	0.7	1.8	1.4	1.3	1.0	1.3	0.9
		Sept-Iles	0.7	0.3	1.2	0.7	0.9	0.6	0.9	0.6	1.6	1.1	1.0	0.6	0.9	0.5
JULY	HUDSON BAY (3 stations)	Inukjuak	1.9	0.9	6.4	5.4	2.1	1.4	2.1	1.5	3.2	2.3	2.8	2.1	2.7	1.9
		Kuujuarapik	2.2	1.2	6.0	4.9	2.3	1.8	2.3	1.8	3.3	2.8	4.0	3.2	3.1	2.3
		Moosonee	0.6	0.3	0.7	0.3	1.0	0.7	1.1	0.7	2.0	1.6	1.3	0.9	1.5	1.0
	LABRADOR (4 stations)	Cartwright	0.5	0.2	0.8	0.4	0.8	0.5	0.9	0.6	1.0	0.6	0.9	0.5	1.1	0.6
		Goosebay	0.0	0.0	1.2	0.9	0.1	0.0	0.2	0.0	0.4	0.2	0.4	0.1	0.4	0.1
		Kuujuuaq	1.0	0.6	2.1	1.6	1.8	1.4	1.7	1.3	2.1	1.6	1.9	1.5	3.2	2.3
		Schefferville	0.2	0.0	2.2	1.6	0.5	0.2	0.5	0.2	1.0	0.5	0.5	0.2	0.9	0.4
	SOUTH (7 stations)	Amos	0.3	0.1	0.3	0.1	0.3	0.1	0.4	0.1	0.4	0.2	0.6	0.3	1.2	0.7
		Val d'Or	0.0	0.0	0.0	0.0	0.4	0.1	0.3	0.1	1.4	0.8	0.7	0.3	0.4	0.1
		Montreal-Dorval	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Montreal-McGill	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Drummondville	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Maniwaki	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
		Bagotville	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
	MARITIME (6 stations)	Causapsal	0.5	0.2	0.5	0.2	0.7	0.3	0.7	0.4	1.1	0.7	0.8	0.4	1.1	0.7
		Daniel-Harbour	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.1	0.0
		Gaspe	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.5	0.2	0.1	0.0	0.7	0.3
		Mont-Joli	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0
		Natashquan	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.3	0.1	0.1	0.0	0.2	0.1
		Sept-Iles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AUGUST	HUDSON BAY (3 stations)	Inukjuak	0.2	0.0	2.5	1.9	0.5	0.2	0.5	0.2	1.1	0.8	1.1	0.7	2.3	1.4
		Kuujuarapik	0.5	0.2	1.0	0.6	0.9	0.6	0.9	0.5	0.8	0.5	1.1	0.8	2.1	1.2
		Moosonee	1.3	0.7	1.0	0.7	1.5	1.1	1.5	1.0	2.4	1.9	1.5	1.1	1.9	1.3
	LABRADOR (4 stations)	Cartwright	0.3	0.1	1.7	1.1	0.5	0.2	0.5	0.2	0.6	0.3	0.3	0.1	0.8	0.4
		Goosebay	0.0	0.0	2.2	1.9	0.2	0.0	0.2	0.1	0.3	0.1	0.1	0.0	0.4	0.1
		Kuujuuaq	1.6	0.8	4.4	3.8	1.7	1.2	1.5	1.1	2.0	1.6	1.6	1.0	2.9	2.1
		Schefferville	1.0	0.4	4.7	4.2	1.1	0.7	0.9	0.5	1.6	1.1	1.1	0.5	1.8	1.2
	SOUTH (7 stations)	Amos	0.4	0.1	0.5	0.3	0.8	0.3	0.7	0.4	0.5	0.2	1.0	0.7	1.4	0.9
		Val d'Or	0.2	0.0	0.7	0.3	0.6	0.3	0.6	0.3	0.9	0.5	1.1	0.7	0.9	0.4
		Montreal-Dorval	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Montreal-McGill	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Drummondville	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
		Maniwaki	0.2	0.0	0.9	0.5	0.2	0.1	0.2	0.0	0.2	0.0	0.4	0.2	0.6	0.2
		Bagotville	0.0	0.0	1.0	0.5	0.1	0.0	0.1	0.0	0.1	0.0	0.2	0.0	0.3	0.1
	MARITIME (6 stations)	Causapsal	1.2	0.7	1.2	0.6	1.1	0.7	1.1	0.7	1.4	1.0	1.2	0.6	1.5	1.0
		Daniel-Harbour	0.0	0.0	0.5	0.2	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
		Gaspe	0.4	0.1	0.4	0.1	0.6	0.3	0.6	0.3	0.7	0.4	0.5	0.2	1.0	0.5
		Mont-Joli	0.0	0.0	0.4	0.1	0.0	0.0	0.1	0.0	0.2	0.1	0.0	0.0	0.1	0.0
		Natashquan	0.2	0.0	1.1	0.7	0.3	0.1	0.3	0.1	0.5	0.2	0.4	0.1	0.7	0.3
		Sept-Iles	0.0	0.0	1.6	1.2	0.1	0.0	0.1	0.0	0.2	0.1	0.0	0.0	0.2	0.0

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
SEPTEMBER	HUDSON BAY (3 stations)	Inukjuak	8.4	7.1	7.5	6.2	3.8	2.9	3.5	2.8	6.2	5.3	5.9	5.1	6.2	5.1
		Kuujuaq	5.2	4.1	4.9	3.9	2.7	2.1	2.6	2.0	4.0	3.3	4.2	3.2	4.4	3.4
		Moosonee	6.6	5.6	5.3	3.9	3.0	2.3	3.0	2.3	4.5	3.7	4.7	3.7	4.9	3.9
	LABRADOR (4 stations)	Cartwright	3.3	2.3	8.5	7.6	2.3	1.7	2.4	1.7	3.0	2.2	2.7	2.0	3.1	2.3
		Goosebay	3.8	2.8	11.7	10.8	2.4	1.8	2.3	1.7	3.3	2.6	2.9	2.0	3.3	2.5
		Kuujuaq	11.5	10.6	9.5	7.8	3.8	3.1	3.7	3.0	5.8	4.9	5.6	4.6	6.6	5.5
		Schefferville	12.0	10.8	9.7	8.0	4.4	3.6	4.0	3.1	6.2	5.0	6.8	5.7	7.2	5.8
	SOUTH (7 stations)	Amos	5.1	4.4	3.6	2.8	2.5	1.9	2.3	1.8	4.1	3.3	3.5	2.7	3.8	3.0
		Val d'Or	3.4	2.8	4.7	4.0	1.9	1.5	1.9	1.4	2.5	2.0	3.5	2.8	2.9	2.3
		Montreal-Dorval	1.0	0.4	3.6	3.1	0.9	0.5	1.0	0.5	1.0	0.5	1.2	0.9	1.3	0.7
		Montreal-McGill	0.0	0.0	3.3	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.1
		Drummondville	0.8	0.5	3.6	3.1	0.7	0.4	0.8	0.4	0.9	0.5	1.0	0.7	1.3	0.9
		Maniwaki	3.1	2.3	5.7	4.8	1.8	1.4	1.7	1.3	2.8	2.1	3.4	2.7	2.9	2.3
		Bagotville	2.5	2.0	4.7	4.0	1.7	1.3	1.7	1.3	2.0	1.6	2.5	2.0	2.3	1.8
	MARITIME (6 stations)	Causapscal	7.4	6.7	3.1	2.6	3.0	2.3	2.8	2.2	3.8	2.9	3.5	2.8	4.8	3.7
		Daniel-Harbour	1.4	0.7	7.7	7.0	1.4	0.8	1.4	0.8	1.9	1.3	1.4	0.8	1.5	0.9
		Gaspe	5.2	4.4	5.2	4.4	2.4	1.9	2.2	1.8	3.6	2.8	3.2	2.5	3.9	3.1
		Mont-Joli	1.3	0.8	5.5	5.0	1.1	0.8	1.1	0.8	1.6	1.2	1.2	0.8	1.5	1.0
		Natashquan	4.1	3.2	7.0	6.1	2.5	1.9	2.5	1.9	3.3	2.7	2.7	2.1	3.4	2.7
		Sept-Iles	4.5	3.6	7.6	6.8	2.5	2.1	2.5	2.0	3.5	2.8	3.1	2.6	3.8	2.8
OCTOBER	HUDSON BAY (3 stations)	Inukjuak	15.6	15.1	10.5	9.3	4.1	3.3	4.1	3.3	4.8	3.9	6.3	5.1	6.5	5.3
		Kuujuaq	15.5	14.6	14.3	13.4	4.9	4.0	4.7	3.9	6.1	5.1	6.9	5.7	6.4	5.1
		Moosonee	16.7	16.0	7.4	6.2	4.3	3.6	3.9	3.2	5.9	4.8	6.8	5.6	7.9	6.6
	LABRADOR (4 stations)	Cartwright	15.5	15.0	7.2	5.4	3.7	3.0	3.8	3.0	5.4	4.3	5.8	4.7	6.1	4.9
		Goosebay	15.3	14.8	6.0	4.8	3.8	3.1	3.8	3.0	5.0	4.1	5.8	4.7	5.8	4.7
		Kuujuaq	13.1	12.6	5.6	4.8	3.3	2.7	3.3	2.6	4.9	4.0	5.1	4.0	5.7	4.7
		Schefferville	12.0	11.0	6.8	5.1	3.5	2.8	3.9	3.1	5.5	4.6	5.4	4.4	5.9	4.9
	SOUTH (7 stations)	Amos	14.2	13.7	5.6	4.8	3.8	3.1	3.7	3.1	5.6	4.7	5.3	4.3	5.8	4.8
		Val d'Or	13.7	13.1	5.7	4.8	3.4	2.7	3.4	2.7	5.3	4.2	5.3	4.2	5.2	4.2
		Montreal-Dorval	8.6	7.5	7.9	6.5	3.0	2.4	3.2	2.5	5.3	4.2	5.2	4.1	5.7	4.5
		Montreal-McGill	3.2	2.5	10.9	10.1	2.0	1.5	2.0	1.4	3.0	2.4	2.6	2.1	3.1	2.4
		Drummondville	8.4	7.6	7.2	6.1	2.8	2.2	2.7	2.1	4.7	3.9	4.4	3.5	4.8	3.9
		Maniwaki	14.1	13.2	6.0	4.8	3.2	2.5	3.2	2.5	6.3	5.1	6.3	5.0	6.5	5.1
		Bagotville	11.3	10.7	6.2	5.2	3.2	2.6	3.6	2.9	5.3	4.2	4.0	3.3	6.0	5.0
	MARITIME (6 stations)	Causapscal	15.4	14.9	4.2	3.2	3.2	2.6	3.1	2.5	5.6	4.6	4.2	3.3	5.1	4.1
		Daniel-Harbour	9.0	8.0	11.8	10.7	3.5	2.8	3.6	2.9	5.2	4.1	4.7	3.7	5.5	4.4
		Gaspe	16.2	15.9	16.2	15.9	3.5	2.8	3.8	3.0	6.4	5.2	5.9	4.6	6.0	5.0
		Mont-Joli	8.2	7.6	9.6	8.7	3.0	2.3	2.8	2.3	4.3	3.5	4.0	3.2	4.6	3.7
		Natashquan	16.9	16.5	5.1	3.8	3.7	3.0	3.7	3.0	4.8	3.9	5.1	3.9	5.9	4.7
		Sept-Iles	17.7	17.2	5.3	3.9	4.0	3.1	3.7	2.9	5.8	4.5	5.2	4.1	6.3	4.9
NOVEMBER	HUDSON BAY (3 stations)	Inukjuak	5.0	4.2	5.3	4.5	2.8	2.0	2.5	2.0	4.0	3.3	3.8	3.1	4.3	3.4
		Kuujuaq	5.7	4.7	4.7	3.7	3.2	2.5	3.3	2.7	4.8	3.9	4.3	3.5	4.9	3.9
		Moosonee	6.9	5.9	7.4	6.4	3.2	2.5	3.5	2.8	5.9	4.8	5.2	4.2	4.9	4.0
	LABRADOR (4 stations)	Cartwright	14.4	13.9	7.4	6.5	3.3	2.7	3.4	2.8	5.4	4.5	4.7	3.8	5.2	4.1
		Goosebay	5.7	4.8	7.4	6.7	3.5	2.8	3.7	3.0	4.4	3.5	4.5	3.6	5.1	4.0
		Kuujuaq	5.4	4.8	4.6	3.9	2.1	1.7	2.2	1.8	3.4	2.7	4.3	3.3	3.9	3.0
		Schefferville	10.3	9.4	5.1	4.0	2.6	1.9	2.6	2.0	3.9	3.0	4.0	3.0	4.1	3.2
	SOUTH (7 stations)	Amos	6.8	5.7	6.2	4.8	3.2	2.6	3.1	2.5	5.4	4.3	5.0	4.1	5.0	4.0
		Val d'Or	7.8	6.8	6.6	5.1	3.7	2.9	3.5	2.8	5.4	4.3	5.8	4.8	5.1	4.1
		Montreal-Dorval	10.3	9.4	6.9	5.7	3.4	2.6	3.5	2.7	6.8	5.8	4.8	3.7	5.1	4.1
		Montreal-McGill	6.7	5.4	7.6	6.6	3.8	3.0	3.8	3.0	6.9	6.0	6.2	5.2	5.1	4.1
		Drummondville	11.8	11.1	6.5	5.2	3.5	2.8	3.4	2.8	5.4	4.4	4.6	3.8	4.8	3.9
		Maniwaki	10.8	9.7	8.1	6.9	3.7	2.8	3.6	2.8	6.5	5.2	5.8	4.8	5.4	4.3
		Bagotville	6.4	5.5	6.3	5.3	3.5	2.8	3.5	2.8	7.3	6.1	5.5	4.5	6.6	5.2
	MARITIME (6 stations)	Causapscal	10.1	8.9	6.5	5.6	3.4	2.7	3.3	2.7	5.0	4.1	5.3	4.3	5.2	4.2
		Daniel-Harbour	16.2	15.8	7.9	6.5	3.8	2.9	3.4	2.7	5.3	4.4	4.5	3.7	5.4	4.4
		Gaspe	19.1	18.8	15.4	14.6	3.8	3.0	3.7	2.9	4.8	3.9	4.3	3.3	5.0	4.0
		Mont-Joli	8.6	7.3	5.6	4.6	3.8	3.0	3.4	2.7	4.1	3.2	4.8	3.8	4.8	3.9
		Natashquan	17.2	16.9	7.7	6.6	3.7	2.9	3.6	2.8	3.9	3.2	4.1	3.2	4.6	3.6
		Sept-Iles	10.5	9.3	10.9	9.8	3.5	2.8	3.5	2.8	5.3	4.4	5.0	4.0	5.4	4.3
DECEMBER	HUDSON BAY (3 stations)	Inukjuak	2.8	2.4	1.9	1.3	1.4	0.8	1.5	0.8	2.0	1.5	3.5	3.0	1.5	0.8
		Kuujuaq	6.3	5.6	3.3	2.4	2.0	1.2	2.1	1.3	3.9	3.3	5.2	4.6	1.5	1.0
		Moosonee	7.1	6.1	2.7	2.0	2.0	1.4	2.3	1.6	6.9	5.7	3.8	2.8	2.6	2.0
	LABRADOR (4 stations)	Cartwright	6.2	5.1	4.1	3.3	2.6	2.0	2.7	2.0	4.5	3.6	4.7	3.8	4.7	3.6
		Goosebay	5.1	4.2	3.2	2.5	2.0	1.5	1.9	1.5	3.8	2.9	3.8	3.0	3.4	2.7
		Kuujuaq	2.6	1.9	2.0	1.0	1.4	0.9	1.4	0.9	2.7	2.0	2.5	1.7	2.2	1.3
		Schefferville	4.0	2.7	1.2	0.7	1.0	0.7	1.2	0.8	2.0	1.6	1.8	1.3	1.4	1.0
	SOUTH (7 stations)	Amos	7.7	6.9	2.8	2.2	2.0	1.5	1.8	1.3	6.5	5.5	3.0	2.3	2.8	2.2
		Val d'Or	10.5	9.5	3.2	2.5	2.0	1.4	2.0	1.5	5.0	4.0	2.9	2.2	3.5	2.8
		Montreal-Dorval	5.3	4.4	7.0	5.5	3.8	3.0	4.1	3.2	9.8	8.8	4.8	4.0	5.6	4.6
		Montreal-McGill	6.2	5.1	6.1	4.9	3.4	2.6	3.3	2.5	9.0	7.8	5.0	4.2	5.7	4.6
		Drummondville	5.5	4.2	6.2	4.8	3.5	2.8	3.7	2.9	7.6	6.4	4.5	3.8	5.4	4.3
		Maniwaki	6.9	6.2	5.5	4.4	3.1	2.4	3.1	2.4	9.1	8.1	4.7	3.9	4.8	3.9
		Bagotville	8.2	7.4	3.8	3.3	2.0	1.6	2.0	1.5	6.5	5.5	3.2	2.6	7.3	5.6
	MARITIME (6 stations)	Causapscal	8.0	6.9	4.5	3.6	2.6	2.0	2.3	1.8	4.4	3.7	4.3	3.4	4.4	3.6
		Daniel-Harbour	6.6	5.6	7.2	6.3	3.0	2.4	3.0	2.4	5.0	4.1	4.8	4.0	5.4	4.3
		Gaspe	7.7	6.4	4.5	3.5	2.8	2.3	2.9	2.4	5.2	4.2	5.6	4.4	5.6	4.6
		Mont-Joli	8.1	7.1	3.8	2.8	2.8	2.2	2.6	2.0	4.1	3.4	3.5	2.8	4.5	3.6
		Natashquan	7.8	6.7	5.7	4.3	3.5	2.8	3.3	2.6	4.6	3.8	4.8	3.8	5.2	4.1
		Sept-Iles	8.6	7.7	4.5	3.4	2.5	2.0	2.5	2.0	4.1	3.3	4.0	3.0	4.1	3.3

Table 2.10 Same as Table 2.3 but for mean diurnal temperature range (in °C).

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
WINTER	HUDSON BAY (3 stations)	Inukjuak	3,8	3,6	4,6	4,6	1,1	0,9	1,1	0,9	1,8	1,7	1,0	0,8	1,5	1,3
		Kuujuarapik	1,3	1,0	6,9	6,8	1,0	0,8	1,0	0,8	1,6	1,3	1,7	1,4	1,4	1,2
		Moosonee	2,6	2,2	4,6	4,4	1,4	1,1	1,3	1,0	1,5	1,2	1,4	1,1	1,7	1,3
	LABRADOR (4 stations)	Cartwright	8,2	8,2	1,7	1,5	1,2	1,0	1,2	1,0	2,7	2,5	1,0	0,8	1,5	1,2
		Goosebay	1,0	0,8	1,8	1,4	1,1	0,9	1,1	0,9	3,1	2,8	1,1	0,9	1,5	1,2
		Kuujuuaq	1,4	1,1	1,5	1,2	1,2	1,0	1,0	0,8	3,7	3,5	1,0	0,8	1,5	1,2
		Schefferville	1,1	0,8	2,4	2,2	1,1	0,9	1,3	1,1	3,0	2,8	1,2	1,0	1,6	1,3
	SOUTH (7 stations)	Amos	2,3	1,9	1,4	1,1	1,0	0,8	1,2	0,9	1,1	0,9	1,2	0,9	1,5	1,2
		Val d'Or	5,2	4,9	1,5	1,2	1,4	1,1	1,2	1,0	1,3	1,0	1,2	1,0	1,7	1,3
		Montreal-Dorval	3,3	2,9	0,9	0,8	0,8	0,6	0,8	0,6	0,8	0,6	0,8	0,7	1,4	1,1
		Montreal-McGill	1,7	1,3	1,8	1,6	1,1	0,9	1,3	1,1	1,0	0,8	1,5	1,3	1,4	1,1
		Drummondville	3,7	3,4	1,2	0,9	1,2	1,0	1,4	1,1	1,0	0,8	1,3	1,1	1,4	1,2
		Maniwaki	6,1	5,9	2,2	1,9	1,2	1,0	1,1	0,9	1,3	1,0	1,3	1,1	1,7	1,3
		Bagotville	1,8	1,5	1,3	1,0	1,3	1,0	1,4	1,1	3,5	3,3	2,0	1,7	1,4	1,1
	MARITIME (6 stations)	Causapsal	2,8	2,6	1,9	1,5	1,2	1,0	1,1	0,9	2,7	2,4	1,7	1,4	1,4	1,1
		Daniel-Harbour	3,0	2,7	2,7	2,3	1,3	1,1	1,3	1,1	2,1	1,9	1,2	1,0	1,4	1,1
		Gaspe	9,4	9,3	8,0	7,9	1,0	0,8	1,0	0,8	1,9	1,6	1,1	0,8	1,2	0,9
		Mont-Joli	1,4	1,0	2,7	2,4	1,1	0,9	1,1	0,9	2,4	2,2	1,6	1,4	1,3	1,1
		Natashquan	9,8	9,7	1,8	1,4	1,3	1,1	1,4	1,2	2,3	2,0	1,2	1,0	1,6	1,3
		Sept-Iles	2,4	2,2	1,4	1,0	0,8	0,7	0,8	0,6	2,4	2,1	1,5	1,3	1,5	1,2
SPRING	HUDSON BAY (3 stations)	Inukjuak	1,8	1,4	3,1	3,0	0,7	0,5	0,7	0,5	1,0	0,9	0,9	0,8	1,3	1,1
		Kuujuarapik	3,4	3,1	6,3	6,2	1,0	0,8	0,9	0,7	1,5	1,3	2,4	2,1	1,5	1,2
		Moosonee	5,7	5,6	2,3	2,1	1,0	0,8	1,0	0,8	1,1	0,9	1,4	1,1	1,8	1,5
	LABRADOR (4 stations)	Cartwright	8,0	8,0	1,5	1,2	1,1	0,9	1,0	0,8	1,5	1,3	1,3	1,1	1,4	1,1
		Goosebay	3,2	2,9	2,1	1,8	0,9	0,7	0,9	0,7	1,3	1,1	1,3	1,0	1,5	1,2
		Kuujuuaq	1,3	1,1	1,4	1,1	0,9	0,7	0,8	0,7	1,8	1,5	0,9	0,7	1,4	1,2
		Schefferville	3,2	2,9	1,2	1,0	0,8	0,7	0,8	0,7	1,3	1,0	1,3	1,1	1,4	1,1
	SOUTH (7 stations)	Amos	5,0	4,8	1,4	1,1	0,9	0,8	1,0	0,8	1,1	0,9	1,4	1,2	1,4	1,1
		Val d'Or	6,9	6,8	1,3	1,0	0,9	0,7	0,8	0,7	1,3	1,0	1,4	1,2	1,4	1,2
		Montreal-Dorval	4,9	4,8	1,1	0,9	0,6	0,5	0,6	0,5	1,0	0,8	0,9	0,7	1,2	0,9
		Montreal-McGill	3,1	3,0	1,9	1,7	0,7	0,6	0,7	0,6	0,9	0,7	0,9	0,7	1,1	0,9
		Drummondville	5,4	5,3	1,2	1,0	0,8	0,7	0,8	0,7	0,9	0,7	1,0	0,8	1,1	0,9
		Maniwaki	7,9	7,8	3,0	2,7	1,0	0,8	1,0	0,8	1,3	1,0	1,3	1,1	1,4	1,2
		Bagotville	4,4	4,2	1,6	1,4	0,9	0,7	1,0	0,7	1,7	1,4	1,4	1,1	2,0	1,7
	MARITIME (6 stations)	Causapsal	5,7	5,5	3,1	2,8	1,2	0,9	1,0	0,8	1,7	1,4	1,2	0,9	1,4	1,1
		Daniel-Harbour	2,8	2,6	1,7	1,5	0,9	0,7	0,9	0,7	1,1	0,9	1,1	0,9	1,2	1,0
		Gaspe	8,7	8,6	8,9	8,8	1,1	0,9	1,1	0,9	1,5	1,2	0,9	0,7	1,2	0,9
		Mont-Joli	1,9	1,7	1,5	1,2	0,7	0,6	0,8	0,6	1,0	0,8	0,9	0,7	1,1	0,9
		Natashquan	7,6	7,6	1,0	0,8	0,8	0,7	0,8	0,7	1,2	0,9	0,8	0,6	1,1	0,9
		Sept-Iles	2,5	2,2	1,3	1,1	0,9	0,7	0,8	0,6	1,3	1,0	0,9	0,7	1,2	0,9
SUMMER	HUDSON BAY (3 stations)	Inukjuak	6,3	6,3	5,8	5,8	0,6	0,5	0,7	0,6	0,7	0,5	0,7	0,6	1,2	0,9
		Kuujuarapik	3,2	3,2	7,6	7,6	0,8	0,7	0,8	0,6	0,9	0,7	0,8	0,6	1,1	0,9
		Moosonee	5,6	5,5	2,2	2,0	0,9	0,8	0,9	0,7	1,3	1,0	1,3	1,0	1,4	1,1
	LABRADOR (4 stations)	Cartwright	9,8	9,8	2,2	2,0	1,0	0,8	0,9	0,8	1,4	1,1	0,9	0,8	1,1	0,9
		Goosebay	6,0	5,9	2,6	2,5	0,8	0,6	0,9	0,7	1,2	1,0	0,8	0,6	1,1	0,9
		Kuujuuaq	5,8	5,8	2,3	2,1	0,6	0,5	0,6	0,5	1,0	0,8	0,9	0,7	1,1	0,9
		Schefferville	5,2	5,1	1,6	1,4	0,7	0,5	0,5	0,4	0,9	0,7	0,8	0,6	1,1	0,9
	SOUTH (7 stations)	Amos	5,7	5,7	1,0	0,8	0,6	0,4	0,6	0,5	1,3	1,1	1,1	0,9	1,1	0,9
		Val d'Or	6,5	6,5	1,0	0,8	0,7	0,6	0,7	0,6	1,1	0,9	1,1	1,0	1,0	0,8
		Montreal-Dorval	5,7	5,7	1,2	1,0	0,6	0,5	0,6	0,5	0,7	0,5	0,8	0,7	0,9	0,7
		Montreal-McGill	3,5	3,4	1,7	1,6	0,4	0,3	0,4	0,3	0,5	0,4	0,6	0,4	0,7	0,6
		Drummondville	5,7	5,7	1,1	0,9	0,6	0,5	0,6	0,5	0,7	0,5	0,8	0,7	0,8	0,7
		Maniwaki	8,0	8,0	2,8	2,7	0,7	0,6	0,7	0,5	0,9	0,7	1,2	0,9	1,0	0,8
		Bagotville	7,2	7,2	2,4	2,3	0,6	0,5	1,0	0,8	2,5	2,3	1,0	0,8	1,8	1,5
	MARITIME (6 stations)	Causapsal	8,8	8,8	4,1	4,0	0,8	0,6	0,8	0,6	1,2	1,0	1,0	0,7	1,0	0,8
		Daniel-Harbour	1,4	1,3	1,5	1,3	0,6	0,5	0,6	0,5	0,7	0,5	0,6	0,5	0,7	0,6
		Gaspe	12,5	12,5	11,3	11,3	0,6	0,5	0,6	0,5	0,9	0,7	0,7	0,6	0,9	0,7
		Mont-Joli	5,7	5,7	1,1	1,0	0,6	0,5	0,6	0,5	0,7	0,5	0,6	0,4	0,8	0,7
		Natashquan	7,8	7,8	1,4	1,2	0,8	0,7	0,8	0,6	0,8	0,6	0,7	0,6	0,9	0,7
		Sept-Iles	4,3	4,2	1,0	0,9	0,6	0,4	0,6	0,5	0,6	0,5	0,5	0,4	0,7	0,6
AUTUMN	HUDSON BAY (3 stations)	Inukjuak	5,0	5,0	4,3	4,3	0,7	0,5	0,7	0,5	1,0	0,9	0,6	0,5	0,9	0,7
		Kuujuarapik	2,2	2,1	4,9	4,8	0,8	0,6	0,7	0,6	0,9	0,7	0,8	0,6	1,1	0,9
		Moosonee	3,4	3,2	2,6	2,5	0,7	0,6	0,7	0,6	0,8	0,6	0,9	0,7	1,2	0,9
	LABRADOR (4 stations)	Cartwright	6,0	6,0	0,8	0,7	0,8	0,6	0,7	0,6	1,0	0,8	0,9	0,7	0,9	0,7
		Goosebay	4,2	4,1	1,5	1,3	0,8	0,7	0,9	0,7	1,5	1,2	1,1	0,9	1,1	0,9
		Kuujuuaq	3,6	3,5	1,4	1,2	0,7	0,6	0,7	0,6	1,3	1,1	0,6	0,5	1,0	0,8
		Schefferville	3,6	3,6	1,3	1,2	0,8	0,6	0,8	0,7	1,5	1,4	0,8	0,7	1,0	0,8
	SOUTH (7 stations)	Amos	3,4	3,3	0,9	0,7	0,7	0,6	0,8	0,7	0,8	0,6	0,9	0,7	1,0	0,8
		Val d'Or	3,8	3,7	0,8	0,6	0,8	0,7	0,8	0,6	1,0	0,8	0,9	0,7	1,2	0,9
		Montreal-Dorval	4,4	4,3	1,1	0,9	0,6	0,4	0,5	0,4	0,7	0,6	0,6	0,4	1,0	0,8
		Montreal-McGill	2,2	2,0	2,4	2,2	0,8	0,6	0,7	0,6	1,0	0,9	1,0	0,8	1,1	0,9
		Drummondville	3,9	3,8	1,0	0,9	0,7	0,6	0,7	0,5	1,3	1,1	0,9	0,7	1,0	0,8
		Maniwaki	5,5	5,4	2,2	2,0	0,8	0,6	0,7	0,6	1,3	1,0	1,1	0,9	1,1	0,9
		Bagotville	4,7	4,6	0,9	0,8	0,7	0,6	0,8	0,7	1,2	0,9	1,0	0,9	1,0	0,8
	MARITIME (6 stations)	Causapsal	5,9	5,8	1,6	1,4	0,7	0,6	0,6	0,5	1,4	1,2	1,2	1,0	1,1	0,9
		Daniel-Harbour	0,7	0,6	1,4	1,2	0,6	0,5	0,7	0,5	0,8	0,6	0,7	0,5	0,8	0,7
		Gaspe	9,6	9,6	8,1	8,0	0,7	0,6	0,7	0,6	1,0	0,8	0,9	0,7	1,0	0,8
		Mont-Joli	3,4	3,3	1,2	1,0	0,7	0,6	0,6	0,5	1,0	0,9	0,7	0,6	0,9	0,7
		Natashquan	7,4	7,4	1,0	0,7	0,7	0,6	0,7	0,6	0,9	0,7	0,7	0,6	1,0	0,8
		Sept-Iles	4,2	4,1	0,8	0,6	0,7	0,5	0,6	0,5	1,1	0,9	0,8	0,7	0,9	0,8

Table 2.11 Same as Table 2.3 but for the annual frost season length (upper) and growing season length (lower), all in days.

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
ANNUAL	HUDSON BAY (3 stations)	Inukjuak	28,8	25,5	39,1	29,5	15,7	11,0	16,0	11,2	35,4	30,7	27,4	21,4	21,7	17,2
		Kuujuarapik	52,5	47,7	30,8	24,8	19,8	14,4	18,5	13,3	26,4	21,1	46,2	36,9	26,0	20,8
		Moosonee	56,8	53,4	18,0	14,7	14,3	10,8	13,5	9,7	20,4	16,3	22,6	18,3	20,1	16,1
	LABRADOR (4 stations)	Cartwright	237,8	237,4	28,7	22,5	19,1	15,0	20,1	15,6	24,9	19,7	29,9	22,9	54,3	48,5
		Goosebay	48,3	42,9	49,7	41,2	24,7	17,7	24,3	17,5	30,3	21,0	34,8	26,1	46,4	40,3
		Kuujuuaq	57,2	53,8	24,9	20,6	16,5	12,9	17,4	13,6	21,6	17,8	19,5	15,6	42,5	38,3
		Schefferville	61,5	57,1	30,1	23,9	19,5	13,9	19,1	13,2	20,5	16,7	21,5	16,0	42,7	38,3
	SOUTH (7 stations)	Amos	41,7	36,5	19,3	15,0	18,5	12,5	18,4	13,6	31,2	24,6	23,1	17,8	23,6	18,1
		Val d'Or	109,1	88,7	22,6	16,5	19,1	13,6	18,8	12,9	31,3	25,7	26,8	21,2	25,6	19,7
		Montreal-Dorval	94,6	60,4	42,9	35,7	15,3	10,6	16,0	11,5	26,3	21,2	25,8	19,9	24,2	18,9
		Montreal-McGill	85,0	48,4	37,2	30,5	16,7	12,8	21,1	16,4	26,9	22,5	25,4	20,3	25,1	18,8
		Drummondville	138,7	102,6	30,7	25,0	14,5	10,2	11,0	8,3	29,5	22,4	19,1	14,7	19,6	15,8
		Maniwaki	94,0	69,9	29,7	26,3	15,0	11,2	12,6	9,4	32,0	26,5	24,7	19,8	23,1	19,2
		Bagotville	23,2	18,2	25,3	19,8	16,8	12,7	17,2	12,9	23,5	19,0	21,7	16,7	26,3	21,5
	MARITIME (6 stations)	Causapsal	61,8	57,6	31,3	22,1	21,5	15,7	22,6	16,3	28,2	22,8	30,6	22,1	63,0	58,1
		Daniel-Harbour	105,8	91,8	54,7	46,2	25,4	16,9	26,3	17,3	35,6	27,9	44,0	32,1	35,6	26,6
		Gaspe	106,5	93,2	82,3	78,1	24,4	18,7	25,2	19,7	27,3	20,8	31,1	22,6	58,3	53,5
		Mont-Joli	34,6	29,4	38,3	31,0	21,1	14,0	20,5	13,6	28,4	20,1	29,5	22,0	41,3	36,2
		Natashquan	129,6	119,5	32,0	23,8	27,5	19,4	27,2	19,6	37,1	26,3	38,8	28,8	51,4	45,1
		Sept-Iles	56,3	52,1	35,4	23,4	27,6	19,3	25,3	17,1	30,8	21,0	32,4	22,7	49,7	45,1

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
ANNUAL	HUDSON BAY (3 stations)	Inukjuak	24,0	18,6	130,4	129,3	13,3	10,0	13,8	10,5	18,8	15,6	28,8	23,9	24,1	19,5
		Kuujuarapik	45,3	38,2	118,2	113,0	28,1	19,9	26,7	18,5	28,5	22,3	42,0	32,2	33,5	26,8
		Moosonee	35,4	28,1	24,7	19,8	18,5	13,4	17,5	12,0	28,0	23,1	27,9	20,9	26,6	21,3
	LABRADOR (4 stations)	Cartwright	68,3	64,7	22,5	15,8	20,6	15,5	21,4	15,7	25,7	20,6	28,0	22,7	26,6	20,6
		Goosebay	20,5	15,7	39,5	33,2	18,1	13,5	18,3	13,8	24,2	19,7	30,1	22,6	23,9	19,3
		Kuujuuaq	25,3	21,0	22,5	19,8	15,8	12,0	16,0	12,2	20,0	16,1	21,3	17,4	21,3	17,1
		Schefferville	29,6	24,6	28,7	23,0	15,5	10,3	15,9	10,7	21,5	16,6	23,7	18,5	20,8	16,8
	SOUTH (7 stations)	Amos	21,5	16,9	25,0	20,3	14,9	10,4	17,6	12,5	25,6	21,5	27,3	22,4	23,8	18,8
		Val d'Or	23,0	17,7	28,8	21,9	15,8	11,3	15,1	10,5	25,6	21,2	28,5	23,8	22,6	18,4
		Montreal-Dorval	34,8	30,5	38,0	32,6	16,5	10,5	17,0	11,5	29,4	23,1	23,2	18,1	21,9	16,6
		Montreal-McGill	39,2	35,0	36,6	31,7	10,4	8,5	13,4	10,3	29,7	23,3	26,5	20,3	18,6	15,1
		Drummondville	29,5	23,0	35,2	30,2	16,4	10,5	17,7	12,0	26,0	19,0	23,1	17,9	23,1	17,2
		Maniwaki	22,8	17,4	31,2	23,7	12,7	8,2	13,2	8,7	23,3	19,9	24,5	21,1	20,6	17,0
		Bagotville	32,0	28,3	28,5	22,7	15,8	11,7	14,8	11,4	29,7	25,2	23,9	19,5	22,5	18,6
	MARITIME (6 stations)	Causapsal	21,8	18,3	25,9	19,7	16,8	11,7	17,4	12,7	21,7	16,7	27,0	20,7	23,1	17,8
		Daniel-Harbour	38,0	32,5	29,8	24,3	19,8	14,2	19,6	14,0	27,8	22,4	44,1	32,8	25,0	20,1
		Gaspe	21,2	16,8	24,4	19,2	17,2	13,4	17,6	13,7	18,8	14,8	24,8	19,7	21,1	16,9
		Mont-Joli	19,4	16,4	24,8	18,8	16,4	12,3	15,7	11,4	18,8	13,7	25,0	18,8	20,2	16,2
		Natashquan	44,0	42,4	18,9	16,0	13,1	10,1	12,6	9,7	17,7	13,6	24,8	18,7	15,9	12,9
		Sept-Iles	22,8	19,7	20,4	14,5	16,3	12,5	16,2	12,5	21,5	17,2	22,9	17,5	19,1	15,2

Table 2.12 Same as table 2.3 but for the seasonal 10th percentile of minimum temperature (in °C).

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
WINTER	HUDSON BAY (3 stations)	Inukjuak	12.7	12.0	9.6	7.9	1.5	1.2	1.5	1.2	7.0	6.6	6.3	5.4	3.3	2.6
		Kuujuarapik	8.6	8.0	15.3	13.3	1.6	1.2	1.5	1.2	4.5	4.0	11.7	10.3	3.4	2.6
		Moosonee	10.3	9.9	4.4	3.4	2.0	1.6	2.1	1.8	5.9	5.4	5.0	4.1	4.4	3.7
	LABRADOR (4 stations)	Cartwright	25.9	25.8	6.1	5.4	1.9	1.5	2.0	1.5	3.7	3.0	4.7	3.9	3.4	2.7
		Goosebay	3.5	3.0	3.2	2.6	1.7	1.4	1.8	1.4	3.3	2.6	4.1	3.4	3.2	2.5
		Kuujuaq	7.6	7.0	3.9	3.2	2.2	1.8	2.0	1.6	3.0	2.4	4.3	3.5	3.0	2.4
		Schefferville	7.5	7.2	4.5	3.5	2.0	1.6	1.9	1.8	3.2	2.6	5.2	4.3	3.3	2.6
	SOUTH (7 stations)	Amos	9.3	8.7	6.2	5.2	1.9	1.6	1.9	1.5	7.4	6.8	4.1	3.2	4.1	3.3
		Val d'Or	12.4	11.8	4.9	3.7	2.4	1.8	2.2	1.8	5.6	4.9	3.8	3.0	3.3	2.6
		Montreal-Dorval	6.1	4.7	2.4	2.0	2.0	1.6	2.1	1.7	5.0	3.9	3.3	2.7	3.0	2.4
		Montreal-McGill	4.0	3.1	3.4	2.9	1.7	1.4	1.7	1.4	5.2	4.3	3.2	2.6	2.6	2.1
		Drummondville	8.1	7.0	2.1	1.9	2.0	1.6	2.0	1.6	4.9	3.7	3.7	3.1	3.1	2.5
		Maniwaki	11.7	10.8	3.9	3.0	2.5	2.0	2.5	2.0	6.6	5.3	3.4	2.7	3.8	3.1
		Bagotville	6.0	5.2	5.6	4.9	1.9	1.6	2.1	1.7	3.3	2.6	3.0	2.4	4.5	3.8
	MARITIME (6 stations)	Causapsal	5.7	5.1	4.2	3.4	1.9	1.5	1.6	1.3	2.9	2.4	2.7	2.0	2.7	2.2
		Daniel-Harbour	6.6	5.9	11.3	10.5	1.9	1.5	1.9	1.6	3.8	3.0	4.3	3.2	3.8	3.0
		Gaspé	18.5	18.2	15.9	15.8	1.8	1.5	1.7	1.4	3.0	2.5	2.5	2.0	2.5	2.0
		Mont-Joli	3.1	2.3	4.9	4.1	1.5	1.2	1.5	1.2	2.7	2.2	2.4	1.9	2.6	2.1
		Natashquan	24.0	23.9	3.9	3.2	1.6	1.3	1.6	1.3	3.9	3.2	4.1	3.5	3.0	2.4
		Sept-Îles	5.4	4.8	3.6	2.8	1.8	1.4	1.7	1.3	3.5	2.9	3.8	3.2	3.2	2.6
SPRING	HUDSON BAY (3 stations)	Inukjuak	4.9	4.2	6.1	5.1	1.5	1.2	1.6	1.3	3.5	3.0	6.0	5.2	4.4	3.5
		Kuujuarapik	8.6	8.1	8.5	7.1	1.9	1.5	1.8	1.5	3.1	2.5	12.4	11.3	4.5	3.7
		Moosonee	9.7	9.0	5.1	4.2	2.4	1.9	2.3	1.8	4.0	3.4	5.7	4.6	5.7	4.8
	LABRADOR (4 stations)	Cartwright	20.4	20.2	6.2	4.9	2.1	1.7	2.0	1.7	3.8	3.1	4.9	4.1	4.3	3.6
		Goosebay	4.8	4.0	5.6	4.3	2.3	2.0	2.2	1.8	4.8	3.8	5.5	4.5	4.9	4.1
		Kuujuaq	5.9	5.2	4.2	3.2	1.8	1.5	1.7	1.4	3.8	2.9	4.5	3.6	4.3	3.5
		Schefferville	7.1	6.0	4.5	3.1	2.1	1.7	2.0	1.6	4.2	3.3	4.5	3.4	4.6	3.7
	SOUTH (7 stations)	Amos	5.3	4.5	5.6	4.1	2.0	1.6	2.2	1.8	3.7	3.0	3.9	3.1	4.0	3.3
		Val d'Or	9.1	8.2	5.4	4.3	2.0	1.6	1.9	1.5	3.4	2.7	4.3	3.6	3.9	3.2
		Montreal-Dorval	3.9	2.8	6.7	5.8	2.1	1.6	2.2	1.7	3.2	2.6	3.0	2.4	3.5	2.8
		Montreal-McGill	4.5	3.7	5.9	4.5	1.8	1.4	2.0	1.6	2.6	2.0	2.9	2.3	3.3	2.6
		Drummondville	4.0	3.2	6.2	5.2	2.0	1.6	2.1	1.7	3.0	2.4	3.3	2.7	3.4	2.7
		Maniwaki	7.1	5.9	4.8	4.1	2.9	2.3	2.8	2.2	3.9	3.2	4.6	3.9	4.7	3.9
		Bagotville	4.4	3.4	4.5	3.3	2.1	1.6	2.4	1.9	4.0	3.1	3.7	3.1	3.8	3.1
	MARITIME (6 stations)	Causapsal	4.4	3.5	4.6	3.6	2.2	1.7	2.0	1.6	4.4	3.5	4.3	3.5	4.1	3.3
		Daniel-Harbour	7.1	6.1	8.0	6.3	2.1	1.7	2.1	1.7	4.6	3.8	5.0	4.4	4.6	3.8
		Gaspé	6.9	6.0	9.8	9.4	1.7	1.4	1.6	1.3	3.9	3.2	3.4	2.9	3.2	2.6
		Mont-Joli	5.8	4.8	6.2	5.2	1.5	1.2	1.5	1.2	2.8	2.2	2.9	2.5	3.1	2.5
		Natashquan	13.6	13.0	5.9	4.5	2.1	1.7	2.2	1.7	4.9	3.8	4.9	4.0	4.5	3.7
		Sept-Îles	4.6	3.6	5.4	4.3	1.7	1.4	1.7	1.4	4.2	3.4	4.2	3.6	4.4	3.5
SUMMER	HUDSON BAY (3 stations)	Inukjuak	3.3	2.5	2.2	1.7	1.2	0.9	1.2	0.9	4.6	4.1	2.3	1.8	2.6	2.0
		Kuujuarapik	5.5	5.0	2.1	1.9	1.1	0.9	1.0	0.8	2.1	1.7	3.0	2.7	1.9	1.5
		Moosonee	7.3	7.1	1.2	1.0	1.3	1.0	1.2	0.9	3.0	2.6	1.3	1.1	2.0	1.6
	LABRADOR (4 stations)	Cartwright	5.2	5.1	1.0	0.8	0.9	0.7	0.9	0.7	1.3	1.1	1.2	1.0	1.2	1.0
		Goosebay	2.9	2.4	2.8	2.6	1.1	0.9	1.1	0.9	1.6	1.3	1.7	1.4	1.5	1.2
		Kuujuaq	3.8	2.7	1.2	1.0	1.1	0.9	1.0	0.8	1.6	1.3	1.6	1.3	1.4	1.1
		Schefferville	3.9	2.9	1.8	1.5	1.3	1.0	1.0	0.8	1.7	1.4	1.8	1.5	1.6	1.3
	SOUTH (7 stations)	Amos	5.1	4.7	1.3	1.1	0.9	0.7	0.9	0.7	2.0	1.6	1.7	1.4	1.9	1.5
		Val d'Or	7.1	6.9	1.4	1.1	1.1	0.9	1.0	0.8	3.6	3.2	1.9	1.5	1.7	1.4
		Montreal-Dorval	2.8	2.3	4.0	3.8	1.0	0.8	1.1	0.9	1.5	1.2	1.7	1.3	1.5	1.2
		Montreal-McGill	2.1	1.7	6.2	6.1	0.7	0.6	0.7	0.5	1.3	1.1	1.5	1.3	1.4	1.2
		Drummondville	3.1	2.5	3.7	3.5	0.9	0.7	0.9	0.7	1.6	1.3	1.9	1.4	1.6	1.3
		Maniwaki	6.0	5.7	2.5	2.1	0.8	0.6	0.8	0.7	1.4	1.1	1.7	1.4	1.5	1.2
		Bagotville	2.9	2.4	2.7	2.4	0.9	0.7	0.9	0.7	1.2	1.0	1.4	1.2	1.5	1.2
	MARITIME (6 stations)	Causapsal	6.0	5.7	2.4	2.1	1.0	0.8	1.0	0.8	1.8	1.5	1.4	1.1	1.6	1.2
		Daniel-Harbour	4.6	4.2	1.6	1.3	1.2	1.0	1.2	1.0	2.0	1.6	1.6	1.3	1.6	1.3
		Gaspé	4.4	4.2	5.2	5.0	0.8	0.6	0.8	0.7	1.6	1.2	1.3	1.1	1.5	1.2
		Mont-Joli	2.6	2.2	2.0	1.7	0.9	0.8	0.9	0.7	1.5	1.3	1.2	1.0	1.4	1.1
		Natashquan	3.6	3.4	1.1	0.9	0.9	0.8	1.0	0.8	1.3	1.0	1.2	1.0	1.3	1.0
		Sept-Îles	3.9	3.5	2.4	2.2	0.8	0.6	0.8	0.6	1.3	1.0	1.0	0.8	1.2	0.9
AUTUMN	HUDSON BAY (3 stations)	Inukjuak	16.3	15.9	11.6	11.0	2.6	2.1	2.6	2.1	4.0	3.3	4.6	3.6	4.5	3.5
		Kuujuarapik	11.2	10.9	9.5	9.1	1.8	1.4	1.6	1.3	3.6	2.7	5.2	4.1	3.8	3.1
		Moosonee	13.0	12.5	4.2	3.2	2.4	1.9	2.0	1.6	5.0	3.9	4.0	3.0	4.3	3.4
	LABRADOR (4 stations)	Cartwright	12.3	12.1	4.6	3.7	1.3	1.0	1.4	1.0	2.7	2.1	2.1	1.6	2.9	2.2
		Goosebay	11.1	10.7	3.9	3.4	1.7	1.4	1.8	1.5	3.2	2.5	2.7	2.2	3.5	2.7
		Kuujuaq	14.2	13.6	3.8	3.1	1.9	1.6	2.0	1.6	3.5	2.6	3.4	2.7	4.1	3.2
		Schefferville	15.8	15.5	3.5	2.7	2.0	1.6	2.1	1.7	3.6	2.8	3.9	3.2	3.8	3.0
	SOUTH (7 stations)	Amos	10.6	10.2	4.3	3.4	1.8	1.5	2.1	1.6	4.3	3.1	3.2	2.6	3.4	2.7
		Val d'Or	11.4	10.9	4.3	3.4	2.4	1.9	2.3	1.8	4.1	3.0	3.2	2.6	3.8	3.0
		Montreal-Dorval	5.6	5.3	4.3	3.6	1.3	1.0	1.4	1.1	2.1	1.8	2.0	1.6	2.5	2.0
		Montreal-McGill	3.5	3.1	4.6	3.8	1.1	0.8	1.2	1.0	2.1	1.5	1.9	1.5	2.3	1.8
		Drummondville	6.0	5.8	3.9	3.3	1.3	1.0	1.3	1.0	2.0	1.5	1.9	1.5	2.3	1.8
		Maniwaki	8.4	8.1	4.0	3.6	1.7	1.4	1.7	1.3	2.7	1.9	2.3	2.0	2.9	2.3
		Bagotville	8.7	8.4	3.1	2.7	1.7	1.4	1.8	1.5	3.8	2.9	2.5	2.0	3.9	3.0
	MARITIME (6 stations)	Causapsal	9.3	9.1	3.4	2.6	1.4	1.2	1.5	1.2	2.9	2.3	2.2	1.7	2.7	2.2
		Daniel-Harbour	4.6	4.3	7.0	6.3	1.0	0.8	1.1	0.9	2.1	1.8	1.8	1.2	2.1	1.7
		Gaspé	12.0	11.7	8.5	8.1	1.5	1.1	1.7	1.3	2.7	2.1	2.4	1.8	2.7	2.1
		Mont-Joli	6.3	6.0	4.9	4.2	1.2	1.0	1.3	1.0	2.7	2.1	2.1	1.6	2.4	1.9
		Natashquan	14.3	14.1	3.0	2.5	1.3	1.1	1.3	1.1	2.8	2.1	1.6	1.3	2.7	2.1
		Sept-Îles	10.3	10.0	4.2	3.6	1.5	1.2	1.6	1.3	3.5	2.8	2.7	2.0	3.2	2.6

Table 2.13 Same as Table 2.3 but for the seasonal 90th percentile of maximum temperature (in °C).

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
WINTER	HUDSON BAY (3 stations)	Inukjuak	8,1	7,6	6,5	5,8	1,8	1,8	1,9	1,5	5,0	4,2	7,2	6,1	3,9	3,1
		Kuujuaq	5,8	5,0	5,0	4,4	1,9	1,5	1,8	1,4	4,5	3,7	8,1	7,2	2,9	2,3
		Moosonee	3,1	2,5	5,0	4,3	1,4	1,2	1,5	1,3	4,2	3,5	3,7	2,9	2,6	2,1
	LABRADOR (4 stations)	Cartwright	3,6	3,2	2,2	1,7	1,4	1,1	1,4	1,1	4,8	3,9	3,6	2,7	2,4	1,9
		Goosebay	2,4	2,0	2,3	1,9	1,4	1,1	1,4	1,1	3,8	3,1	3,5	2,7	2,9	2,3
		Kuujuaq	4,6	3,8	4,2	3,5	1,8	1,5	1,9	1,5	4,4	3,7	4,8	3,6	4,0	3,4
		Schefferville	4,9	4,3	3,7	2,8	1,6	1,3	1,7	1,4	4,0	3,4	4,1	3,0	3,4	2,8
	SOUTH (7 stations)	Amos	2,1	1,8	2,1	1,4	1,4	1,1	1,4	1,1	4,1	3,3	3,8	3,0	2,6	2,1
		Val d'Or	1,7	1,3	1,8	1,6	1,3	1,0	1,2	0,9	4,0	3,1	2,9	2,3	2,4	1,9
		Montreal-Dorval	3,6	3,2	4,1	3,8	1,2	1,0	1,2	1,0	3,3	2,5	2,6	2,1	2,3	1,8
		Montreal-McGill	4,0	3,6	4,1	3,8	1,5	1,2	1,7	1,3	2,9	2,4	3,1	2,6	2,5	2,0
		Drummondville	3,4	3,1	4,1	3,8	1,4	1,1	1,5	1,2	3,0	2,5	3,6	3,1	2,4	1,9
		Maniwaki	2,4	2,0	3,7	3,4	1,4	1,1	1,6	1,3	2,6	2,1	4,3	3,8	2,2	1,8
		Bagotville	1,7	1,2	2,3	1,7	1,3	1,0	1,3	1,0	4,0	3,2	2,7	2,2	2,3	1,8
	MARITIME (6 stations)	Causapscal	2,0	1,6	2,6	2,0	1,2	0,9	1,1	0,9	3,4	2,8	2,7	2,1	2,2	1,8
		Daniel-Harbour	3,1	2,2	4,7	4,1	1,4	1,1	1,4	1,1	5,2	4,3	3,9	2,9	2,6	2,1
		Gaspe	1,5	1,2	2,7	2,2	1,3	1,1	1,1	0,9	3,9	3,4	2,6	2,4	2,0	1,6
		Mont-Joli	2,2	1,6	2,6	2,1	1,5	1,2	1,2	1,0	3,3	2,6	2,5	2,0	2,4	1,9
		Natashquan	2,8	2,6	2,3	1,8	1,2	1,0	1,3	1,0	4,9	4,0	2,6	1,9	2,0	1,6
		Sept-Iles	1,5	1,3	2,8	2,2	1,3	1,1	1,3	1,1	3,6	2,9	2,5	1,9	2,2	1,8
SPRING	HUDSON BAY (3 stations)	Inukjuak	3,6	3,1	4,1	3,7	1,8	1,5	1,8	1,5	4,9	4,4	2,3	1,9	2,7	2,2
		Kuujuaq	7,5	6,6	10,6	10,3	1,9	1,6	1,9	1,6	5,2	4,5	2,9	2,3	3,8	3,1
		Moosonee	4,0	3,3	2,9	2,2	2,1	1,7	1,6	1,3	5,6	4,8	3,9	3,3	3,7	3,0
	LABRADOR (4 stations)	Cartwright	5,4	4,7	3,4	2,7	1,9	1,6	2,0	1,6	3,9	3,3	3,3	2,6	3,3	2,7
		Goosebay	11,4	10,6	5,3	4,4	1,4	1,1	1,6	1,3	3,3	2,6	3,4	2,7	3,3	2,5
		Kuujuaq	6,6	6,3	4,6	4,0	1,3	1,1	1,4	1,1	2,6	2,1	3,4	2,6	2,9	2,3
		Schefferville	7,8	7,2	4,2	3,5	1,4	1,1	1,3	1,1	2,7	2,2	3,6	2,8	2,9	2,3
	SOUTH (7 stations)	Amos	7,0	5,9	3,8	3,0	2,0	1,7	2,0	1,7	6,2	5,3	3,8	3,0	4,2	3,4
		Val d'Or	5,2	4,0	3,9	3,2	2,0	1,6	1,7	1,4	4,5	3,5	4,1	3,3	3,5	2,9
		Montreal-Dorval	6,0	5,1	5,1	4,4	1,0	0,8	1,2	1,0	3,8	3,0	2,6	2,2	3,0	2,4
		Montreal-McGill	6,2	5,4	4,0	3,2	1,2	0,9	1,2	0,9	4,1	3,4	3,1	2,5	2,8	2,3
		Drummondville	6,6	5,8	5,4	4,6	1,3	1,1	1,4	1,1	4,1	3,3	3,1	2,6	3,1	2,5
		Maniwaki	6,0	5,2	5,6	4,9	1,2	1,0	1,2	1,0	4,3	3,6	3,4	2,7	3,2	2,6
		Bagotville	10,4	9,0	4,5	3,8	1,7	1,4	1,9	1,6	4,6	3,8	3,2	2,6	6,0	4,9
	MARITIME (6 stations)	Causapscal	9,7	8,7	3,1	2,7	1,7	1,3	1,6	1,3	3,1	2,7	2,9	2,5	3,1	2,5
		Daniel-Harbour	3,7	2,8	3,4	2,9	1,4	1,2	1,4	1,2	2,9	2,5	2,4	2,0	2,6	2,1
		Gaspe	12,1	12,0	8,8	8,7	1,8	1,5	1,6	1,2	3,5	3,0	2,7	2,1	2,5	2,1
		Mont-Joli	7,8	6,6	2,7	2,0	1,6	1,2	1,6	1,3	2,7	2,3	2,7	2,1	2,9	2,3
		Natashquan	6,0	5,8	4,1	3,6	1,4	1,1	1,2	1,0	1,8	1,5	2,2	1,8	2,0	1,5
		Sept-Iles	5,0	4,1	3,5	3,0	1,3	1,1	1,3	1,1	1,8	1,5	1,9	1,5	1,9	1,5
SUMMER	HUDSON BAY (3 stations)	Inukjuak	9,1	8,8	13,0	12,8	1,4	1,1	1,8	1,3	2,6	1,9	3,1	2,2	3,4	2,7
		Kuujuaq	1,9	1,5	17,2	17,1	1,7	1,4	1,6	1,3	4,6	4,1	3,8	3,3	2,9	2,4
		Moosonee	2,4	1,9	4,4	3,9	1,1	0,9	1,1	0,9	4,5	4,0	2,3	1,8	2,2	1,7
	LABRADOR (4 stations)	Cartwright	13,0	12,9	3,4	2,9	1,3	1,0	1,3	1,1	2,9	2,4	2,1	1,8	2,1	1,7
		Goosebay	6,0	5,8	7,3	7,0	1,1	0,9	1,2	1,0	2,7	2,2	2,5	2,1	2,1	1,6
		Kuujuaq	3,1	2,7	4,5	4,0	1,4	1,2	1,4	1,1	2,3	1,8	2,4	2,0	2,4	1,9
		Schefferville	2,6	2,3	4,4	4,0	1,0	0,9	1,0	0,8	2,2	1,8	2,5	1,9	2,1	1,7
	SOUTH (7 stations)	Amos	3,2	2,8	2,8	2,4	0,8	0,6	0,9	0,7	3,3	2,9	2,1	1,7	2,0	1,6
		Val d'Or	2,2	1,7	3,2	2,7	0,9	0,7	0,8	0,7	2,0	1,6	2,5	2,0	1,8	1,4
		Montreal-Dorval	4,0	3,8	4,9	4,6	1,0	0,8	1,0	0,9	1,8	1,4	1,6	1,3	1,8	1,5
		Montreal-McGill	4,0	3,8	3,7	3,3	0,9	0,8	0,9	0,7	1,5	1,2	1,7	1,4	1,5	1,2
		Drummondville	4,7	4,5	5,0	4,8	1,0	0,8	1,0	0,8	1,7	1,4	1,5	1,2	1,5	1,2
		Maniwaki	3,6	3,3	5,1	4,7	1,0	0,8	0,9	0,8	1,6	1,4	2,0	1,5	1,6	1,3
		Bagotville	6,7	6,6	5,9	5,6	0,8	0,7	3,1	2,6	3,0	2,5	3,0	2,4	2,8	2,3
	MARITIME (6 stations)	Causapscal	6,0	5,8	4,2	3,8	1,0	0,8	1,0	0,8	2,0	1,7	2,0	1,7	1,8	1,3
		Daniel-Harbour	3,8	3,7	2,5	2,1	0,6	0,5	0,6	0,5	1,4	1,2	1,3	0,9	1,0	0,8
		Gaspe	12,9	12,9	11,1	11,0	0,8	0,7	0,9	0,7	2,2	1,8	1,7	1,4	1,6	1,3
		Mont-Joli	4,5	4,3	2,8	2,3	1,0	0,8	1,0	0,8	1,9	1,5	1,9	1,5	1,7	1,3
		Natashquan	6,4	6,2	3,2	2,8	1,0	0,8	0,9	0,8	1,5	1,2	1,5	1,3	1,4	1,1
		Sept-Iles	1,2	1,0	1,5	1,2	0,9	0,7	1,0	0,8	1,2	1,0	1,4	1,1	1,3	1,1
AUTUMN	HUDSON BAY (3 stations)	Inukjuak	2,2	1,8	5,5	5,2	1,0	0,8	1,0	0,9	2,2	1,8	2,3	1,8	2,3	1,9
		Kuujuaq	5,3	4,8	7,8	7,4	1,5	1,2	1,5	1,2	3,2	2,5	3,3	2,6	3,1	2,4
		Moosonee	3,9	3,3	5,3	4,1	1,4	1,1	1,3	1,0	3,6	2,7	3,8	3,2	3,3	2,6
	LABRADOR (4 stations)	Cartwright	4,1	3,9	2,8	2,2	1,3	1,0	1,2	1,0	2,3	1,9	2,3	2,0	1,9	1,5
		Goosebay	2,0	1,5	5,2	4,6	1,2	0,9	1,2	1,0	2,8	2,3	2,5	2,1	2,3	1,8
		Kuujuaq	3,9	3,5	4,0	3,3	1,4	1,2	1,4	1,2	3,4	2,8	2,7	2,2	2,6	2,1
		Schefferville	4,7	4,2	4,4	3,7	1,0	0,8	1,0	0,8	3,2	2,6	2,6	2,1	2,6	2,1
	SOUTH (7 stations)	Amos	2,8	2,4	3,4	2,8	1,1	0,9	1,5	1,2	3,3	2,6	3,3	2,6	3,0	2,4
		Val d'Or	3,6	3,1	3,4	2,7	1,4	1,1	1,3	1,0	3,3	2,7	4,0	3,1	2,9	2,4
		Montreal-Dorval	2,6	2,0	3,9	3,3	1,0	0,8	1,1	0,9	2,6	2,0	2,4	1,9	2,4	2,0
		Montreal-McGill	2,9	2,1	3,3	2,6	1,3	1,0	1,3	1,1	2,8	2,2	3,1	2,6	2,6	2,0
		Drummondville	2,8	2,0	3,8	3,2	1,3	1,1	1,3	1,1	2,8	2,3	2,7	2,3	2,4	1,9
		Maniwaki	2,4	1,8	4,4	3,7	1,4	1,1	1,2	1,0	2,6	2,2	3,2	2,4	2,6	2,1
		Bagotville	2,9	2,3	3,7	3,0	1,4	1,2	1,6	1,3	2,7	2,1	2,8	2,2	2,6	2,1
	MARITIME (6 stations)	Causapscal	2,7	1,9	3,1	2,5	1,3	1,0	1,2	1,0	3,0	2,4	2,8	2,2	2,5	2,0
		Daniel-Harbour	3,5	3,3	1,9	1,5	0,8	0,6	0,8	0,6	1,7	1,3	1,6	1,3	1,4	1,1
		Gaspe	6,2	6,0	5,0	4,7	1,2	1,0	1,2	1,0	3,0	2,4	2,6	2,2	2,1	1,7
		Mont-Joli	2,1	1,5	2,5	1,9	1,4	1,1	1,2	1,0	2,5	2,0	2,3	1,9	2,2	1,8
		Natashquan	1,4	1,1	2,0	1,7	1,0	0,8	1,0	0,8	1,5	1,2	1,4	1,1	1,4	1,1
		Sept-Iles	3,2	2,8	2,2	1,5	1,0	0,8	1,0	0,8	1,8	1,3	1,8	1,3	1,4	1,2

Table 2.14 Same as Table 2.3 but for the monthly mean precipitation (in mm/day).

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
JANUARY	HUDSON BAY (3 stations)	Inukjuak	1.4	1.2	0.8	0.6	0.4	0.3	0.4	0.3	1.4	1.2	1.1	0.9	0.6	0.4
		Kuujuarapik	1.2	0.9	0.9	0.7	0.7	0.5	0.8	0.6	0.9	0.7	1.2	1.0	3.3	2.9
		Moosonee	1.1	0.9	1.1	0.9	0.8	0.7	0.9	0.7	1.3	1.0	1.1	0.9	4.2	3.6
	LABRADOR (4 stations)	Carbwight	1.6	1.2	1.4	1.2	1.4	1.0	1.3	1.0	1.9	1.4	1.5	1.2	1.9	1.4
		Goosebay	1.6	1.1	1.6	1.2	1.6	1.1	1.6	1.1	1.8	1.3	1.7	1.3	1.7	1.3
		Kuujuuaq	1.4	1.1	1.3	0.9	1.1	0.8	1.1	0.7	1.3	1.0	1.4	1.1	1.5	1.1
		Schefferville	1.2	0.9	1.7	1.2	1.2	0.8	1.2	0.8	1.3	1.0	1.5	1.1	1.3	1.0
	SOUTH (7 stations)	Amos	1.1	0.8	1.4	1.1	1.0	0.8	1.0	0.8	1.4	1.2	1.4	1.1	4.3	3.8
		Val d'Or	1.2	1.0	1.8	1.5	0.9	0.8	1.1	0.9	1.8	1.5	1.5	1.2	3.5	3.1
		Montreal-Dorval	1.3	0.9	2.2	1.7	0.9	0.7	1.1	0.9	1.3	1.0	1.4	1.1	1.2	1.0
		Montreal-McGill	2.2	1.9	3.5	2.8	1.3	1.0	1.7	1.4	1.6	1.2	1.6	1.3	1.7	1.4
		Drummondville	2.9	2.4	5.7	5.1	1.6	1.2	1.6	1.2	1.7	1.4	2.1	1.6	2.0	1.5
		Maniwaki	2.5	2.1	2.8	2.3	1.0	0.8	1.0	0.8	1.4	1.1	1.3	1.1	1.3	2.3
		Bagotville	1.2	1.0	1.9	1.5	1.1	0.9	1.3	1.1	1.3	1.1	1.5	1.2	2.8	2.3
	MARITIME (6 stations)	Causapscal	1.3	1.0	1.8	1.3	1.2	0.9	1.2	1.0	1.4	1.1	1.4	1.1	1.4	1.1
		Daniel-Harbour	2.8	2.2	2.9	2.4	1.9	1.5	2.0	1.6	2.3	1.8	2.1	1.7	2.2	1.8
		Gaspe	2.9	2.0	2.6	2.0	2.1	1.6	2.5	2.0	3.3	2.5	2.9	2.3	3.1	2.5
		Mont-Joli	1.6	1.3	2.1	1.6	1.1	0.9	1.2	1.0	1.4	1.1	1.3	1.0	1.4	1.1
Natashquan		1.7	1.3	2.1	1.6	1.3	1.1	1.3	1.1	1.7	1.4	1.9	1.4	1.6	1.3	
Sept-Iles		1.9	1.5	3.0	2.5	2.0	1.6	1.8	1.5	2.9	2.3	2.3	1.8	2.3	1.8	
FEBRUARY	HUDSON BAY (3 stations)	Inukjuak	1.1	1.0	0.5	0.4	0.4	0.3	0.5	0.3	0.4	0.4	0.6	0.5	0.5	0.4
		Kuujuarapik	1.3	1.2	0.6	0.4	0.6	0.5	0.6	0.5	0.6	0.5	0.9	0.7	2.9	2.3
		Moosonee	1.0	0.7	0.9	0.7	0.7	0.5	0.8	0.6	0.8	0.6	0.9	0.7	3.5	3.1
	LABRADOR (4 stations)	Carbwight	2.0	1.6	2.0	1.6	1.6	1.1	1.5	1.0	2.0	1.5	2.1	1.7	2.1	1.8
		Goosebay	1.5	1.3	1.7	1.2	1.3	1.0	1.3	1.0	1.5	1.2	1.8	1.4	1.6	1.3
		Kuujuuaq	1.6	1.3	1.3	1.0	1.0	0.7	0.9	0.7	1.2	1.0	2.0	1.6	1.4	1.1
		Schefferville	1.2	1.0	1.3	1.2	0.9	0.6	0.8	0.7	1.0	0.8	1.7	1.3	1.2	1.0
	SOUTH (7 stations)	Amos	1.2	1.0	1.0	0.8	1.0	0.8	1.1	0.9	1.2	1.0	1.5	1.2	5.1	4.4
		Val d'Or	1.5	1.3	1.3	1.1	1.1	0.9	1.2	0.9	2.1	1.8	2.0	1.5	4.0	3.4
		Montreal-Dorval	1.9	1.6	2.1	1.7	0.9	0.7	1.2	0.9	1.3	1.0	1.6	1.3	1.4	1.1
		Montreal-McGill	3.3	2.8	3.0	2.5	1.3	1.0	1.4	1.1	1.8	1.4	2.2	1.7	1.9	1.5
		Drummondville	3.4	3.1	5.2	4.5	1.4	1.0	1.4	1.0	1.7	1.3	1.7	1.4	1.9	1.4
Maniwaki		3.5	3.2	2.9	2.4	1.1	0.9	1.1	0.9	1.6	1.3	1.8	1.4	1.6	1.3	
Bagotville		1.4	1.1	1.4	1.2	1.3	1.0	1.4	1.1	1.5	1.2	2.2	1.8	3.8	3.0	
MARITIME (6 stations)	Causapscal	1.4	1.2	1.8	1.4	1.1	0.9	1.2	0.9	1.3	1.0	1.4	1.1	1.3	1.1	
	Daniel-Harbour	2.2	1.7	2.4	1.9	2.3	1.8	2.3	1.9	3.0	2.4	2.9	2.4	3.1	2.5	
	Gaspe	1.6	1.2	2.3	2.0	2.2	1.8	2.2	1.8	2.7	2.2	3.0	2.4	2.5	1.9	
	Mont-Joli	1.7	1.4	1.8	1.4	1.0	0.8	1.1	0.9	1.2	1.0	1.3	1.0	1.3	1.0	
	Natashquan	1.6	1.4	1.5	1.2	1.2	1.0	1.3	1.1	1.7	1.4	2.3	1.8	1.8	1.4	
	Sept-Iles	1.9	1.7	2.2	1.8	2.0	1.6	2.3	1.8	2.8	2.2	2.9	2.3	2.6	2.1	
MARCH	HUDSON BAY (3 stations)	Inukjuak	1.2	1.1	0.6	0.5	0.4	0.3	0.4	0.3	0.5	0.4	0.6	0.4	0.5	0.4
		Kuujuarapik	1.7	1.4	0.9	0.7	0.6	0.4	0.5	0.4	0.8	0.6	0.8	0.6	2.9	2.6
		Moosonee	0.9	0.8	1.3	1.0	0.9	0.7	1.0	0.8	1.0	0.8	1.1	0.8	4.2	3.6
	LABRADOR (4 stations)	Carbwight	2.0	1.3	2.2	1.5	1.8	1.3	1.8	1.2	2.3	1.7	2.8	2.2	2.5	1.8
		Goosebay	1.7	1.3	1.5	1.2	1.4	1.2	1.4	1.1	2.0	1.5	2.3	1.9	1.8	1.5
		Kuujuuaq	1.2	1.0	0.8	0.6	0.6	0.5	0.6	0.5	0.8	0.6	0.9	0.8	0.9	0.7
		Schefferville	1.2	0.9	1.6	1.3	1.0	0.8	1.2	0.9	1.3	1.0	1.5	1.2	1.4	1.0
	SOUTH (7 stations)	Amos	1.1	0.9	1.3	1.1	0.9	0.7	1.0	0.8	1.1	0.9	1.1	0.9	4.8	4.3
		Val d'Or	1.1	0.9	1.7	1.4	1.1	0.9	1.2	1.0	1.3	1.0	1.6	1.3	5.2	4.6
		Montreal-Dorval	1.6	1.3	2.5	2.0	1.2	0.9	1.3	1.0	1.5	1.2	1.5	1.2	1.4	1.1
		Montreal-McGill	3.1	2.6	4.3	3.8	1.3	1.0	1.4	1.1	1.6	1.3	1.9	1.5	1.8	1.4
		Drummondville	3.5	3.0	5.8	5.0	1.4	1.1	1.4	1.1	1.5	1.2	1.8	1.5	1.6	1.3
Maniwaki		3.4	3.0	3.9	3.3	0.9	0.7	1.0	0.8	1.2	1.0	1.3	1.1	1.3	1.0	
Bagotville		1.4	1.1	1.6	1.2	1.2	1.0	1.2	1.0	1.3	1.1	1.4	1.1	4.1	3.3	
MARITIME (6 stations)	Causapscal	1.5	1.2	1.8	1.4	1.3	1.0	1.2	1.0	1.5	1.2	1.7	1.3	1.7	1.3	
	Daniel-Harbour	1.9	1.6	2.2	1.7	1.8	1.4	1.7	1.4	2.3	1.9	2.2	1.8	2.3	1.9	
	Gaspe	2.2	1.6	2.6	2.1	2.3	1.9	2.6	2.1	3.0	2.4	3.0	2.4	2.9	2.4	
	Mont-Joli	1.8	1.6	1.9	1.4	1.0	0.8	1.1	0.9	1.3	1.1	1.3	1.1	1.6	1.3	
	Natashquan	1.9	1.4	1.5	1.2	1.4	1.0	1.4	1.1	2.1	1.7	1.9	1.5	1.8	1.5	
	Sept-Iles	1.8	1.4	2.3	1.7	1.8	1.4	1.7	1.4	2.2	1.8	2.2	1.8	2.3	1.8	
APRIL	HUDSON BAY (3 stations)	Inukjuak	1.1	1.0	0.8	0.6	0.8	0.5	0.9	0.6	0.9	0.6	0.8	0.6	0.9	0.6
		Kuujuarapik	1.7	1.4	0.7	0.5	0.6	0.5	0.6	0.5	0.7	0.5	0.7	0.6	3.3	2.9
		Moosonee	1.3	1.0	1.1	0.8	0.7	0.6	0.9	0.7	1.1	0.8	1.1	0.9	4.4	3.5
	LABRADOR (4 stations)	Carbwight	2.1	1.6	1.6	1.3	1.2	1.0	1.3	1.0	2.0	1.5	1.9	1.5	1.9	1.5
		Goosebay	1.7	1.4	1.9	1.6	1.1	0.9	1.1	0.9	1.5	1.2	1.3	1.1	1.3	1.1
		Kuujuuaq	1.6	1.4	0.7	0.6	0.9	0.7	0.7	0.5	0.9	0.7	1.1	0.9	0.9	0.7
		Schefferville	1.9	1.4	1.8	1.4	1.0	0.7	1.2	0.9	1.7	1.4	1.8	1.5	1.7	1.4
	SOUTH (7 stations)	Amos	1.2	1.0	1.2	1.0	1.0	0.8	1.1	0.9	1.4	1.2	1.4	1.1	4.8	4.2
		Val d'Or	1.3	1.1	1.3	1.0	0.9	0.7	1.0	0.8	1.1	0.9	1.2	1.0	5.0	4.4
		Montreal-Dorval	1.4	1.2	2.3	1.8	1.1	0.8	1.3	1.0	1.3	1.0	1.5	1.2	1.4	1.1
		Montreal-McGill	3.3	2.9	4.1	3.5	1.8	1.4	1.4	1.1	1.9	1.5	1.7	1.3	1.5	1.2
		Drummondville	4.3	3.8	5.3	4.8	1.2	0.9	1.3	1.0	1.4	1.0	1.7	1.3	1.5	1.2
Maniwaki		3.7	3.4	3.9	3.5	1.0	0.8	1.1	0.9	1.3	1.0	1.3	1.0	1.2	1.0	
Bagotville		2.0	1.6	1.4	1.1	0.9	0.7	1.1	0.9	1.4	1.1	1.3	1.1	3.6	3.0	
MARITIME (6 stations)	Causapscal	1.9	1.6	2.0	1.5	1.2	1.0	1.3	1.1	1.4	1.2	1.6	1.2	1.5	1.2	
	Daniel-Harbour	1.9	1.6	1.6	1.3	1.2	0.9	1.3	1.0	1.6	1.3	1.5	1.2	1.6	1.3	
	Gaspe	2.8	2.2	3.0	2.2	2.6	1.8	2.5	1.8	2.9	2.2	3.1	2.3	3.0	2.2	
	Mont-Joli	2.2	1.8	2.0	1.5	0.9	0.7	1.0	0.8	1.6	1.2	1.3	1.1	1.3	1.0	
	Natashquan	1.6	1.3	1.5	1.2	1.2	0.9	1.2	0.9	1.7	1.4	1.9	1.5	1.6	1.3	
	Sept-Iles	2.2	1.6	2.5	1.9	1.9	1.5	2.2	1.7	2.6	2.1	2.7	2.1	2.6	2.1	

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
MAY	HUDSON BAY (3 stations)	Inukjuak	1.6	1.3	0.8	0.7	0.8	0.6	0.7	0.5	0.7	0.5	0.7	0.5	0.8	0.6
		Kuujuarapik	2.1	1.8	0.8	0.7	0.7	0.5	0.7	0.6	0.9	0.7	0.8	0.6	3.1	2.8
		Moosonee	2.1	1.8	1.2	0.9	0.9	0.8	0.9	0.7	1.1	0.9	1.3	1.0	5.4	4.8
	LABRADOR (4 stations)	Cartwright	1.8	1.6	1.5	1.2	0.9	0.7	0.9	0.7	1.4	1.1	1.4	1.1	1.2	0.9
		Goosebay	2.3	1.8	1.8	1.6	1.0	0.8	1.1	0.9	1.5	1.2	1.3	1.0	1.3	1.0
		Kuujuuaq	2.0	1.6	0.7	0.6	0.6	0.5	0.6	0.5	0.7	0.6	0.7	0.6	0.8	0.6
		Schefferville	2.6	2.2	1.0	0.7	0.7	0.6	0.9	0.7	1.1	0.9	1.4	1.2	1.1	0.8
	SOUTH (7 stations)	Amos	1.7	1.4	1.5	1.2	1.2	1.0	1.3	1.1	1.5	1.2	1.5	1.2	4.8	4.2
		Val d'Or	2.0	1.7	1.5	1.3	1.1	0.9	1.2	0.9	1.3	1.1	1.6	1.2	5.8	5.2
		Montreal-Dorval	2.6	2.1	2.4	2.0	0.9	0.7	1.0	0.8	1.3	1.0	1.4	1.1	1.3	1.1
		Montreal-McGill	5.1	4.4	4.8	4.1	1.3	1.0	1.4	1.1	1.6	1.3	1.7	1.4	1.7	1.4
		Drummondville	5.2	4.7	5.3	4.9	1.4	1.1	1.4	1.1	1.7	1.3	1.8	1.5	1.7	1.4
		Maniwaki	4.9	4.5	4.5	3.8	1.3	1.0	1.2	0.9	1.8	1.4	1.7	1.3	1.9	1.5
		Bagotville	2.6	2.1	1.6	1.3	1.1	0.9	1.3	1.0	1.6	1.3	1.6	1.3	4.2	3.6
	MARITIME (6 stations)	Causapsal	2.8	2.3	1.2	1.0	1.3	1.0	1.3	1.0	1.7	1.3	1.6	1.3	1.6	1.3
		Daniel-Harbour	1.9	1.5	1.7	1.3	1.3	1.0	1.2	1.0	1.7	1.4	1.7	1.4	1.6	1.3
		Gaspe	2.2	1.8	1.6	1.3	1.7	1.3	1.8	1.4	1.9	1.5	2.0	1.6	2.1	1.7
		Mont-Joli	3.0	2.4	1.5	1.2	1.1	0.9	1.2	1.0	1.4	1.1	1.4	1.1	1.4	1.1
		Natashquan	2.2	1.7	1.9	1.3	1.6	1.2	1.6	1.2	2.2	1.8	2.2	1.8	2.0	1.5
		Sept-Iles	2.7	2.1	1.8	1.5	1.7	1.4	1.6	1.3	2.6	2.0	2.2	1.7	2.1	1.7
JUNE	HUDSON BAY (3 stations)	Inukjuak	1.9	1.5	1.0	0.8	0.9	0.7	1.0	0.8	1.1	0.8	1.2	0.9	1.0	0.8
		Kuujuarapik	2.5	2.2	1.4	1.2	1.4	1.1	1.7	1.3	2.4	1.9	1.4	1.1	5.6	5.0
		Moosonee	2.4	1.9	1.7	1.3	1.3	1.1	1.5	1.1	1.6	1.3	2.1	1.7	6.1	5.3
	LABRADOR (4 stations)	Cartwright	2.0	1.6	1.4	1.1	1.1	0.9	1.1	0.9	1.8	1.4	1.7	1.4	1.6	1.3
		Goosebay	2.7	2.1	1.6	1.3	1.6	1.2	1.6	1.3	2.5	2.0	2.1	1.7	1.9	1.5
		Kuujuuaq	2.4	1.9	1.0	0.8	1.0	0.8	1.0	0.8	1.2	1.0	1.4	1.1	1.1	0.9
		Schefferville	3.6	3.3	1.4	1.1	1.1	0.9	1.1	0.9	1.4	1.1	1.6	1.3	1.4	1.1
	SOUTH (7 stations)	Amos	2.5	2.0	2.4	1.9	2.0	1.5	1.9	1.4	2.1	1.6	2.0	1.5	6.0	5.2
		Val d'Or	2.5	2.1	1.6	1.4	1.2	0.9	1.3	1.0	1.4	1.2	1.5	1.2	5.7	5.0
		Montreal-Dorval	3.0	2.4	2.8	2.1	1.3	1.0	1.4	1.1	1.5	1.2	1.6	1.3	1.7	1.4
		Montreal-McGill	5.5	5.0	4.3	3.7	1.7	1.4	1.8	1.5	2.0	1.6	2.1	1.6	1.9	1.5
		Drummondville	5.8	5.2	6.6	5.5	1.6	1.3	1.5	1.2	1.7	1.4	1.9	1.5	1.9	1.5
		Maniwaki	5.7	5.0	4.5	4.0	1.4	1.1	1.5	1.2	1.6	1.2	1.8	1.5	1.9	1.5
		Bagotville	3.7	3.1	1.4	1.2	1.2	1.0	1.2	1.0	1.4	1.1	1.7	1.3	4.6	4.0
	MARITIME (6 stations)	Causapsal	3.4	2.9	1.3	1.1	1.5	1.2	1.5	1.2	1.6	1.3	1.5	1.2	1.6	1.3
		Daniel-Harbour	2.5	1.8	1.8	1.4	1.7	1.2	1.8	1.3	2.0	1.4	2.0	1.5	2.2	1.6
		Gaspe	3.0	2.4	1.3	1.0	1.3	1.1	1.3	1.1	1.5	1.2	1.4	1.1	1.5	1.2
		Mont-Joli	4.1	3.6	2.1	1.8	1.4	1.1	1.5	1.2	1.3	1.1	1.5	1.2	1.5	1.2
		Natashquan	2.6	2.0	1.6	1.4	1.4	1.1	1.4	1.1	2.5	2.0	2.2	1.8	1.9	1.6
		Sept-Iles	3.5	2.9	1.8	1.4	1.5	1.2	1.6	1.2	2.2	1.8	2.4	1.9	1.9	1.5
JULY	HUDSON BAY (3 stations)	Inukjuak	2.0	1.7	1.4	1.0	1.2	1.0	1.3	1.0	2.2	1.7	1.7	1.3	1.3	1.1
		Kuujuarapik	2.0	1.6	1.7	1.4	1.2	0.9	1.2	0.9	1.6	1.3	1.4	1.1	5.4	4.8
		Moosonee	1.8	1.5	1.8	1.5	1.5	1.2	1.6	1.3	2.2	1.8	2.1	1.7	6.1	5.3
	LABRADOR (4 stations)	Cartwright	1.8	1.4	1.8	1.5	1.2	1.0	1.2	1.0	1.5	1.2	1.7	1.4	1.6	1.3
		Goosebay	2.4	1.9	2.2	1.8	1.7	1.3	1.7	1.3	2.4	2.0	2.0	1.6	2.1	1.7
		Kuujuuaq	3.5	3.0	1.3	1.0	1.1	0.9	1.0	0.8	1.3	1.0	1.9	1.6	1.2	1.0
		Schefferville	3.3	2.8	2.1	1.6	1.5	1.2	1.4	1.1	1.8	1.4	1.9	1.5	1.8	1.4
	SOUTH (7 stations)	Amos	1.9	1.6	1.7	1.4	1.8	1.4	2.2	1.7	2.1	1.7	2.8	2.2	6.8	5.9
		Val d'Or	3.1	2.7	1.8	1.4	1.5	1.2	1.5	1.2	2.1	1.7	1.7	1.4	6.2	5.5
		Montreal-Dorval	3.7	3.3	2.6	2.2	1.6	1.2	1.6	1.3	1.6	1.3	1.6	1.3	1.9	1.5
		Montreal-McGill	5.8	5.3	3.7	3.4	1.8	1.5	1.9	1.5	1.9	1.5	2.0	1.6	1.9	1.5
		Drummondville	5.8	5.1	6.0	5.5	1.7	1.4	1.8	1.5	1.8	1.5	2.0	1.6	2.0	1.6
		Maniwaki	6.1	5.7	5.2	4.8	1.6	1.3	1.6	1.2	2.0	1.6	2.0	1.6	1.8	1.5
		Bagotville	2.9	2.3	1.3	1.1	1.6	1.3	1.6	1.3	1.9	1.5	1.8	1.4	5.3	4.4
	MARITIME (6 stations)	Causapsal	2.7	2.3	1.5	1.1	1.8	1.5	2.0	1.5	1.9	1.5	2.0	1.5	2.0	1.6
		Daniel-Harbour	1.9	1.5	1.9	1.5	1.7	1.3	1.6	1.3	2.0	1.6	2.1	1.7	1.8	1.5
		Gaspe	2.5	2.1	2.2	1.8	2.0	1.6	1.9	1.5	2.2	1.8	2.5	2.0	2.5	1.9
		Mont-Joli	3.5	3.0	2.0	1.7	1.2	0.9	1.2	0.9	1.6	1.2	1.5	1.2	1.3	1.0
		Natashquan	2.4	2.0	1.8	1.6	1.5	1.2	1.5	1.2	2.6	2.0	2.7	2.2	2.3	1.8
		Sept-Iles	3.1	2.6	1.6	1.3	1.4	1.1	1.4	1.1	2.7	2.1	2.2	1.7	1.7	1.3
AUGUST	HUDSON BAY (3 stations)	Inukjuak	2.2	1.8	1.4	1.1	1.1	0.9	1.3	1.0	1.4	1.2	1.3	1.1	1.3	1.0
		Kuujuarapik	2.1	1.7	1.9	1.6	1.4	1.1	1.3	1.0	1.6	1.3	1.7	1.3	4.7	4.0
		Moosonee	2.0	1.6	1.4	1.1	1.5	1.2	1.6	1.3	2.6	2.1	2.8	2.4	7.1	6.3
	LABRADOR (4 stations)	Cartwright	1.4	1.1	1.5	1.1	1.0	0.8	1.0	0.8	1.7	1.4	1.8	1.4	1.3	1.1
		Goosebay	3.2	2.8	1.8	1.4	1.5	1.2	1.4	1.2	2.0	1.6	1.8	1.5	1.8	1.5
		Kuujuuaq	2.2	1.9	1.1	0.9	1.1	0.9	1.1	0.8	1.2	0.9	1.5	1.2	1.2	1.0
		Schefferville	4.0	3.5	1.6	1.2	1.2	0.9	1.2	1.0	1.7	1.4	1.9	1.5	1.6	1.2
	SOUTH (7 stations)	Amos	2.4	2.0	2.5	1.9	2.0	1.6	2.0	1.6	2.7	2.1	2.8	2.3	8.5	7.4
		Val d'Or	2.2	1.8	2.0	1.5	1.5	1.2	1.6	1.3	1.9	1.5	1.8	1.5	6.5	5.7
		Montreal-Dorval	2.7	2.0	2.1	1.7	1.5	1.2	2.0	1.6	2.5	2.0	2.7	2.1	2.2	1.7
		Montreal-McGill	4.2	3.6	4.8	4.0	1.8	1.4	1.7	1.4	2.1	1.7	1.9	1.5	2.0	1.6
		Drummondville	4.4	3.7	6.4	5.8	1.8	1.4	1.8	1.4	1.8	1.5	1.9	1.5	2.0	1.6
		Maniwaki	4.6	3.8	4.8	4.3	1.6	1.3	1.7	1.4	2.3	1.9	2.4	1.9	2.0	1.6
		Bagotville	2.8	2.1	1.3	1.1	1.3	1.1	1.4	1.1	2.5	2.0	1.7	1.3	4.4	3.8
	MARITIME (6 stations)	Causapsal	2.8	2.4	1.8	1.3	2.2	1.8	2.2	1.7	2.2	1.8	2.5	2.1	2.1	1.7
		Daniel-Harbour	2.3	1.8	2.1	1.7	1.8	1.5	1.9	1.5	3.0	2.4	3.0	2.5	2.4	1.9
		Gaspe	2.7	2.0	1.9	1.4	1.9	1.4	1.8	1.3	1.8	1.4	1.8	1.4	1.9	1.5
		Mont-Joli	3.1	2.7	1.4	1.2	1.6	1.2	1.5	1.1	1.8	1.5	1.9	1.5	1.8	1.4
		Natashquan	1.7	1.4	2.0	1.6	1.3	1.1	1.4	1.1	3.1	2.4	2.7	2.2	1.9	1.5
		Sept-Iles	2.5	1.9	1.6	1.3	1.8	1.4	1.8	1.4	3.5	2.7	2.5	2.0	2.0	1.6

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
SEPTEMBER	HUDSON BAY (3 stations)	Inukjuak	1.7	1.2	1.4	1.1	1.1	0.9	1.3	1.1	1.5	1.2	1.3	1.0	1.4	1.1
		Kuujuarapik	1.6	1.3	1.5	1.3	1.2	1.0	1.3	1.0	1.2	1.0	1.5	1.2	4.9	4.3
		Moosonee	1.8	1.4	1.5	1.1	1.4	1.1	1.4	1.1	1.6	1.2	1.7	1.3	6.3	5.6
	LABRADOR (4 stations)	Cartwright	1.6	1.2	1.7	1.3	1.3	1.0	1.2	0.9	2.3	1.8	2.0	1.6	1.7	1.3
		Goosebay	1.9	1.3	1.9	1.6	1.4	1.2	1.4	1.1	1.6	1.3	1.7	1.4	1.6	1.3
		Kuujuuaq	1.9	1.5	1.2	1.0	1.1	0.8	1.1	0.8	1.3	1.0	1.4	1.1	1.5	1.2
		Schefferville	1.5	1.2	2.0	1.6	1.2	0.9	1.3	1.0	1.4	1.1	1.4	1.1	1.6	1.3
	SOUTH (7 stations)	Amos	1.7	1.4	2.1	1.7	1.4	1.1	1.5	1.2	1.7	1.4	1.9	1.5	6.1	5.4
		Val d'Or	1.6	1.3	2.2	1.8	1.4	1.1	1.6	1.2	1.8	1.4	1.9	1.5	5.5	4.8
		Montreal-Dorval	1.9	1.6	1.8	1.3	1.8	1.4	1.7	1.3	1.8	1.4	2.0	1.5	2.0	1.6
		Montreal-McGill	4.0	3.5	5.1	4.3	1.9	1.6	2.0	1.7	2.0	1.8	2.5	2.0	2.0	1.6
		Drummondville	4.2	3.6	6.3	5.8	1.7	1.4	1.7	1.4	1.7	1.4	2.4	1.8	2.0	1.6
		Maniwaki	4.1	3.5	5.9	5.1	1.5	1.2	1.5	1.2	1.5	1.2	1.9	1.5	1.7	1.3
		Bagotville	1.4	1.1	1.7	1.3	1.5	1.2	1.6	1.2	1.6	1.3	1.5	1.2	4.0	3.2
	MARITIME (6 stations)	Causapscal	1.7	1.2	1.7	1.3	1.6	1.3	1.6	1.3	2.0	1.6	2.4	1.9	2.2	1.8
		Daniel-Harbour	1.6	1.4	1.9	1.6	1.5	1.2	1.5	1.2	1.6	1.2	1.6	1.3	1.7	1.3
		Gaspe	1.5	1.2	1.8	1.3	1.2	1.0	1.2	1.0	1.4	1.1	1.7	1.3	1.6	1.3
		Mont-Joli	1.8	1.3	1.5	1.2	1.3	1.0	1.4	1.1	1.7	1.4	1.9	1.5	1.9	1.5
		Natashquan	1.4	1.1	1.9	1.5	1.5	1.2	1.4	1.1	1.8	1.4	2.2	1.8	1.8	1.4
		Sept-Iles	1.8	1.5	2.2	1.7	1.8	1.5	1.7	1.3	2.9	2.2	3.3	2.6	2.6	2.0
OCTOBER	HUDSON BAY (3 stations)	Inukjuak	1.2	0.9	0.9	0.7	1.0	0.8	0.8	0.7	1.0	0.8	1.0	0.8	1.0	0.8
		Kuujuarapik	1.2	1.0	1.5	1.3	1.2	1.0	1.1	0.8	1.2	1.0	1.3	1.0	3.7	3.3
		Moosonee	1.5	1.3	1.5	1.3	1.4	1.1	1.2	0.9	1.5	1.1	1.3	1.0	5.4	4.8
	LABRADOR (4 stations)	Cartwright	1.6	1.2	1.3	1.0	1.2	0.9	1.2	1.0	1.6	1.3	1.5	1.2	1.5	1.2
		Goosebay	1.4	1.1	1.5	1.1	1.0	0.8	1.1	0.9	1.8	1.4	1.7	1.4	1.6	1.3
		Kuujuuaq	1.2	1.0	1.1	0.9	0.9	0.7	0.8	0.7	0.9	0.8	1.1	0.9	1.0	0.8
		Schefferville	1.4	1.2	1.6	1.2	1.0	0.8	1.1	0.9	1.3	1.1	1.3	1.1	1.3	1.1
	SOUTH (7 stations)	Amos	1.6	1.3	1.5	1.2	1.2	0.9	1.4	1.1	1.4	1.1	1.5	1.2	5.0	4.5
		Val d'Or	1.5	1.3	1.7	1.3	1.3	1.0	1.5	1.2	1.5	1.2	1.8	1.5	4.7	4.2
		Montreal-Dorval	1.2	1.0	2.4	2.0	1.1	0.9	1.1	0.9	1.4	1.2	1.2	1.0	1.3	1.1
		Montreal-McGill	3.2	2.7	5.0	4.3	1.3	1.0	1.3	1.0	1.6	1.3	1.3	1.1	1.6	1.3
		Drummondville	4.7	3.9	7.4	6.7	1.1	0.9	1.1	0.9	1.4	1.2	1.3	1.0	1.5	1.2
		Maniwaki	3.2	2.7	4.7	4.0	1.2	1.0	1.3	1.0	1.7	1.3	1.8	1.5	1.7	1.3
		Bagotville	1.5	1.2	1.5	1.2	1.1	0.9	1.2	1.0	1.3	1.0	1.4	1.1	3.5	2.8
	MARITIME (6 stations)	Causapscal	1.8	1.5	1.8	1.5	1.5	1.2	1.4	1.2	1.7	1.3	1.7	1.4	1.7	1.4
		Daniel-Harbour	1.6	1.3	1.5	1.1	1.5	1.2	1.6	1.3	1.7	1.4	1.6	1.2	1.7	1.4
		Gaspe	2.1	1.9	1.8	1.4	1.9	1.4	1.9	1.5	2.1	1.6	2.2	1.8	2.3	1.8
		Mont-Joli	1.6	1.3	2.0	1.6	1.1	0.9	1.1	0.9	1.5	1.2	1.4	1.1	1.4	1.2
		Natashquan	1.6	1.3	2.2	1.7	1.4	1.1	1.5	1.1	2.6	2.1	3.1	2.5	2.2	1.8
		Sept-Iles	1.9	1.6	1.9	1.6	1.4	1.2	1.5	1.2	2.1	1.7	1.9	1.5	1.9	1.5
NOVEMBER	HUDSON BAY (3 stations)	Inukjuak	1.0	0.8	1.2	1.0	1.0	0.8	0.9	0.8	1.1	0.9	1.0	0.8	1.1	0.9
		Kuujuarapik	1.3	1.1	1.6	1.3	1.4	1.1	1.3	1.1	1.3	1.0	1.2	1.0	2.4	1.9
		Moosonee	1.3	1.0	1.4	1.1	1.1	0.8	1.4	1.1	1.5	1.2	1.3	1.0	4.0	3.5
	LABRADOR (4 stations)	Cartwright	1.6	1.1	1.6	1.2	1.2	0.9	1.2	0.9	2.0	1.5	1.9	1.5	1.7	1.3
		Goosebay	1.7	1.3	1.7	1.2	1.3	1.0	1.3	1.0	1.7	1.4	1.8	1.3	1.6	1.3
		Kuujuuaq	1.3	0.9	1.4	1.2	1.1	0.8	1.0	0.8	1.2	0.9	1.3	1.0	1.3	1.0
		Schefferville	1.6	1.3	2.1	1.8	1.2	0.9	1.3	1.0	1.7	1.3	1.7	1.3	1.5	1.2
	SOUTH (7 stations)	Amos	1.2	0.9	1.6	1.1	1.3	1.0	1.3	1.1	1.6	1.3	1.6	1.2	4.0	3.6
		Val d'Or	1.9	1.4	2.0	1.6	1.1	0.9	1.2	0.9	1.7	1.4	1.7	1.4	3.6	3.0
		Montreal-Dorval	1.5	1.2	2.9	2.3	1.3	1.0	1.4	1.1	1.6	1.3	1.6	1.2	1.5	1.2
		Montreal-McGill	2.3	1.8	4.3	3.7	1.4	1.1	1.8	1.4	1.8	1.4	2.1	1.5	1.8	1.4
		Drummondville	3.4	2.6	6.9	6.1	1.7	1.3	1.8	1.3	2.0	1.5	2.1	1.6	2.0	1.5
		Maniwaki	2.4	2.0	4.1	3.5	1.1	0.9	1.2	1.0	1.4	1.1	1.7	1.3	1.4	1.1
		Bagotville	1.3	0.9	1.6	1.3	1.3	1.0	1.4	1.1	1.6	1.3	2.0	1.6	3.2	2.6
	MARITIME (6 stations)	Causapscal	1.6	1.1	2.3	1.8	1.5	1.2	1.5	1.2	1.6	1.2	1.6	1.2	1.7	1.4
		Daniel-Harbour	2.2	1.6	2.3	1.9	1.6	1.2	1.7	1.3	2.1	1.6	2.1	1.7	2.0	1.6
		Gaspe	2.5	2.0	2.7	2.2	2.4	1.8	2.5	1.9	2.7	2.1	2.8	2.2	2.8	2.2
		Mont-Joli	1.5	1.2	2.5	1.9	1.2	0.9	1.2	1.0	1.4	1.2	1.6	1.2	1.5	1.1
		Natashquan	2.0	1.6	2.7	2.2	1.4	1.1	1.4	1.1	2.6	2.0	2.9	2.3	2.0	1.6
		Sept-Iles	1.6	1.2	2.6	1.9	2.0	1.6	2.0	1.5	2.7	2.2	2.5	2.0	2.2	1.7
DECEMBER	HUDSON BAY (3 stations)	Inukjuak	1.0	0.8	0.9	0.7	1.0	0.8	1.0	0.8	1.0	0.8	1.3	1.2	0.9	0.7
		Kuujuarapik	1.1	0.9	0.9	0.6	0.8	0.6	0.8	0.7	0.9	0.7	1.1	0.9	2.3	2.0
		Moosonee	1.0	0.9	1.0	0.7	0.7	0.5	0.9	0.7	1.1	0.9	1.0	0.7	2.8	2.5
	LABRADOR (4 stations)	Cartwright	1.3	1.1	1.6	1.3	1.3	1.0	1.2	0.9	1.4	1.1	1.5	1.2	1.5	1.2
		Goosebay	1.6	1.4	1.7	1.4	1.5	1.1	1.5	1.2	1.8	1.6	1.7	1.4	1.6	1.3
		Kuujuuaq	1.5	1.2	1.4	1.0	1.1	0.8	1.0	0.8	1.4	1.1	1.6	1.3	1.5	1.2
		Schefferville	1.5	1.2	1.6	1.3	1.0	0.7	1.0	0.8	1.7	1.3	1.7	1.3	1.4	1.1
	SOUTH (7 stations)	Amos	1.2	1.0	1.1	0.9	1.0	0.8	0.9	0.7	1.3	1.1	1.3	1.1	2.9	2.6
		Val d'Or	1.2	1.0	1.4	1.1	0.9	0.8	1.2	0.9	1.7	1.4	1.6	1.3	3.1	2.7
		Montreal-Dorval	1.4	1.1	2.2	1.8	1.1	0.9	1.1	0.9	1.4	1.1	1.3	1.1	1.7	1.3
		Montreal-McGill	2.1	1.8	2.9	2.4	1.8	1.4	1.5	1.2	2.0	1.6	2.2	1.7	2.1	1.7
		Drummondville	2.6	2.1	5.0	4.3	1.9	1.4	1.9	1.4	2.2	1.6	2.3	1.6	2.2	1.7
		Maniwaki	2.3	2.0	2.9	2.5	1.1	0.9	1.0	0.8	1.6	1.3	1.6	1.3	1.4	1.1
		Bagotville	1.8	1.5	2.1	1.8	1.4	1.1	1.5	1.2	1.9	1.6	2.2	1.8	3.5	2.8
	MARITIME (6 stations)	Causapscal	1.4	1.1	1.7	1.4	1.3	1.1	1.3	1.0	1.6	1.3	1.7	1.4	1.7	1.3
		Daniel-Harbour	2.4	1.7	2.4	1.9	1.8	1.5	1.9	1.5	2.4	1.9	2.2	1.8	2.4	1.9
		Gaspe	3.2	2.4	3.1	2.2	2.8	2.1	2.7	2.1	3.1	2.4	3.4	2.6	3.1	2.4
		Mont-Joli	1.3	1.1	1.5	1.1	1.2	1.0	1.2	1.0	1.3	1.1	1.3	1.1	1.5	1.2
		Natashquan	2.5	1.7	2.8	2.0	1.7	1.3	1.7	1.3	2.8	2.3	2.9	2.3	2.4	2.0
		Sept-Iles	1.9	1.6	3.0	2.4	1.6	1.3	1.9	1.5	2.7	2.2	2.6	2.1	2.4	1.9

Table 2.15 Same as Table 2.3 but for the monthly standard deviation of precipitation (in mm/day).

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
JANUARY	HUDSON BAY (3 stations)	Inukjuak	1.7	1.4	0.9	0.7	0.8	0.8	0.8	0.8	1.3	1.1	1.0	0.8	1.0	0.8
		Kuujuarapik	1.7	1.2	1.8	1.3	1.4	1.1	1.5	1.2	1.6	1.3	1.7	1.4	2.6	2.0
		Moosonee	1.5	1.1	1.9	1.5	1.3	1.0	1.3	1.0	1.7	1.3	1.5	1.1	2.6	2.1
	LABRADOR (4 stations)	Cartwright	3.3	2.2	2.9	2.2	2.8	2.1	2.8	2.0	3.8	2.7	3.0	2.5	3.9	2.9
		Goosebay	3.1	2.0	2.7	2.1	2.7	1.9	2.8	2.0	3.0	2.2	2.7	2.0	2.9	2.2
		Kuujuaq	3.3	1.7	3.8	2.1	3.6	2.1	3.4	1.9	3.8	2.4	3.8	2.5	4.9	3.0
		Schefferville	2.0	1.6	2.9	2.1	2.1	1.5	2.1	1.5	2.1	1.6	2.1	1.6	2.3	1.8
	SOUTH (7 stations)	Amos	1.8	1.4	2.8	2.3	1.8	1.4	1.8	1.4	1.9	1.5	2.0	1.6	2.4	2.0
		Val d'Or	2.0	1.6	3.0	2.5	1.4	1.1	1.8	1.5	1.9	1.6	2.0	1.8	3.1	2.4
		Montreal-Dorval	1.9	1.5	3.9	3.3	1.9	1.5	2.1	1.7	2.4	1.9	2.7	2.2	2.4	2.0
		Montreal-McGill	3.0	2.3	3.6	3.0	2.6	2.1	2.9	2.4	2.9	2.3	3.1	2.5	3.4	2.8
		Drummondville	3.1	2.3	4.9	3.9	2.6	2.0	2.5	1.9	2.7	2.1	3.2	2.6	3.0	2.4
		Maniwaki	2.3	1.8	2.9	2.2	1.8	1.4	1.8	1.4	2.2	1.7	2.4	1.9	2.2	1.8
		Bagotville	2.2	1.7	3.0	2.3	2.0	1.5	2.2	1.7	2.2	1.7	2.3	1.8	2.7	2.0
	MARITIME (6 stations)	Causapscal	2.1	1.8	2.6	2.2	2.3	1.8	2.3	1.8	2.5	2.0	2.3	1.8	2.7	2.1
		Daniel-Harbour	3.2	2.5	3.0	2.4	2.5	1.9	2.7	2.1	3.0	2.3	2.8	2.2	2.9	2.3
		Gaspe	5.3	4.2	4.4	3.7	4.2	3.3	4.4	3.5	5.4	4.3	5.0	3.9	4.8	3.9
		Mont-Joli	2.1	1.6	3.4	2.7	1.7	1.4	1.8	1.4	2.3	1.8	2.1	1.7	2.1	1.7
		Natashquan	2.9	2.2	3.3	2.5	2.4	1.8	2.4	1.9	2.7	2.1	2.8	2.1	2.5	1.9
		Sept-Iles	3.9	3.1	4.8	3.8	3.5	2.7	3.3	2.6	4.7	3.6	3.9	3.0	4.1	3.2
FEBRUARY	HUDSON BAY (3 stations)	Inukjuak	1.6	1.3	1.0	0.8	1.0	0.7	1.0	0.8	1.0	0.8	1.2	1.0	1.2	1.0
		Kuujuarapik	1.8	1.4	1.4	1.0	1.4	1.0	1.4	1.1	1.3	1.0	1.5	1.2	2.3	1.6
		Moosonee	1.5	1.2	1.6	1.3	1.4	1.1	1.4	1.1	1.4	1.1	1.4	1.2	2.7	1.9
	LABRADOR (4 stations)	Cartwright	3.2	2.3	3.2	2.6	2.9	2.1	2.9	2.0	3.2	2.4	3.4	2.6	3.5	2.6
		Goosebay	2.7	2.3	2.6	2.0	2.4	1.9	2.3	1.9	2.6	2.1	2.4	2.0	2.8	2.3
		Kuujuaq	2.4	1.8	2.7	2.0	2.0	1.5	2.0	1.5	2.5	2.0	3.8	3.0	2.9	2.3
		Schefferville	1.7	1.4	2.9	2.5	1.8	1.3	1.9	1.5	1.9	1.5	2.6	2.0	2.3	1.9
	SOUTH (7 stations)	Amos	1.7	1.3	1.9	1.5	1.8	1.3	1.9	1.5	2.1	1.6	2.2	1.7	4.1	2.6
		Val d'Or	2.6	1.9	2.3	1.7	2.1	1.6	2.3	1.8	2.9	2.4	2.8	2.2	4.3	3.0
		Montreal-Dorval	2.1	1.7	3.3	2.7	1.8	1.5	2.2	1.8	2.3	1.9	2.5	2.0	2.5	2.0
		Montreal-McGill	2.7	2.1	2.8	2.2	3.0	2.3	2.9	2.3	3.2	2.5	4.1	3.2	3.3	2.7
		Drummondville	3.2	2.1	4.9	3.8	2.9	2.1	2.9	2.1	3.2	2.3	3.1	2.3	3.5	2.6
		Maniwaki	2.2	1.7	2.3	1.8	2.2	1.8	2.1	1.7	2.6	2.1	3.2	2.5	2.9	2.3
		Bagotville	2.2	1.9	2.3	1.9	2.1	1.6	2.4	1.9	2.4	1.9	2.8	2.3	2.7	2.1
	MARITIME (6 stations)	Causapscal	2.3	1.9	2.8	2.3	2.1	1.6	2.0	1.6	2.2	1.8	2.2	1.8	2.2	1.7
		Daniel-Harbour	3.9	3.0	3.8	2.7	3.8	3.0	3.8	3.1	4.8	3.9	4.9	3.9	4.8	3.9
		Gaspe	4.6	3.6	5.2	4.0	5.1	4.0	5.1	4.0	5.9	4.6	5.7	4.5	5.1	4.1
		Mont-Joli	2.4	1.9	2.8	2.3	1.9	1.5	2.0	1.6	2.2	1.7	2.0	1.6	2.4	1.9
		Natashquan	2.6	2.2	3.0	2.4	2.6	2.0	2.4	1.8	3.5	2.7	3.7	2.9	3.2	2.6
		Sept-Iles	4.7	3.2	5.2	4.1	4.7	3.7	4.9	3.7	5.7	4.5	5.5	4.2	5.8	4.5
MARCH	HUDSON BAY (3 stations)	Inukjuak	1.7	1.6	1.5	1.1	1.2	0.8	1.2	0.8	1.3	0.9	1.4	1.0	1.3	0.9
		Kuujuarapik	2.0	1.7	1.7	1.3	1.1	0.8	1.1	0.9	1.4	1.1	1.3	1.1	2.6	1.8
		Moosonee	1.9	1.6	2.7	2.1	2.0	1.5	2.1	1.7	2.0	1.6	2.2	1.7	2.9	2.4
	LABRADOR (4 stations)	Cartwright	3.9	2.7	4.0	2.6	3.7	2.7	3.8	2.6	4.4	3.4	4.9	3.9	4.4	3.4
		Goosebay	2.8	2.2	2.3	1.9	2.5	2.0	2.4	1.9	3.5	2.7	3.4	2.7	2.8	2.3
		Kuujuaq	1.8	1.4	1.8	1.4	1.3	1.0	1.3	1.0	1.6	1.3	1.7	1.3	1.7	1.4
		Schefferville	2.2	1.7	3.0	2.4	1.9	1.4	2.2	1.6	2.4	1.8	2.5	2.0	2.4	1.9
	SOUTH (7 stations)	Amos	2.6	2.1	2.7	2.2	2.4	1.8	2.3	1.8	2.5	1.9	2.4	1.9	2.9	2.3
		Val d'Or	2.3	1.7	2.8	2.4	1.8	1.5	2.2	1.8	1.9	1.6	2.5	2.0	3.5	2.8
		Montreal-Dorval	2.5	2.0	3.7	3.0	2.7	2.1	2.8	2.2	3.3	2.6	3.0	2.4	2.9	2.4
		Montreal-McGill	3.3	2.7	3.2	2.7	2.8	2.2	2.8	2.3	3.1	2.5	4.0	3.1	3.4	2.8
		Drummondville	3.5	2.9	5.1	4.1	3.1	2.4	3.1	2.4	3.2	2.5	3.6	2.8	3.4	2.8
		Maniwaki	2.3	1.8	2.3	1.8	2.0	1.5	2.0	1.6	2.1	1.7	2.5	2.0	2.4	1.9
		Bagotville	2.5	1.9	2.7	2.1	2.5	1.9	2.4	1.9	2.6	2.0	2.5	2.0	3.6	2.6
	MARITIME (6 stations)	Causapscal	2.6	2.0	2.8	2.1	2.7	2.1	2.7	2.1	2.7	2.1	2.8	2.2	3.1	2.5
		Daniel-Harbour	3.1	2.7	3.4	2.6	3.2	2.6	3.2	2.6	3.8	3.1	3.8	3.1	3.9	3.1
		Gaspe	6.1	4.5	6.5	5.1	5.8	4.5	6.3	5.0	7.1	5.5	6.8	5.4	6.4	5.1
		Mont-Joli	2.1	1.7	2.9	2.2	1.9	1.5	2.0	1.6	2.7	2.2	2.5	2.0	2.5	2.1
		Natashquan	2.8	2.1	2.5	2.1	2.9	2.1	2.7	2.1	3.8	3.0	3.1	2.4	3.0	2.3
		Sept-Iles	3.4	2.5	4.2	3.3	3.3	2.6	3.0	2.4	4.0	3.1	3.8	3.1	4.1	3.3
APRIL	HUDSON BAY (3 stations)	Inukjuak	2.1	1.5	1.9	1.3	1.9	1.2	1.9	1.3	2.0	1.3	1.9	1.3	2.1	1.4
		Kuujuarapik	2.3	1.8	1.2	1.0	1.3	1.0	1.3	1.1	1.4	1.1	1.4	1.1	2.2	1.7
		Moosonee	1.9	1.6	2.2	1.7	1.6	1.3	2.0	1.8	2.0	1.6	2.1	1.7	3.2	2.4
	LABRADOR (4 stations)	Cartwright	2.9	2.3	2.4	2.0	2.3	1.9	2.5	1.9	3.3	2.6	3.2	2.6	3.2	2.6
		Goosebay	2.7	2.3	2.7	2.2	2.0	1.6	2.0	1.6	2.3	1.9	2.1	1.7	2.2	1.8
		Kuujuaq	2.4	1.9	1.5	1.2	1.6	1.2	1.3	1.0	1.7	1.4	1.9	1.6	1.7	1.4
		Schefferville	2.9	2.2	3.4	2.5	2.0	1.5	2.2	1.7	3.1	2.5	3.2	2.6	3.3	2.6
	SOUTH (7 stations)	Amos	2.2	1.7	2.5	2.2	1.9	1.5	1.8	1.5	2.6	2.1	2.3	1.9	3.5	2.6
		Val d'Or	2.5	2.1	2.6	2.1	1.7	1.3	1.9	1.5	1.9	1.5	2.1	1.7	3.7	2.8
		Montreal-Dorval	2.1	1.7	2.8	2.2	1.9	1.5	2.4	1.8	2.3	1.8	2.4	1.9	2.2	1.8
		Montreal-McGill	2.3	1.7	3.0	2.5	3.0	2.3	2.5	2.1	3.0	2.4	3.0	2.4	2.6	2.1
		Drummondville	3.6	2.4	3.5	2.7	2.1	1.6	2.1	1.7	2.1	1.6	2.9	2.2	2.4	1.9
		Maniwaki	2.6	1.9	2.8	2.2	2.0	1.5	2.1	1.6	2.1	1.7	2.5	2.0	2.2	1.8
		Bagotville	2.5	2.0	2.3	1.8	1.8	1.4	2.1	1.7	2.2	1.8	2.2	1.8	2.7	2.1
	MARITIME (6 stations)	Causapscal	2.7	2.2	2.4	1.9	2.2	1.7	2.3	1.8	2.5	1.9	2.4	1.9	2.5	2.0
		Daniel-Harbour	2.7	2.1	2.3	1.8	2.1	1.6	2.2	1.7	2.5	2.0	2.4	1.9	2.6	2.0
		Gaspe	7.4	5.2	7.3	4.9	6.5	4.2	6.3	4.1	6.7	4.6	6.8	4.7	6.6	4.5
		Mont-Joli	2.7	2.1	2.8	2.1	1.8	1.4	2.0	1.6	2.5	1.9	2.7	2.1	2.4	2.0
		Natashquan	2.8	2.1	2.2	1.7	2.1	1.7	2.0	1.6	2.7	2.1	2.5	2.0	2.3	1.9
		Sept-Iles	4.7	3.8	5.4	4.3	4.4	3.4	4.6	3.6	5.2	4.1	5.1	4.0	5.3	4.3

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
MAY	HUDSON BAY (3 stations)	Inukjuak	2.1	1.8	1.6	1.3	1.6	1.2	1.6	1.2	1.6	1.2	1.6	1.2	1.9	1.5
		Kuujuarapik	4.1	3.2	2.0	1.6	1.4	1.1	1.5	1.2	1.7	1.4	1.6	1.2	2.1	1.7
		Moosonee	3.7	2.7	2.4	1.7	1.9	1.6	1.9	1.6	2.3	1.8	2.2	1.7	4.1	3.2
	LABRADOR (4 stations)	Cartwright	2.6	2.1	2.0	1.5	1.8	1.2	1.6	1.3	1.9	1.5	1.8	1.4	1.8	1.4
		Goosebay	2.9	2.2	2.1	1.6	1.7	1.4	1.8	1.5	2.2	1.7	2.0	1.6	2.0	1.6
		Kuujuuaq	3.3	2.4	1.4	1.1	1.2	0.9	1.2	0.9	1.3	1.0	1.3	0.9	1.5	1.1
		Schefferville	3.3	2.8	1.9	1.6	1.4	1.1	1.5	1.2	2.1	1.7	2.4	2.0	1.9	1.5
	SOUTH (7 stations)	Amos	3.2	2.5	2.9	2.2	2.4	1.9	2.4	1.9	2.7	2.1	2.7	2.1	3.4	2.6
		Val d'Or	2.8	2.2	2.8	2.3	1.8	1.5	2.1	1.7	1.9	1.6	2.5	2.1	3.6	2.8
		Montreal-Dorval	3.4	2.6	3.2	2.5	1.9	1.5	1.9	1.5	2.2	1.8	2.3	1.8	2.3	1.8
		Montreal-McGill	4.2	3.0	3.3	2.7	2.6	2.0	2.8	2.2	2.9	2.3	3.0	2.4	2.9	2.3
		Drummondville	4.4	3.4	3.9	3.2	2.6	2.0	2.6	2.0	2.8	2.2	2.9	2.3	2.7	2.1
		Maniwaki	3.7	2.7	3.2	2.6	2.7	2.0	2.7	2.0	3.3	2.5	3.2	2.5	3.6	2.9
		Bagotville	3.7	2.9	2.5	2.0	2.1	1.6	2.3	1.8	2.6	2.1	2.4	1.9	2.6	2.1
	MARITIME (6 stations)	Causapsal	3.7	2.9	2.7	2.0	2.8	2.1	2.9	2.1	3.4	2.7	3.1	2.4	3.4	2.6
		Daniel-Harbour	3.6	3.0	2.4	2.0	2.4	1.9	2.4	1.9	2.9	2.4	2.7	2.2	2.9	2.4
		Gaspe	4.0	3.1	3.3	2.4	3.9	2.9	4.0	2.9	4.0	3.1	4.3	3.4	4.9	3.7
		Mont-Joli	3.4	2.6	2.4	1.9	2.2	1.8	2.4	1.8	2.7	2.1	2.3	1.8	2.4	1.9
		Natashquan	4.2	3.1	3.4	2.4	3.2	2.4	3.4	2.6	3.8	3.1	3.5	2.8	3.8	3.0
		Sept-Iles	3.5	2.5	3.7	3.0	3.7	2.8	3.6	2.8	5.0	4.0	4.8	3.7	4.4	3.4
JUNE	HUDSON BAY (3 stations)	Inukjuak	3.4	2.3	2.3	1.8	2.1	1.6	2.3	1.8	2.4	1.8	2.6	2.0	2.3	1.7
		Kuujuarapik	3.4	2.8	3.1	2.6	2.6	2.0	2.9	2.3	4.6	3.5	2.7	2.1	3.9	3.0
		Moosonee	3.9	3.4	3.0	2.2	2.6	2.1	2.7	2.1	2.8	2.2	2.9	2.2	5.4	4.1
	LABRADOR (4 stations)	Cartwright	3.1	2.4	2.3	1.7	2.1	1.6	2.1	1.5	2.6	2.1	2.5	1.9	2.5	1.9
		Goosebay	4.3	3.5	3.1	2.2	3.0	2.2	3.1	2.3	3.5	2.7	3.2	2.4	3.8	2.9
		Kuujuuaq	3.7	3.1	2.4	1.9	2.2	1.7	2.2	1.7	2.4	1.9	2.2	1.8	2.6	2.1
		Schefferville	4.9	4.2	2.8	2.3	2.1	1.6	2.1	1.7	2.5	2.0	2.4	2.0	2.4	1.9
	SOUTH (7 stations)	Amos	4.5	3.7	5.1	3.4	4.5	3.1	4.3	3.1	4.6	3.3	4.3	3.0	5.9	4.6
		Val d'Or	4.0	3.2	3.0	2.3	2.1	1.6	2.5	2.0	2.2	1.7	2.7	2.2	3.8	3.1
		Montreal-Dorval	4.1	3.3	4.4	3.4	3.0	2.4	3.2	2.5	3.4	2.7	3.2	2.5	3.8	3.0
		Montreal-McGill	4.8	3.7	3.4	3.0	3.6	2.9	3.5	2.8	4.3	3.4	4.4	3.4	3.8	3.1
		Drummondville	5.7	4.3	5.1	3.8	3.0	2.5	3.0	2.4	3.1	2.5	3.4	2.8	3.5	2.8
		Maniwaki	5.4	4.2	3.3	2.7	3.0	2.3	3.2	2.4	3.2	2.5	3.6	2.8	4.0	3.1
		Bagotville	4.0	3.3	3.0	2.5	2.9	2.3	2.6	2.1	2.7	2.1	3.2	2.6	4.0	3.1
	MARITIME (6 stations)	Causapsal	4.4	3.6	2.8	2.4	3.1	2.4	3.2	2.4	3.1	2.4	3.1	2.3	3.4	2.6
		Daniel-Harbour	3.9	2.6	3.1	2.0	3.3	2.3	3.4	2.4	3.5	2.4	3.4	2.3	3.8	2.7
		Gaspe	4.1	3.2	2.6	1.9	2.8	2.2	2.8	2.1	2.9	2.2	2.8	2.1	3.0	2.4
		Mont-Joli	5.2	4.4	3.2	2.7	2.5	1.9	2.7	2.1	2.5	2.0	2.6	2.0	2.6	2.0
		Natashquan	4.1	3.2	3.4	2.8	3.2	2.5	3.3	2.5	3.8	3.0	3.7	2.9	3.8	3.0
		Sept-Iles	4.1	3.5	3.4	2.7	3.0	2.4	3.0	2.4	3.7	3.0	3.7	2.9	3.4	2.8
JULY	HUDSON BAY (3 stations)	Inukjuak	3.2	2.7	3.3	2.5	2.7	2.0	2.8	2.1	4.5	3.5	2.9	2.4	2.8	2.2
		Kuujuarapik	3.6	2.7	3.3	2.7	2.4	1.9	2.8	2.0	3.1	2.4	2.6	2.1	4.4	3.3
		Moosonee	4.7	3.5	4.5	3.1	4.2	3.0	4.3	2.8	5.2	4.0	4.0	2.8	5.9	4.5
	LABRADOR (4 stations)	Cartwright	3.1	2.4	3.1	2.4	2.7	2.0	2.6	1.9	2.8	2.1	2.9	2.2	3.6	2.8
		Goosebay	3.8	3.0	3.7	2.9	3.3	2.6	3.5	2.7	3.7	3.0	3.5	2.8	3.9	3.2
		Kuujuuaq	5.3	4.1	2.2	1.7	2.1	1.7	2.0	1.6	2.4	1.9	3.0	2.4	2.3	1.9
		Schefferville	4.2	3.6	3.7	3.1	2.8	2.2	2.7	2.2	2.9	2.4	2.7	2.2	2.8	2.3
	SOUTH (7 stations)	Amos	3.5	2.7	4.0	2.9	3.8	2.8	4.3	3.4	4.2	3.2	4.7	3.6	5.8	4.5
		Val d'Or	5.0	4.2	3.8	3.0	2.8	2.2	3.1	2.5	2.9	2.4	3.5	2.6	4.3	3.6
		Montreal-Dorval	4.9	4.0	3.0	2.4	3.3	2.6	3.4	2.7	3.4	2.7	3.2	2.6	4.0	3.2
		Montreal-McGill	6.0	4.7	4.2	2.9	4.1	3.1	4.1	3.0	4.2	3.1	4.3	3.2	4.3	3.3
		Drummondville	5.3	4.5	4.5	3.5	3.4	2.6	3.5	2.7	3.5	2.8	3.6	2.8	3.9	3.1
		Maniwaki	5.7	4.7	3.7	3.0	3.5	2.7	3.4	2.6	4.0	3.1	4.0	3.1	4.2	3.2
		Bagotville	4.7	3.3	3.2	2.3	3.4	2.5	3.3	2.5	3.3	2.6	3.5	2.6	4.2	2.9
	MARITIME (6 stations)	Causapsal	5.1	4.4	3.2	2.5	3.7	2.8	3.9	3.0	3.6	2.8	3.6	2.8	3.8	3.0
		Daniel-Harbour	3.7	2.8	3.1	2.3	3.3	2.6	3.2	2.5	3.5	2.8	3.5	2.8	3.5	2.8
		Gaspe	5.6	4.1	5.3	3.9	5.6	3.7	5.3	3.6	5.6	3.8	5.2	3.8	5.4	4.0
		Mont-Joli	5.6	4.5	2.1	1.6	2.4	1.9	2.4	1.9	2.4	1.9	2.2	1.7	2.4	1.8
		Natashquan	4.1	3.3	3.4	2.8	3.3	2.6	3.2	2.6	4.2	3.3	3.9	3.1	5.1	4.0
		Sept-Iles	4.8	3.7	2.5	1.9	2.9	2.2	3.0	2.4	4.7	3.6	3.5	2.8	3.4	2.8
AUGUST	HUDSON BAY (3 stations)	Inukjuak	3.8	2.9	2.5	1.9	2.1	1.6	2.2	1.7	2.5	1.9	2.3	1.7	2.7	2.0
		Kuujuarapik	3.5	3.0	3.7	2.9	3.0	2.3	2.8	2.1	2.9	2.3	3.0	2.3	4.1	3.1
		Moosonee	3.6	3.0	2.9	2.3	2.7	2.1	2.7	2.1	4.6	3.9	3.4	2.6	6.4	4.9
	LABRADOR (4 stations)	Cartwright	2.8	2.4	2.1	1.6	2.2	1.6	2.2	1.7	2.7	2.2	2.6	1.9	2.8	2.1
		Goosebay	4.5	3.6	2.9	2.3	2.8	2.3	2.8	2.2	3.0	2.4	3.1	2.5	3.6	2.8
		Kuujuuaq	3.8	3.0	2.0	1.5	2.0	1.6	2.0	1.5	2.1	1.6	2.2	1.7	2.4	1.8
		Schefferville	4.7	3.8	2.8	2.3	2.3	1.8	2.3	1.8	2.5	2.0	2.7	2.1	2.9	2.3
	SOUTH (7 stations)	Amos	4.7	3.7	4.8	3.6	4.1	3.2	4.0	3.1	4.5	3.5	4.8	3.8	8.6	6.6
		Val d'Or	4.0	3.1	4.1	3.2	2.9	2.2	3.2	2.5	3.0	2.3	3.5	2.7	5.3	4.1
		Montreal-Dorval	3.7	2.9	3.1	2.6	3.4	2.7	4.3	3.3	4.7	3.7	5.1	4.0	5.5	4.1
		Montreal-McGill	3.8	2.8	3.9	3.2	3.7	2.9	3.6	2.8	3.7	2.9	3.7	2.9	3.8	3.0
		Drummondville	4.6	3.5	3.7	3.2	3.7	2.9	3.7	2.9	3.6	2.9	3.9	3.0	4.0	3.3
		Maniwaki	4.1	3.2	3.7	3.0	3.5	2.8	3.5	2.8	3.8	3.0	4.9	3.8	4.0	3.2
		Bagotville	3.9	3.0	2.1	1.7	2.4	1.9	2.5	1.9	2.8	2.3	2.6	2.1	2.9	2.3
	MARITIME (6 stations)	Causapsal	5.0	4.2	3.9	3.2	4.6	3.6	4.5	3.5	4.5	3.6	4.6	3.8	4.7	3.8
		Daniel-Harbour	5.2	4.2	4.5	3.4	4.2	3.3	4.2	3.3	5.2	4.1	5.0	4.0	5.4	4.3
		Gaspe	4.8	3.6	3.9	2.9	3.7	2.8	3.7	2.7	3.6	2.8	3.7	2.9	3.7	2.8
		Mont-Joli	5.2	4.2	3.2	2.4	3.9	2.8	3.7	2.6	4.2	3.1	3.8	2.7	4.5	3.3
		Natashquan	3.3	2.7	3.4	2.8	3.4	2.7	3.4	2.6	4.4	3.4	4.2	3.3	3.5	2.8
		Sept-Iles	4.1	3.3	3.3	2.6	3.9	3.0	3.8	2.9	5.6	4.4	4.2	3.3	4.3	3.4

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
SEPTEMBER	HUDSON BAY (3 stations)	Inukjuak	2.6	2.1	2.4	2.0	2.0	1.6	2.0	1.6	2.3	1.8	2.0	1.6	2.3	1.8
		Kuujuarapik	3.1	2.5	2.4	1.9	2.2	1.8	2.3	1.9	2.3	1.8	2.4	1.9	3.6	2.8
		Moosonee	3.2	2.4	3.0	2.1	3.0	2.2	3.0	2.3	3.1	2.3	3.1	2.4	5.1	4.0
	LABRADOR (4 stations)	Cartwright	3.4	2.6	2.5	1.9	2.6	2.0	2.3	1.8	4.1	3.2	3.0	2.4	3.6	2.8
		Goosebay	2.6	1.9	2.3	1.9	2.7	2.2	2.6	2.1	2.8	2.2	2.5	2.0	3.0	2.4
		Kuujuaq	2.9	2.3	2.3	1.7	2.0	1.6	2.0	1.6	2.2	1.7	2.2	1.8	2.9	2.3
		Schefferville	3.0	2.4	3.9	3.0	2.5	1.9	2.5	1.9	2.8	2.1	2.7	2.0	3.1	2.4
	SOUTH (7 stations)	Amos	3.8	2.9	3.6	2.8	3.0	2.4	2.9	2.3	3.2	2.5	3.3	2.6	4.4	3.5
		Val d'Or	3.2	2.6	3.8	3.0	2.4	1.9	2.8	2.2	2.6	2.0	3.2	2.5	4.3	3.4
		Montreal-Dorval	4.1	3.3	3.5	2.5	4.4	3.3	4.3	3.2	4.4	3.4	4.3	3.3	5.3	4.2
		Montreal-McGill	4.3	3.6	4.2	3.4	4.4	3.5	4.5	3.6	4.5	3.6	5.0	4.0	4.9	3.9
		Drummondville	3.9	3.0	4.4	3.9	4.0	3.1	4.1	3.1	4.1	3.2	5.0	3.8	4.5	3.6
		Maniwaki	4.3	3.4	4.2	3.4	3.5	2.7	3.4	2.6	3.8	2.7	4.2	3.2	3.9	3.0
		Bagotville	3.2	2.4	2.7	2.1	2.9	2.2	3.0	2.3	3.1	2.3	2.9	2.3	3.8	2.8
	MARITIME (6 stations)	Causapsal	3.9	3.1	3.8	2.8	3.9	2.9	3.8	3.0	4.2	3.3	4.2	3.4	5.6	4.4
		Daniel-Harbour	3.4	2.8	3.5	2.7	2.8	2.2	2.8	2.2	2.9	2.3	2.7	2.1	3.0	2.4
		Gaspe	2.5	2.1	3.5	2.8	2.7	2.1	2.7	2.1	2.8	2.3	3.1	2.5	3.3	2.7
		Mont-Joli	3.2	2.7	3.1	2.4	3.0	2.3	3.1	2.5	3.8	3.1	3.8	3.1	4.8	3.7
		Natashquan	3.2	2.6	3.7	2.7	3.4	2.6	3.4	2.6	3.6	2.8	3.6	2.8	3.7	2.9
		Sept-Iles	5.1	3.5	5.8	4.0	4.9	3.6	4.7	3.5	6.5	5.0	6.3	4.9	7.3	5.5
OCTOBER	HUDSON BAY (3 stations)	Inukjuak	2.1	1.6	2.0	1.5	1.8	1.4	1.6	1.2	1.7	1.3	1.6	1.3	1.9	1.5
		Kuujuarapik	2.1	1.6	2.3	1.9	1.9	1.4	1.7	1.4	1.9	1.5	1.9	1.4	2.5	2.0
		Moosonee	3.2	2.4	3.1	2.6	2.8	2.1	2.7	2.0	2.8	2.1	2.7	2.0	3.9	3.2
	LABRADOR (4 stations)	Cartwright	3.2	2.5	2.5	1.9	2.4	1.9	2.5	2.0	3.1	2.5	2.9	2.3	3.1	2.5
		Goosebay	2.7	2.0	2.4	1.8	2.4	1.9	2.4	1.9	3.4	2.7	3.3	2.6	3.1	2.6
		Kuujuaq	1.9	1.5	1.8	1.6	1.5	1.2	1.4	1.1	1.8	1.4	1.7	1.4	1.7	1.3
		Schefferville	2.1	1.7	2.7	2.2	1.7	1.3	1.7	1.3	2.1	1.6	2.0	1.6	1.9	1.5
	SOUTH (7 stations)	Amos	2.7	2.2	2.6	2.1	1.9	1.5	2.0	1.6	2.2	1.7	2.1	1.7	3.0	2.4
		Val d'Or	2.9	2.3	2.7	2.2	2.0	1.5	2.6	2.1	2.1	1.6	3.0	2.5	3.0	2.4
		Montreal-Dorval	2.8	2.2	4.4	3.6	2.5	1.8	2.3	1.8	2.7	2.1	2.4	1.9	2.6	2.0
		Montreal-McGill	3.7	2.8	3.8	3.2	2.7	2.1	2.6	2.0	3.0	2.4	3.0	2.4	3.1	2.4
		Drummondville	5.5	4.5	5.9	4.8	2.2	1.7	2.2	1.8	2.5	2.0	2.6	2.1	2.6	2.1
		Maniwaki	3.4	2.4	4.0	3.0	2.3	1.8	2.3	1.8	2.8	2.2	3.4	2.7	2.8	2.3
		Bagotville	2.5	1.9	2.5	2.1	2.1	1.7	2.1	1.7	2.1	1.7	2.4	1.9	2.8	2.2
	MARITIME (6 stations)	Causapsal	3.2	2.6	3.6	2.9	2.8	2.2	2.7	2.1	3.0	2.3	3.0	2.4	3.0	2.4
		Daniel-Harbour	2.9	2.3	2.9	2.0	2.8	2.1	3.0	2.3	3.0	2.4	2.8	2.2	3.1	2.5
		Gaspe	4.5	3.8	4.4	3.6	4.2	3.3	4.1	3.2	4.4	3.5	4.5	3.7	5.0	4.0
		Mont-Joli	2.6	2.3	3.7	2.9	2.5	1.9	2.4	2.0	3.0	2.4	2.7	2.3	3.0	2.5
		Natashquan	3.9	2.8	4.1	3.4	3.1	2.4	3.1	2.4	4.4	3.6	4.6	3.7	4.3	3.5
		Sept-Iles	3.8	3.0	3.7	2.8	3.3	2.6	3.4	2.6	4.6	3.6	4.1	3.1	3.5	2.8
NOVEMBER	HUDSON BAY (3 stations)	Inukjuak	1.5	1.2	2.0	1.6	1.6	1.2	1.5	1.2	1.6	1.2	1.5	1.2	1.8	1.4
		Kuujuarapik	2.0	1.5	2.2	1.9	1.8	1.4	1.6	1.3	1.7	1.3	1.6	1.3	2.6	2.0
		Moosonee	2.4	1.9	2.5	2.1	2.0	1.6	2.3	1.9	2.5	2.0	2.1	1.7	2.7	2.1
	LABRADOR (4 stations)	Cartwright	2.6	1.9	2.7	2.2	2.0	1.6	2.1	1.6	3.1	2.4	3.2	2.6	2.4	2.0
		Goosebay	2.7	2.4	2.8	2.1	2.3	1.8	2.3	1.8	2.7	2.1	2.7	2.1	2.6	2.1
		Kuujuaq	2.0	1.4	2.6	2.2	1.7	1.3	1.7	1.3	1.9	1.5	1.9	1.5	2.2	1.8
		Schefferville	2.8	2.2	3.8	3.2	2.0	1.6	2.1	1.7	3.2	2.5	2.6	2.0	2.7	2.2
	SOUTH (7 stations)	Amos	1.8	1.4	2.4	1.9	1.7	1.3	2.0	1.6	2.1	1.7	2.1	1.6	2.4	1.8
		Val d'Or	2.9	2.3	2.9	2.2	1.7	1.2	2.1	1.6	2.1	1.7	2.2	1.7	3.1	2.3
		Montreal-Dorval	3.1	2.7	4.4	3.7	2.4	1.8	2.5	2.0	2.7	2.1	2.6	2.1	2.5	2.0
		Montreal-McGill	3.6	3.1	3.7	2.8	2.7	2.1	3.0	2.4	3.0	2.4	3.7	2.9	3.0	2.4
		Drummondville	4.5	3.8	5.3	4.6	2.5	1.9	2.6	2.0	2.7	2.2	3.2	2.5	2.9	2.3
		Maniwaki	2.5	2.0	2.5	2.1	2.1	1.6	1.9	1.5	2.2	1.7	2.9	2.2	2.0	1.6
		Bagotville	1.9	1.6	2.2	1.6	2.0	1.5	2.6	2.0	2.3	1.7	2.9	2.3	2.7	2.1
	MARITIME (6 stations)	Causapsal	3.5	2.6	3.8	3.1	2.7	2.1	2.7	2.1	2.8	2.2	2.7	2.2	2.8	2.2
		Daniel-Harbour	4.3	3.1	4.2	3.2	3.4	2.5	3.7	2.6	4.2	3.2	4.0	3.0	4.0	3.0
		Gaspe	5.4	4.6	4.6	3.7	4.8	3.7	5.0	3.9	5.3	4.2	5.5	4.3	5.3	4.3
		Mont-Joli	3.1	2.2	4.3	3.3	2.4	1.9	2.5	2.0	2.6	2.1	2.9	2.3	2.8	2.3
		Natashquan	3.7	2.9	5.0	3.6	3.5	2.6	3.2	2.4	5.0	3.8	5.6	4.5	3.9	3.0
		Sept-Iles	4.4	3.4	5.2	3.9	4.6	3.4	4.5	3.1	6.2	4.6	4.7	3.5	5.1	3.7
DECEMBER	HUDSON BAY (3 stations)	Inukjuak	1.7	1.4	1.5	1.0	1.6	1.2	1.6	1.2	1.5	1.2	1.6	1.3	1.8	1.4
		Kuujuarapik	1.9	1.5	1.5	1.1	1.2	0.9	1.2	1.0	1.2	1.0	1.3	1.1	1.9	1.5
		Moosonee	1.7	1.2	1.9	1.4	1.3	0.9	1.5	1.1	1.6	1.3	1.6	1.1	1.8	1.5
	LABRADOR (4 stations)	Cartwright	2.1	1.6	2.6	2.1	2.2	1.7	2.1	1.7	2.4	1.9	2.4	2.0	2.3	1.9
		Goosebay	3.0	2.6	2.8	2.4	2.5	2.0	2.4	2.0	2.9	2.4	2.7	2.2	2.5	2.1
		Kuujuaq	2.9	2.3	3.1	2.3	2.4	1.8	2.4	1.8	2.8	2.3	3.1	2.6	3.3	2.6
		Schefferville	2.5	1.9	2.9	2.6	1.6	1.3	1.7	1.4	3.0	2.3	2.5	2.0	2.3	1.8
	SOUTH (7 stations)	Amos	1.7	1.3	1.9	1.7	1.6	1.3	1.5	1.2	1.3	1.0	1.4	1.1	1.8	1.4
		Val d'Or	1.8	1.5	2.0	1.7	1.2	1.0	1.8	1.5	1.3	1.0	2.1	1.6	2.0	1.6
		Montreal-Dorval	2.5	2.0	3.8	3.1	2.3	1.8	2.4	1.9	2.7	2.1	2.4	1.9	3.3	2.7
		Montreal-McGill	3.8	3.1	4.2	3.4	3.3	2.6	3.1	2.5	3.4	2.7	4.5	3.4	3.7	3.0
		Drummondville	3.8	3.0	4.9	4.1	3.0	2.2	3.0	2.2	3.1	2.3	3.4	2.5	3.4	2.6
		Maniwaki	2.5	1.7	3.3	2.5	2.4	1.8	2.3	1.7	2.3	1.7	3.2	2.5	2.6	2.0
		Bagotville	3.0	2.5	3.2	2.6	2.3	1.9	2.6	2.1	3.1	2.5	3.0	2.4	3.0	2.4
	MARITIME (6 stations)	Causapsal	3.0	2.2	2.9	2.3	2.6	1.9	2.7	2.0	2.7	2.0	2.8	2.1	3.5	2.6
		Daniel-Harbour	3.4	2.5	3.6	2.8	3.0	2.3	3.2	2.4	3.5	2.7	3.5	2.8	4.1	3.3
		Gaspe	6.5	5.0	5.8	4.1	5.0	4.0	4.9	3.8	5.6	4.4	6.2	4.9	5.6	4.4
		Mont-Joli	2.3	1.8	2.8	2.3	2.1	1.7	2.0	1.6	2.5	2.0	2.4	1.9	2.7	2.1
		Natashquan	4.0	3.1	4.3	3.3	3.2	2.4	3.2	2.5	4.5	3.5	4.5	3.5	4.1	3.3
		Sept-Iles	4.4	3.6	5.3	4.1	3.2	2.5	3.6	2.8	5.1	4.0	4.3	3.4	4.3	3.5

Table 2.16 Same as Table 2.3 but for the seasonal wet days (in %).

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
WINTER	HUDSON BAY (3 stations)	Inukjuak	20.0	17.4	16.3	13.9	8.6	7.1	8.5	7.0	22.8	20.4	21.3	17.2	8.6	7.0
		Kuujuarapik	15.0	13.1	12.5	10.5	7.9	6.4	7.9	6.4	8.5	6.8	14.8	12.4	9.0	7.1
		Moosonee	16.0	13.6	12.5	10.2	8.0	6.4	9.2	7.1	12.7	10.2	14.2	12.1	10.5	8.4
	LABRADOR (4 stations)	Cartwright	14.7	11.9	11.7	9.3	9.3	7.5	8.6	6.9	9.6	8.0	10.2	8.5	9.9	7.9
		Goosebay	14.0	10.5	14.3	12.1	10.3	8.3	9.7	7.8	10.2	8.4	10.7	8.7	9.1	7.4
		Kuujuuaq	19.8	17.2	13.0	10.5	8.6	7.0	7.7	6.2	9.9	8.3	9.8	8.1	9.6	7.7
		Schefferville	14.0	11.5	11.8	9.8	10.1	7.9	9.4	7.7	8.9	7.2	9.0	7.2	9.5	7.6
	SOUTH (7 stations)	Amos	17.8	16.2	10.7	8.3	8.0	6.3	8.1	6.3	12.6	10.4	11.4	9.4	8.7	7.0
		Val d'Or	10.2	7.9	20.0	18.2	7.6	6.1	7.3	5.8	10.4	8.1	11.3	8.4	9.7	7.7
		Montreal-Dorval	22.2	20.7	13.2	11.0	6.5	5.2	6.4	5.2	7.7	6.2	9.2	7.6	8.1	6.4
		Montreal-McGill	17.5	15.9	10.3	8.5	6.0	4.9	6.0	4.8	8.0	6.3	9.3	7.7	8.4	6.7
		Drummondville	16.2	13.9	10.9	9.1	7.2	5.7	7.1	5.5	9.2	7.2	11.7	9.9	9.6	7.6
		Maniwaki	16.0	13.8	10.3	7.6	8.1	6.4	7.2	5.7	11.7	9.5	9.3	7.3	9.7	7.7
		Bagotville	15.6	13.4	17.2	14.7	9.0	7.1	9.0	7.2	9.6	7.7	9.8	8.0	21.5	17.9
	MARITIME (6 stations)	Causapsal	16.3	14.9	9.3	7.6	8.3	6.8	7.8	6.4	7.1	5.8	8.9	7.2	8.3	6.8
		Daniel-Harbour	15.9	13.2	20.1	16.9	13.5	11.3	12.6	10.6	17.1	14.7	14.3	12.5	13.8	11.3
		Gaspe	23.0	21.9	10.1	7.7	10.7	8.9	10.5	8.7	10.9	9.2	11.0	9.1	9.0	7.3
		Mont-Joli	18.0	15.9	9.8	7.9	8.2	6.6	8.9	7.1	8.2	6.4	9.1	7.2	9.1	7.2
		Natashquan	12.6	11.3	14.9	12.2	9.5	7.7	9.6	7.7	9.4	7.7	10.4	8.3	10.1	8.2
		Sept-Iles	20.2	18.3	12.1	9.5	8.5	7.0	8.5	6.7	8.4	6.9	9.4	7.6	9.0	7.3
SPRING	HUDSON BAY (3 stations)	Inukjuak	21.1	19.9	8.6	6.8	6.7	5.5	6.6	5.4	6.8	5.5	7.6	6.3	7.1	5.8
		Kuujuarapik	24.1	22.1	7.1	6.0	7.6	6.3	6.4	5.1	8.9	6.7	8.2	6.6	8.2	6.6
		Moosonee	20.8	19.0	9.3	7.5	6.8	5.6	6.8	5.6	8.6	7.1	7.6	6.3	8.9	7.2
	LABRADOR (4 stations)	Cartwright	14.5	12.3	11.7	9.4	8.0	6.4	8.2	6.7	12.2	10.1	9.4	7.6	10.5	8.4
		Goosebay	16.1	13.7	13.9	11.6	8.0	6.5	8.2	6.7	11.2	9.5	8.5	7.0	9.5	7.7
		Kuujuuaq	19.2	17.6	7.9	6.0	7.3	5.8	6.9	5.5	8.4	6.8	7.2	5.7	8.7	7.0
		Schefferville	17.9	15.7	14.4	11.7	8.6	6.7	9.7	7.8	11.9	9.5	9.9	7.7	11.4	9.2
	SOUTH (7 stations)	Amos	18.3	17.2	8.2	7.4	6.3	5.2	6.7	5.5	11.7	10.0	8.5	7.0	8.1	6.5
		Val d'Or	14.4	12.6	11.1	9.5	7.1	5.5	6.9	5.4	8.7	7.2	10.4	8.7	9.6	7.8
		Montreal-Dorval	24.1	22.8	18.0	16.1	6.1	5.0	6.9	5.5	8.6	6.6	8.0	6.4	8.6	6.9
		Montreal-McGill	23.0	21.6	9.9	7.9	6.1	4.9	6.7	5.3	7.5	6.0	8.8	6.9	8.3	6.7
		Drummondville	22.4	20.3	14.9	12.3	7.0	5.6	7.9	6.2	9.4	7.6	9.6	7.6	9.8	7.9
		Maniwaki	23.1	21.7	13.9	11.2	6.3	5.0	6.4	5.1	7.8	6.5	8.2	6.7	8.7	7.0
		Bagotville	22.5	20.7	7.9	6.5	6.6	5.1	6.2	5.0	10.8	8.5	9.2	7.2	30.2	23.9
	MARITIME (6 stations)	Causapsal	22.2	20.4	9.8	7.3	7.9	6.2	7.7	6.4	9.4	7.7	8.9	7.1	8.7	7.0
		Daniel-Harbour	16.0	12.9	15.2	12.0	8.9	7.3	9.2	7.6	10.8	8.7	11.1	9.0	11.9	9.6
		Gaspe	25.6	24.4	12.3	10.5	10.6	8.9	10.2	8.5	12.3	10.1	11.0	9.0	9.8	7.7
		Mont-Joli	28.1	26.8	12.2	10.5	6.8	5.2	8.2	6.1	9.8	7.3	8.5	6.3	9.1	6.8
		Natashquan	17.9	16.6	9.8	8.7	6.5	5.2	6.4	5.1	7.7	6.2	7.3	5.9	8.3	6.8
		Sept-Iles	25.2	23.5	12.1	9.0	8.4	6.7	9.1	7.1	11.0	8.7	9.9	8.0	10.6	8.2
SUMMER	HUDSON BAY (3 stations)	Inukjuak	19.1	17.8	7.7	6.2	7.0	5.7	8.1	6.4	8.9	7.0	10.8	8.5	9.1	7.2
		Kuujuarapik	18.1	15.5	13.6	9.9	7.8	6.3	6.9	5.6	10.3	8.0	10.9	8.5	10.6	8.4
		Moosonee	14.9	12.8	8.9	7.0	7.8	6.3	6.8	5.5	9.9	8.3	15.5	13.5	8.4	6.8
	LABRADOR (4 stations)	Cartwright	11.3	9.3	11.3	9.2	9.8	7.9	9.4	7.5	8.8	7.2	10.2	8.3	10.6	8.5
		Goosebay	20.6	19.3	13.4	11.5	7.9	6.3	7.6	6.0	9.7	8.1	7.6	6.2	8.3	6.7
		Kuujuuaq	21.2	19.2	10.1	8.5	7.0	5.7	6.6	5.4	7.4	6.1	8.7	7.1	8.3	6.8
		Schefferville	24.2	22.7	17.6	14.6	9.1	7.4	8.8	7.2	10.1	8.0	9.3	7.3	10.9	8.8
	SOUTH (7 stations)	Amos	16.1	14.2	8.0	6.8	7.1	5.7	6.8	5.6	7.1	5.5	7.3	6.0	7.6	6.2
		Val d'Or	22.8	20.9	6.7	5.8	6.1	4.7	6.2	4.9	8.2	6.3	11.5	9.9	7.6	6.0
		Montreal-Dorval	34.0	33.2	18.1	17.0	6.4	5.2	6.3	5.1	6.4	5.1	7.4	6.0	8.5	6.8
		Montreal-McGill	31.1	30.0	8.0	6.7	7.0	5.6	7.8	6.4	7.8	6.2	8.2	6.9	7.6	6.1
		Drummondville	24.2	23.2	12.2	10.8	6.9	5.6	7.1	5.8	7.2	5.7	7.4	5.9	7.2	5.7
		Maniwaki	31.3	30.1	17.5	15.7	6.7	5.4	6.9	5.5	8.5	7.0	10.5	8.5	8.2	6.6
		Bagotville	22.2	21.0	8.6	7.4	6.4	5.1	6.2	4.9	8.5	6.6	9.9	8.1	33.7	26.3
	MARITIME (6 stations)	Causapsal	19.9	17.9	10.7	8.6	7.7	6.3	8.4	6.8	9.8	8.0	7.8	6.5	8.1	6.6
		Daniel-Harbour	13.7	11.0	18.2	16.3	7.1	5.8	7.2	6.0	7.7	6.1	8.8	7.1	8.4	6.8
		Gaspe	21.2	19.5	11.4	9.6	9.1	7.5	8.9	7.4	9.0	7.3	8.1	6.6	8.2	6.6
		Mont-Joli	27.7	26.8	16.8	15.2	6.9	5.4	7.3	5.7	7.6	6.1	6.8	5.4	7.2	5.7
		Natashquan	19.9	18.5	12.1	10.4	6.5	5.3	6.4	5.1	9.9	8.0	9.5	7.8	7.3	5.9
		Sept-Iles	23.9	22.7	11.1	8.5	7.1	5.7	6.9	5.5	7.1	5.7	8.5	6.9	7.2	5.8
AUTUMN	HUDSON BAY (3 stations)	Inukjuak	10.2	8.1	12.5	9.3	9.8	7.8	9.4	7.5	13.2	10.3	11.4	8.7	12.0	9.7
		Kuujuarapik	10.9	9.2	16.0	13.7	10.5	8.4	10.5	8.6	12.4	9.7	12.8	10.7	12.0	10.0
		Moosonee	11.8	10.4	10.8	8.8	7.8	6.0	7.9	6.2	9.1	7.1	9.1	7.4	9.0	7.0
	LABRADOR (4 stations)	Cartwright	9.8	7.7	14.0	11.8	10.3	8.5	10.2	8.3	10.4	8.4	9.8	7.9	10.4	8.4
		Goosebay	15.5	13.2	17.5	16.0	9.5	7.9	9.4	7.8	8.9	7.1	9.4	7.6	8.8	7.1
		Kuujuuaq	14.3	11.8	10.3	8.2	9.1	7.3	8.4	6.7	8.7	7.0	8.9	7.1	8.3	6.7
		Schefferville	12.3	10.6	13.2	10.6	10.3	8.3	9.8	7.7	10.5	8.5	10.1	8.2	9.4	7.6
	SOUTH (7 stations)	Amos	13.3	11.0	13.2	10.1	10.1	8.0	9.9	8.0	12.0	9.6	10.6	8.3	9.8	7.7
		Val d'Or	8.8	6.9	16.1	13.4	8.8	7.1	9.0	7.0	11.0	9.1	11.5	9.0	9.9	8.1
		Montreal-Dorval	16.9	16.0	11.3	9.7	6.2	4.9	6.3	5.1	8.5	7.0	7.5	5.9	7.5	6.0
		Montreal-McGill	16.1	15.3	7.6	5.8	6.2	4.7	6.4	5.2	6.6	5.3	6.7	5.4	7.1	5.6
		Drummondville	9.8	8.0	8.4	6.4	7.4	6.0	7.5	6.1	8.8	7.4	8.2	6.6	9.1	7.4
		Maniwaki	13.5	12.0	11.0	8.6	5.8	4.6	6.2	4.9	8.0	6.5	8.2	6.7	7.6	6.1
		Bagotville	12.8	10.3	12.3	9.9	7.3	5.8	6.8	5.4	10.1	8.0	8.8	7.2	23.3	18.8
	MARITIME (6 stations)	Causapsal	12.4	10.1	9.1	7.3	8.9	7.2	8.5	6.8	8.8	7.3	8.6	6.9	9.2	7.4
		Daniel-Harbour	7.8	6.8	12.2	9.6	8.7	7.0	8.8	7.0	10.2	8.4	8.9	7.1	9.0	7.1
		Gaspe	17.2	16.1	10.6	8.6	9.1	7.3	9.2	7.5	9.9	8.0	9.1	7.4	8.3	6.6
		Mont-Joli	19.4	17.6	11.7	9.7	7.4	6.0	7.4	6.0	7.8	6.4	7.4	5.8	8.2	6.6
		Natashquan	10.1	8.4	11.0	8.5	7.5	5.9	7.3	5.8	8.0	6.4	8.2	6.3	8.0	6.3
		Sept-Iles	17.5	15.3	10.9	8.9	7.4	6.1	7.3	6.0	9.1	7.7	9.1	7.4	8.7	7.2

Table 2.17 Same as Table 2.3 but for the seasonal consecutive dry day (in days).

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
WINTER	HUDSON BAY (3 stations)	Inukjuak	14.4	10.6	11.5	8.3	11.6	8.9	12.0	9.3	15.2	11.7	16.1	12.2	12.7	9.7
		Kuujuarapik	10.7	6.2	9.0	5.7	8.4	5.0	9.4	5.6	9.8	6.0	10.1	6.0	11.3	7.2
		Moosonee	6.5	5.3	9.3	7.3	5.1	3.9	5.5	4.2	6.1	4.7	9.4	7.2	6.3	4.9
	LABRADOR (4 stations)	Cartwright	4.8	3.6	4.3	3.3	5.0	3.8	4.5	3.4	4.7	3.4	4.7	3.5	5.3	3.8
		Goosebay	4.5	3.3	5.4	4.2	4.3	3.2	4.3	3.3	5.2	4.0	4.5	3.4	4.4	3.5
		Kuujuuaq	6.7	5.0	6.9	5.7	6.0	4.5	5.5	4.1	5.5	4.1	6.5	5.0	5.7	4.3
		Schefferville	4.2	3.4	6.5	5.4	4.5	3.4	4.9	3.6	4.3	3.2	4.2	3.2	4.1	3.2
	SOUTH (7 stations)	Amos	5.9	4.8	9.5	6.8	4.5	3.6	4.9	3.9	4.9	4.0	5.0	4.0	6.2	4.7
		Val d'Or	3.8	3.1	10.8	8.3	2.9	2.2	3.0	2.3	4.1	3.2	3.8	2.9	5.9	3.7
		Montreal-Dorval	6.3	4.1	7.4	4.9	5.4	4.0	5.2	3.8	5.5	3.8	6.3	4.6	5.8	4.2
		Montreal-McGill	4.9	3.2	7.2	5.8	4.1	2.9	3.8	2.6	4.4	3.1	5.4	3.5	5.5	3.9
		Drummondville	5.2	3.8	7.6	5.3	4.2	3.0	4.1	3.0	4.6	3.2	5.0	4.1	5.6	4.0
		Maniwaki	5.8	3.7	5.3	3.8	3.8	2.8	3.9	2.7	5.3	3.5	5.4	3.2	6.4	4.5
		Bagotville	3.4	2.6	9.9	6.9	3.4	2.7	3.1	2.4	3.2	2.5	3.1	2.4	4.7	3.7
	MARITIME (6 stations)	Causapscal	4.6	3.7	4.8	3.7	4.0	3.0	3.7	2.8	3.5	2.8	3.9	3.1	4.1	3.2
		Daniel-Harbour	3.4	2.6	6.6	4.4	3.6	2.4	3.7	2.4	3.8	2.6	3.6	2.4	4.7	3.4
		Gaspe	7.6	6.0	5.1	3.6	6.2	4.7	6.0	4.7	5.8	4.4	5.7	4.4	6.9	5.3
		Mont-Joli	4.7	3.6	4.4	3.1	3.5	2.7	3.7	2.8	3.6	2.8	3.5	2.7	4.0	3.0
		Natashquan	3.1	2.6	7.1	4.9	3.4	2.5	3.2	2.5	3.0	2.3	3.2	2.5	3.3	2.5
		Sept-Iles	5.1	4.1	5.3	3.6	3.9	3.0	3.9	3.0	4.0	3.2	3.9	3.1	3.7	3.0
SPRING	HUDSON BAY (3 stations)	Inukjuak	9.9	8.1	8.5	6.7	9.7	7.3	9.1	6.9	9.3	7.3	12.5	9.7	10.2	7.8
		Kuujuarapik	10.2	8.3	7.8	6.1	7.1	5.5	6.8	5.1	8.0	6.2	7.8	5.9	7.3	5.5
		Moosonee	10.8	8.2	8.7	6.6	8.0	5.9	7.4	5.6	8.9	6.8	8.8	6.7	9.1	6.7
	LABRADOR (4 stations)	Cartwright	7.6	5.7	6.2	4.6	5.8	4.2	5.7	4.1	6.3	4.4	5.7	4.2	7.4	5.5
		Goosebay	8.2	6.4	6.9	4.4	6.7	4.7	6.3	4.4	6.9	5.0	6.4	4.6	6.3	4.3
		Kuujuuaq	9.6	7.7	7.2	5.7	7.5	5.8	7.1	5.4	7.6	5.9	7.7	6.1	9.0	7.2
		Schefferville	6.6	5.5	8.7	6.1	5.0	4.0	4.8	3.7	5.5	4.4	5.2	4.2	6.7	5.3
	SOUTH (7 stations)	Amos	5.7	4.8	5.6	4.5	4.8	3.6	4.8	3.5	8.4	6.3	5.7	4.4	5.2	4.1
		Val d'Or	6.5	5.0	6.5	5.4	5.2	4.0	4.9	3.7	6.0	4.5	6.2	4.8	6.8	5.3
		Montreal-Dorval	7.1	5.9	6.1	4.7	4.8	3.7	4.9	3.8	5.3	4.2	5.3	4.1	6.0	4.7
		Montreal-McGill	6.8	5.7	5.0	3.4	4.3	3.3	4.9	3.8	5.0	3.9	5.8	4.2	5.3	4.3
		Drummondville	5.8	4.8	4.6	3.5	3.8	2.9	4.2	3.4	4.7	3.7	5.0	3.7	4.5	3.6
		Maniwaki	7.2	5.8	6.5	4.9	5.0	3.8	5.3	3.9	6.2	4.5	6.6	4.7	6.6	5.0
		Bagotville	5.3	4.5	5.1	3.5	3.9	3.1	3.7	2.8	5.4	4.1	4.5	3.5	6.0	5.3
	MARITIME (6 stations)	Causapscal	5.2	4.0	4.9	3.9	4.4	3.3	4.4	3.2	4.5	3.4	4.5	3.4	5.4	3.9
		Daniel-Harbour	8.2	5.0	7.3	4.4	6.6	4.0	6.6	3.9	7.3	4.5	7.4	4.7	10.1	6.2
		Gaspe	8.1	7.0	6.3	5.0	6.1	4.8	5.7	4.5	6.3	5.0	6.6	5.1	6.2	5.0
		Mont-Joli	7.8	6.4	5.8	4.5	6.0	4.6	5.7	4.4	6.1	4.6	5.9	4.6	7.1	5.4
		Natashquan	5.5	4.5	4.5	3.5	4.6	3.4	4.6	3.5	4.3	3.4	4.6	3.5	4.8	3.8
		Sept-Iles	7.5	5.4	7.6	5.2	6.3	4.2	6.1	4.2	7.0	5.0	6.8	4.7	9.5	6.7
SUMMER	HUDSON BAY (3 stations)	Inukjuak	7.9	6.2	7.5	6.0	6.7	5.1	7.6	5.9	7.3	5.5	8.3	6.2	7.8	6.0
		Kuujuarapik	7.8	5.9	8.6	6.9	5.8	4.2	5.5	4.0	7.1	5.3	7.0	5.3	7.9	5.8
		Moosonee	4.6	3.4	5.8	4.2	3.8	2.9	3.8	2.8	4.2	3.2	5.3	4.3	4.2	3.3
	LABRADOR (4 stations)	Cartwright	3.9	3.0	3.9	3.2	3.9	2.9	3.9	2.9	3.9	2.9	4.3	3.2	4.6	3.4
		Goosebay	4.8	3.4	4.2	2.6	3.7	2.6	3.8	2.7	4.1	2.7	3.9	2.6	3.7	2.6
		Kuujuuaq	4.8	3.8	7.4	5.6	4.2	3.2	4.1	3.1	4.7	3.6	4.5	3.5	4.9	3.9
		Schefferville	5.5	4.4	8.3	6.2	3.9	2.9	3.9	2.9	4.3	3.1	4.2	3.1	4.9	3.6
	SOUTH (7 stations)	Amos	3.8	2.9	3.5	2.8	3.9	2.9	4.1	3.2	4.0	3.1	3.4	2.7	3.9	3.0
		Val d'Or	4.7	3.5	3.9	3.3	3.7	2.8	3.8	2.9	4.2	3.4	5.3	4.1	4.0	3.2
		Montreal-Dorval	6.2	5.5	4.3	3.2	5.0	3.7	5.0	3.7	4.3	3.2	3.9	3.0	5.6	4.3
		Montreal-McGill	6.5	5.8	4.3	3.1	4.5	3.4	4.3	3.3	4.5	3.5	6.7	3.4	4.6	3.6
		Drummondville	4.1	3.7	3.0	2.6	3.2	2.5	3.1	2.5	3.1	2.4	4.6	2.5	3.0	2.4
		Maniwaki	6.4	5.6	5.2	4.1	4.0	2.9	4.1	2.9	4.7	3.5	7.8	3.3	4.3	3.2
		Bagotville	4.3	3.6	3.6	3.0	3.1	2.4	3.4	2.7	3.6	2.8	3.8	3.0	5.2	4.4
	MARITIME (6 stations)	Causapscal	4.2	3.4	4.2	3.2	3.4	2.6	3.7	2.8	3.9	3.0	3.4	2.6	3.1	2.5
		Daniel-Harbour	4.3	3.3	4.4	3.4	3.7	2.8	3.8	2.9	3.9	3.0	4.0	3.1	3.6	2.8
		Gaspe	3.6	3.1	5.6	3.9	4.4	3.4	4.5	3.4	4.0	3.1	3.8	2.8	3.3	2.6
		Mont-Joli	7.1	6.0	5.4	4.5	4.6	3.5	4.7	3.6	4.6	3.7	4.6	3.7	4.8	3.8
		Natashquan	5.5	4.7	4.6	3.9	4.1	3.3	4.1	3.2	4.7	3.8	4.7	3.9	3.8	3.0
		Sept-Iles	4.9	4.0	5.9	4.5	3.7	2.9	3.8	2.9	3.6	2.8	3.7	2.9	3.5	2.8
AUTUMN	HUDSON BAY (3 stations)	Inukjuak	4.5	3.1	6.5	4.9	4.1	3.1	4.3	3.2	5.3	4.0	5.6	4.0	5.2	3.8
		Kuujuarapik	5.1	3.7	6.9	5.3	4.6	3.2	4.5	3.1	5.5	4.1	5.2	3.7	5.6	4.3
		Moosonee	4.9	4.3	6.3	4.3	4.3	3.3	4.1	3.2	4.4	3.5	4.7	3.6	4.4	3.5
	LABRADOR (4 stations)	Cartwright	3.5	2.6	3.8	2.9	4.8	3.6	4.6	3.5	4.1	3.2	4.4	3.5	4.6	3.6
		Goosebay	3.5	2.5	4.3	3.3	4.4	3.2	4.0	3.1	4.1	3.1	4.1	3.1	4.4	3.4
		Kuujuuaq	4.7	3.1	5.7	4.3	4.6	3.4	4.1	3.2	4.8	3.5	4.7	3.5	4.7	3.6
		Schefferville	3.9	3.1	5.1	4.0	3.7	2.7	3.7	2.8	3.7	2.8	3.9	3.0	4.0	3.1
	SOUTH (7 stations)	Amos	4.3	3.4	6.1	4.9	3.8	3.0	3.9	3.0	4.4	3.3	3.7	2.9	3.6	2.8
		Val d'Or	3.9	3.3	6.1	4.7	3.4	2.8	3.5	2.8	3.5	2.9	3.8	3.1	3.4	2.7
		Montreal-Dorval	5.1	4.4	4.6	4.1	4.4	3.4	4.1	3.2	5.2	4.0	4.5	3.6	5.1	3.9
		Montreal-McGill	5.3	4.5	6.1	4.7	4.5	3.5	4.6	3.5	5.1	3.9	5.2	3.7	4.9	3.8
		Drummondville	4.0	3.0	4.3	3.5	3.8	2.9	3.9	2.9	4.7	3.5	4.2	3.1	5.1	3.9
		Maniwaki	4.5	3.9	3.9	3.1	3.7	2.8	3.8	3.0	4.8	3.7	4.4	3.4	3.7	2.9
		Bagotville	5.2	3.9	4.9	4.3	3.8	2.8	3.6	2.6	5.0	3.9	4.2	3.2	5.4	4.2
	MARITIME (6 stations)	Causapscal	3.6	3.0	3.2	2.8	3.1	2.4	3.0	2.3	3.6	2.9	3.4	2.7	3.3	2.7
		Daniel-Harbour	4.3	2.9	4.5	2.8	3.9	2.7	3.9	2.7	3.9	2.9	3.9	2.8	4.0	2.9
		Gaspe	4.8	3.8	5.2	3.8	5.0	3.7	4.9	3.7	5.3	4.1	4.5	3.5	4.3	3.4
		Mont-Joli	4.1	2.9	4.2	3.4	4.4	3.4	4.1	3.2	4.1	3.2	4.1	3.2	4.1	3.2
		Natashquan	3.7	2.8	4.4	3.3	3.6	2.7	3.5	2.6	3.9	3.0	3.8	2.9	3.5	2.6
		Sept-Iles	4.0	3.1	3.9	2.9	3.5	2.7	3.5	2.7	3.8	2.9	3.6	2.9	3.3	2.6

Table 2.18 Same as Table 2.3 but for the simple daily intensity index (in mm/wet day).

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
WINTER	HUDSON BAY (3 stations)	Inukjuak	1.2	1.0	1.2	0.9	1.2	0.9	1.1	0.9	1.1	0.9	1.2	0.9	1.3	1.0
		Kuujuarapik	1.1	0.9	1.5	1.2	1.0	0.7	1.0	0.8	1.1	0.9	1.1	0.9	1.1	0.9
		Moosonee	1.3	0.9	1.8	1.6	1.2	0.9	1.2	0.9	1.3	1.0	1.3	1.0	1.4	1.1
	LABRADOR (4 stations)	Cartwright	1.9	1.5	1.8	1.4	1.6	1.3	1.6	1.3	2.2	1.8	2.8	2.3	1.9	1.6
		Goosebay	2.3	2.0	1.8	1.4	1.6	1.3	1.6	1.3	2.4	1.9	2.3	1.8	1.7	1.4
		Kuujuuaq	1.9	1.5	2.4	1.9	2.3	1.9	2.2	1.8	2.8	2.4	3.9	3.4	2.4	1.9
		Schefferville	1.3	1.0	2.2	1.8	1.2	1.0	1.3	1.1	2.0	1.7	2.1	1.7	1.6	1.3
	SOUTH (7 stations)	Amos	1.4	1.2	1.5	1.2	1.2	1.0	1.3	1.0	1.3	1.0	1.3	1.1	1.3	1.0
		Val d'Or	1.3	1.0	1.2	1.0	1.4	1.2	1.8	1.6	2.1	1.9	1.7	1.4	1.2	1.0
		Montreal-Dorval	1.7	1.3	2.2	1.9	1.5	1.2	1.8	1.5	1.7	1.3	2.0	1.6	1.8	1.5
		Montreal-McGill	3.2	2.9	2.9	2.4	2.0	1.6	1.7	1.3	1.6	1.3	2.5	2.0	2.0	1.6
		Drummondville	3.1	2.5	1.8	1.5	1.8	1.4	1.7	1.4	1.8	1.4	1.8	1.5	2.0	1.6
		Maniwaki	1.6	1.3	1.7	1.3	1.6	1.3	1.2	1.0	1.3	1.0	1.5	1.2	1.6	1.3
		Bagotville	1.5	1.2	1.7	1.4	1.5	1.2	2.4	2.0	2.2	1.8	2.5	2.1	1.9	1.6
	MARITIME (6 stations)	Causapsal	1.6	1.3	2.7	2.3	1.6	1.3	1.6	1.3	1.9	1.5	2.1	1.8	2.1	1.7
		Daniel-Harbour	2.5	1.7	2.2	1.5	2.0	1.6	2.0	1.5	2.3	1.8	2.5	2.0	2.2	1.7
		Gaspe	7.5	6.7	5.5	4.5	4.5	3.6	4.4	3.6	6.4	5.3	7.3	6.2	4.9	3.9
		Mont-Joli	1.6	1.3	3.3	2.8	1.4	1.1	1.4	1.1	2.1	1.7	2.0	1.6	2.0	1.6
		Natashquan	2.6	1.9	2.4	2.0	1.9	1.5	1.9	1.5	3.0	2.5	3.4	2.9	2.4	2.0
		Sept-Iles	4.4	3.7	3.5	2.6	2.7	2.2	2.8	2.3	4.5	3.9	4.0	3.4	3.7	3.1
SPRING	HUDSON BAY (3 stations)	Inukjuak	1.5	1.2	1.9	1.3	1.8	1.3	1.7	1.2	1.8	1.3	1.7	1.3	1.8	1.4
		Kuujuarapik	1.7	1.3	1.3	1.1	0.9	0.7	1.0	0.8	1.2	1.0	1.0	0.8	1.1	0.9
		Moosonee	1.4	1.2	2.1	1.7	1.5	1.2	1.6	1.2	1.8	1.4	1.6	1.3	1.7	1.4
	LABRADOR (4 stations)	Cartwright	1.8	1.4	2.1	1.8	1.9	1.5	2.0	1.5	3.0	2.4	3.0	2.5	2.2	1.8
		Goosebay	1.7	1.5	1.4	1.2	1.4	1.2	1.5	1.2	2.4	2.0	2.2	1.8	1.6	1.3
		Kuujuuaq	1.5	1.2	1.5	1.2	1.1	0.9	1.1	0.9	1.4	1.1	1.6	1.3	1.2	0.9
		Schefferville	1.7	1.4	2.4	2.0	1.1	0.9	1.3	1.0	2.2	1.8	2.4	2.0	1.6	1.3
	SOUTH (7 stations)	Amos	2.2	1.7	2.4	2.0	1.7	1.3	1.7	1.3	1.9	1.5	1.7	1.4	1.7	1.4
		Val d'Or	1.7	1.4	2.2	2.0	1.5	1.2	1.8	1.4	1.9	1.6	1.7	1.4	1.8	1.4
		Montreal-Dorval	1.7	1.4	2.1	1.8	1.7	1.4	2.4	1.9	2.8	2.3	2.4	1.9	2.0	1.6
		Montreal-McGill	2.8	2.4	2.7	2.1	2.0	1.6	2.2	1.8	2.1	1.7	2.4	1.9	2.1	1.7
		Drummondville	2.4	1.9	2.2	1.6	1.9	1.5	1.9	1.5	2.0	1.6	2.3	1.8	2.1	1.7
		Maniwaki	1.9	1.6	1.9	1.6	1.6	1.3	1.6	1.3	1.7	1.3	1.9	1.5	1.9	1.6
		Bagotville	1.5	1.3	1.8	1.4	1.6	1.2	1.9	1.5	2.1	1.6	1.9	1.5	2.1	1.7
	MARITIME (6 stations)	Causapsal	2.2	1.8	2.4	1.8	2.3	1.9	2.3	1.8	2.9	2.5	2.6	2.2	2.4	1.9
		Daniel-Harbour	1.1	0.9	1.6	1.2	1.6	1.3	1.6	1.3	2.3	1.9	2.5	2.1	1.7	1.4
		Gaspe	6.3	5.1	6.5	5.2	4.7	3.8	4.9	4.1	6.3	5.1	6.0	5.0	4.6	3.8
		Mont-Joli	1.7	1.4	2.0	1.5	1.8	1.4	1.8	1.5	3.2	2.6	2.6	2.1	2.0	1.6
		Natashquan	2.6	2.2	2.4	2.0	2.0	1.6	2.0	1.6	3.3	2.8	3.1	2.6	2.2	1.8
		Sept-Iles	3.2	2.8	4.3	3.8	2.9	2.3	2.7	2.2	4.8	4.1	4.3	3.6	3.1	2.5
SUMMER	HUDSON BAY (3 stations)	Inukjuak	2.0	1.4	2.6	2.3	1.5	1.2	1.9	1.4	3.5	2.9	2.4	1.9	1.7	1.4
		Kuujuarapik	1.6	1.3	2.2	1.9	1.6	1.2	2.0	1.7	2.7	2.3	1.7	1.4	1.7	1.3
		Moosonee	2.1	1.7	2.7	2.1	2.1	1.7	2.3	1.9	4.6	4.0	2.2	1.9	2.6	2.1
	LABRADOR (4 stations)	Cartwright	1.6	1.3	1.6	1.3	1.5	1.2	1.4	1.1	2.2	1.8	1.7	1.4	1.5	1.2
		Goosebay	1.6	1.3	2.6	2.2	1.8	1.5	1.9	1.5	2.5	2.1	2.2	1.8	2.4	1.9
		Kuujuuaq	2.4	2.1	2.5	2.1	1.7	1.4	1.6	1.3	1.9	1.6	2.2	1.8	1.7	1.3
		Schefferville	2.8	2.3	3.4	3.1	1.5	1.2	1.5	1.2	2.4	2.0	2.0	1.6	1.8	1.5
	SOUTH (7 stations)	Amos	2.4	1.8	3.4	2.8	2.2	1.8	2.6	2.1	2.7	2.2	3.1	2.4	2.8	2.2
		Val d'Or	2.1	1.5	3.0	2.3	1.9	1.5	2.1	1.7	2.7	2.3	2.5	2.0	2.2	1.7
		Montreal-Dorval	2.5	1.9	2.2	1.8	2.3	1.9	2.9	2.3	3.1	2.4	3.0	2.4	4.5	3.3
		Montreal-McGill	2.6	2.1	3.2	2.9	2.4	2.0	2.2	1.8	2.8	2.2	2.4	2.0	2.5	2.0
		Drummondville	1.8	1.5	2.2	1.9	2.1	1.6	2.0	1.6	2.2	1.7	2.1	1.7	2.3	1.9
		Maniwaki	2.3	1.9	2.4	1.8	2.3	1.9	2.3	1.8	2.7	2.2	2.5	2.0	2.6	2.1
		Bagotville	1.7	1.3	2.1	1.7	1.7	1.4	1.8	1.5	1.8	1.5	1.8	1.4	2.1	1.7
	MARITIME (6 stations)	Causapsal	2.2	1.8	2.7	2.2	2.4	2.0	2.3	1.9	2.6	2.2	2.6	2.1	2.4	1.9
		Daniel-Harbour	3.5	2.9	3.5	3.2	2.1	1.7	2.1	1.7	2.7	2.1	2.6	2.1	2.4	1.9
		Gaspe	2.6	1.9	2.8	2.3	2.5	2.0	2.5	2.0	2.9	2.4	3.0	2.4	2.6	2.1
		Mont-Joli	2.8	2.3	2.3	1.6	2.3	1.6	2.3	1.7	2.9	2.4	2.3	1.7	2.5	1.8
		Natashquan	3.0	2.3	3.5	3.1	2.2	1.8	2.2	1.7	3.7	3.1	3.6	3.0	2.5	2.0
		Sept-Iles	2.3	1.9	3.3	2.9	2.3	1.8	2.3	1.8	4.8	4.0	3.1	2.5	2.5	2.0
AUTUMN	HUDSON BAY (3 stations)	Inukjuak	1.1	0.9	1.4	1.2	1.1	0.9	1.0	0.8	1.1	0.8	1.1	0.9	1.1	0.9
		Kuujuarapik	1.8	1.4	1.8	1.3	1.4	1.1	1.3	1.1	1.3	1.0	1.4	1.1	1.5	1.2
		Moosonee	2.2	1.8	2.0	1.6	1.5	1.2	1.6	1.3	1.7	1.4	1.7	1.4	1.9	1.5
	LABRADOR (4 stations)	Cartwright	1.9	1.6	1.8	1.5	1.8	1.4	1.7	1.4	3.1	2.5	3.5	3.0	2.2	1.8
		Goosebay	1.9	1.5	1.5	1.2	1.6	1.2	1.6	1.2	2.4	2.0	2.6	2.2	1.9	1.5
		Kuujuuaq	1.2	0.9	1.7	1.4	1.3	1.0	1.3	1.1	1.6	1.3	2.0	1.7	1.5	1.2
		Schefferville	1.2	1.0	2.2	1.9	1.2	1.0	1.2	1.0	2.0	1.7	2.0	1.7	1.6	1.3
	SOUTH (7 stations)	Amos	2.0	1.8	1.8	1.6	1.4	1.1	2.0	1.6	1.9	1.5	2.3	1.8	1.6	1.3
		Val d'Or	1.9	1.5	1.8	1.4	1.6	1.3	2.2	1.8	2.5	2.1	2.4	2.0	1.6	1.3
		Montreal-Dorval	3.0	2.5	2.9	2.3	2.2	1.7	2.4	1.9	2.5	2.0	2.6	2.1	2.5	2.0
		Montreal-McGill	3.8	3.4	2.9	2.3	2.1	1.7	2.1	1.7	2.2	1.8	2.5	1.9	2.3	1.8
		Drummondville	2.9	2.4	2.4	2.0	2.0	1.6	2.0	1.6	2.1	1.6	2.5	2.0	2.2	1.7
		Maniwaki	2.6	2.2	2.2	1.7	1.9	1.5	1.8	1.5	2.0	1.6	2.0	1.6	2.0	1.6
		Bagotville	1.5	1.2	1.3	1.1	1.3	1.0	2.2	1.8	1.6	1.3	2.3	2.0	2.1	1.8
	MARITIME (6 stations)	Causapsal	2.1	1.8	2.1	1.6	2.0	1.6	1.9	1.5	2.4	1.9	3.0	2.4	2.4	1.9
		Daniel-Harbour	2.1	1.6	2.3	1.8	1.7	1.3	1.8	1.4	2.2	1.8	2.2	1.8	2.0	1.6
		Gaspe	3.5	3.0	2.5	2.0	2.6	2.0	2.6	2.1	3.1	2.5	3.9	3.2	2.9	2.3
		Mont-Joli	1.8	1.4	2.1	1.7	1.8	1.4	1.7	1.4	2.6	2.1	2.9	2.4	2.2	1.8
		Natashquan	2.8	2.5	3.0	2.5	1.9	1.5	1.9	1.6	3.9	3.3	4.6	3.9	2.4	1.9
		Sept-Iles	3.9	3.4	3.8	3.2	3.0	2.3	2.9	2.3	5.1	4.3	4.5	3.8	3.2	2.5

Table 2.19 Same as Table 2.3 but for the seasonal greatest 3-days precipitation amount (in mm/day).

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
WINTER	HUDSON BAY (3 stations)	Inukjuak	11.5	9.7	9.7	6.8	10.2	7.5	9.7	7.2	9.4	7.1	9.6	7.4	10.6	8.0
		Kuujuarapik	16.4	10.9	10.6	7.9	10.3	7.7	9.7	7.2	9.8	7.5	10.4	8.4	11.0	8.6
		Moosonee	11.0	8.5	10.8	7.7	9.2	7.0	8.2	6.3	10.1	7.9	9.2	6.9	11.6	9.0
	LABRADOR (4 stations)	Cartwright	31.3	19.7	27.9	18.7	29.8	19.9	30.5	20.3	29.8	19.3	28.5	19.6	32.6	22.1
		Goosebay	20.9	14.7	18.9	13.7	21.1	15.7	21.4	16.0	21.2	16.3	19.8	15.3	20.1	15.5
		Kuujuuaq	27.6	19.4	31.5	21.0	27.9	17.2	26.9	16.7	28.7	18.7	30.6	20.5	32.3	22.2
		Schefferville	15.4	12.4	19.0	15.1	14.9	11.5	15.3	12.2	18.3	13.9	16.1	13.0	15.6	12.4
	SOUTH (7 stations)	Amos	10.9	9.0	13.2	10.1	12.5	9.6	12.2	9.5	11.9	9.3	12.9	10.3	13.3	9.9
		Val d'Or	15.3	10.0	15.2	11.1	13.0	9.1	15.7	12.1	14.1	10.6	17.1	13.4	16.4	12.1
		Montreal-Dorval	10.5	8.2	20.3	16.4	13.9	10.9	14.2	11.1	14.9	11.7	14.3	11.4	17.3	13.4
		Montreal-McGill	24.0	19.1	21.7	16.5	21.4	16.3	21.1	15.7	21.3	15.9	26.5	19.6	21.7	16.4
		Drummondville	28.1	20.9	22.3	18.0	23.5	17.3	23.8	17.4	23.9	17.6	23.7	17.6	24.6	18.8
		Maniwaki	16.3	11.5	18.8	13.9	17.1	13.5	16.3	12.5	18.0	14.4	23.2	17.9	17.9	14.4
		Bagotville	17.0	14.1	16.8	13.7	16.1	12.7	17.2	13.8	19.2	15.2	18.0	14.3	17.1	13.9
	MARITIME (6 stations)	Causapsca	19.2	14.2	19.7	14.6	18.3	13.3	18.1	13.1	18.9	14.2	18.7	14.3	22.0	16.6
		Daniel-Harbour	33.0	25.0	28.4	21.5	26.1	20.3	26.6	20.8	30.9	25.2	28.3	22.2	27.7	22.0
		Gaspe	45.5	35.1	42.9	33.1	36.0	28.1	34.0	26.7	38.7	30.7	37.9	29.2	35.1	27.6
		Mont-Joli	16.9	11.9	21.8	18.2	14.6	11.7	14.9	12.0	16.0	12.8	15.5	12.7	16.5	13.4
		Natashquan	20.9	16.1	24.4	19.1	21.6	16.5	19.8	15.2	25.8	19.8	28.8	22.2	24.3	18.8
		Sept-Iles	30.2	21.7	29.3	22.4	29.5	22.0	27.5	20.5	38.4	30.0	31.6	24.7	32.5	25.6
SPRING	HUDSON BAY (3 stations)	Inukjuak	17.2	13.2	13.2	9.3	13.6	9.9	13.2	9.6	14.1	10.1	12.4	9.0	13.4	10.0
		Kuujuarapik	25.7	19.7	14.2	10.8	11.4	8.7	10.9	8.3	12.1	9.5	11.4	8.6	11.3	8.8
		Moosonee	18.1	13.5	17.7	14.1	14.8	11.8	14.5	11.5	15.3	12.5	14.9	11.9	15.5	12.2
	LABRADOR (4 stations)	Cartwright	31.5	19.4	30.7	21.0	32.8	21.5	34.3	21.5	35.6	24.8	36.6	25.5	34.6	23.7
		Goosebay	19.5	16.0	11.7	9.9	17.2	13.3	17.5	13.8	19.7	15.2	18.7	14.6	17.0	13.5
		Kuujuuaq	24.8	19.6	12.9	9.9	10.3	8.1	10.4	8.1	11.2	8.8	10.9	8.8	11.9	9.4
		Schefferville	25.5	20.1	28.4	22.7	18.5	14.0	20.8	15.6	22.7	18.1	25.4	19.9	22.2	16.9
	SOUTH (7 stations)	Amos	24.3	18.9	14.8	12.0	15.2	11.8	15.7	12.3	18.2	14.8	14.9	12.0	15.3	12.1
		Val d'Or	16.2	13.0	14.9	12.6	14.0	10.8	14.9	11.7	13.7	10.8	16.0	12.9	16.1	12.7
		Montreal-Dorval	18.3	13.1	29.8	22.9	14.6	11.0	15.0	11.5	16.5	12.5	15.6	11.9	13.6	10.6
		Montreal-McGill	20.4	16.2	20.3	17.2	18.6	14.6	17.8	14.0	18.7	14.9	22.1	17.3	18.3	14.6
		Drummondville	17.1	12.8	27.6	19.7	17.1	13.5	17.5	13.8	17.5	13.9	20.7	16.3	17.9	14.1
		Maniwaki	19.2	14.5	14.7	11.9	16.0	12.2	16.0	12.2	16.0	12.2	18.0	14.0	19.1	14.9
		Bagotville	20.2	17.0	20.7	15.4	19.6	15.0	19.3	14.8	20.7	16.2	19.8	15.4	20.2	15.7
	MARITIME (6 stations)	Causapsca	25.5	18.0	24.6	17.0	25.5	17.3	25.7	16.9	26.1	18.1	25.5	17.5	26.1	18.4
		Daniel-Harbour	19.8	15.6	19.2	14.6	20.1	15.0	20.4	15.4	22.6	16.4	21.3	15.7	21.5	16.1
		Gaspe	60.2	39.5	63.7	44.4	58.3	38.9	57.6	37.9	57.8	39.3	56.4	39.3	56.1	37.5
		Mont-Joli	20.8	15.8	21.0	16.7	18.5	14.1	19.7	15.0	20.3	16.1	18.9	14.8	18.9	14.7
		Natashquan	32.9	22.3	24.1	15.3	26.9	19.1	26.6	18.9	25.9	19.9	26.8	20.3	27.1	19.8
		Sept-Iles	32.8	22.6	42.3	34.7	30.7	23.5	31.8	24.3	35.0	26.9	32.4	24.9	31.9	24.9
SUMMER	HUDSON BAY (3 stations)	Inukjuak	31.0	23.8	18.2	14.6	14.7	11.6	14.3	11.3	22.3	16.8	16.9	13.5	16.8	13.2
		Kuujuarapik	28.1	22.2	26.0	21.4	21.6	16.9	20.5	16.3	27.6	21.2	21.7	17.0	21.8	17.5
		Moosonee	26.5	19.0	27.8	20.8	26.6	18.4	25.4	17.2	31.9	24.3	24.6	17.8	29.2	22.1
	LABRADOR (4 stations)	Cartwright	28.0	18.9	20.2	14.8	22.5	16.1	22.7	16.1	23.1	17.4	21.2	15.8	23.3	17.9
		Goosebay	28.6	25.2	22.9	18.0	23.3	18.3	23.1	18.0	22.8	18.2	21.8	17.1	24.7	19.7
		Kuujuuaq	41.7	34.8	21.4	16.9	16.2	12.9	15.6	12.3	16.7	13.3	19.3	15.8	17.0	13.7
		Schefferville	40.3	32.4	31.5	28.1	18.8	15.2	18.6	15.1	20.6	16.8	19.4	15.5	18.7	15.3
	SOUTH (7 stations)	Amos	28.1	23.2	40.5	30.4	32.3	24.9	32.5	25.9	34.0	27.4	35.1	27.8	35.1	28.0
		Val d'Or	28.4	24.7	23.2	19.1	16.3	12.8	17.8	14.0	15.5	12.2	18.9	15.0	19.0	15.1
		Montreal-Dorval	27.0	19.8	28.1	19.3	21.3	17.1	27.5	21.0	26.0	20.3	27.2	21.0	30.9	22.7
		Montreal-McGill	28.1	20.0	27.9	22.4	27.0	20.4	26.5	20.3	26.6	20.9	27.3	21.0	24.8	19.2
		Drummondville	31.6	24.3	28.3	19.8	23.4	18.2	23.6	18.5	24.2	18.8	25.1	19.3	23.4	18.6
		Maniwaki	29.7	22.9	23.0	18.3	22.8	17.8	23.0	18.2	24.3	19.1	28.9	22.5	26.2	21.0
		Bagotville	42.4	32.8	17.6	14.8	19.2	14.9	18.7	14.4	19.7	15.5	19.2	14.9	20.6	15.9
	MARITIME (6 stations)	Causapsca	28.0	22.9	24.3	19.3	28.5	21.7	28.5	22.0	28.2	21.3	27.7	21.5	27.8	21.8
		Daniel-Harbour	41.5	31.0	41.4	31.6	37.4	27.7	37.6	27.9	39.0	30.2	36.7	29.2	38.9	30.0
		Gaspe	41.2	28.6	33.4	27.2	33.2	24.7	32.4	24.0	33.5	24.4	30.4	23.1	30.6	22.7
		Mont-Joli	37.7	30.8	21.7	16.8	23.8	17.9	23.2	17.4	23.9	18.7	22.7	17.3	24.9	18.9
		Natashquan	24.5	18.3	23.2	16.7	22.7	17.5	22.5	17.2	32.6	24.8	27.3	21.5	25.6	20.1
		Sept-Iles	29.4	24.2	23.9	18.1	24.5	18.6	25.0	18.7	37.9	29.0	27.2	21.0	24.6	19.0
AUTUMN	HUDSON BAY (3 stations)	Inukjuak	17.6	13.4	13.9	11.7	16.2	12.2	14.9	10.5	15.8	11.6	14.7	10.6	14.8	10.7
		Kuujuarapik	20.5	16.5	19.2	15.7	18.4	14.8	16.5	13.0	17.3	13.8	17.5	13.9	18.1	14.5
		Moosonee	24.1	17.9	25.1	18.8	22.0	16.6	21.5	16.2	21.7	16.3	21.3	16.4	22.1	17.3
	LABRADOR (4 stations)	Cartwright	20.8	16.5	20.0	16.1	21.5	16.7	20.1	15.4	27.1	21.4	21.4	16.9	22.3	17.7
		Goosebay	26.0	16.0	17.5	13.7	19.0	15.3	18.8	14.8	22.7	17.3	17.9	14.0	18.7	14.8
		Kuujuuaq	18.4	13.7	14.5	12.0	11.9	9.4	11.7	9.2	12.3	9.7	12.6	10.0	14.8	11.7
		Schefferville	22.9	17.2	24.8	19.1	18.4	13.7	18.9	13.6	22.0	17.1	20.3	15.5	19.8	14.5
	SOUTH (7 stations)	Amos	25.4	18.9	25.5	21.3	20.5	15.3	20.4	15.8	22.1	16.8	21.6	16.7	20.9	16.2
		Val d'Or	17.5	14.5	25.0	20.6	15.8	12.7	16.7	13.1	15.3	11.9	17.7	14.0	18.2	14.4
		Montreal-Dorval	19.2	15.6	27.5	22.2	23.5	18.3	22.3	17.4	23.6	18.5	22.9	17.6	26.0	20.5
		Montreal-McGill	21.5	17.4	23.1	18.4	21.9	17.4	22.5	17.8	23.9	19.0	26.9	20.8	24.1	19.1
		Drummondville	23.0	19.0	20.5	16.8	21.6	16.7	22.2	17.4	23.5	18.5	25.1	18.9	22.7	17.8
		Maniwaki	19.9	14.7	22.3	15.4	18.3	14.1	18.3	13.8	19.2	14.7	25.0	18.8	19.0	14.4
		Bagotville	21.8	14.3	18.6	13.1	20.6	14.2	21.2	15.1	20.9	14.7	20.9	15.4	22.3	15.9
	MARITIME (6 stations)	Causapsca	28.7	22.4	22.2	18.6	24.1	18.8	23.6	18.4	25.3	19.1	24.7	18.9	29.3	22.7
		Daniel-Harbour	26.0	17.7	25.3	18.8	24.7	17.8	27.1	19.6	26.5	19.4	25.5	19.1	26.1	19.3
Gaspe		30.6	26.5	30.8	24.4	30.8	24.4	31.6	25.4	31.9	25.6	28.9	22.9	30.0	24.1	
Mont-Joli		22.9	18.2	22.0	17.8	21.4	16.6	22.2	17.0	22.7	17.4	22.2	17.3	25.5	19.8	
Natashquan		23.4	19.3	24.5	19.6	22.4	17.6	22.3	17.5	30.6	23.6	32.8	24.6	22.0	17.4	
Sept-Iles		31.7	23.0	34.4	24.5	32.0	23.9	33.1	25.1	43.0	32.7	36.6	28.3	40.1	30.0	

Table 2.20 Same as Table 2.3 but for the 90th percentile of seasonal precipitation (in mm/day).

			1-RMSE	1-MAE	2-RMSE	2-MAE	3-RMSE	3-MAE	4-RMSE	4-MAE	5-RMSE	5-MAE	6-RMSE	6-MAE	7-RMSE	7-MAE
WINTER	HUDSON BAY (3 stations)	Inukjuak	3.1	2.6	3.3	2.5	3.2	2.5	3.1	2.5	2.9	2.3	3.0	2.4	4.3	3.3
		Kuujuarapik	3.3	2.7	4.7	3.7	3.4	2.5	3.3	2.5	3.2	2.5	3.2	2.5	3.8	2.9
		Moosonee	4.1	3.0	5.4	4.6	3.9	2.9	3.7	2.7	3.7	2.7	3.9	2.9	4.1	3.1
	LABRADOR (4 stations)	Cartwright	5.2	4.3	5.2	3.9	5.1	3.8	5.0	3.8	5.5	4.5	6.0	4.9	5.6	4.4
		Goosebay	6.2	5.4	5.5	4.5	5.1	4.1	5.0	4.1	5.2	4.1	5.1	4.0	5.3	4.2
		Kuujuuaq	5.7	4.2	6.6	5.2	5.9	4.8	5.7	4.6	7.0	5.7	8.8	7.4	7.4	5.8
		Schefferville	4.3	3.5	6.2	5.2	4.4	3.5	4.6	3.6	4.9	3.9	4.7	3.8	5.3	4.2
	SOUTH (7 stations)	Amos	3.3	2.7	3.2	2.5	3.2	2.5	3.4	2.7	3.3	2.6	3.4	2.7	3.7	2.9
		Val d'Or	3.8	3.0	3.2	2.3	2.3	1.8	3.7	3.0	3.2	2.7	3.5	2.8	3.6	2.9
		Montreal-Dorval	5.5	4.5	7.5	6.6	4.2	3.3	4.3	3.4	4.4	3.5	4.7	3.7	6.1	4.8
		Montreal-McGill	10.3	9.2	8.3	6.3	6.4	5.1	6.2	5.0	6.3	5.1	6.8	5.4	7.0	5.7
		Drummondville	8.3	6.6	6.2	5.2	5.6	4.3	5.7	4.4	5.8	4.5	5.9	4.7	6.0	4.6
		Maniwaki	4.9	4.0	4.8	3.6	4.3	3.4	4.1	3.3	4.2	3.4	4.9	3.9	4.8	3.8
		Bagotville	4.8	3.7	4.3	3.5	4.1	3.3	5.3	4.3	5.2	4.1	5.4	4.2	5.3	4.4
	MARITIME (6 stations)	Causapsal	5.0	4.3	8.9	7.5	4.5	3.5	4.3	3.4	4.5	3.6	4.5	3.5	5.0	4.0
		Daniel-Harbour	6.5	4.7	7.8	5.0	6.1	4.3	6.1	4.3	6.6	4.9	7.0	5.1	7.0	5.3
		Gaspé	18.5	17.0	12.5	10.5	11.1	8.7	10.7	8.5	13.6	10.8	14.8	11.5	11.8	9.4
		Mont-Joli	4.2	3.5	10.1	9.0	3.6	2.9	3.8	3.1	4.5	3.5	4.4	3.5	5.2	4.1
		Natashquan	7.2	5.4	6.1	4.9	5.4	4.3	5.2	4.2	7.0	5.6	7.3	5.9	6.8	5.5
		Sept-Îles	13.1	10.9	11.6	8.3	8.3	6.1	8.2	6.1	10.7	8.7	9.6	7.6	10.7	8.5
SPRING	HUDSON BAY (3 stations)	Inukjuak	4.0	3.1	5.1	3.9	5.0	4.0	4.6	3.6	4.9	4.0	4.4	3.5	5.2	4.1
		Kuujuarapik	5.1	4.4	4.1	3.1	3.5	2.7	3.4	2.7	3.9	3.1	3.5	2.7	3.9	3.1
		Moosonee	4.8	3.7	6.5	5.2	4.9	3.9	5.0	3.9	5.4	4.4	5.1	4.1	5.5	4.4
	LABRADOR (4 stations)	Cartwright	4.8	3.9	5.9	5.1	5.6	4.3	5.7	4.4	7.2	5.8	6.9	5.6	6.4	5.1
		Goosebay	4.4	3.5	4.3	3.4	4.3	3.5	4.4	3.6	5.2	4.0	4.7	3.7	4.4	3.5
		Kuujuuaq	4.1	3.4	4.2	3.3	3.0	2.3	2.9	2.3	3.2	2.5	3.3	2.5	3.4	2.7
		Schefferville	5.1	4.2	6.5	5.4	3.6	2.8	4.1	3.1	4.9	3.9	5.8	4.4	5.1	3.9
	SOUTH (7 stations)	Amos	6.1	4.9	5.8	4.6	4.9	4.0	4.8	3.9	5.5	4.4	4.9	3.9	4.7	3.7
		Val d'Or	4.4	3.8	5.5	4.8	4.0	3.4	4.4	3.5	3.7	3.0	4.6	3.8	5.4	4.3
		Montreal-Dorval	5.2	4.4	5.6	5.0	4.9	3.9	5.5	4.4	6.2	4.9	5.6	4.5	6.6	5.3
		Montreal-McGill	6.8	5.4	7.2	5.4	5.8	4.6	5.9	4.6	5.7	4.5	6.9	5.4	6.3	5.0
		Drummondville	6.3	5.0	6.4	5.1	6.1	4.9	6.2	5.1	6.3	5.1	6.9	5.6	6.8	5.5
		Maniwaki	6.0	4.6	6.2	4.4	5.5	4.2	5.8	4.4	5.6	4.3	6.5	5.0	6.6	5.1
		Bagotville	4.5	3.7	4.2	3.6	4.3	3.5	4.4	3.5	4.8	3.8	4.4	3.5	5.2	4.2
	MARITIME (6 stations)	Causapsal	7.8	6.2	8.1	6.3	6.9	5.1	6.8	5.0	7.6	6.0	7.0	5.4	7.9	6.1
		Daniel-Harbour	4.3	3.2	4.7	3.9	5.0	4.0	5.1	4.0	5.7	4.6	5.9	4.8	6.2	4.9
		Gaspé	17.2	14.0	15.9	12.5	12.7	10.1	13.1	10.5	15.2	11.9	14.7	11.7	13.1	10.6
		Mont-Joli	6.1	5.0	6.8	5.5	5.3	4.3	5.7	4.5	7.0	5.6	6.1	4.9	6.1	5.0
		Natashquan	7.2	5.2	7.0	5.5	6.3	4.7	6.3	4.7	7.7	6.0	6.7	5.4	6.4	4.9
		Sept-Îles	9.9	8.0	12.1	10.3	8.4	6.5	8.2	6.5	10.8	8.6	10.1	8.1	10.7	8.3
SUMMER	HUDSON BAY (3 stations)	Inukjuak	6.0	4.2	6.7	5.2	4.7	3.7	4.8	3.7	8.4	6.5	5.6	4.4	5.1	4.0
		Kuujuarapik	5.1	4.2	5.9	5.0	4.4	3.6	4.7	3.7	6.3	4.9	4.4	3.5	4.8	3.8
		Moosonee	7.4	6.1	7.5	5.8	5.8	4.6	5.9	4.8	10.8	8.9	5.6	4.5	8.5	6.6
	LABRADOR (4 stations)	Cartwright	4.9	4.2	4.6	3.6	4.2	3.4	4.1	3.3	4.6	3.8	4.2	3.4	4.7	3.8
		Goosebay	5.9	4.8	7.7	6.4	5.6	4.4	5.7	4.5	5.7	4.5	5.6	4.4	7.1	5.6
		Kuujuuaq	6.7	5.7	7.7	6.2	5.4	4.4	5.3	4.2	5.6	4.5	5.6	4.6	5.7	4.5
		Schefferville	7.7	6.1	9.2	8.5	4.7	3.8	4.8	3.9	5.3	4.4	4.8	3.9	5.6	4.5
	SOUTH (7 stations)	Amos	5.5	3.7	8.4	6.3	6.4	4.9	7.2	5.6	7.3	5.7	8.0	6.3	9.4	7.0
		Val d'Or	7.8	5.5	8.7	6.4	6.6	4.8	7.0	5.4	6.2	4.9	7.9	6.1	8.0	6.3
		Montreal-Dorval	8.0	6.0	8.3	6.4	8.4	6.7	8.8	6.9	9.0	7.0	8.8	7.0	13.3	9.8
		Montreal-McGill	6.7	5.7	8.0	7.0	7.3	5.8	6.9	5.5	8.3	6.6	7.8	6.2	8.4	6.6
		Drummondville	6.6	5.1	6.4	5.1	5.9	4.8	5.8	4.8	6.0	4.8	6.0	4.9	7.6	6.0
		Maniwaki	6.9	5.3	7.9	5.9	7.5	5.9	7.8	6.0	8.0	6.4	8.2	6.5	9.0	7.1
		Bagotville	5.6	4.3	6.2	5.0	6.1	5.0	5.4	4.3	5.2	4.2	5.5	4.4	6.3	5.3
	MARITIME (6 stations)	Causapsal	7.6	5.9	9.1	7.0	8.4	6.3	8.3	6.3	7.9	6.1	7.7	6.0	8.4	6.5
		Daniel-Harbour	8.9	6.6	9.4	7.5	7.1	5.4	7.1	5.4	7.6	5.8	7.0	5.4	8.2	6.3
		Gaspé	7.3	5.6	5.5	4.7	6.6	5.3	6.8	5.5	7.0	5.6	7.0	5.6	7.8	6.3
		Mont-Joli	8.6	6.6	6.1	4.6	7.0	5.0	7.0	5.0	7.3	5.5	6.7	4.7	7.1	5.2
		Natashquan	8.5	6.2	9.4	8.1	7.3	5.7	7.4	5.7	7.7	6.0	7.8	6.1	7.7	5.8
		Sept-Îles	8.1	6.7	10.5	8.9	7.4	5.9	7.7	6.1	10.0	7.8	7.5	6.0	8.7	7.0
AUTUMN	HUDSON BAY (3 stations)	Inukjuak	3.7	3.1	4.3	3.7	3.8	3.1	3.2	2.5	3.5	2.8	3.4	2.8	3.9	3.1
		Kuujuarapik	5.2	4.1	5.0	3.9	4.3	3.1	3.9	2.9	4.0	2.9	3.9	2.9	4.7	3.6
		Moosonee	5.6	4.4	5.2	3.9	4.3	3.5	4.5	3.6	4.6	3.7	4.5	3.6	5.6	4.4
	LABRADOR (4 stations)	Cartwright	6.9	5.8	5.9	4.7	5.7	4.5	5.4	4.3	7.2	5.7	6.8	5.4	6.8	5.4
		Goosebay	6.5	5.3	5.3	4.3	5.3	4.2	5.1	4.1	5.9	4.8	5.8	4.6	6.0	4.8
		Kuujuuaq	4.3	3.3	5.7	4.6	3.8	3.0	3.8	3.0	4.2	3.4	4.2	3.5	5.4	4.4
		Schefferville	4.6	3.6	6.3	5.1	3.9	3.1	3.9	3.2	4.3	3.5	4.7	3.8	4.9	3.9
	SOUTH (7 stations)	Amos	5.1	4.1	4.5	3.6	3.8	3.0	4.7	3.7	4.6	3.6	5.0	3.9	4.7	3.7
		Val d'Or	5.2	4.4	5.3	4.3	3.6	2.9	5.3	4.2	4.6	3.8	5.8	4.7	4.8	3.7
		Montreal-Dorval	7.2	5.7	8.7	7.2	6.2	4.9	6.2	5.0	6.4	5.1	6.1	4.9	6.7	5.2
		Montreal-McGill	8.8	7.6	6.8	5.7	6.1	4.8	6.4	5.0	6.6	5.1	7.2	5.7	7.0	5.6
		Drummondville	7.4	6.1	7.8	6.5	6.1	4.8	6.0	4.8	6.3	5.0	7.2	5.7	6.7	5.3
		Maniwaki	7.1	5.7	5.3	4.3	5.6	4.4	5.5	4.3	6.0	4.8	6.4	5.0	6.8	5.4
		Bagotville	3.9	3.3	5.5	4.5	3.9	3.3	4.7	3.8	4.2	3.3	5.2	4.1	5.5	4.6
	MARITIME (6 stations)	Causapsal	5.4	4.2	6.2	4.9	5.7	4.5	5.5	4.4	6.3	5.1	6.9	5.6	7.4	5.9
		Daniel-Harbour	5.3	4.3	6.8	5.8	5.3	4.2	5.6	4.3	5.8	4.7	5.6	4.5	6.5	5.2
		Gaspé	10.5	9.2	8.7	7.1	8.0	6.5	8.1	6.5	8.5	6.8	9.2	7.2	9.1	7.1
		Mont-Joli	6.4	5.0	6.7	5.4	6.2	5.0	6.3	4.9	7.5	5.9	7.6	6.0	8.2	6.5
		Natashquan	7.4	6.3	8.0	6.5	6.8	5.5	7.0	5.6	8.6	6.8	9.3	7.3	8.0	6.5
		Sept-Îles	9.8	8.5	10.8	8.9	8.0	6.3	8.3	6.6	12.0	9.3	10.3	8.1	9.3	7.1

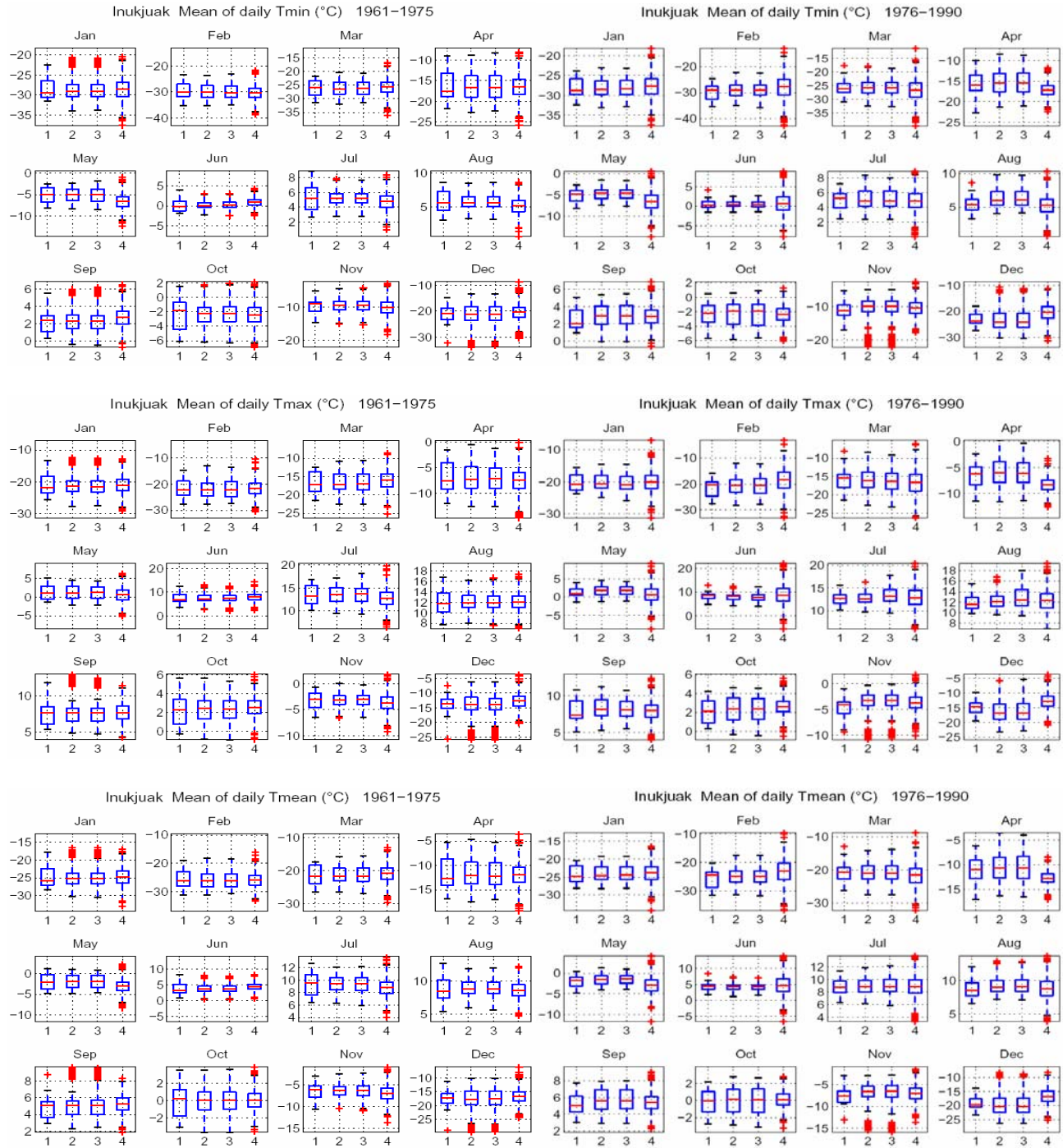


Figure 2.1. Box plots of monthly mean values of minimum temperature (upper panels), maximum temperature (middle panels), and mean temperature (lower panels) in °C, for calibration (1961-1975, left panels) and validation (1976-1990, right panels) periods at Inukjuak (region 1, see Fig. 1.1.) from : 1- Observed data; 2- SDSM using NCEP predictors interpolated on the CGCM1 grid; 3- SDSM using NCEP predictors interpolated on the HadCM3 grid; 4- LARS-WG. The outliers are represented in red crosses. The definition of the box plots is given in section 2.2.3 b).

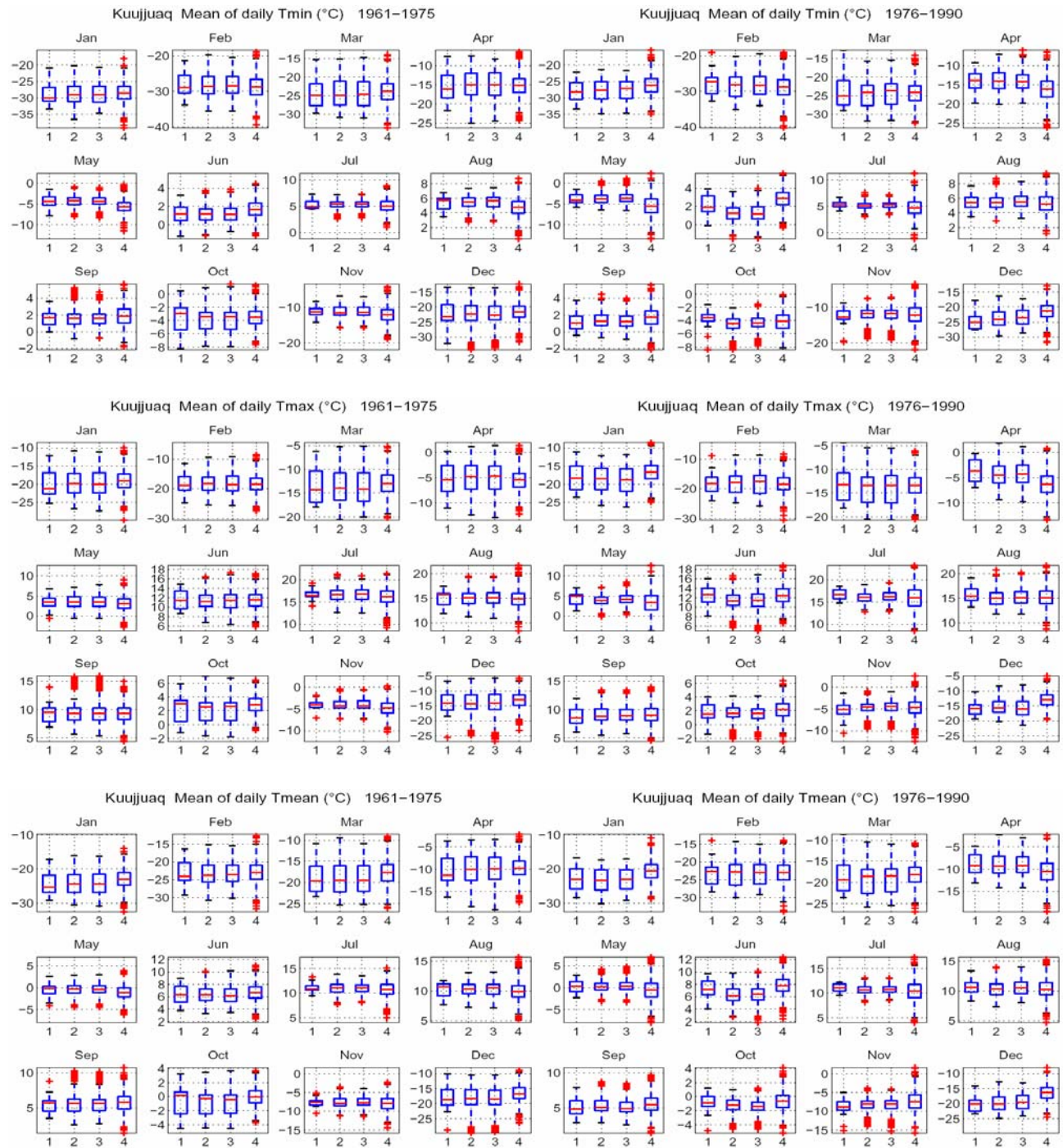


Figure 2.2. Same as Figure 2.1 but for Kuujuaq (region 2, see Fig. 1.1.).

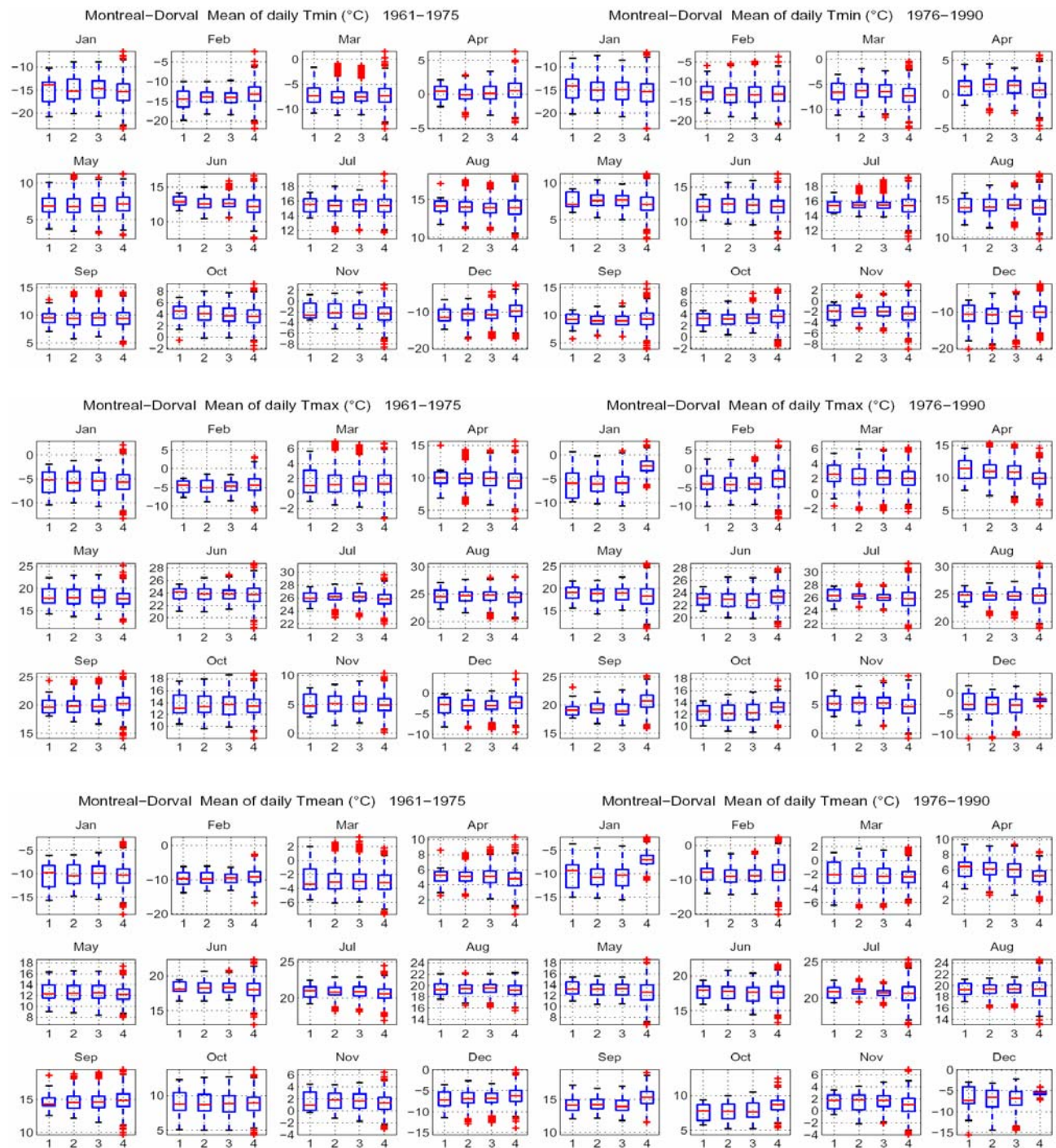


Figure 2.3. Same as Figure 2.1 but for Montreal-Dorval (region 3, see Fig. 1.1.).

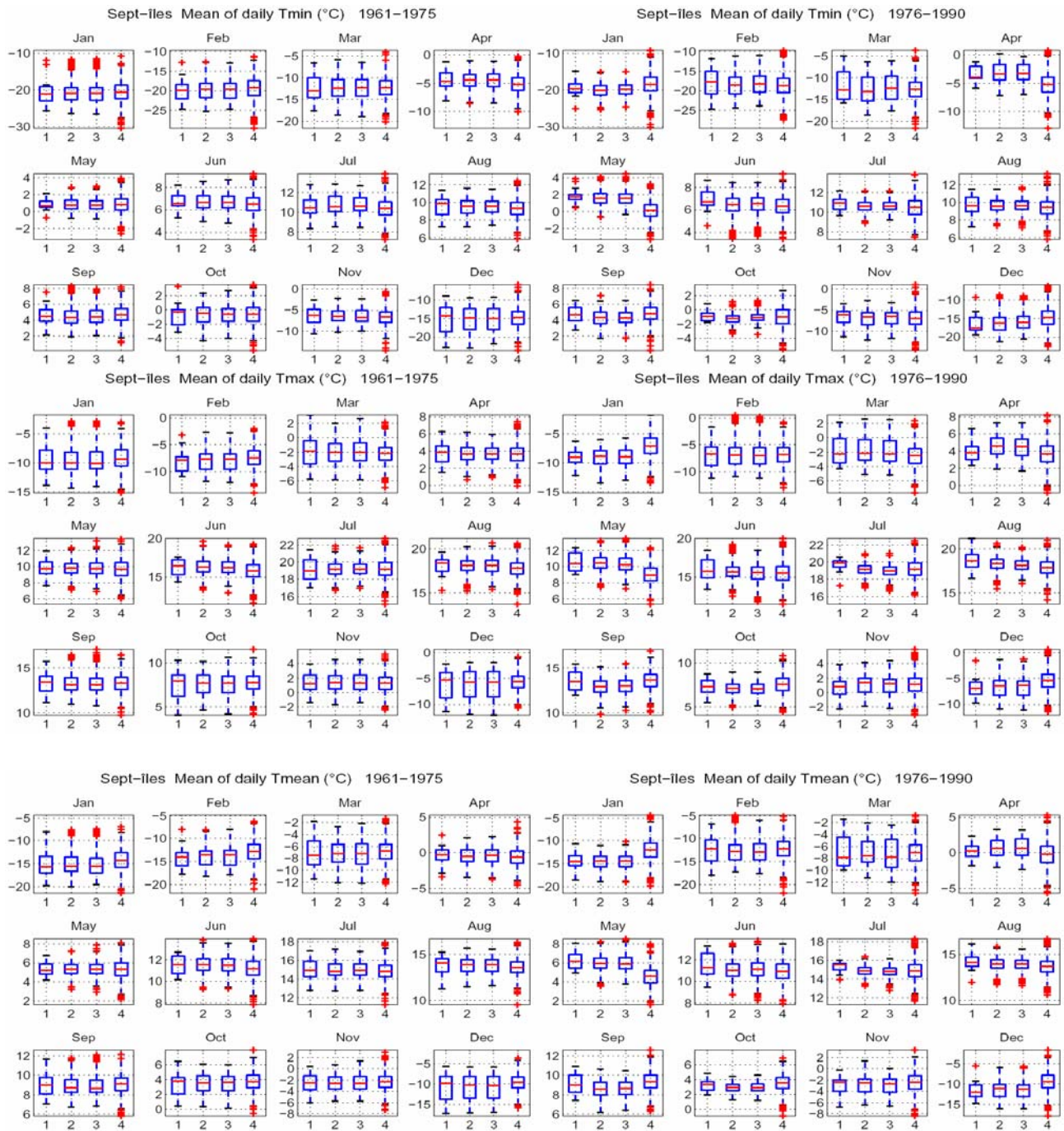


Figure 2.4. Same as Figure 2.1 but for Sept-Îles (region 4, see Fig. 1.1.).

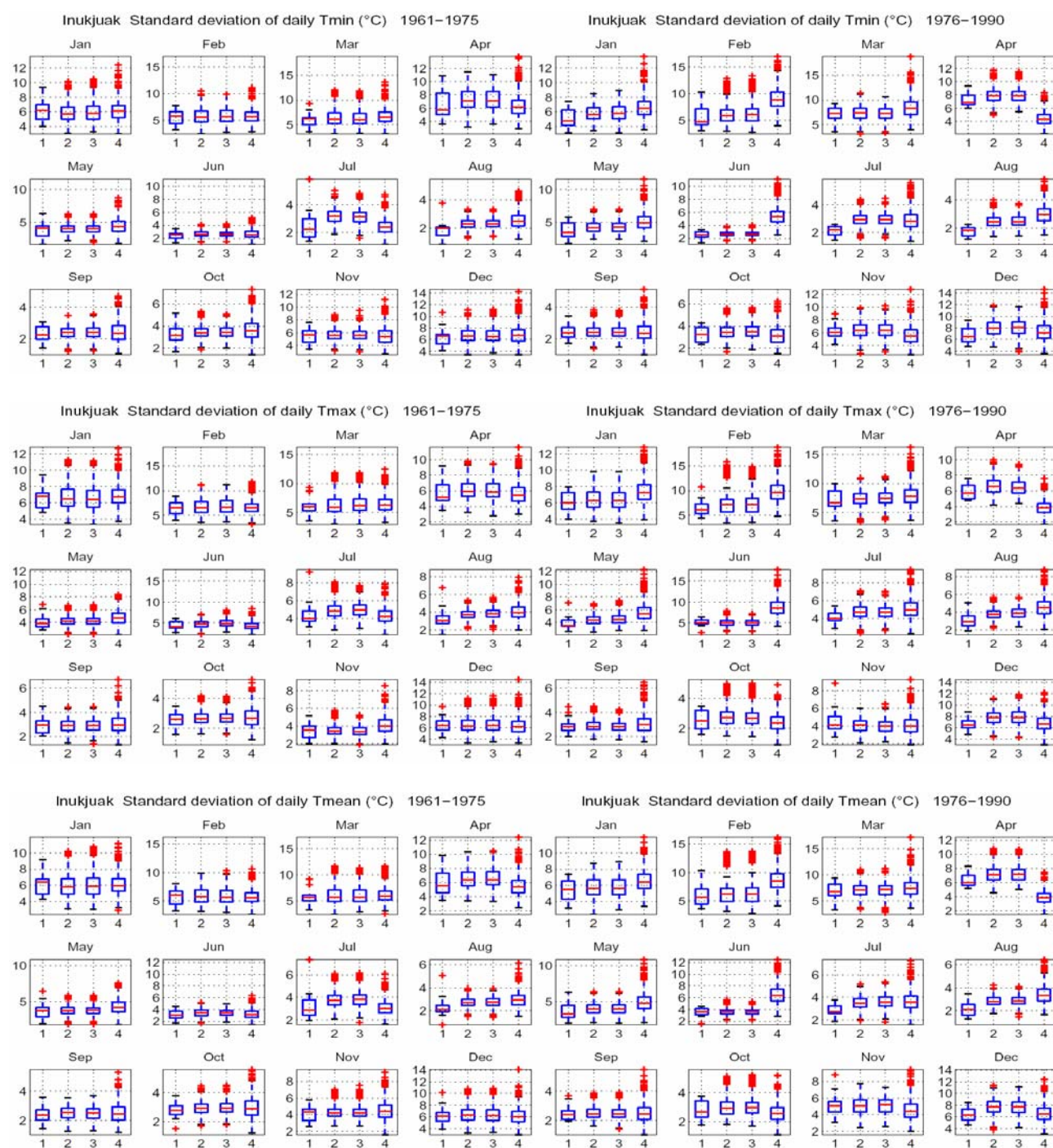


Figure 2.5. Same as Figure 2.1 but for the monthly standard deviation of minimum temperature (upper panels), maximum temperature (middle panels), and mean temperature (lower panels).

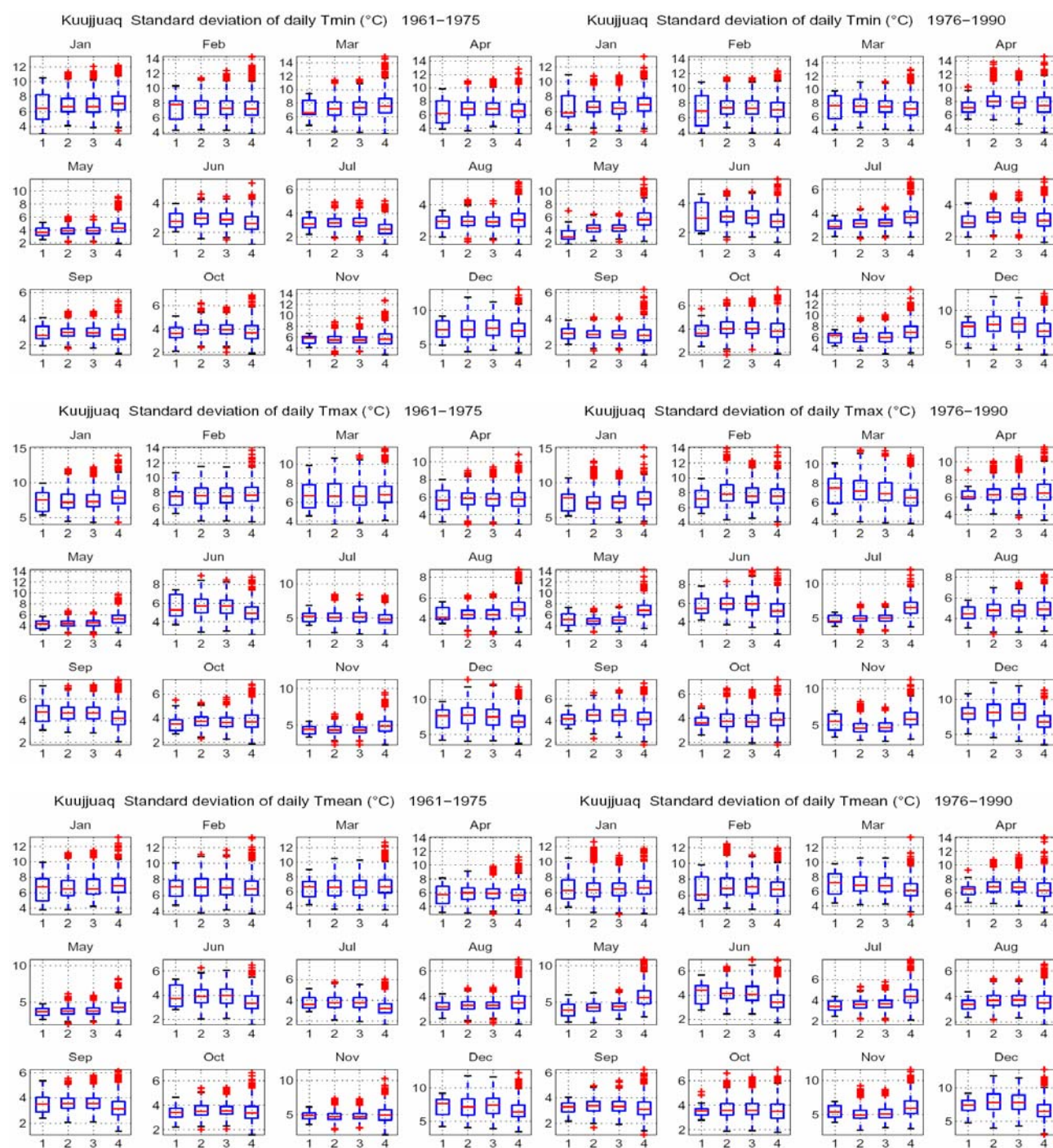


Figure 2.6. Same as Figure 2.5 but for Kuujuaq (region 2, see Fig. 1.1.).

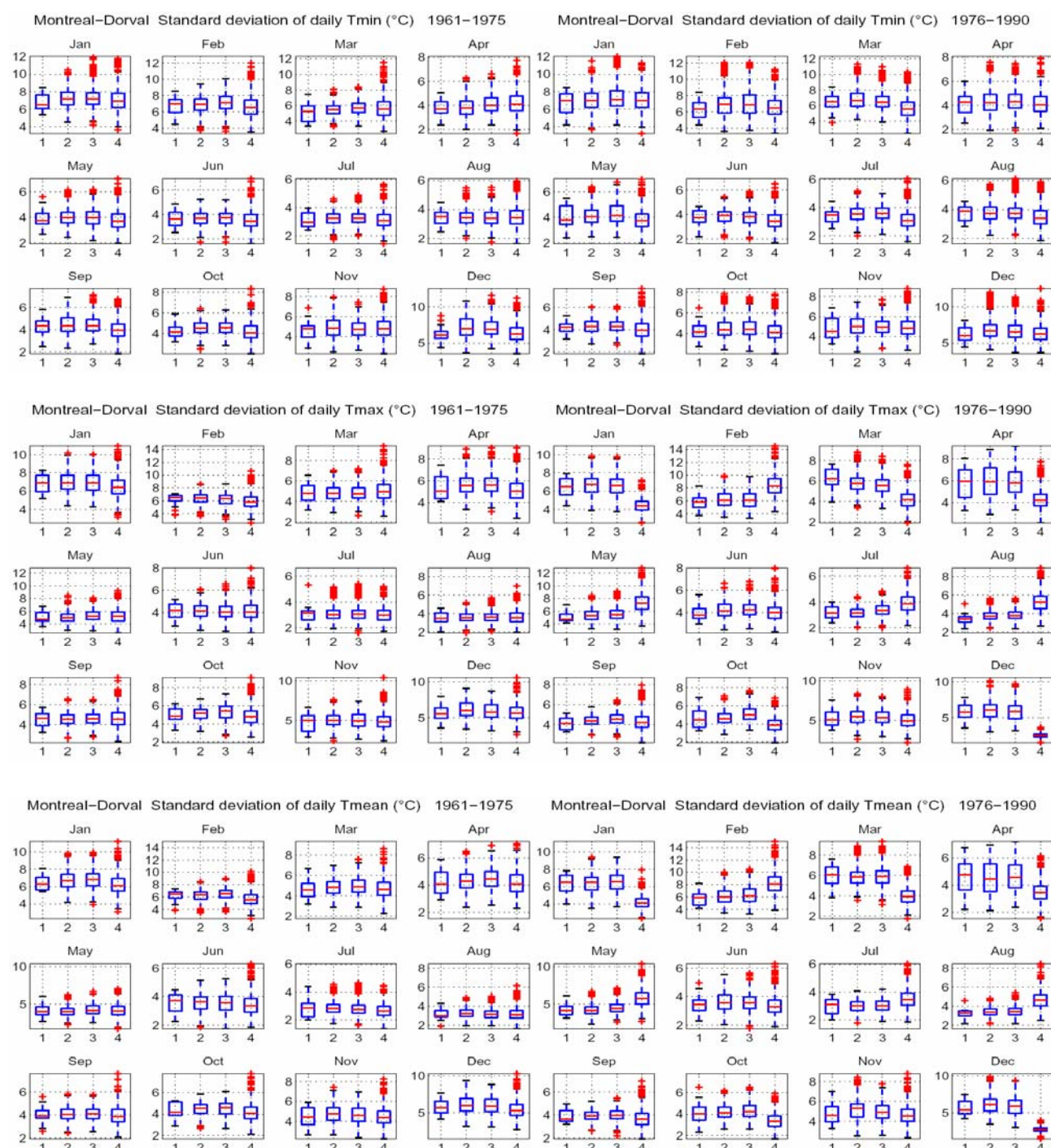


Figure 2.7. Same as Figure 2.5 but for Montreal-Dorval (region 3, see Fig. 1.1.).

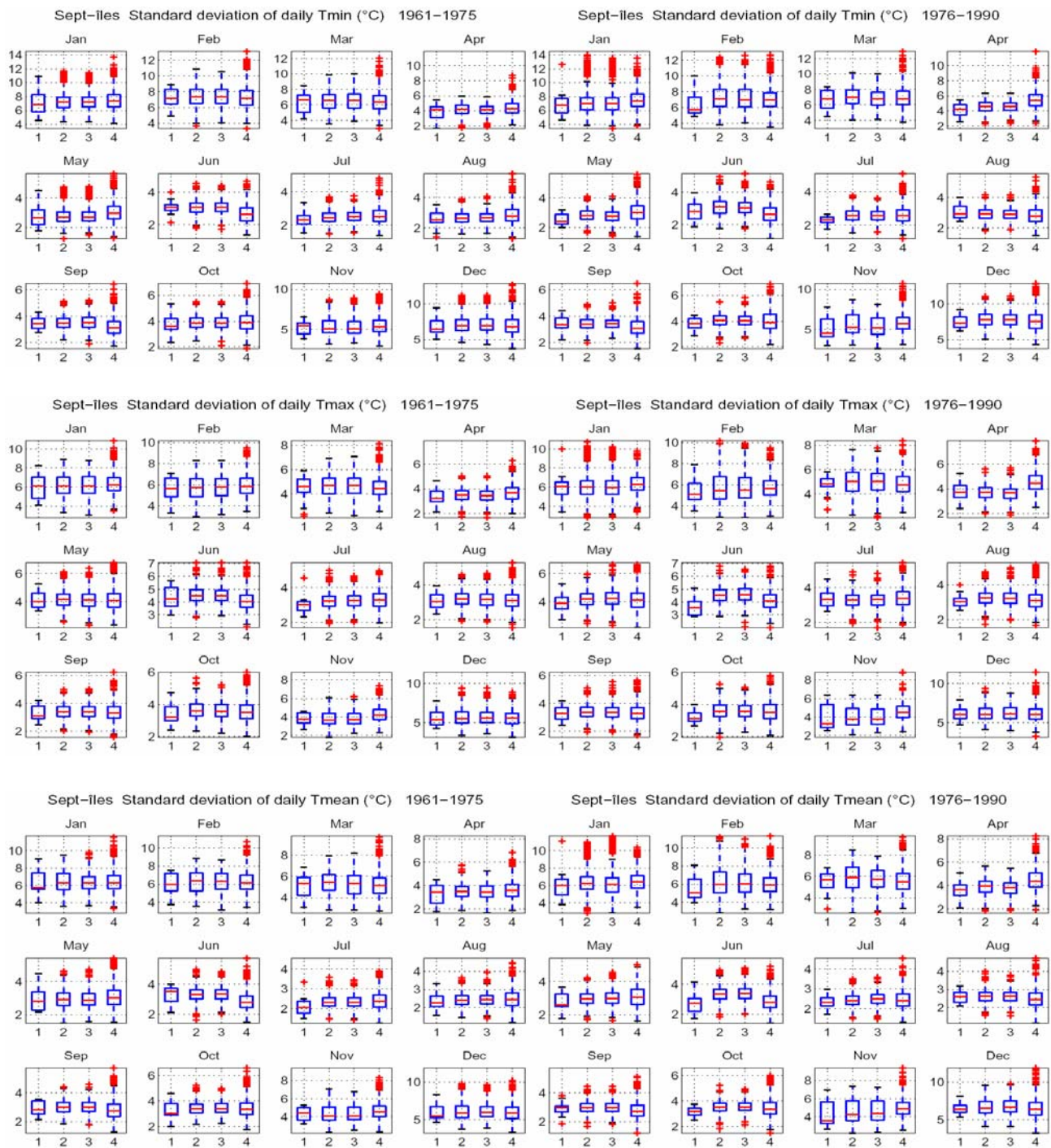


Figure 2.8. Same as Figure 2.5 but for Sept-Îles (region 4, see Fig. 1.1.).

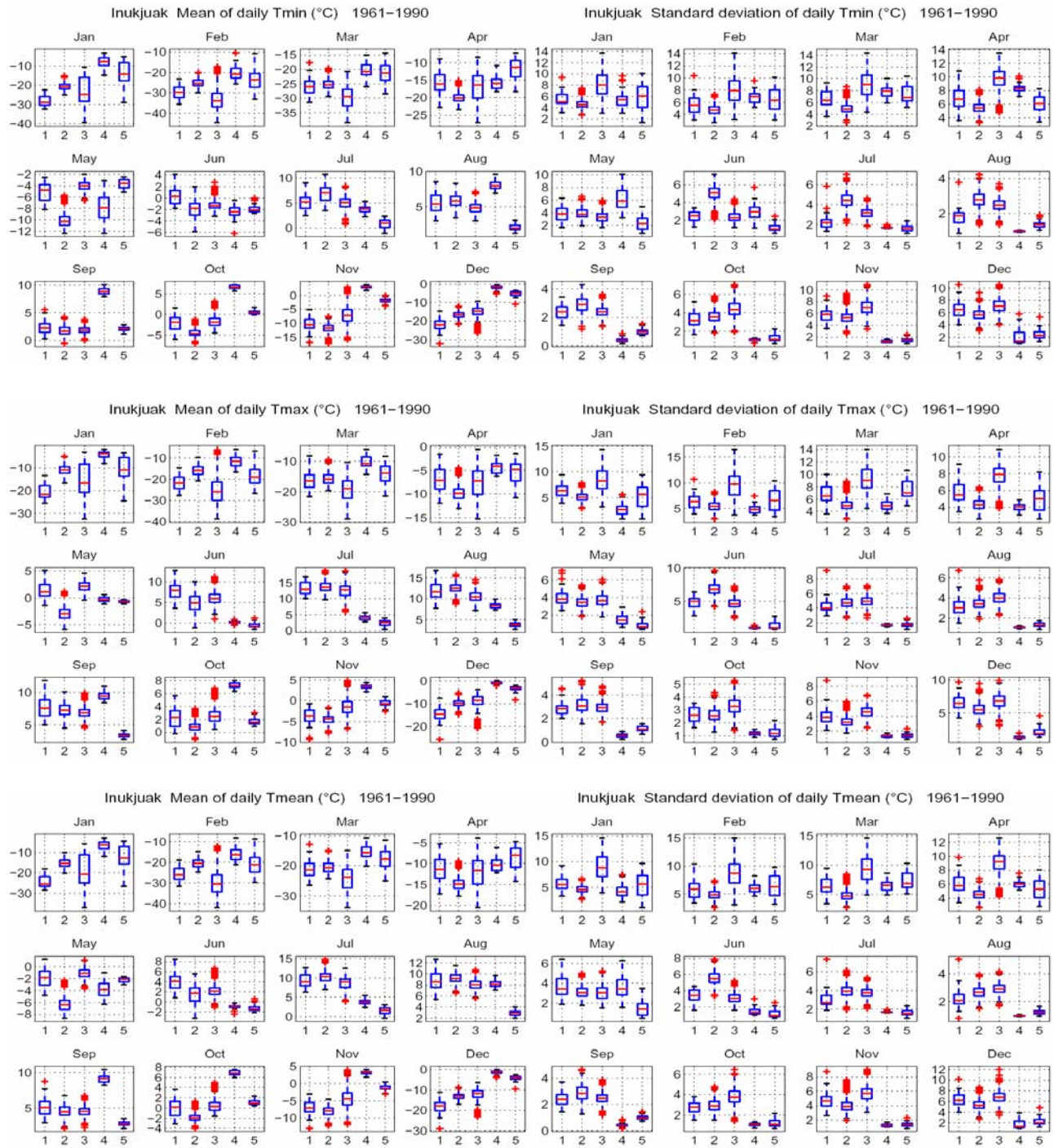


Figure 2.9. Box plots of monthly mean values (left panels) and standard deviation (right panels) of minimum temperature (upper panels), maximum temperature (middle panels), and mean temperature (lower panels) in °C, for the entire 1961-1990 period at Inukjuak (region 1, see Fig. 1.1.) from : **1-** Observed data; **2-** SDSM using CGCM1 predictors; **3-** SDSM using HADCM3 predictors; **4-** CGCM1 raw data; **5-** HadCM3 raw data. The outliers are represented in red crosses. The definition of the box plots is given in section 2.2.3 b).

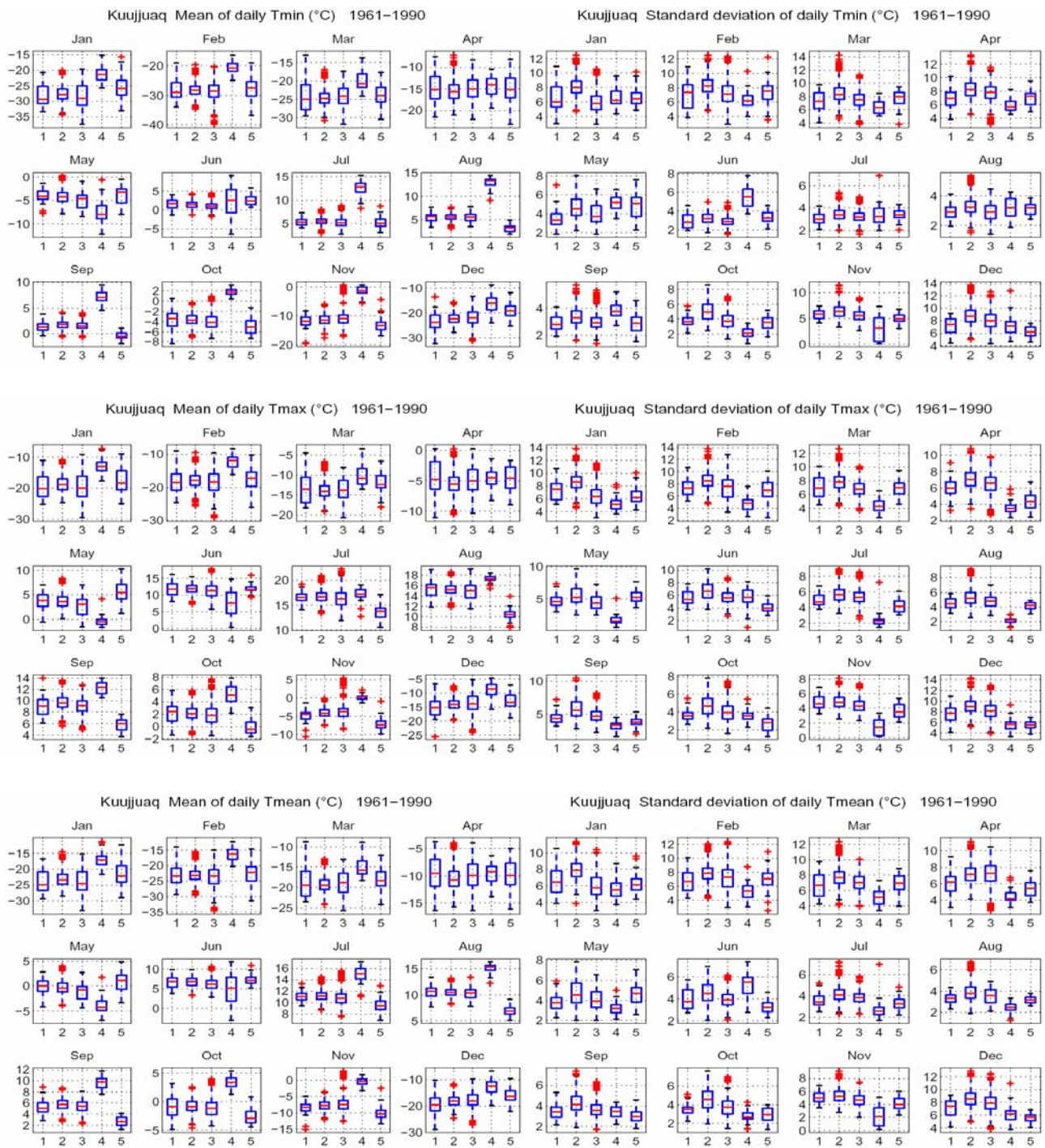


Figure 2.10. Same as Figure 2.9. but for Kuujuaq (region 2, see Fig. 1.1.).

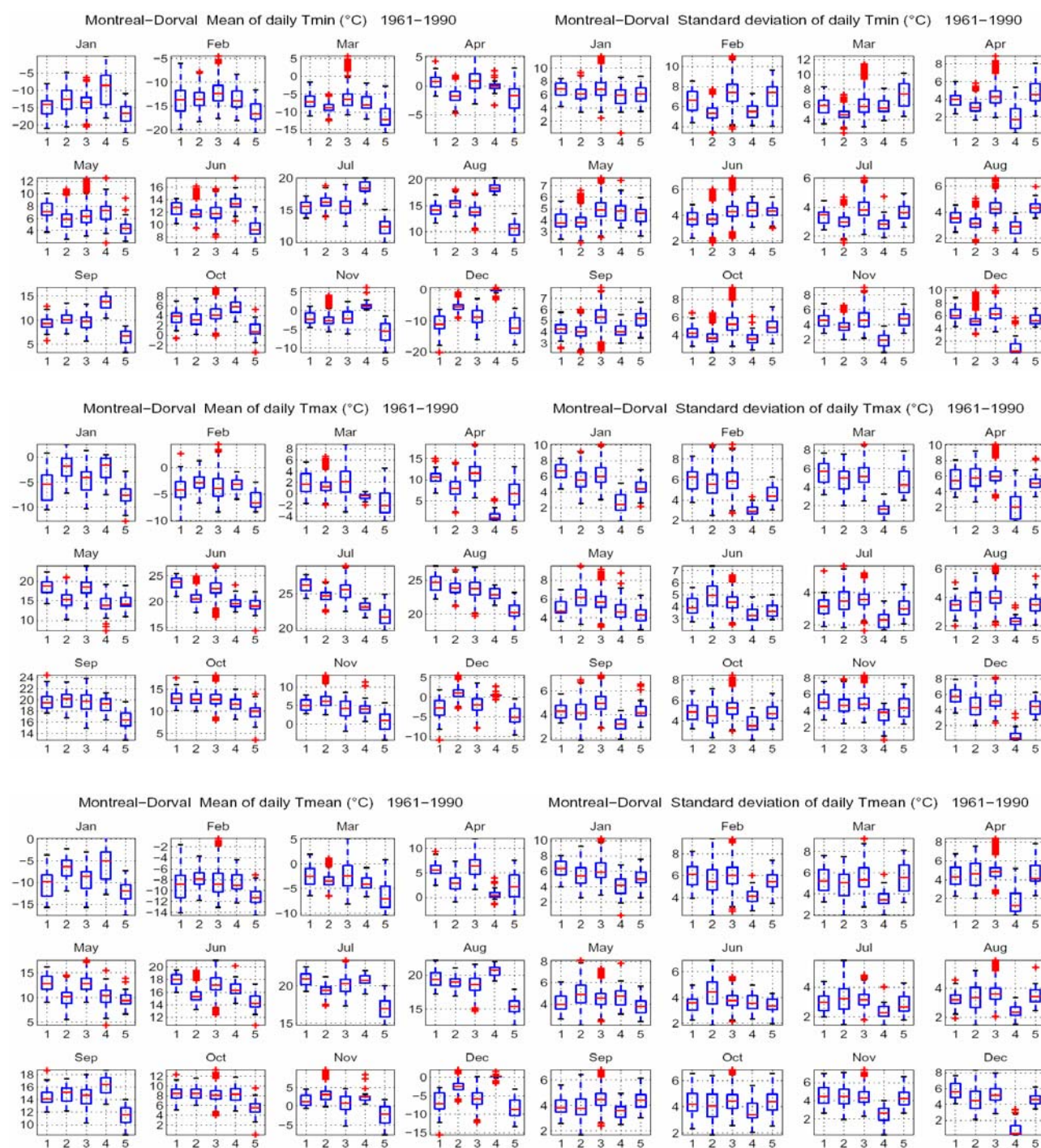


Figure 2.11. Same as Figure 2.9 but for Montreal-Dorval (region 3, see Fig. 1.1.).

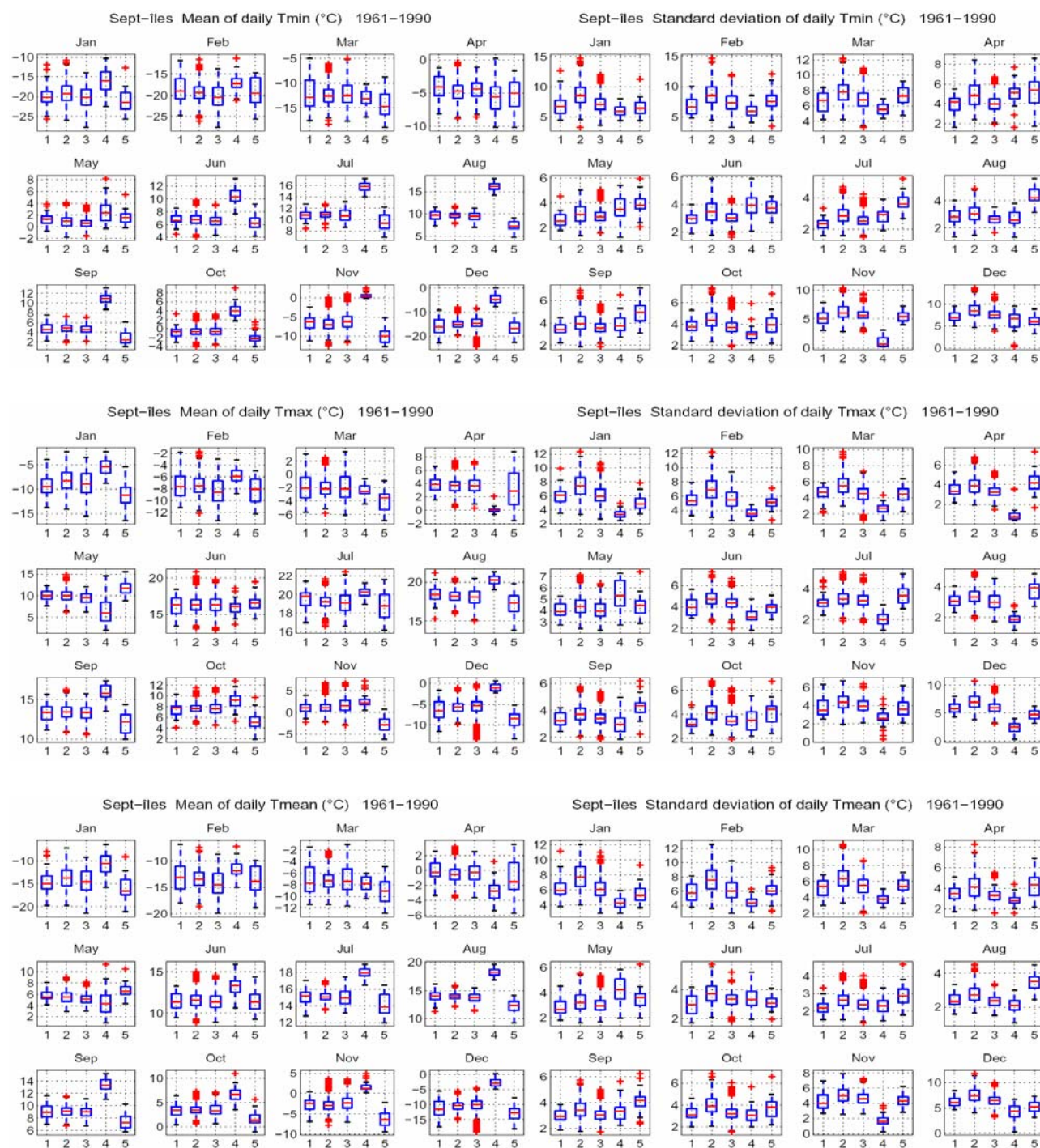


Figure 2.12. Same as Figure 2.9 but for Sept-Îles (region 4, see Fig. 1.1.).

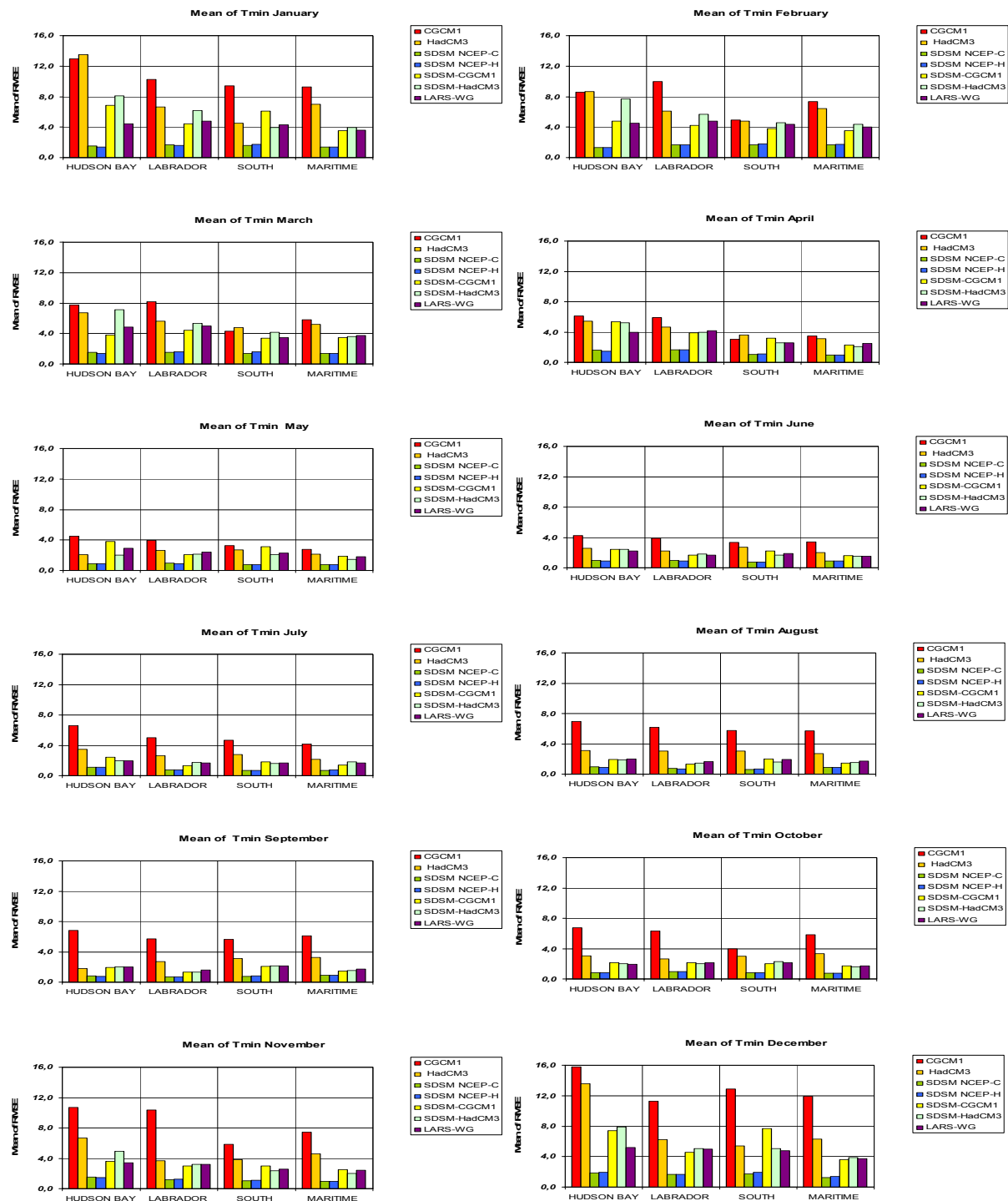


Figure 2.13. Histograms of RMSE for monthly minimum temperature in °C, averaged over each region defined in Figure 1.1 over the 1961-1990 period from (from the left to the right of each histogram) : CGCM1 raw data (CGCM1), HadCM3 raw data (HadCM3), SDSM using NCEP predictors on the CGCM1 grid (SDSM NCEP-C), SDSM using NCEP predictors on the HadCM3 grid (SDSM NCEP-H), SDSM using CGCM1 predictors (SDSM-CGCM1), SDSM using HADCM3 predictors (SDSM-HadCM3), and LARS-WG.

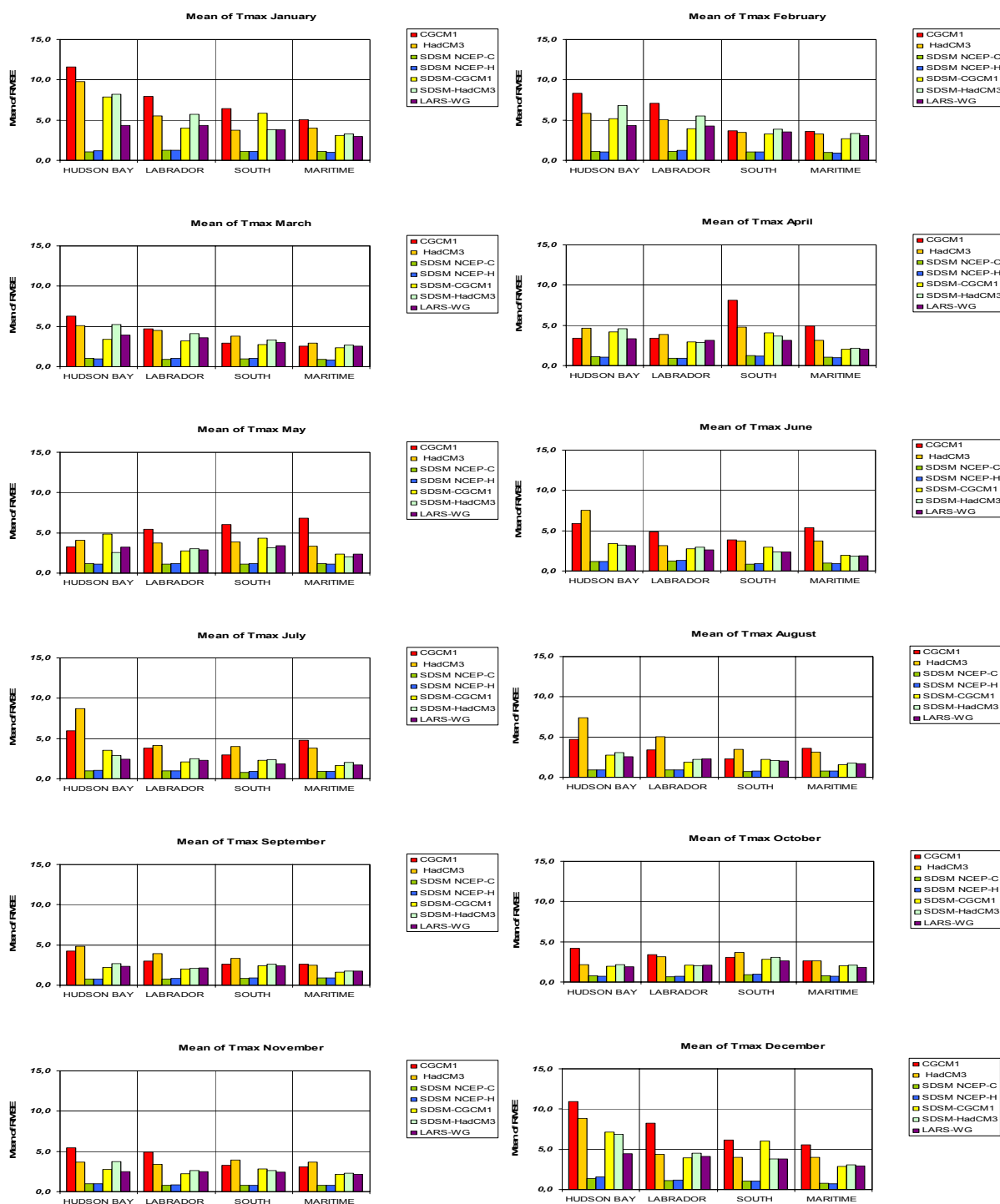


Figure 2.14. Same as Figure 2.13 but for monthly maximum temperature.

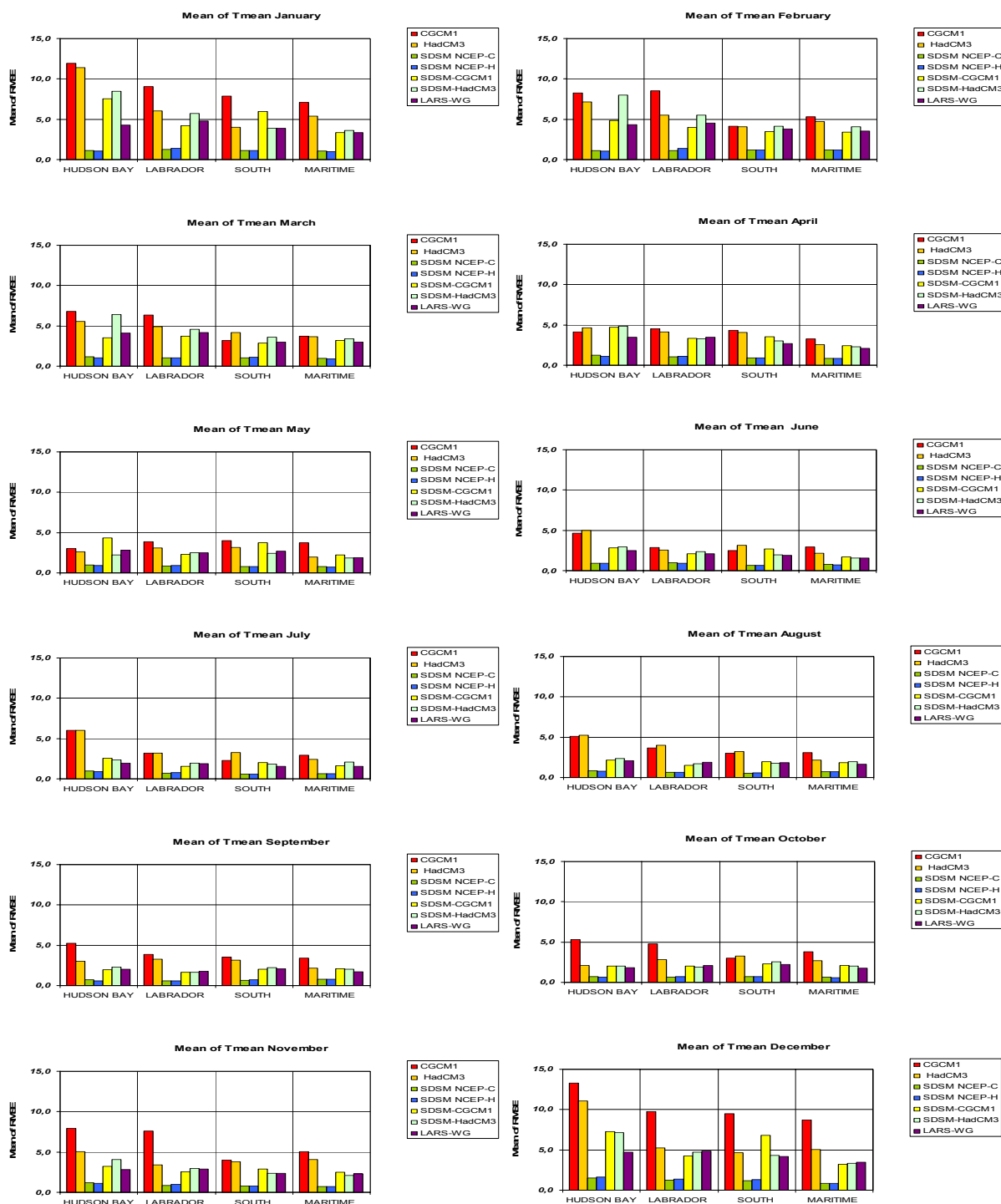


Figure 2.15. Same as Figure 2.13 but for monthly mean temperature.

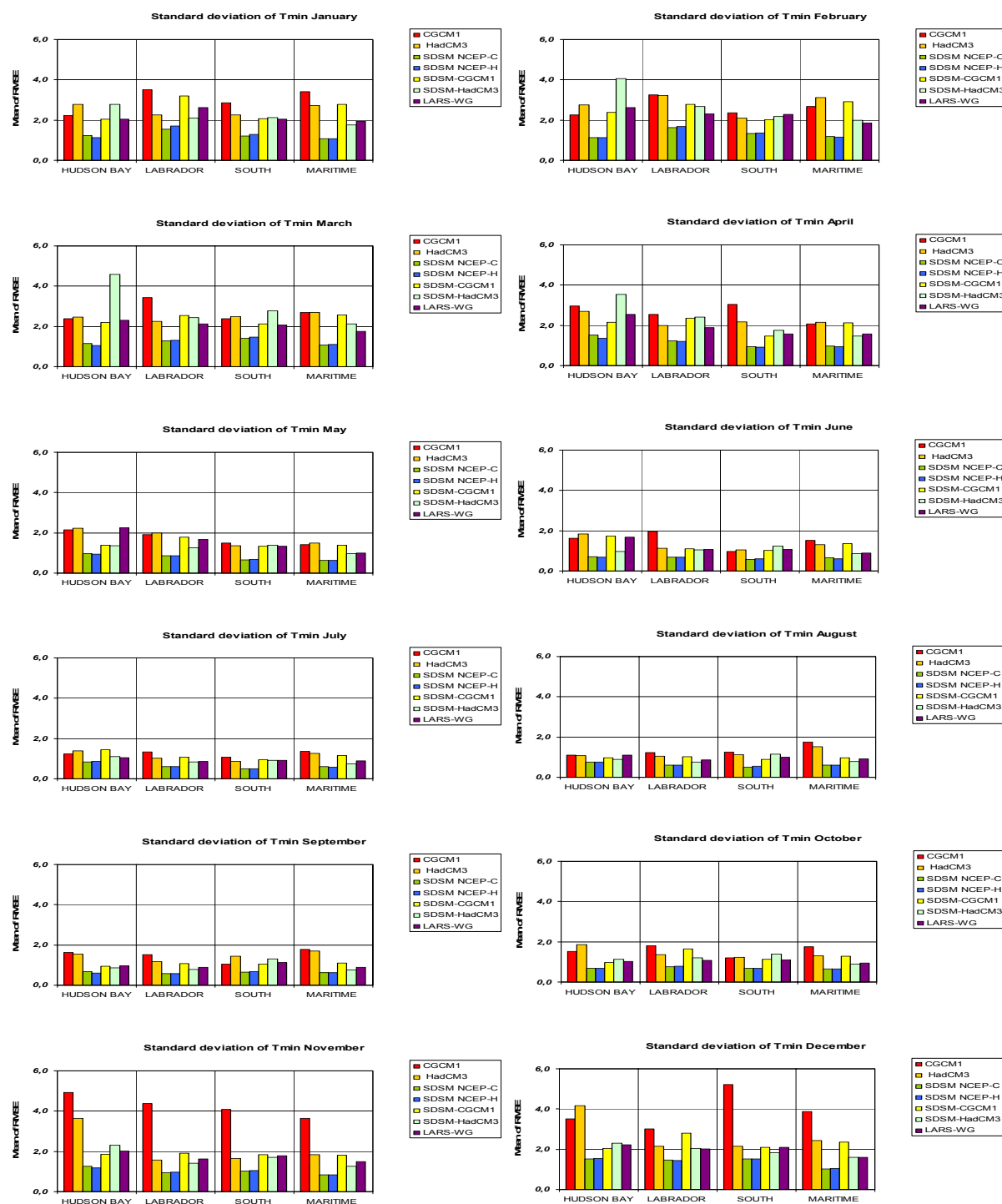


Figure 2.16. Same as Figure 2.13 but for the standard deviation of monthly minimum temperature.

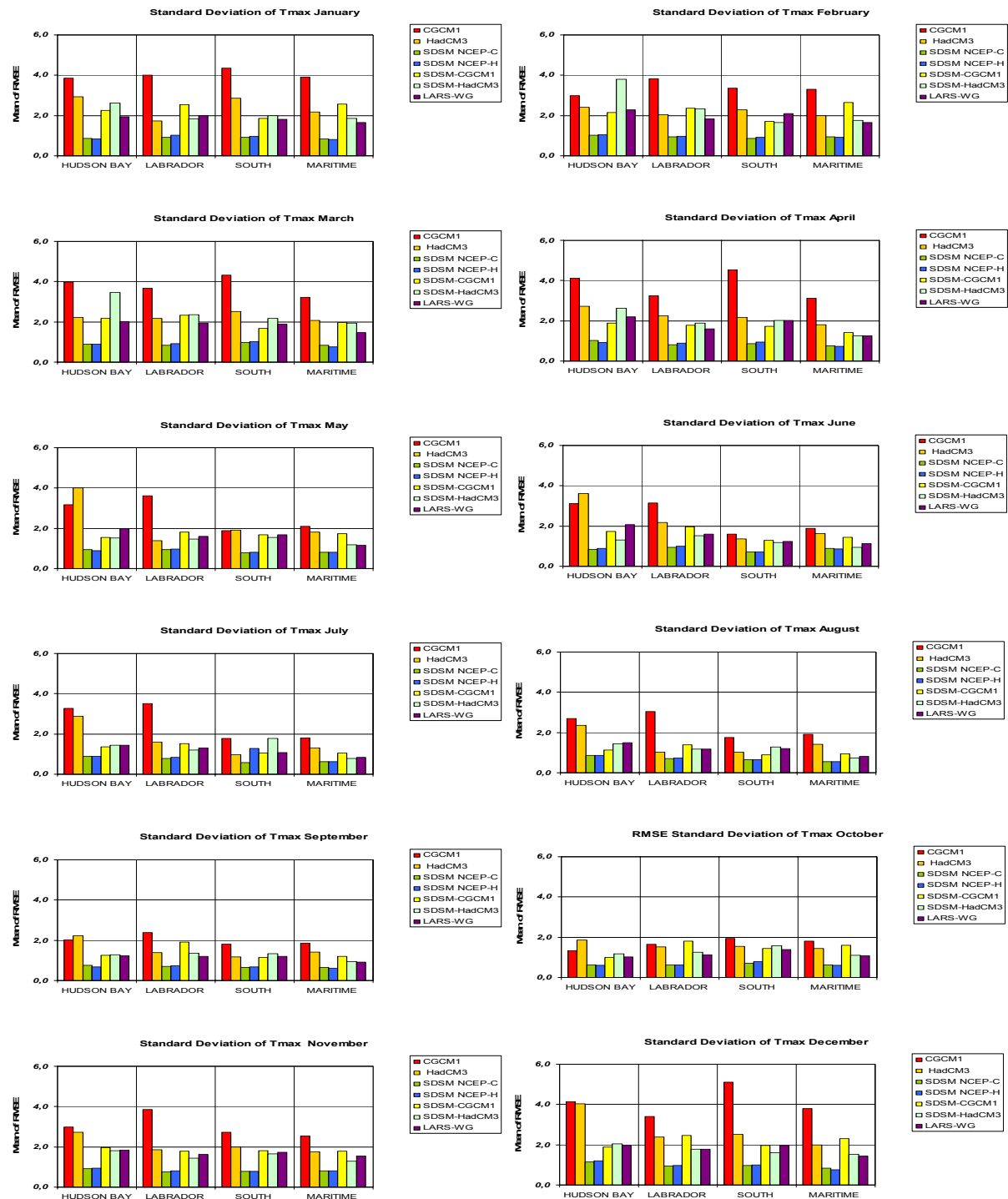


Figure 2.17. Same as Figure 2.13 but for the standard deviation of monthly maximum temperature.

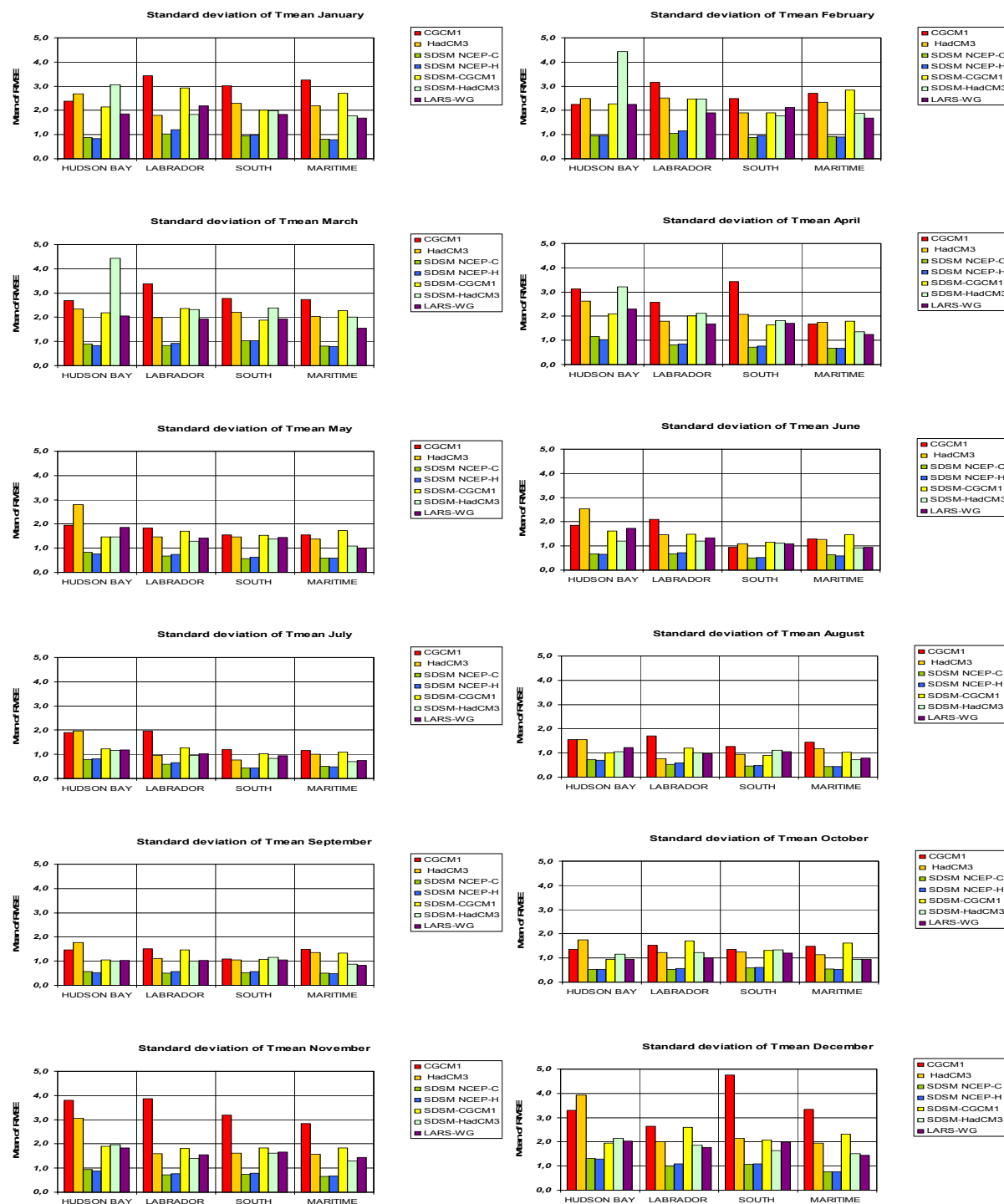


Figure 2.18. Same as Figure 2.13 but for the standard deviation of monthly mean temperature.

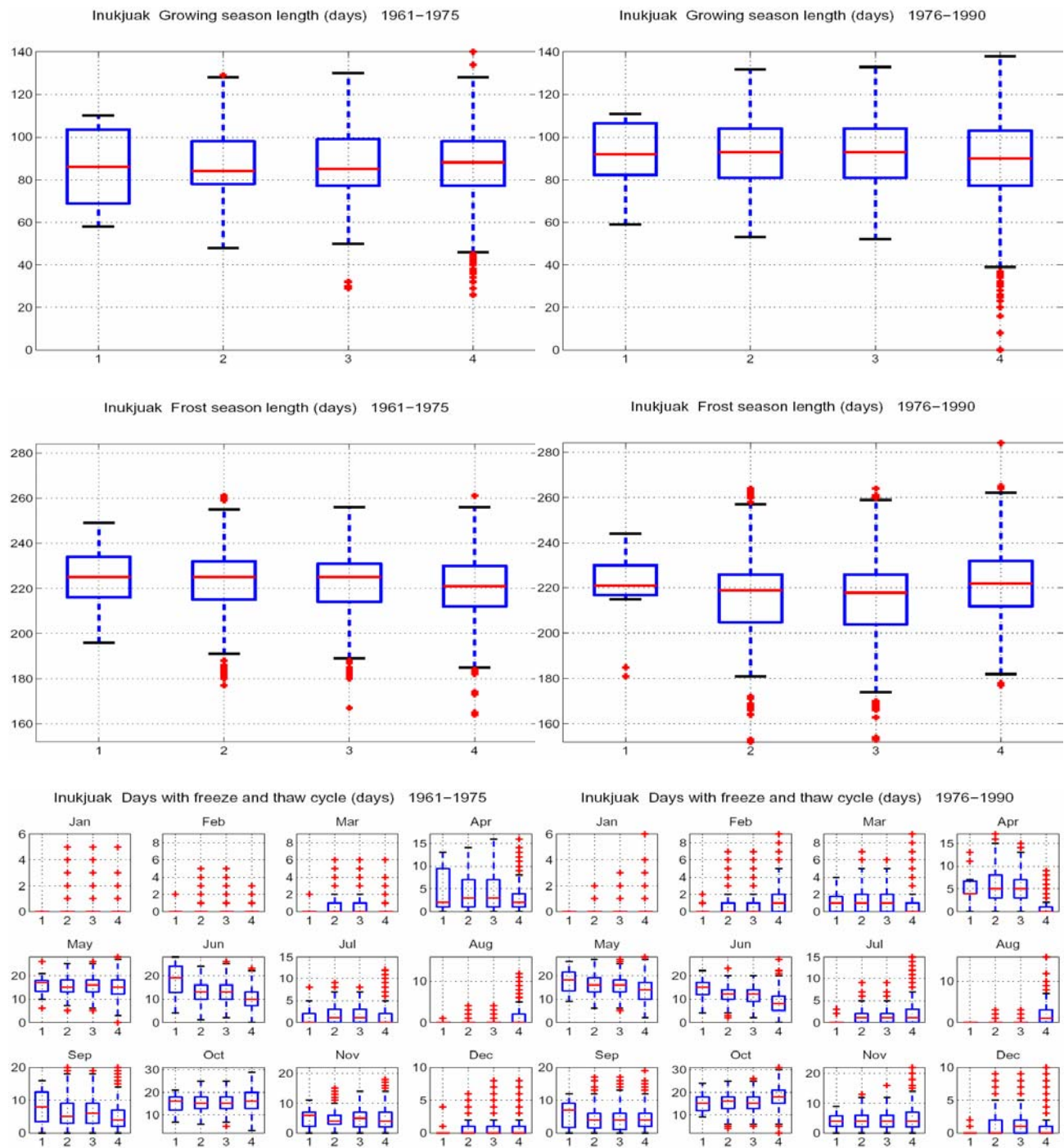


Figure 2.19. Same as Figure 2.1 but for the annual growing season length (upper panels), annual frost season length (middle panels), and monthly values of days with freeze and thaw cycle (lower panels), all in days.

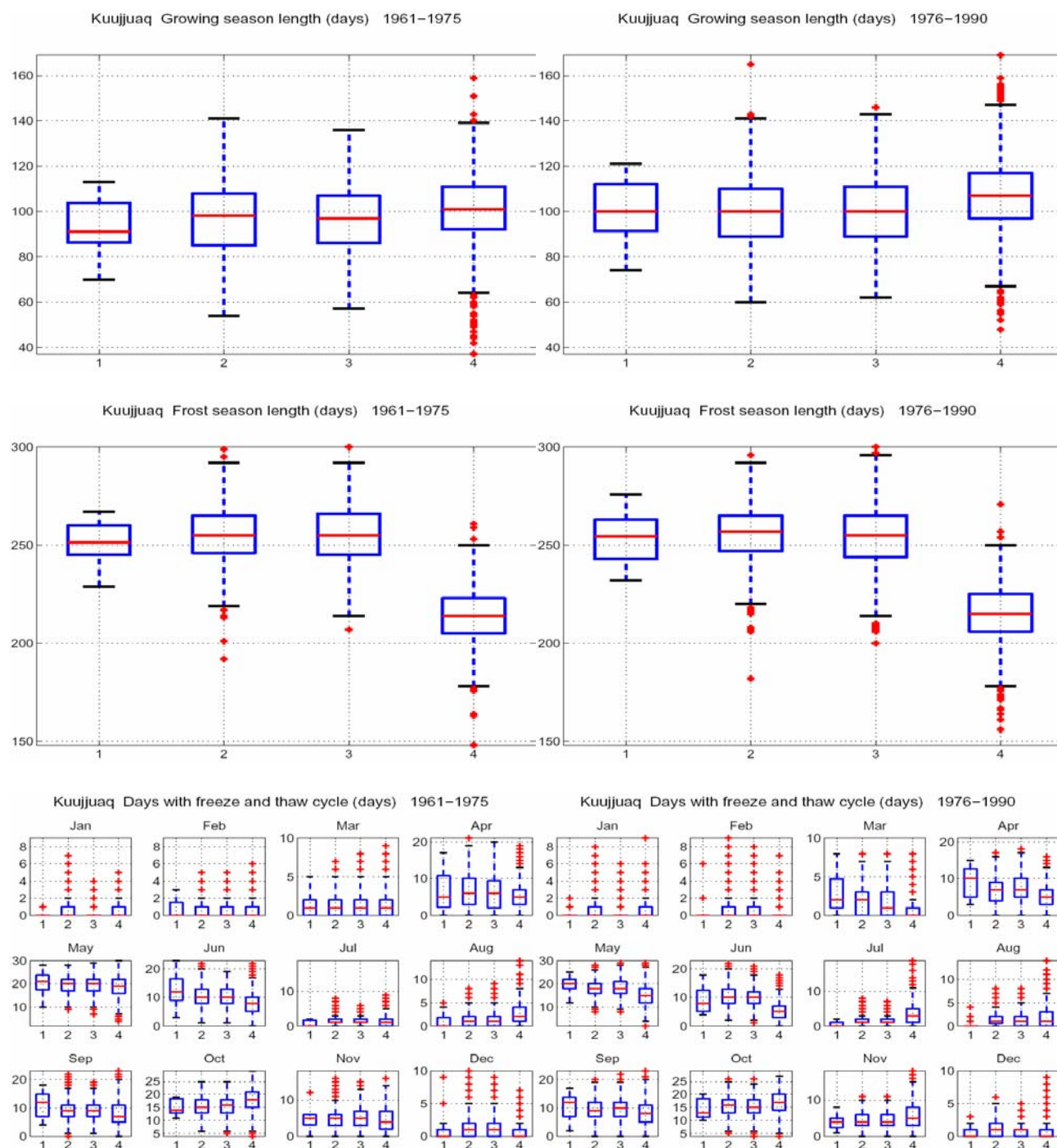


Figure 2.20. Same as Figure 2.19 but for Kuujuaq.

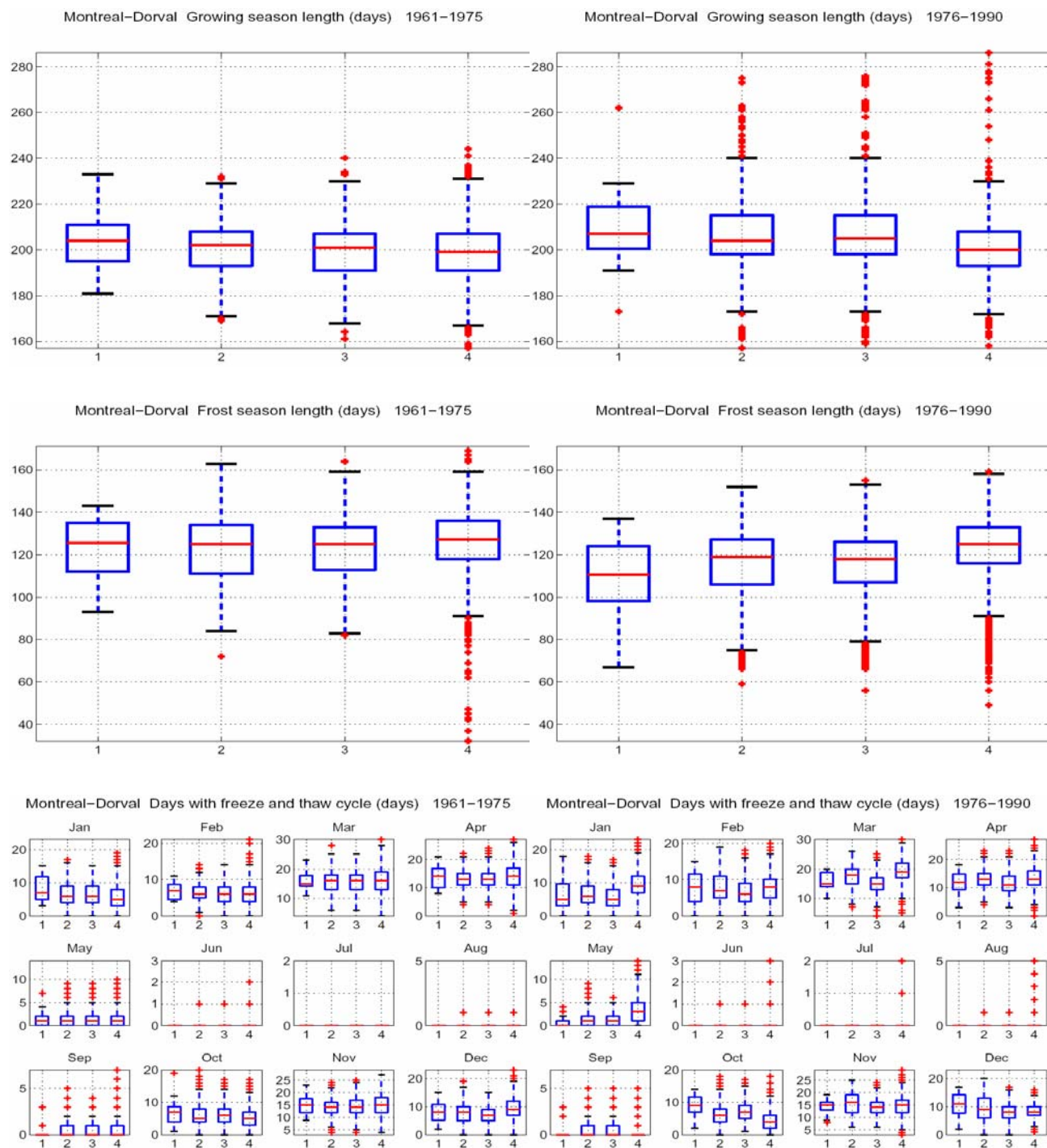


Figure 2.21. Same as Figure 2.19 but for Montreal-Dorval.

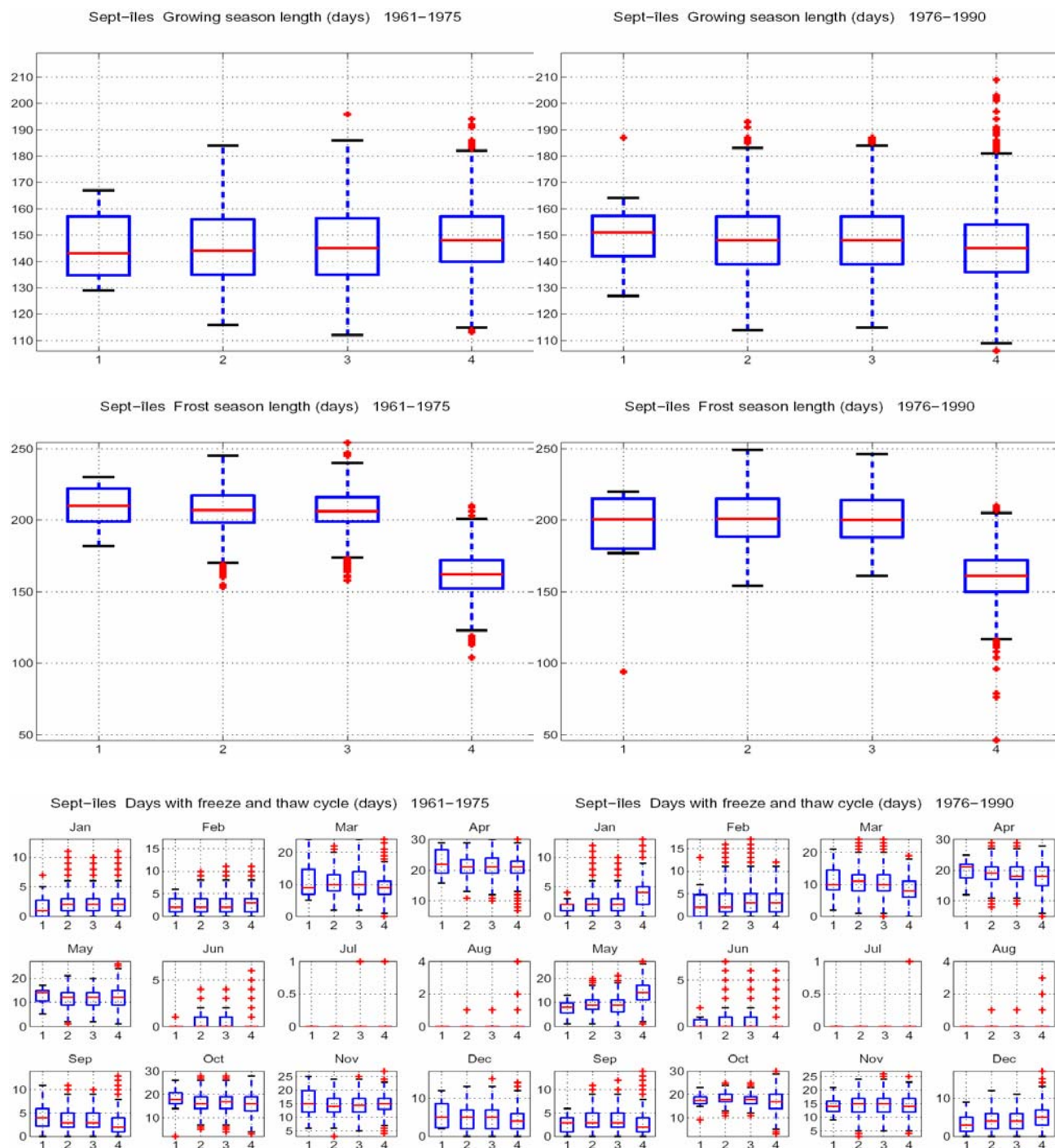


Figure 2.22. Same as Figure 2.19 but for Sept-Îles.

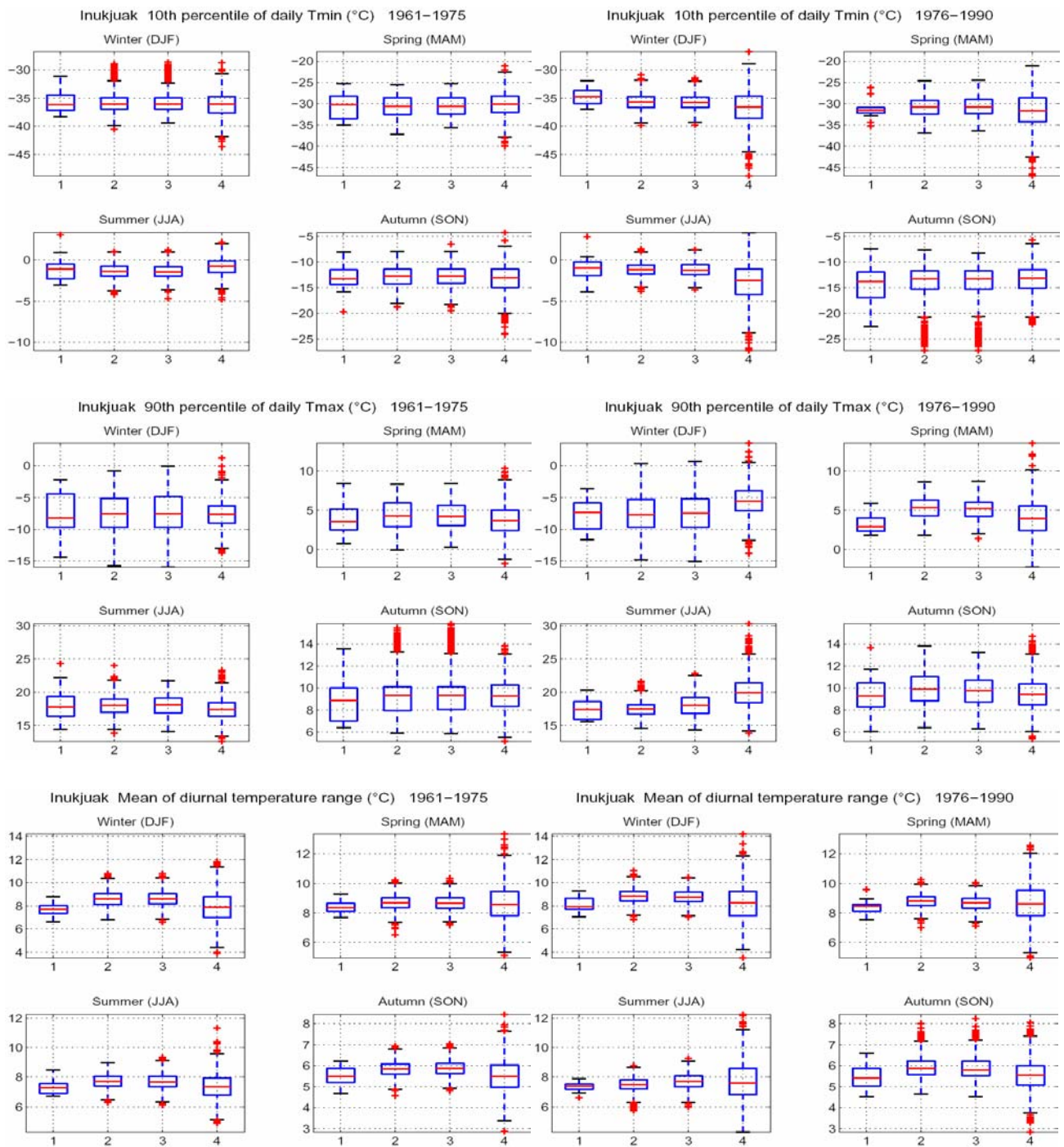


Figure 2.23. Same as Figure 2.1 but for the seasonal values of 10th percentile of daily minimum temperature (upper panels), of 90th percentile of daily maximum temperature (middle panels), and mean diurnal temperature range (lower panels), all in °C. DJF refers to winter season, MAM to spring, JJA to summer, and SON to fall.

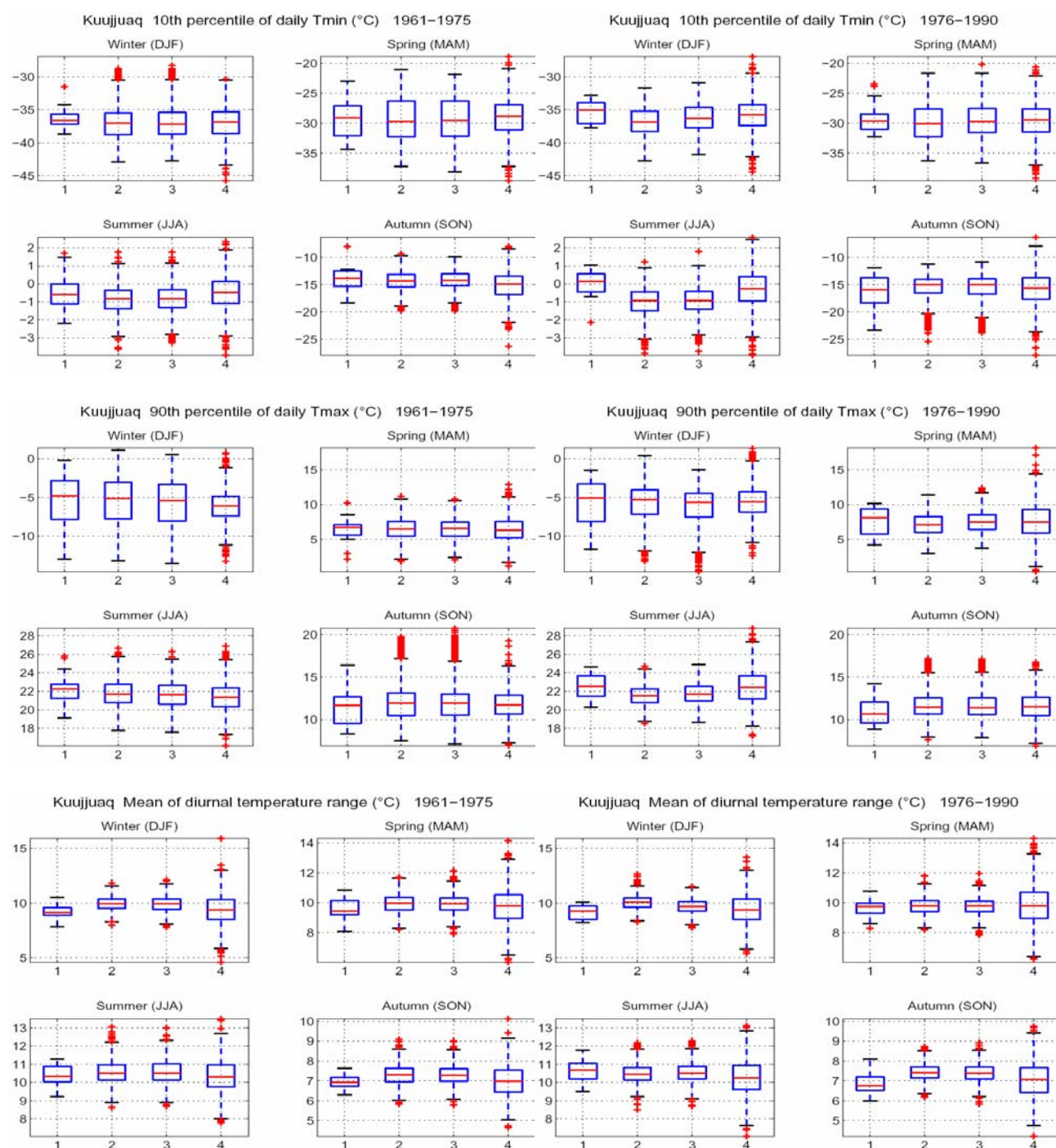


Figure 2.24. Same as Figure 2.23 but for Kuujuaq.

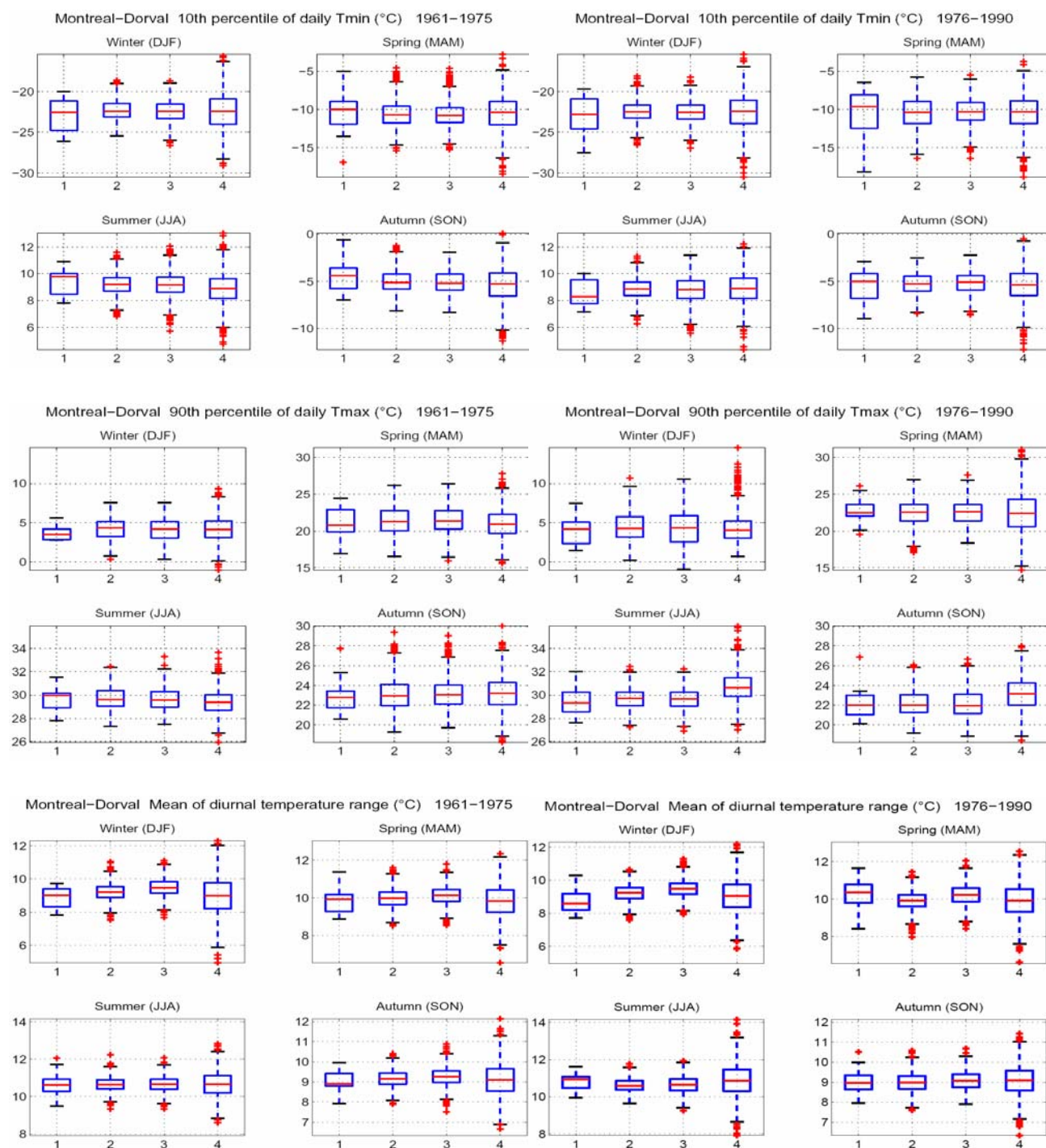


Figure 2.25. Same as Figure 2.23 but for Montreal-Dorval.

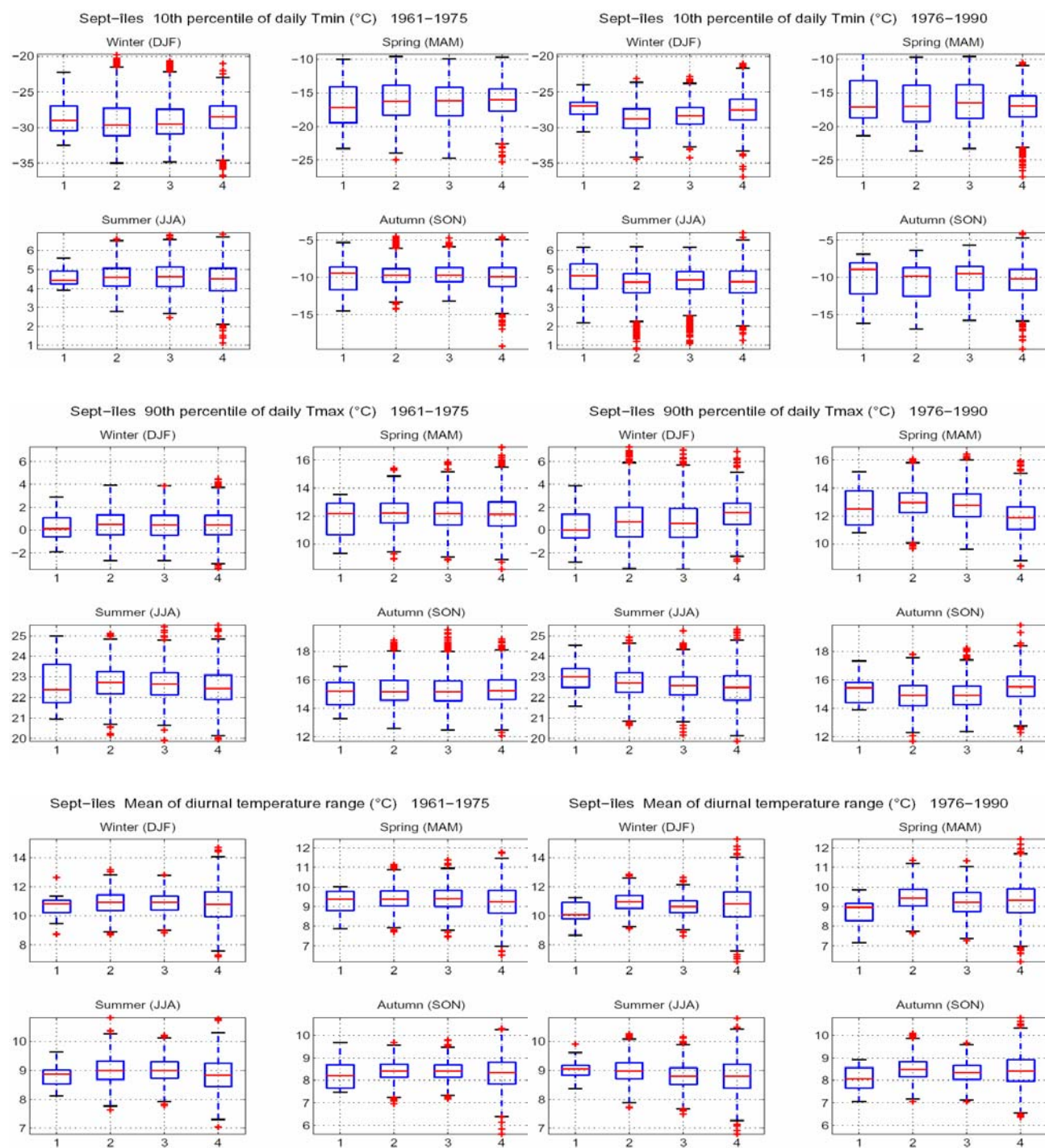


Figure 2.26. Same as Figure 2.23 but for Sept-Îles.

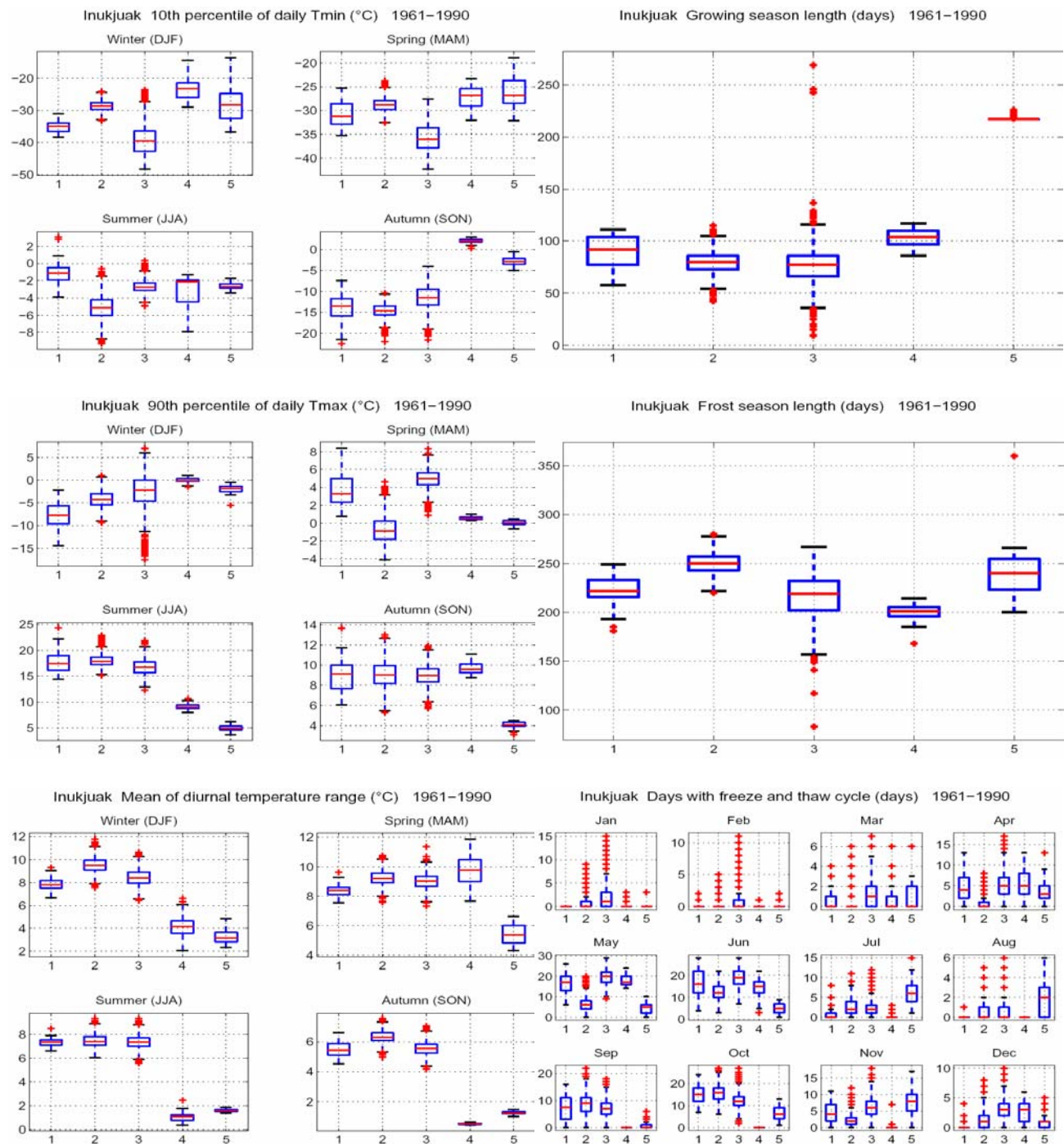


Figure 2.27. Same as Figure 2.9 but for the seasonal values of 10th percentile of daily minimum temperature (upper left panels), of 90th of daily maximum temperature (middle left panels), and mean diurnal temperature range (lower left panels), all in °C, and for the annual growing season length (upper right panels) and frost season length (middle right panels), and monthly values of days with freeze and thaw cycle (lower right panels), all in days. DJF refers to winter season, MAM to spring, JJA to summer, and SON to fall.

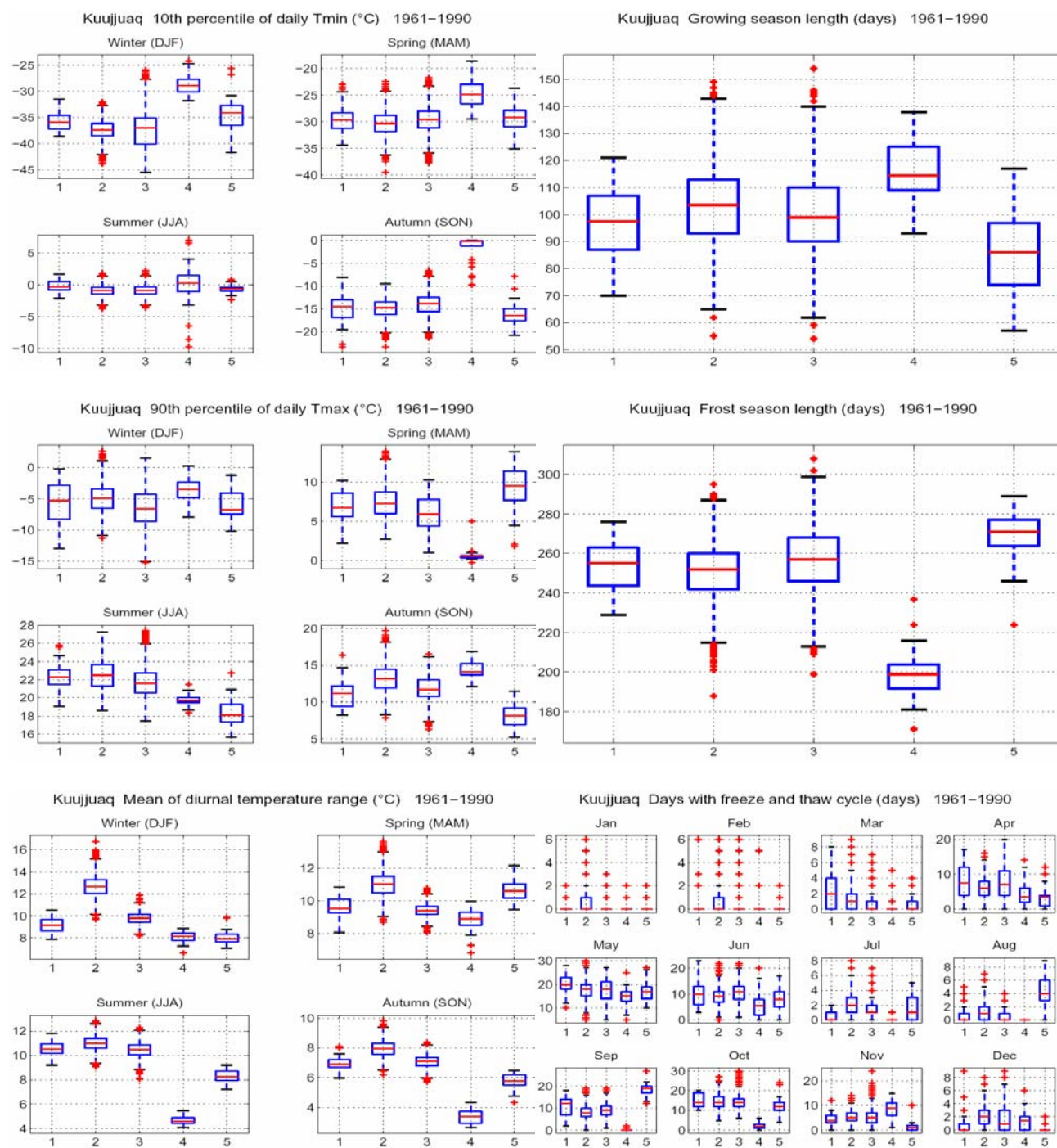


Figure 2.28. Same as Figure 2.27 but for Kuujuaq.

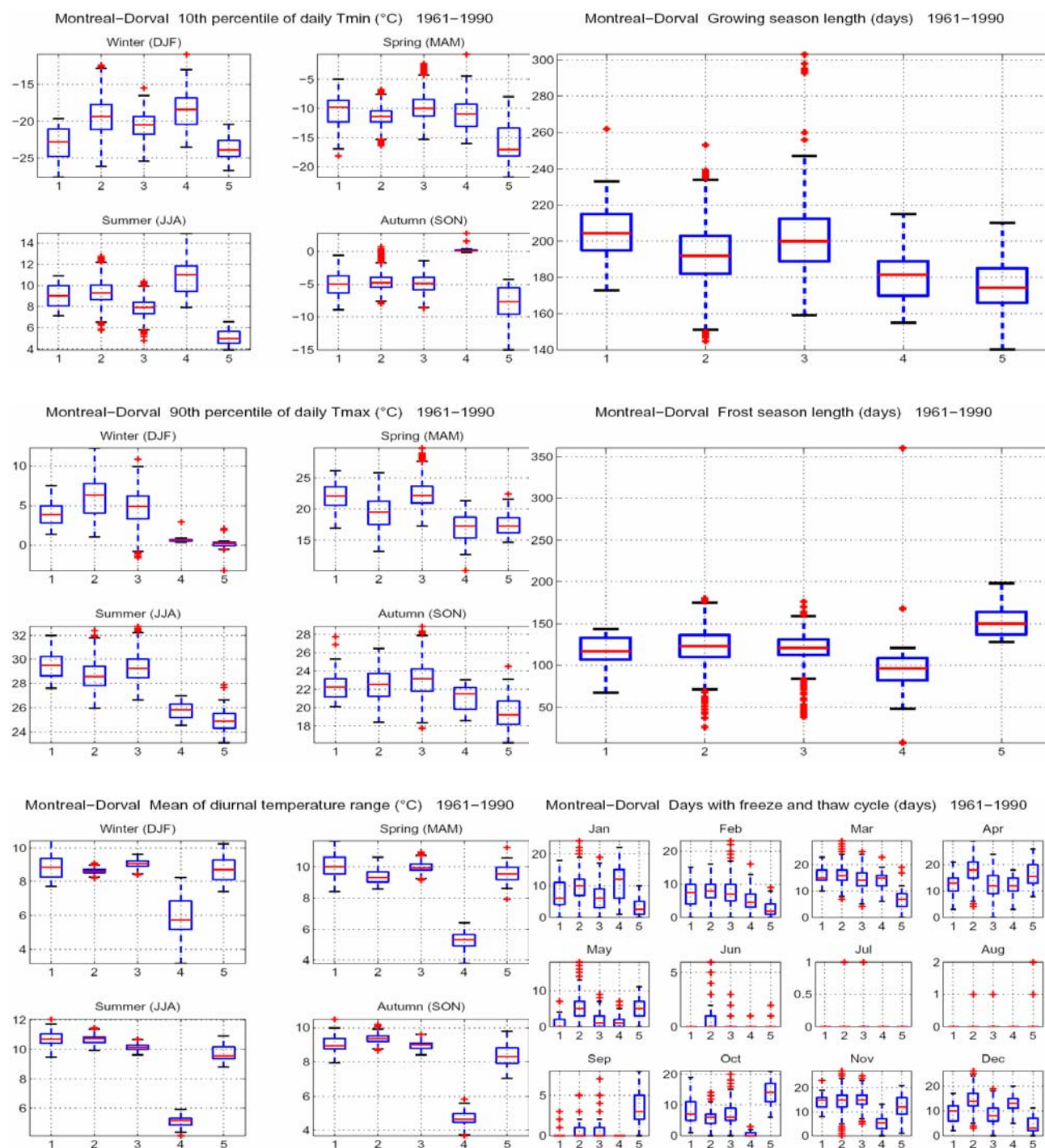


Figure 2.29. Same as Figure 2.27 but for Montreal-Dorval.

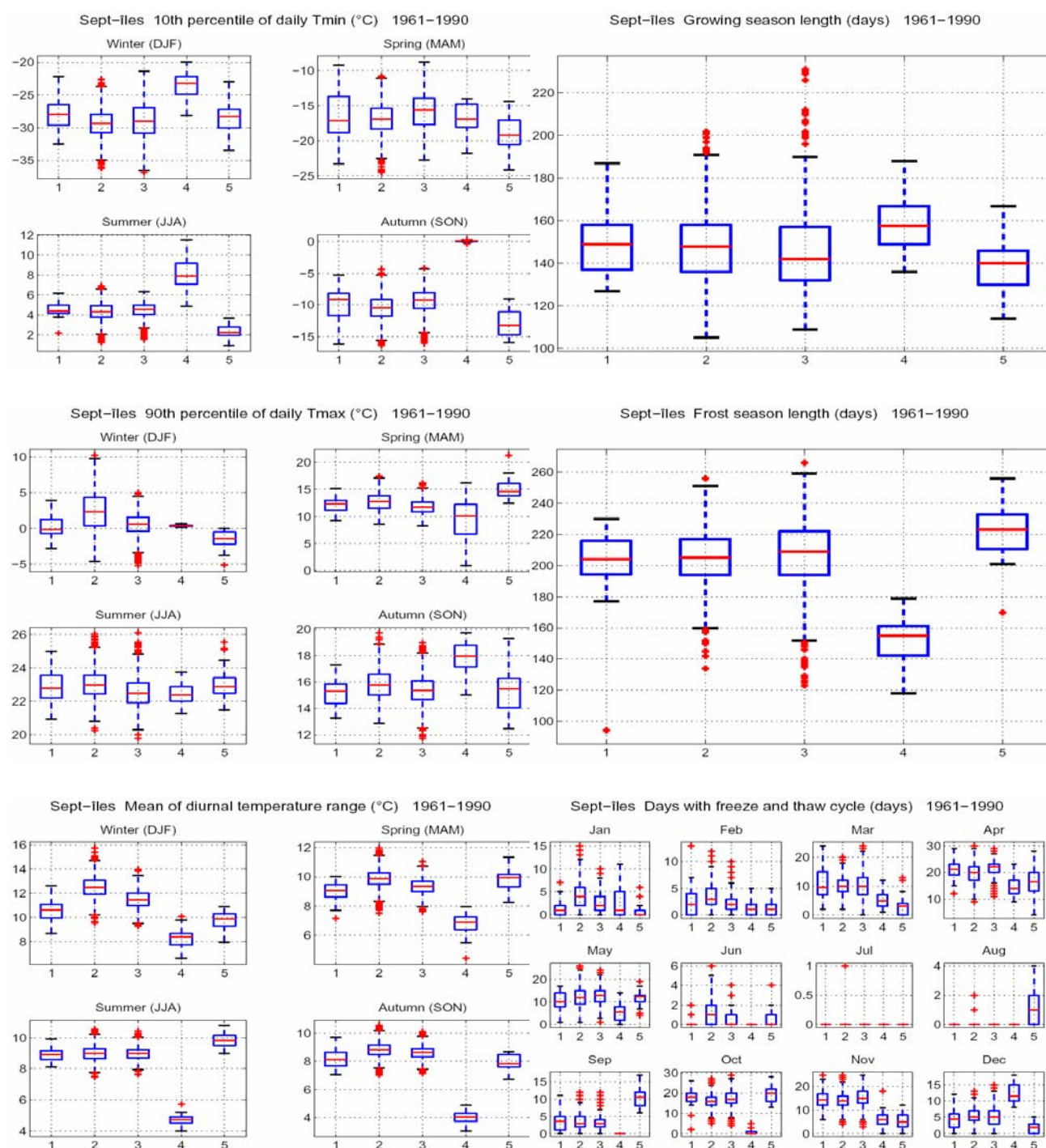


Figure 2.30. Same as Figure 2.27 but for Sept-Îles.

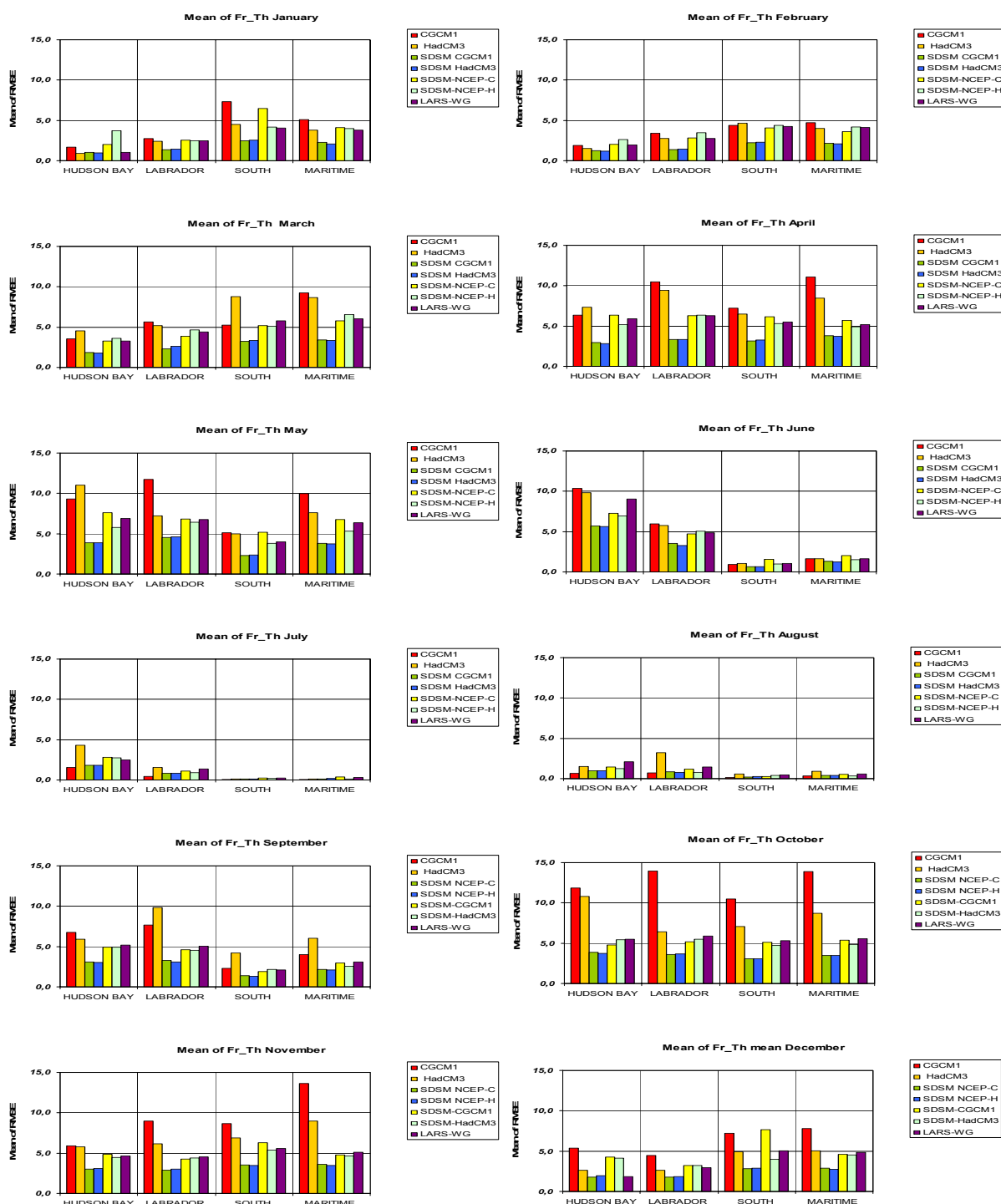


Figure 2.31. Same as Figure 2.13 but for the freeze and Thaw cycle (in days).

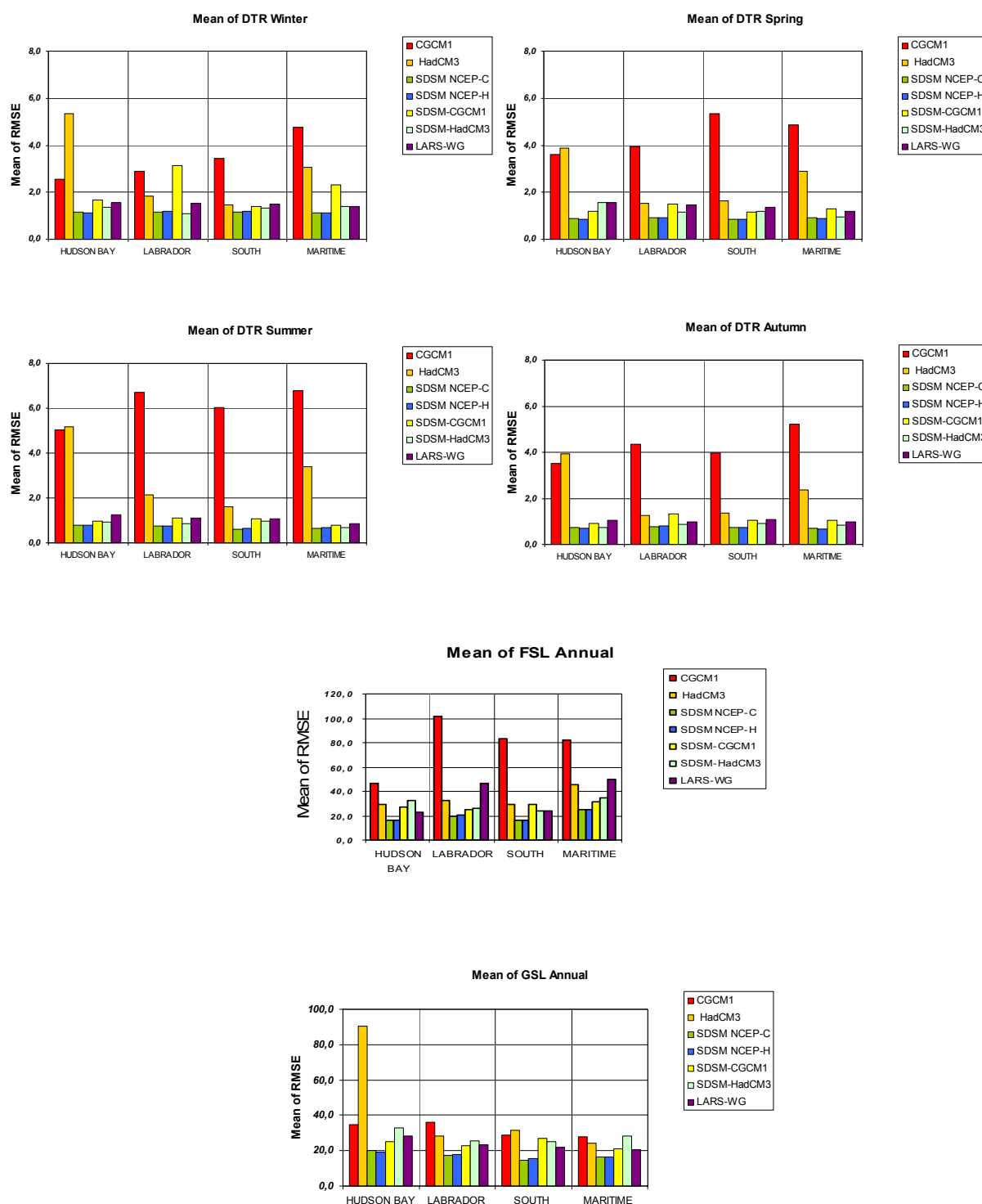


Figure 2.32. Same as Figure 2.31 but for the seasonal diurnal temperature range (in °C, upper four panels), the annual frost season length (in days, middle panel) and the annual growing season length (in days, lower panel).

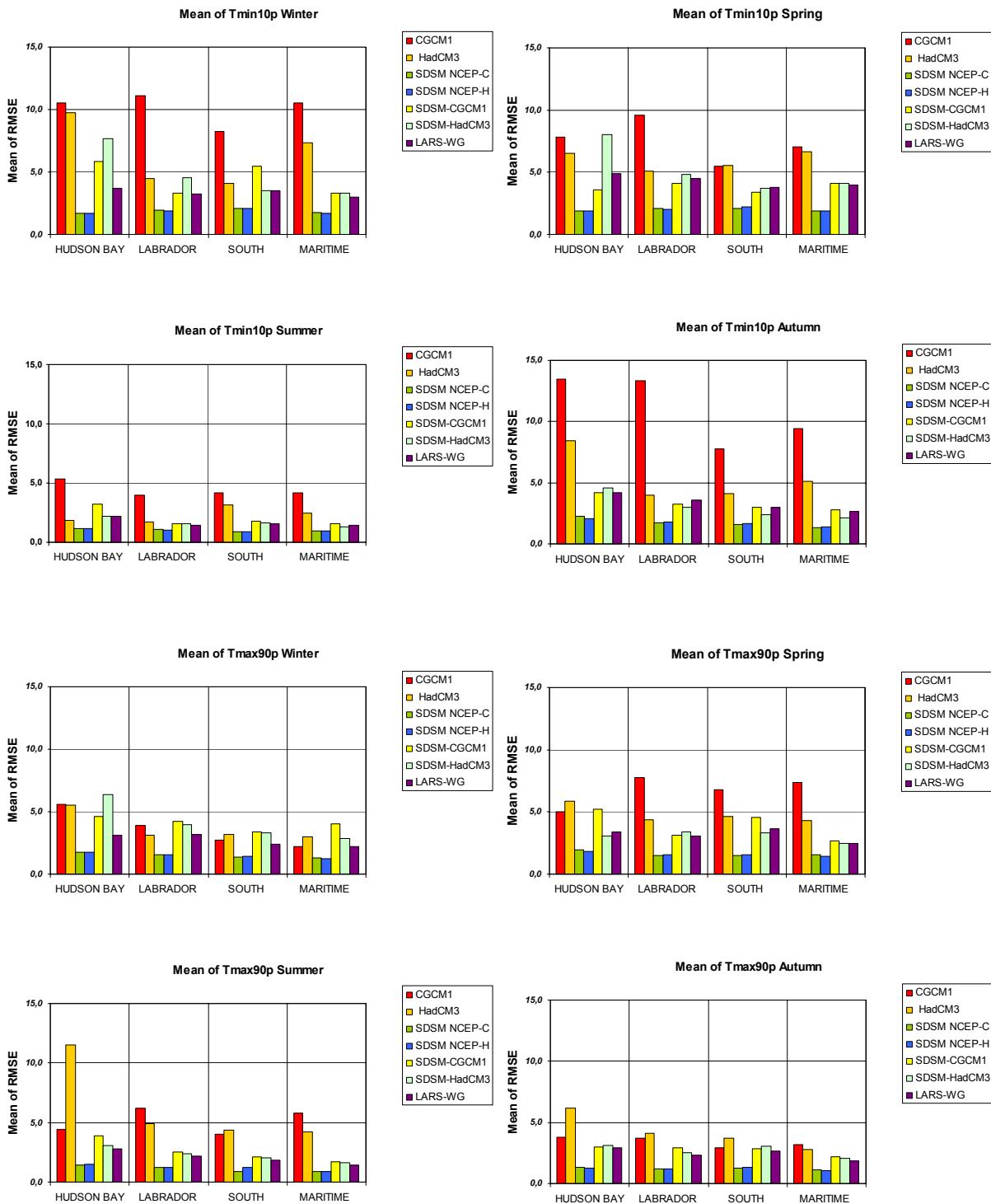


Figure 2.33 Same as Figure 2.31 but for the seasonal values of 10th percentile of daily minimum temperature (upper four panels), and of 90th percentile of daily maximum temperature (lower four panels), all in °C.

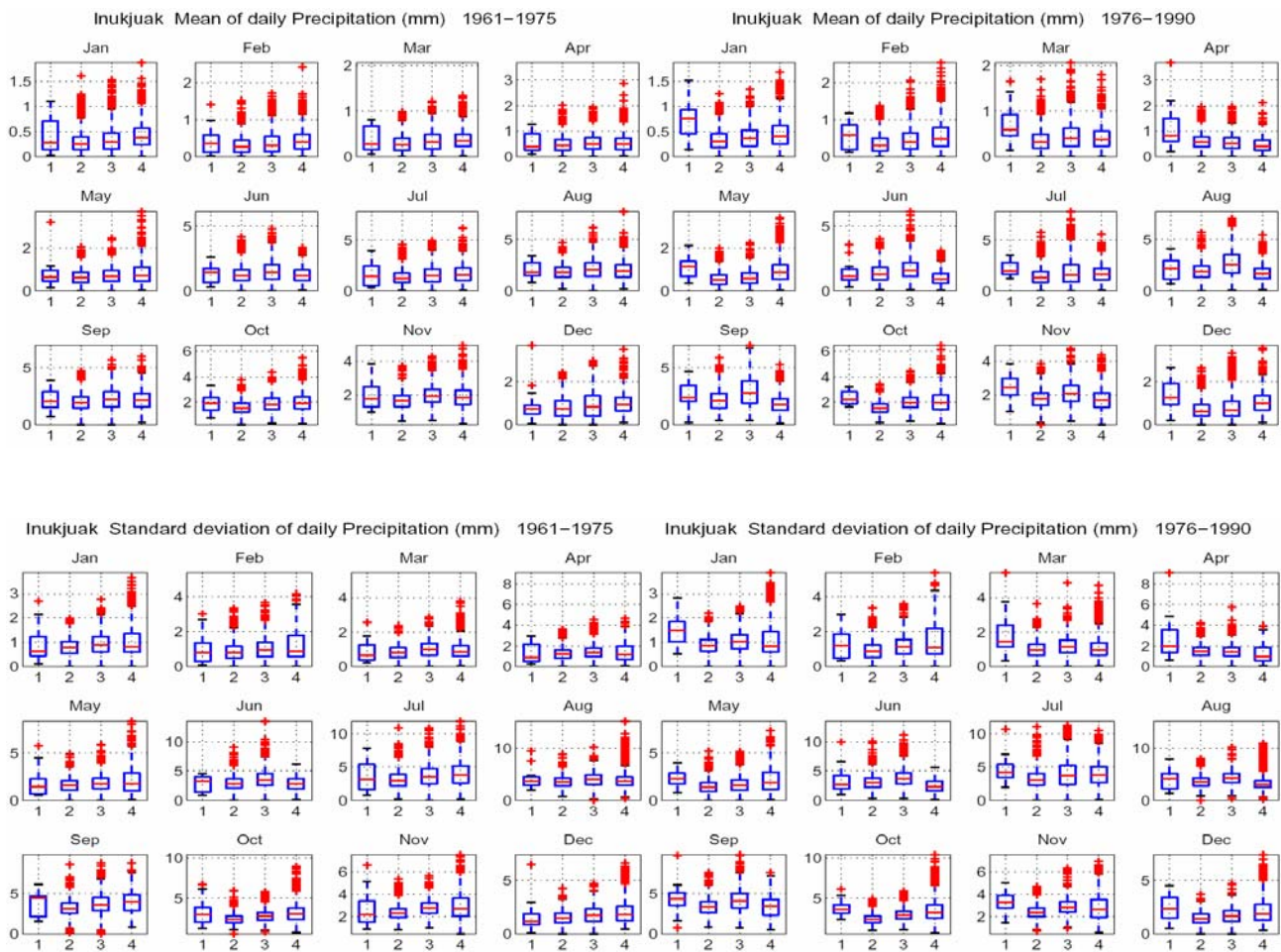


Figure 2.34. Same as Figure 2.1 but for the monthly mean precipitation (upper panels), and monthly standard deviation of precipitation (lower panels), all in mm/day.

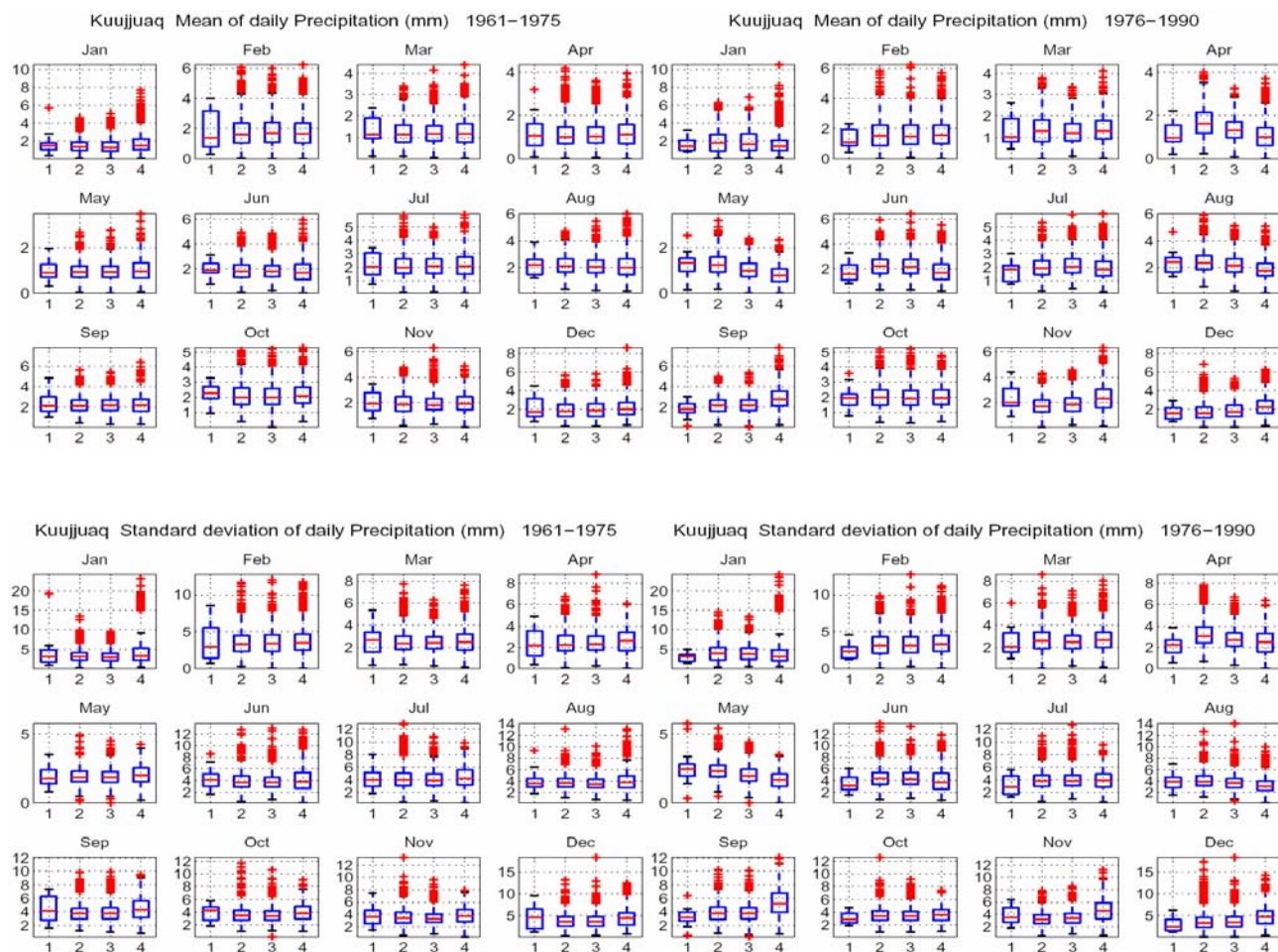


Figure 2.35. Same as Figure 2.34 but for Kuujuaq.

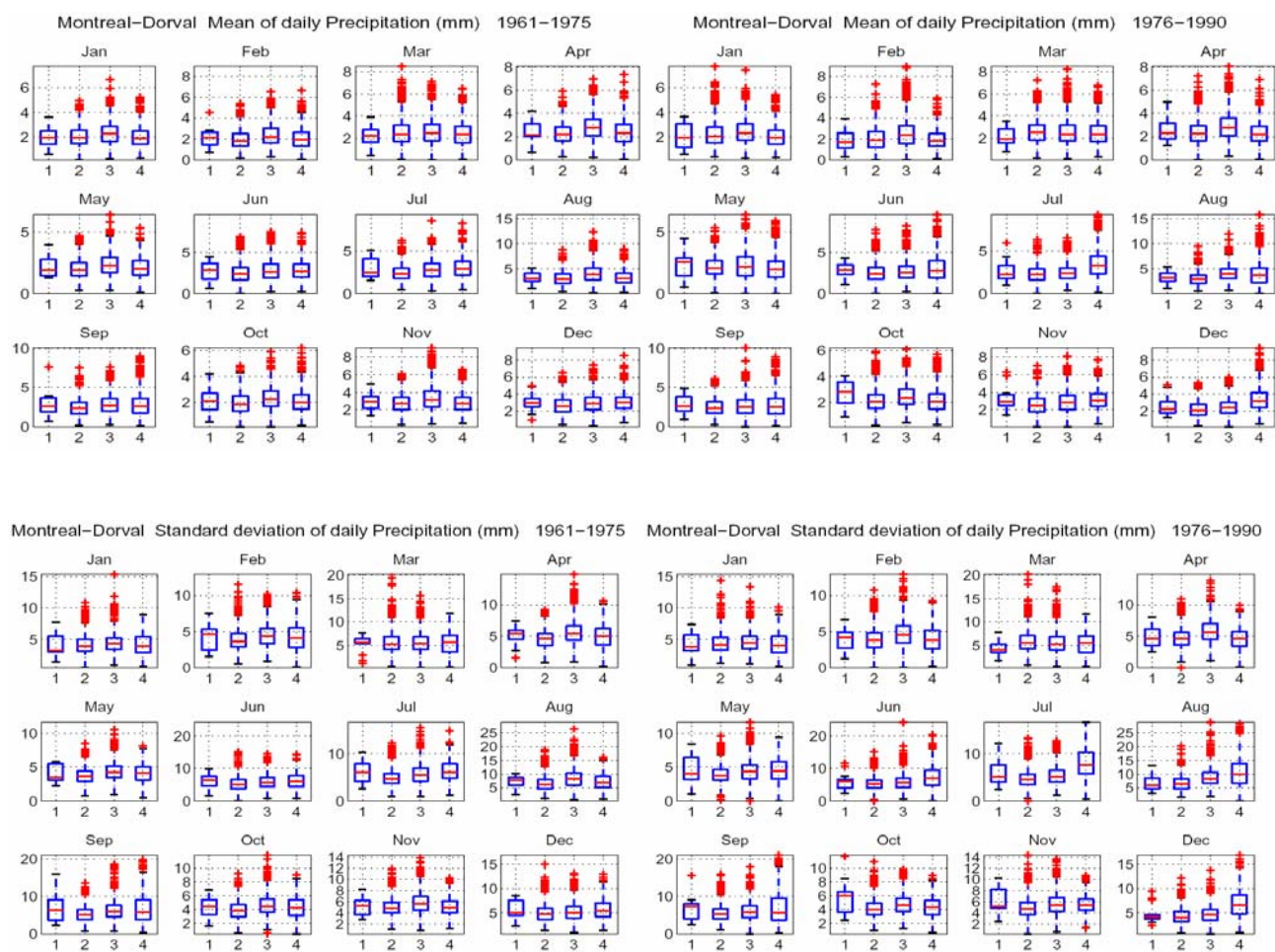


Figure 2.36. Same as Figure 2.34 but for Montreal-Dorval.

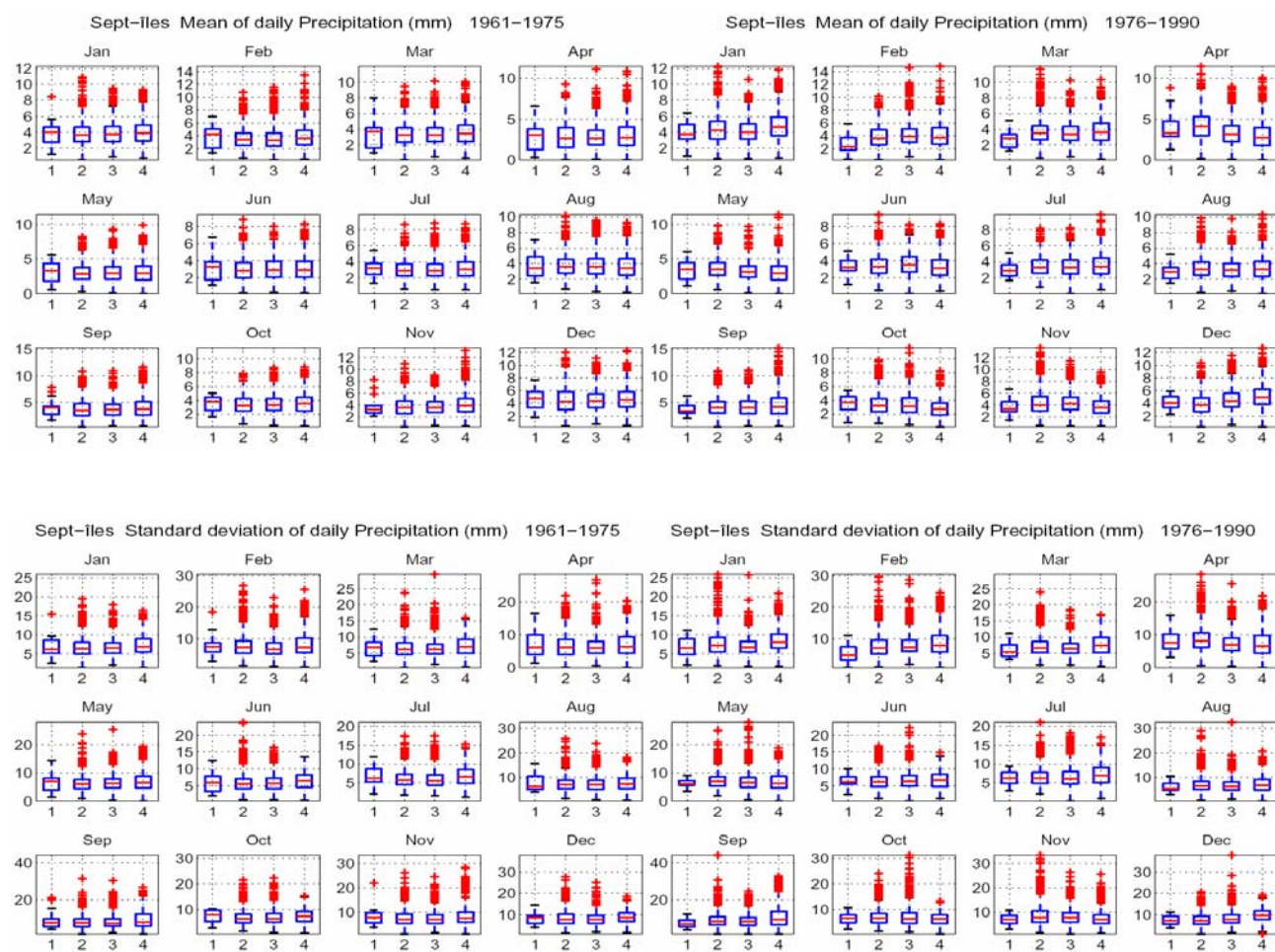


Figure 2.37. Same as Figure 2.34 but for Sept-Îles.

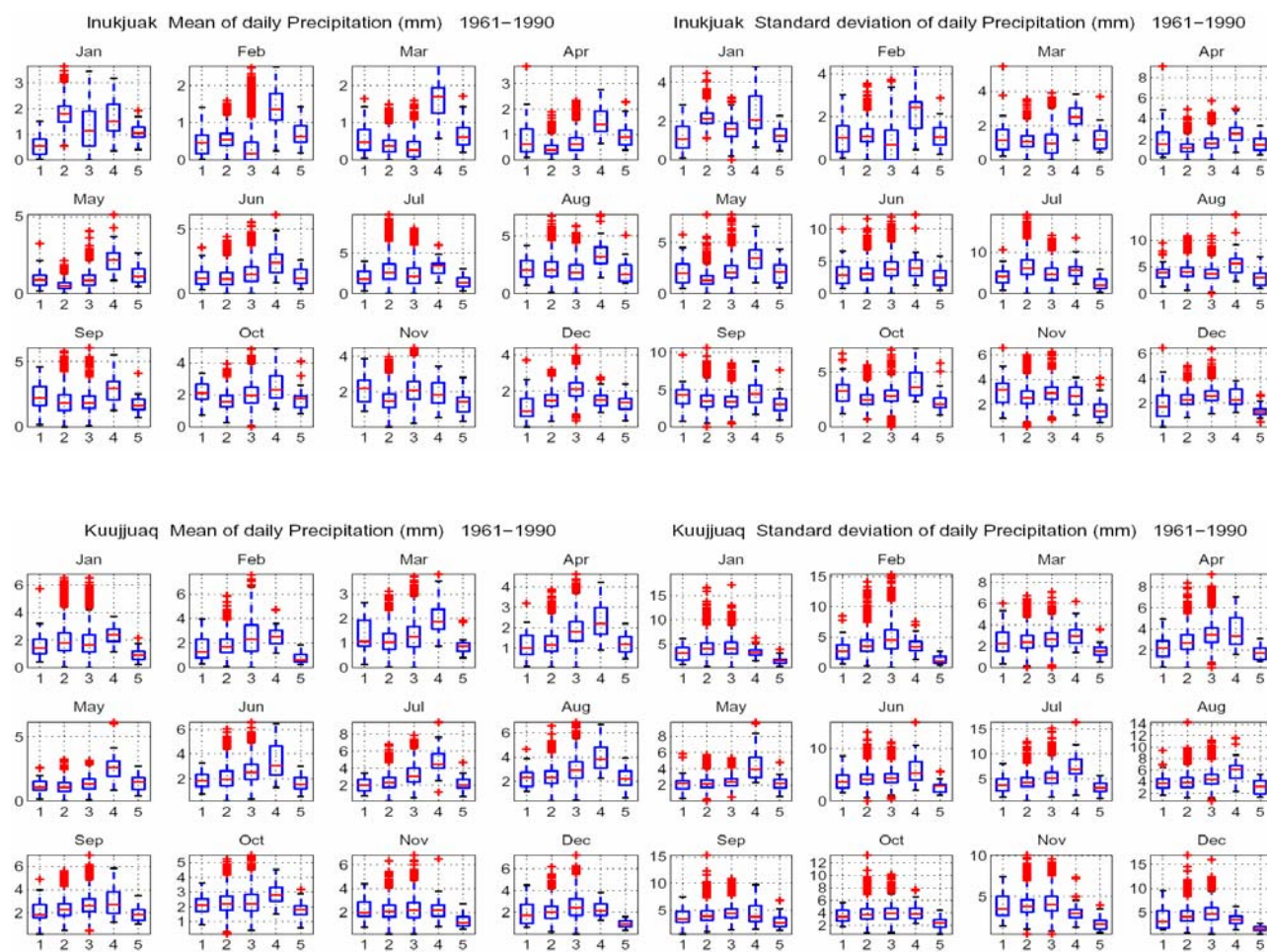


Figure 2.38. Same as Figure 2.9 but for the monthly mean and standard deviation of precipitation for Inukjuak (upper panels, respectively) and Kuujuaq (lower panels, respectively), all in mm/day.

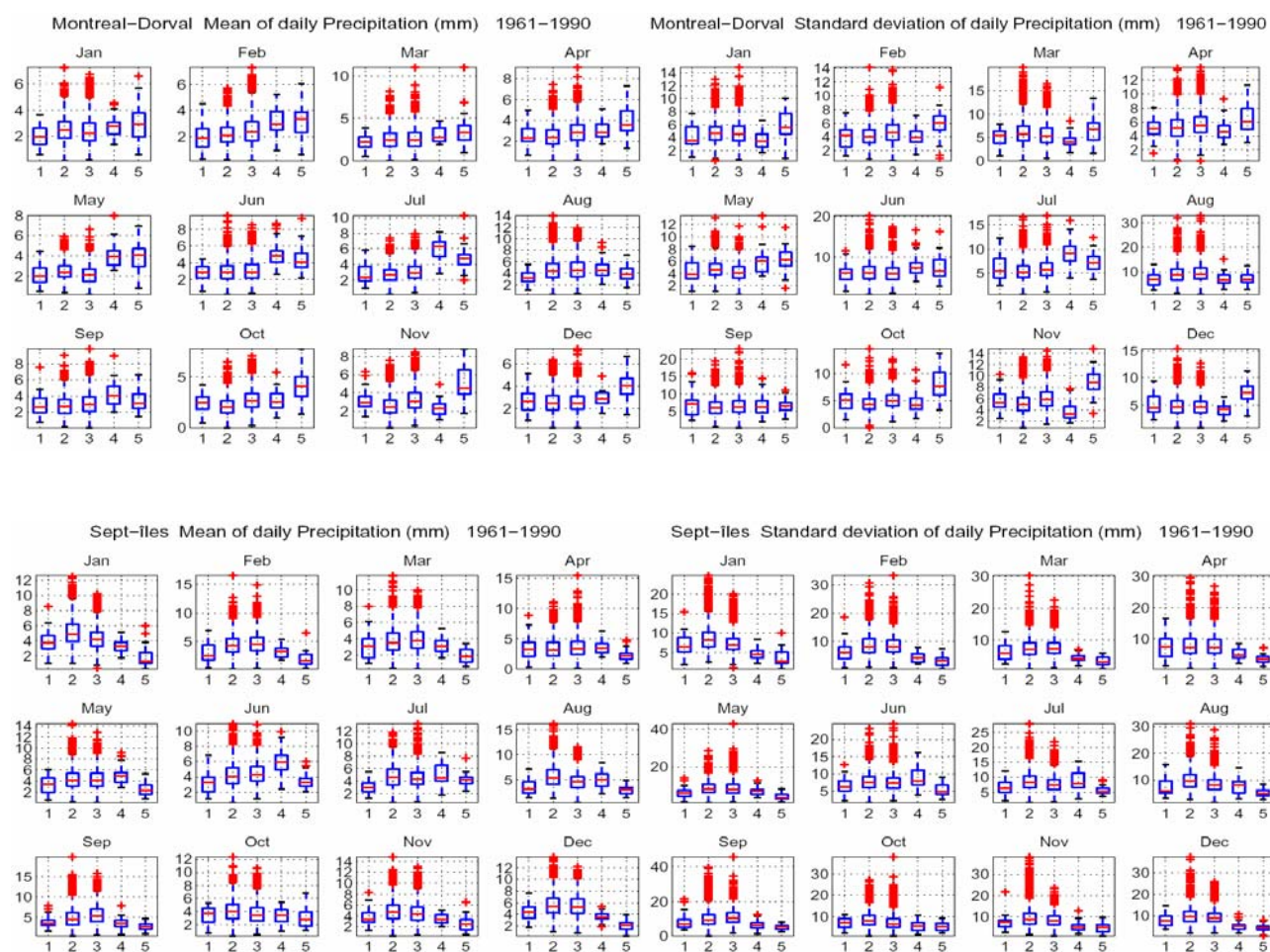


Figure 2.39. Same as Figure 2.38 but for Montreal-Dorval (upper panels), and Sept Îles (lower panels).

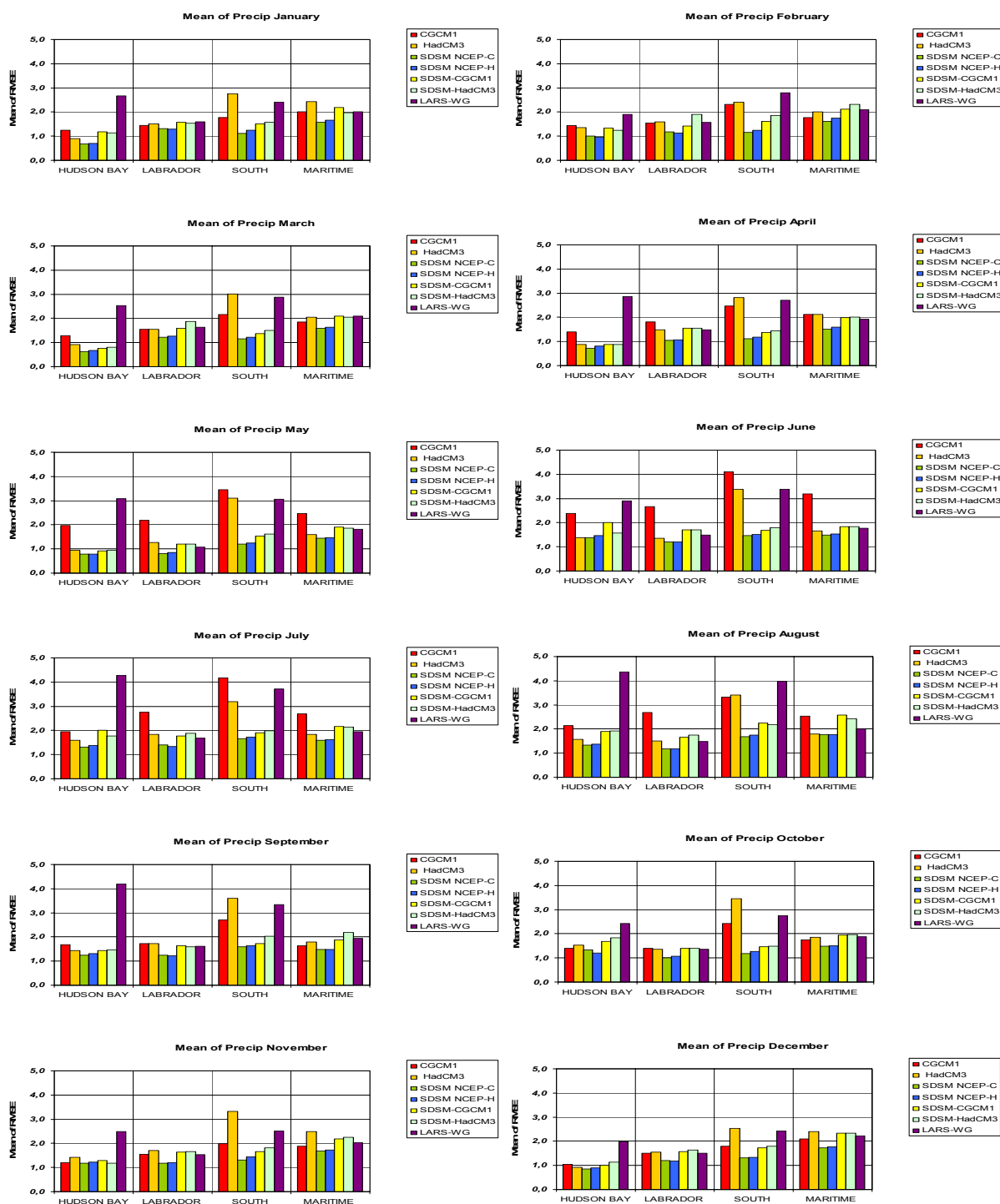


Figure 2.40. Same as Figure 2.13 but for the monthly mean precipitation (in mm/day).

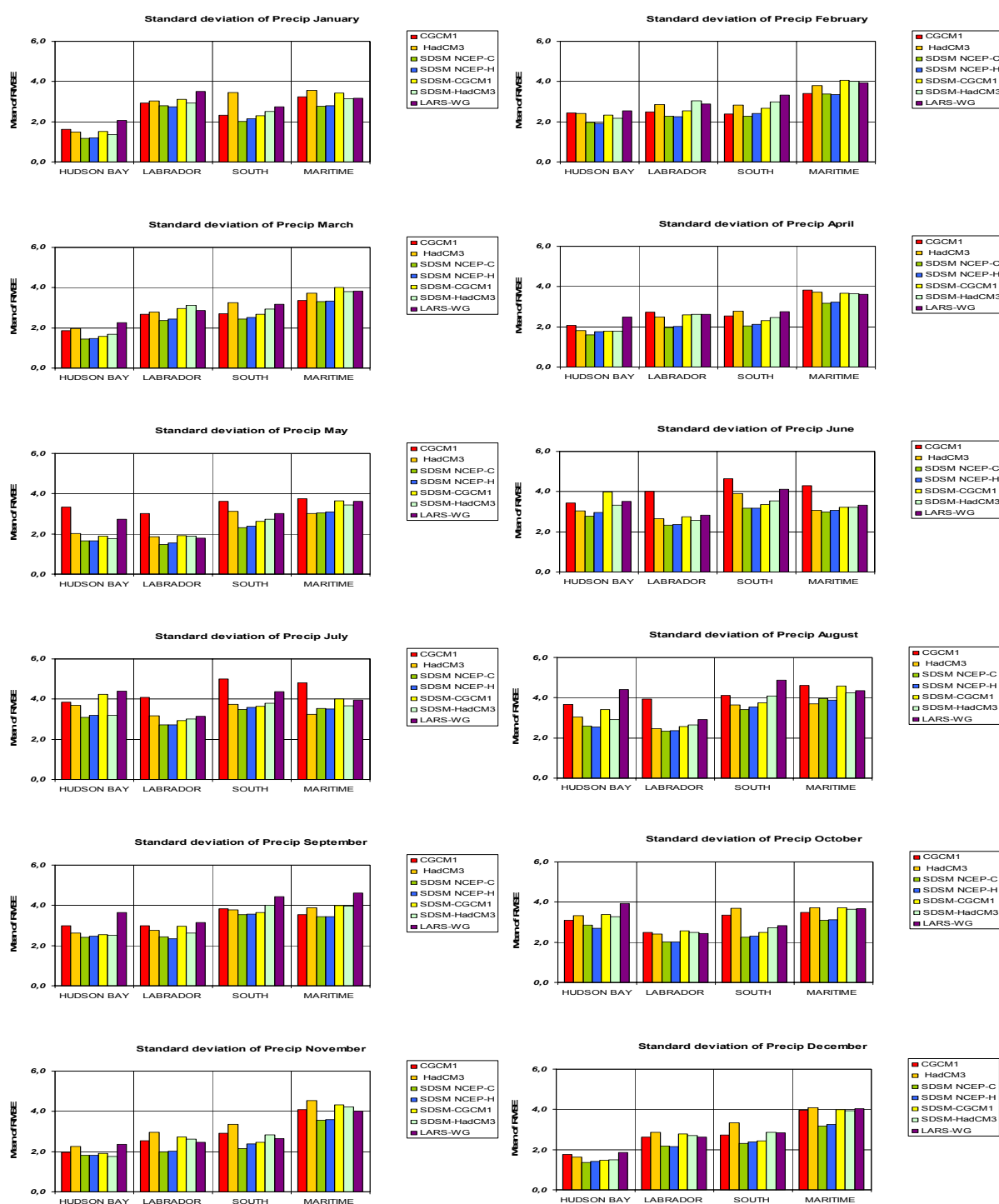


Figure 2.41. Same as Figure 2.16 but for the monthly standard deviation of precipitation (in mm/day).

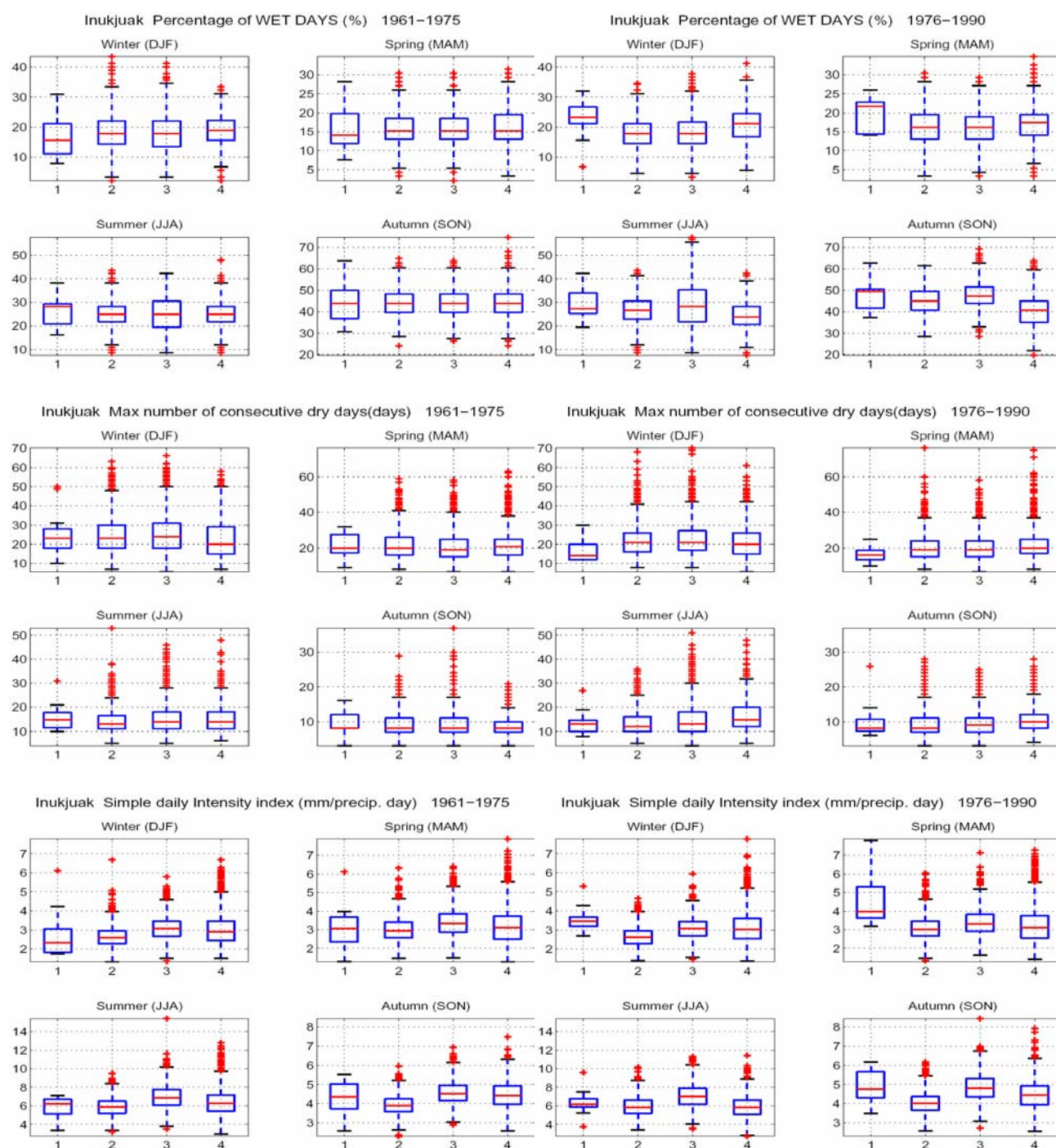


Figure 2.42. Same as Figure 2.34 but for the seasonal wet days (in %, upper panels), consecutive dry days (in days, middle panels), and simple daily intensity index (mm per wet days, lower panels).

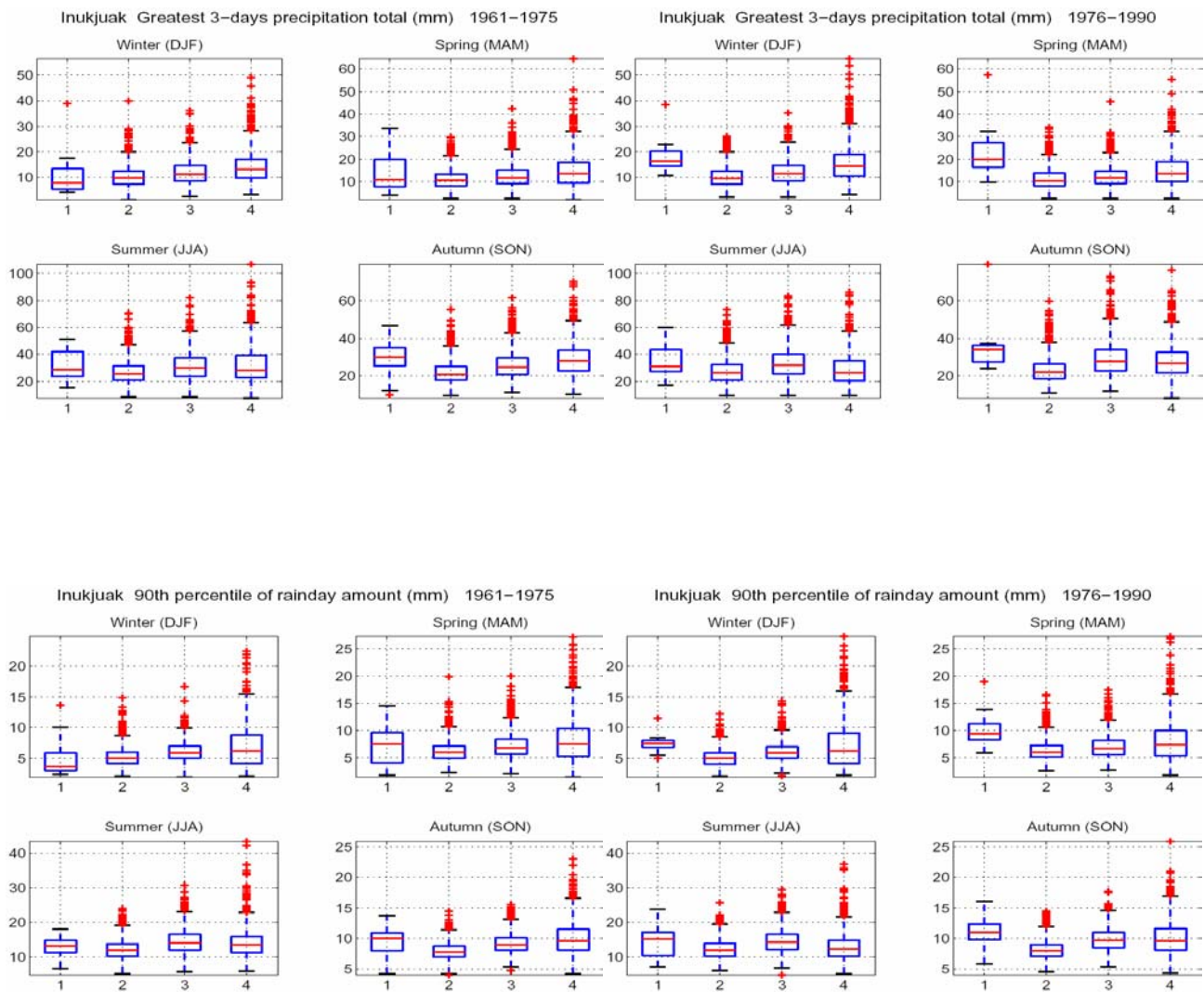


Figure 2.43. Same as Figure 2.42 but for the seasonal greatest 3-days precipitation amount (in mm/day, upper panels), and 90th percentile of precipitation (mm/days, lower panels).

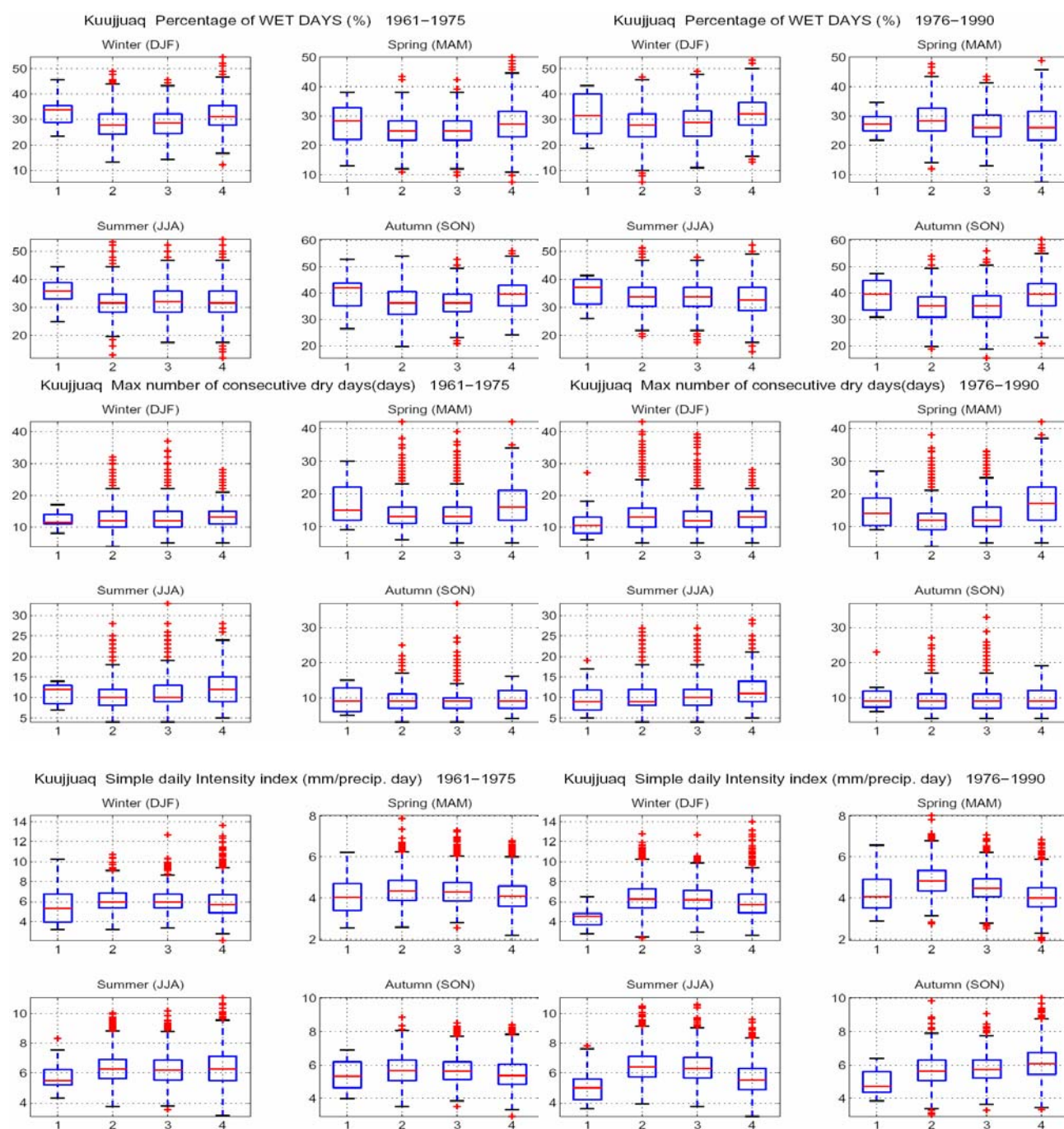


Figure 2.44. Same as Figure 2.42 but for Kuujuaq.

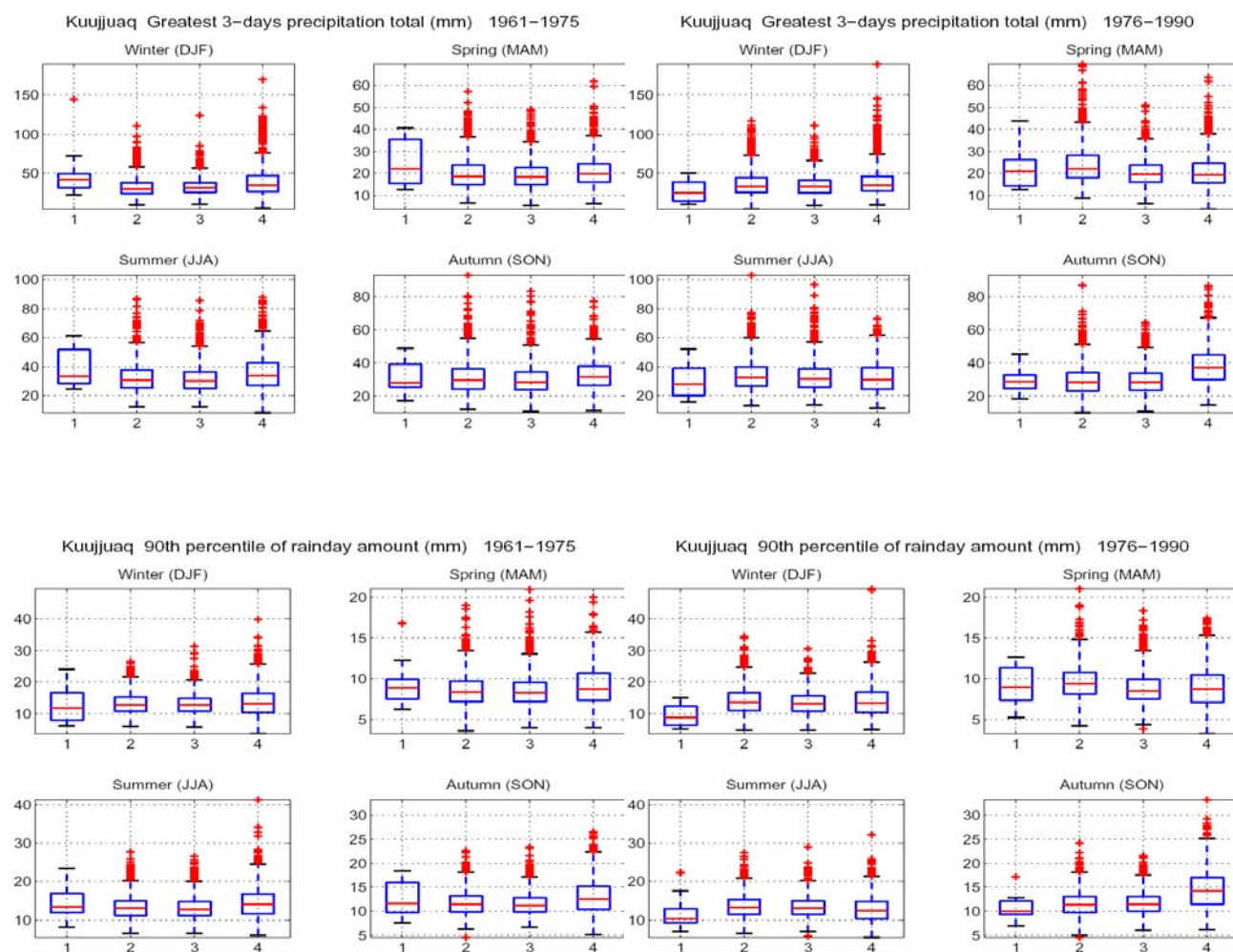


Figure 2.45. Same as Figure 2.43 but for Kuujuaq.

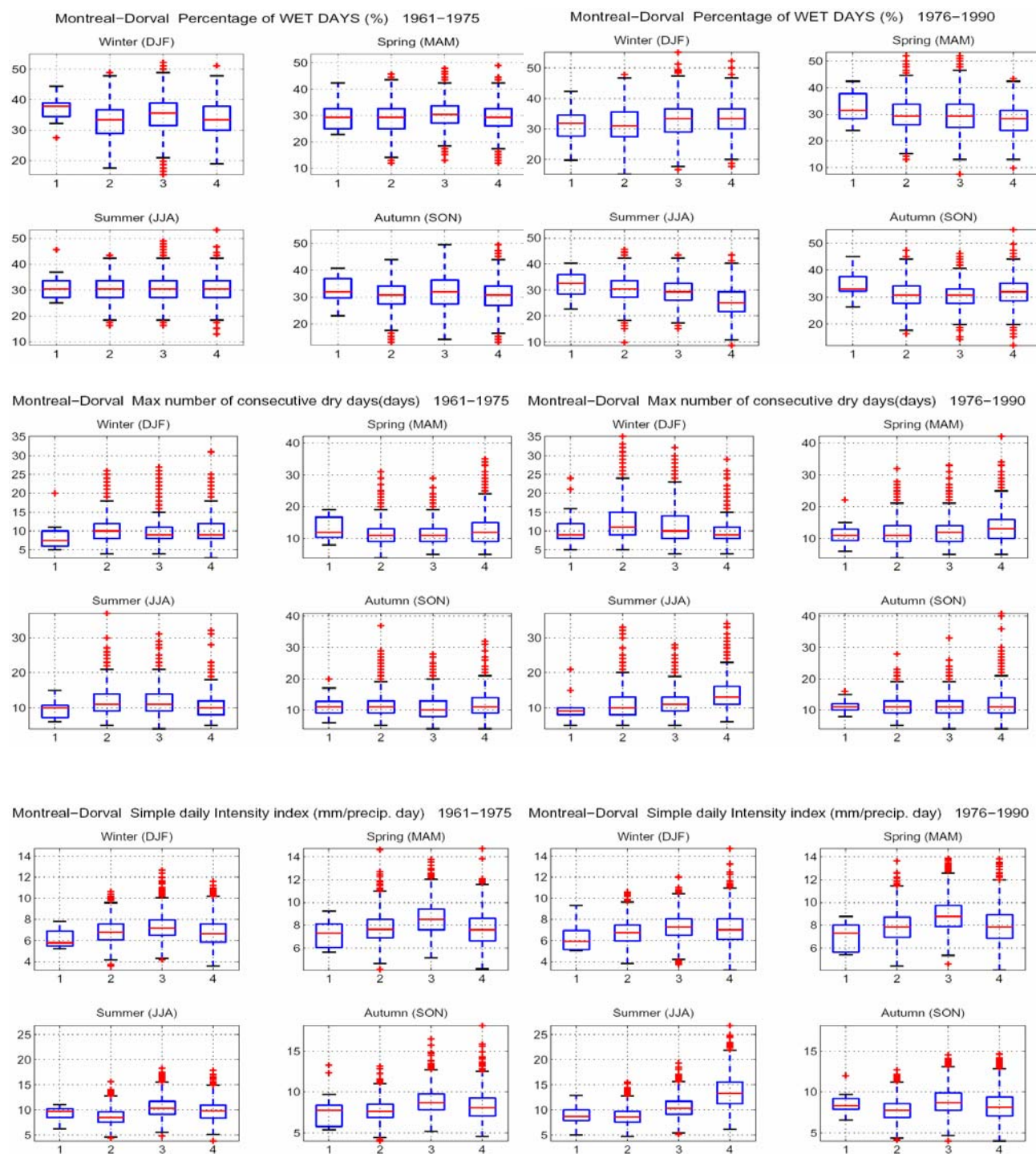


Figure 2.46. Same as Figure 2.42 but for Montréal-Dorval.

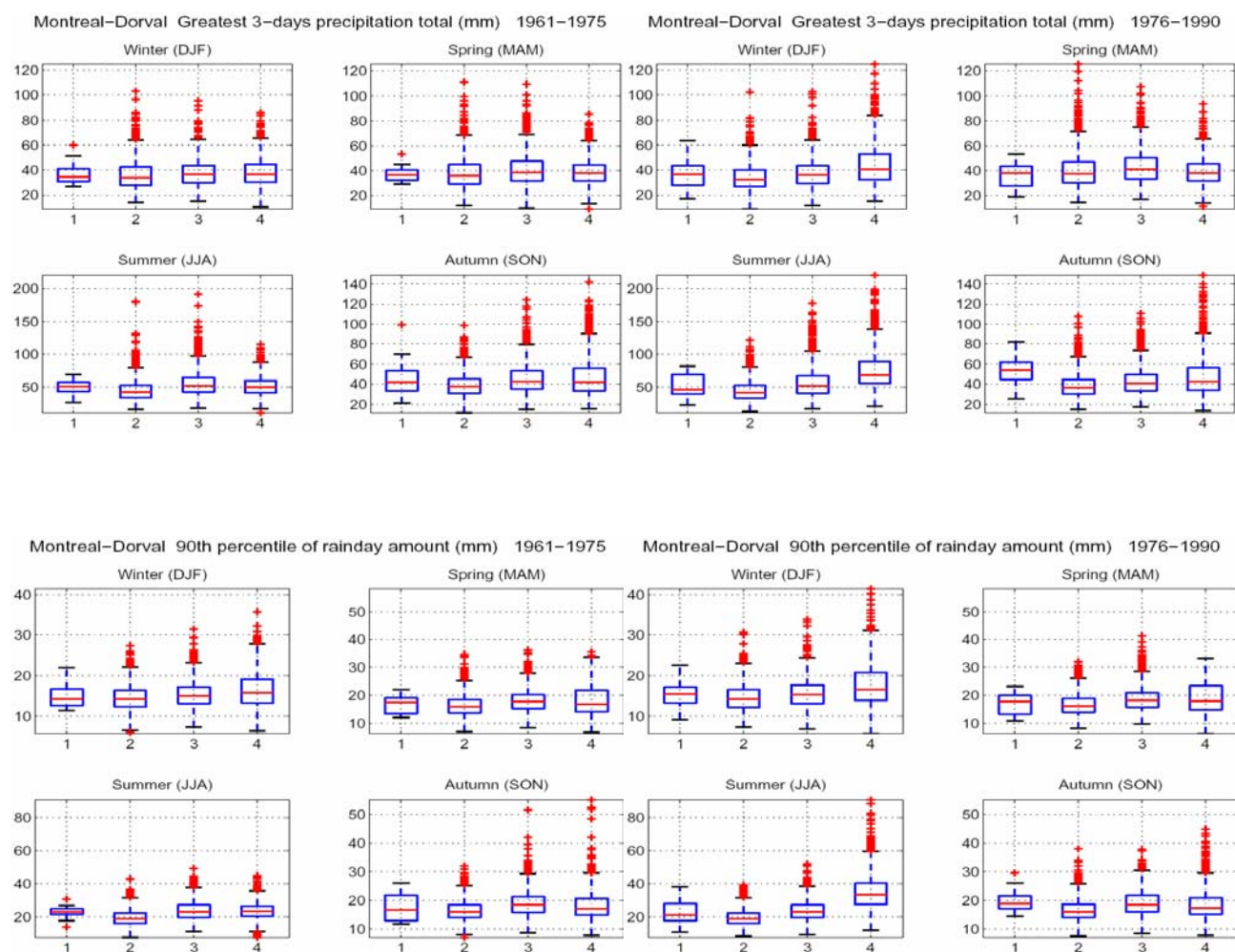


Figure 2.47. Same as Figure 2.43 but Montréal-Dorval.

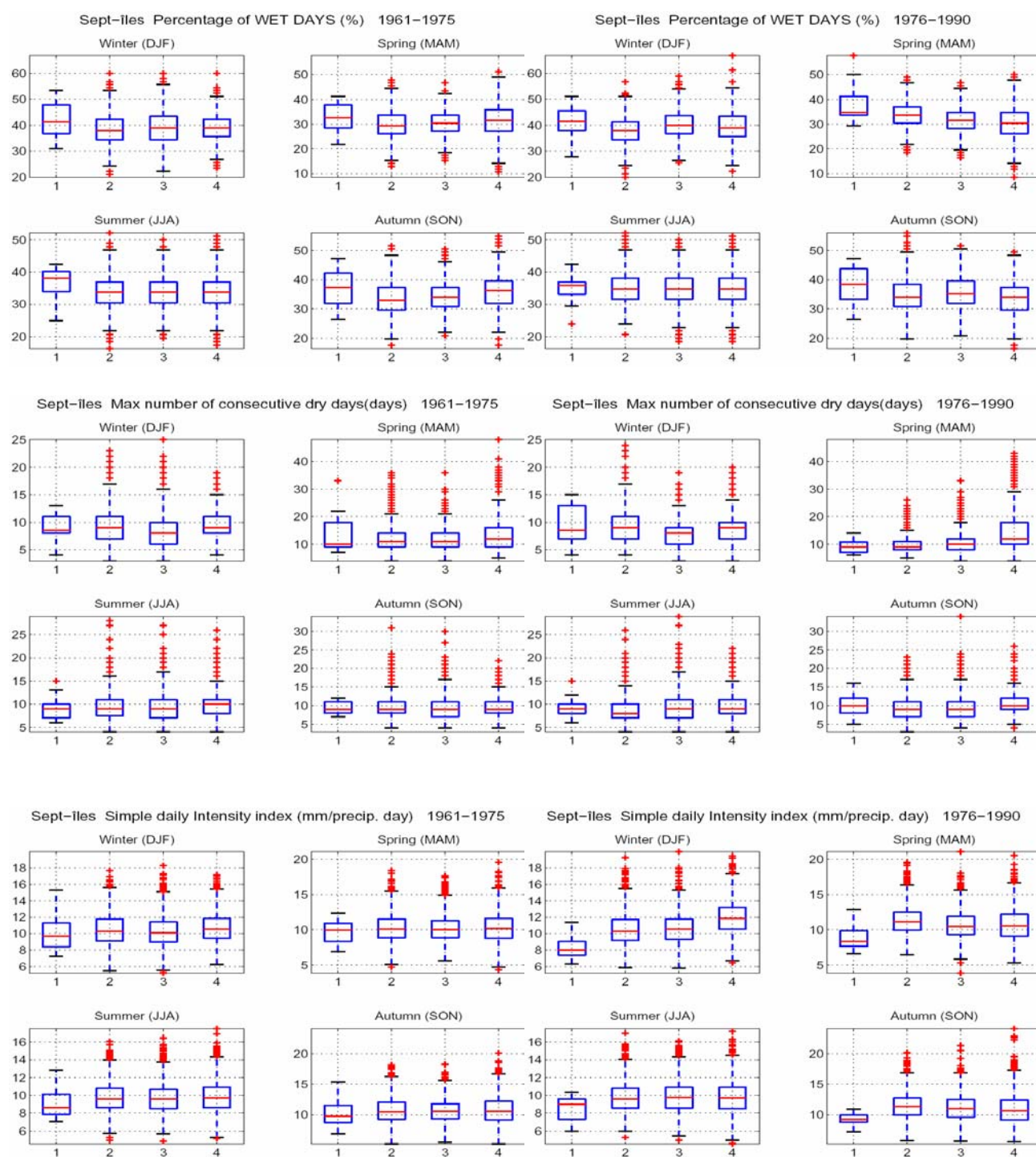


Figure 2.48. Same as Figure 2.42 but for Sept Îles.

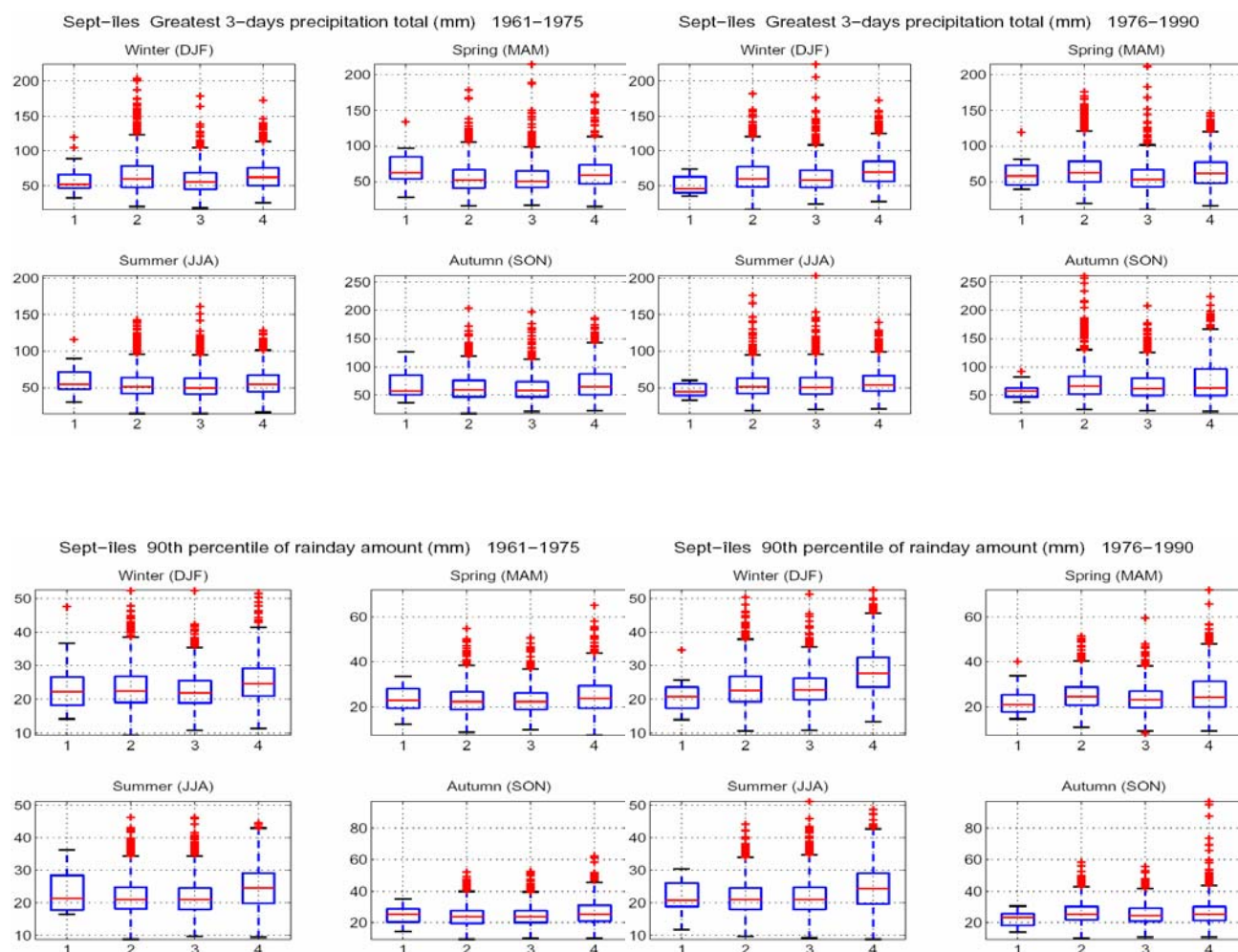


Figure 2.49 Same as Figure 2.43 but for Sept-Îles.

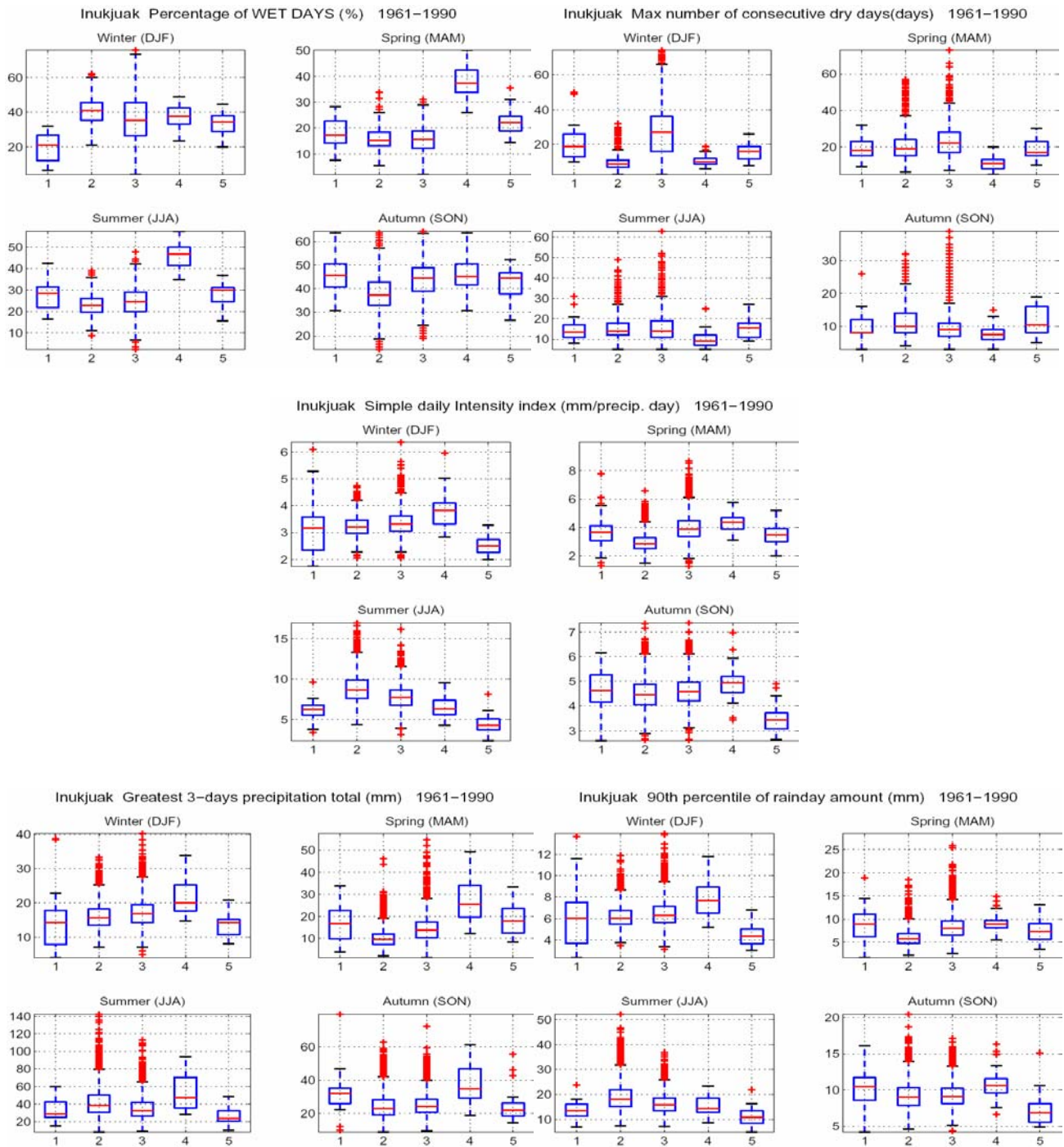


Figure 2.50. Same as Figure 2.9 but for the seasonal wet days (in %, upper left panel), consecutive dry days (in days, upper right panel), simple daily intensity index (mm per wet days, middle panel), greatest 3-days precipitation amount (in mm/day, lower left panel), and 90th percentile of precipitation (mm/days, lower right panel).

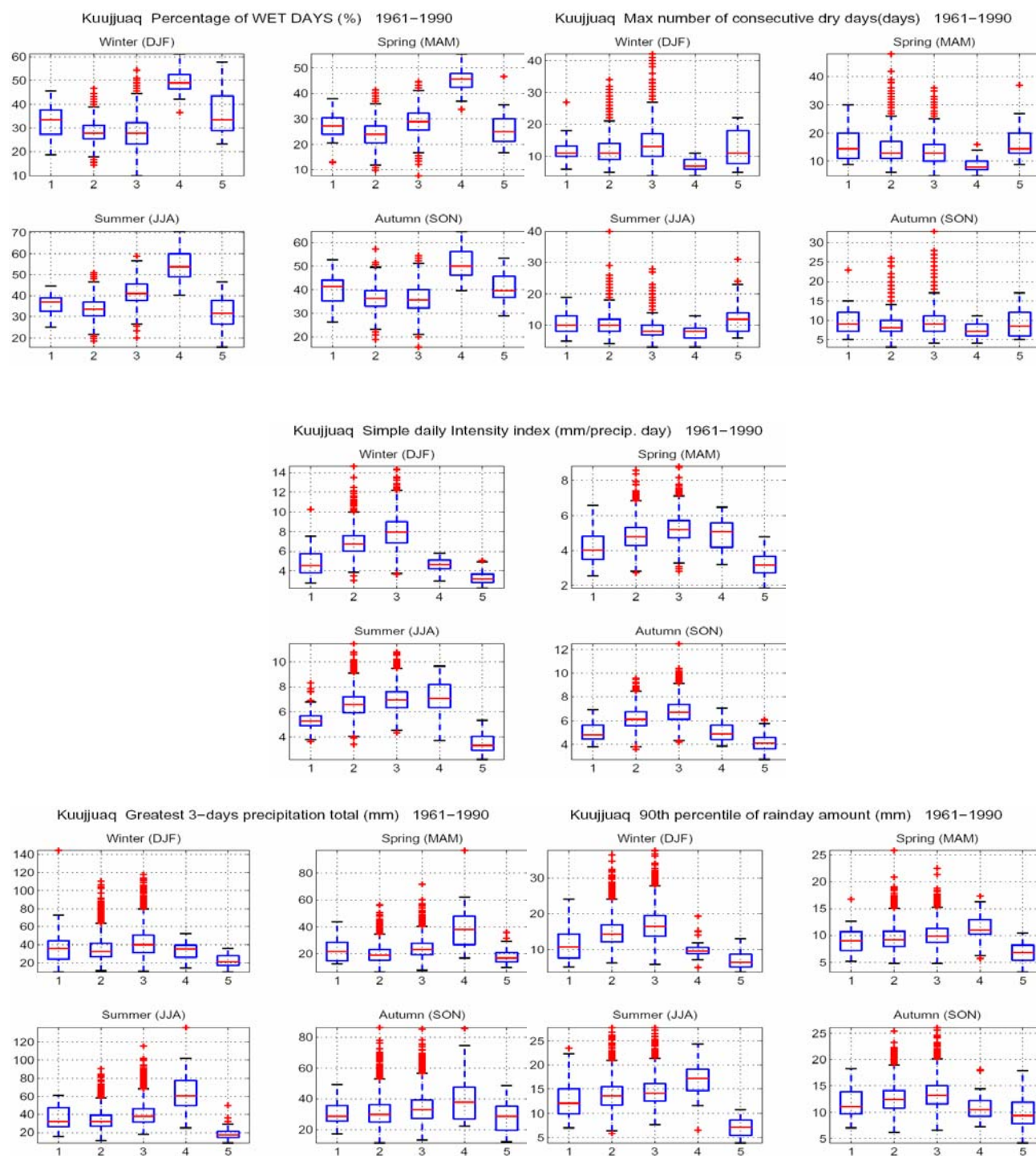


Figure 2.51. Same as Figure 2.50 but for Kuujuaq.

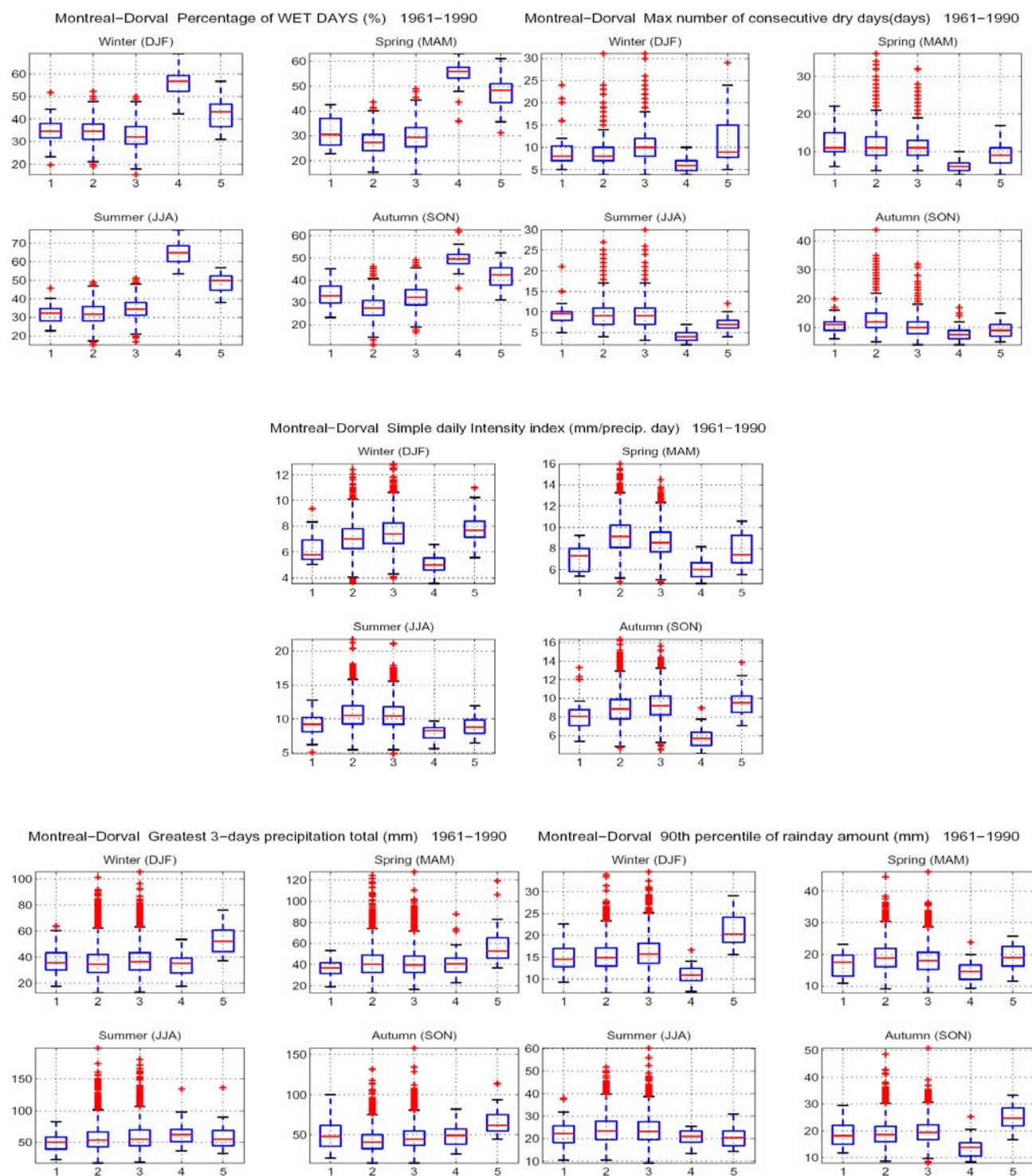


Figure 2.52. Same as Figure 2.50 but for Montreal-Dorval.

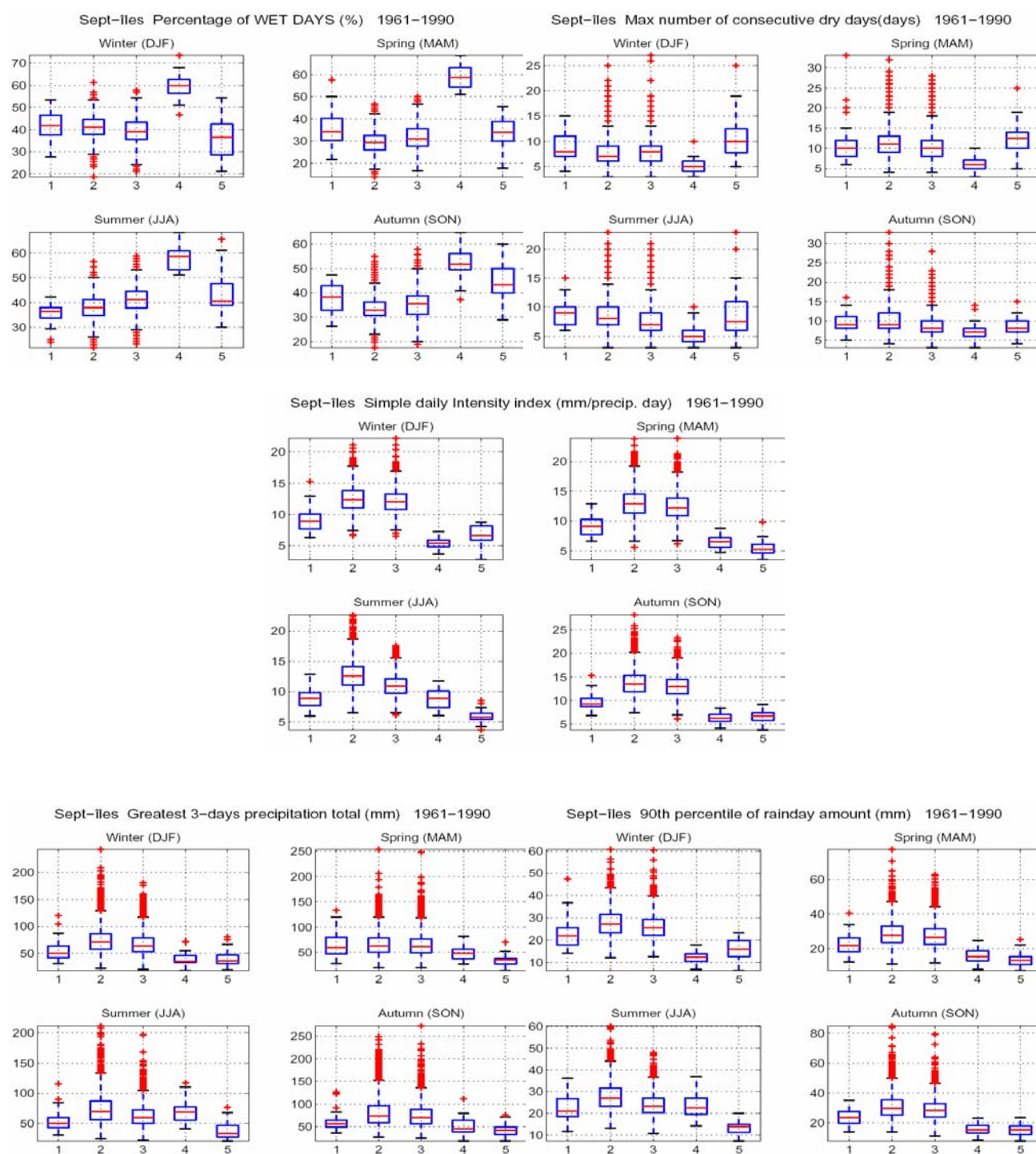


Figure 2.53. Same as Figure 2.50 but for Sept Îles.

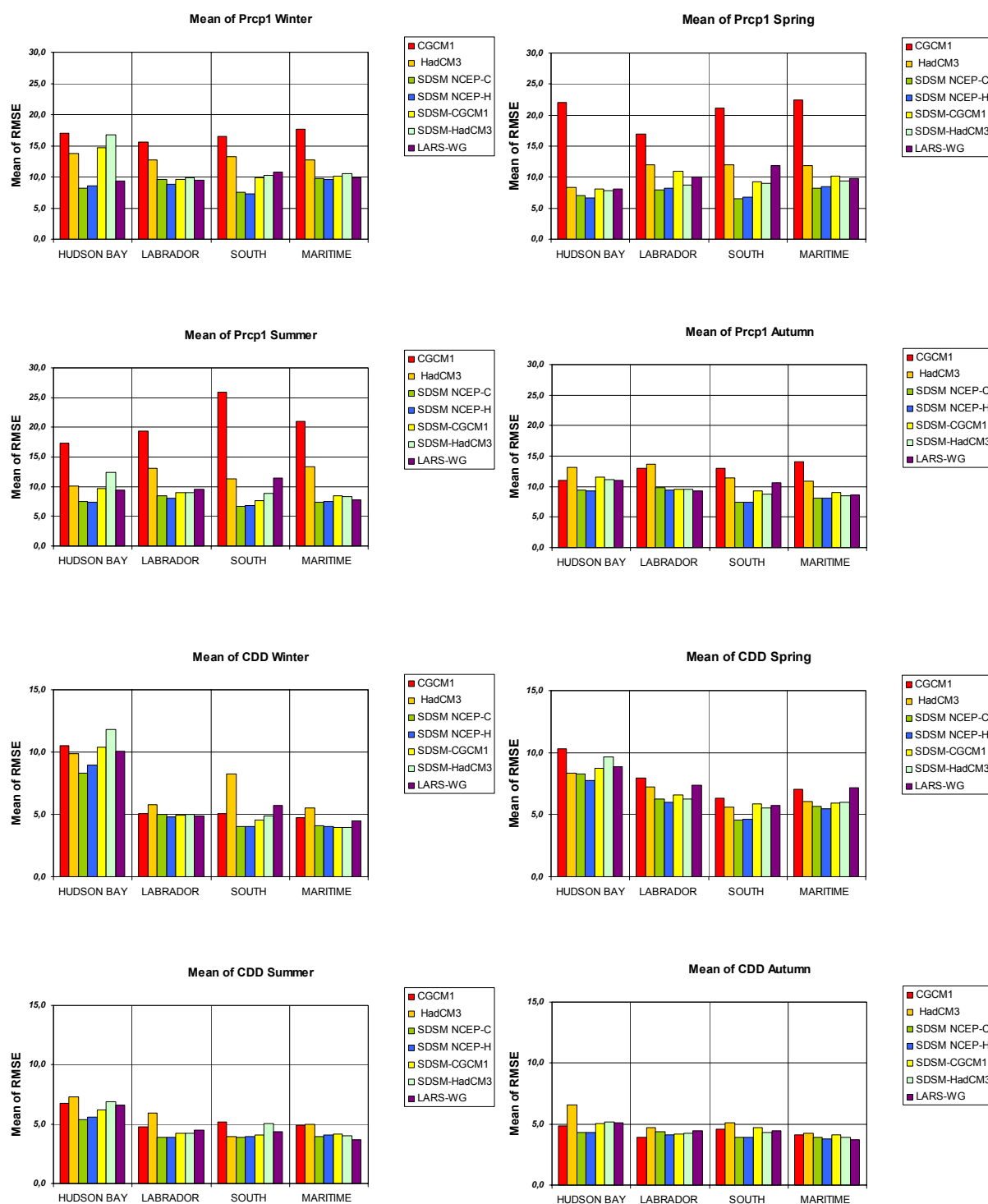


Figure 2.54. Same as Figure 2.33 but for wet days (in %, upper four panels) and consecutive dry days (in days, lower four panels).

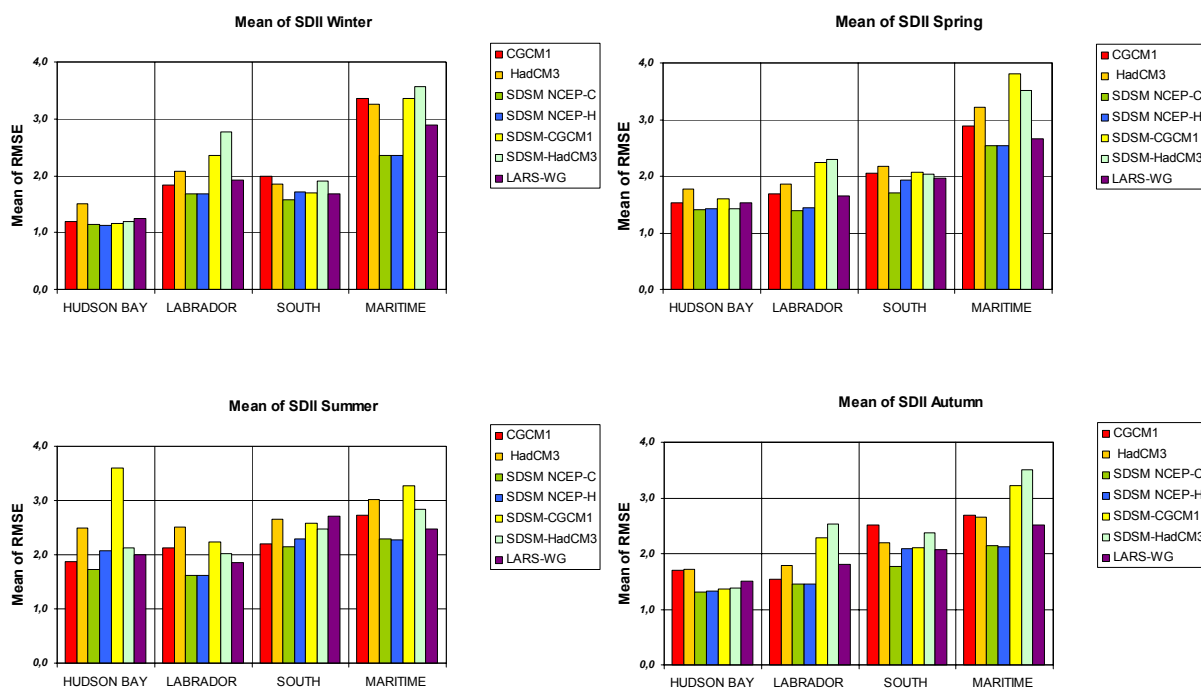


Figure 2.55. Same as Figure 2.54 but for the simple intensity index (mm per wet days).

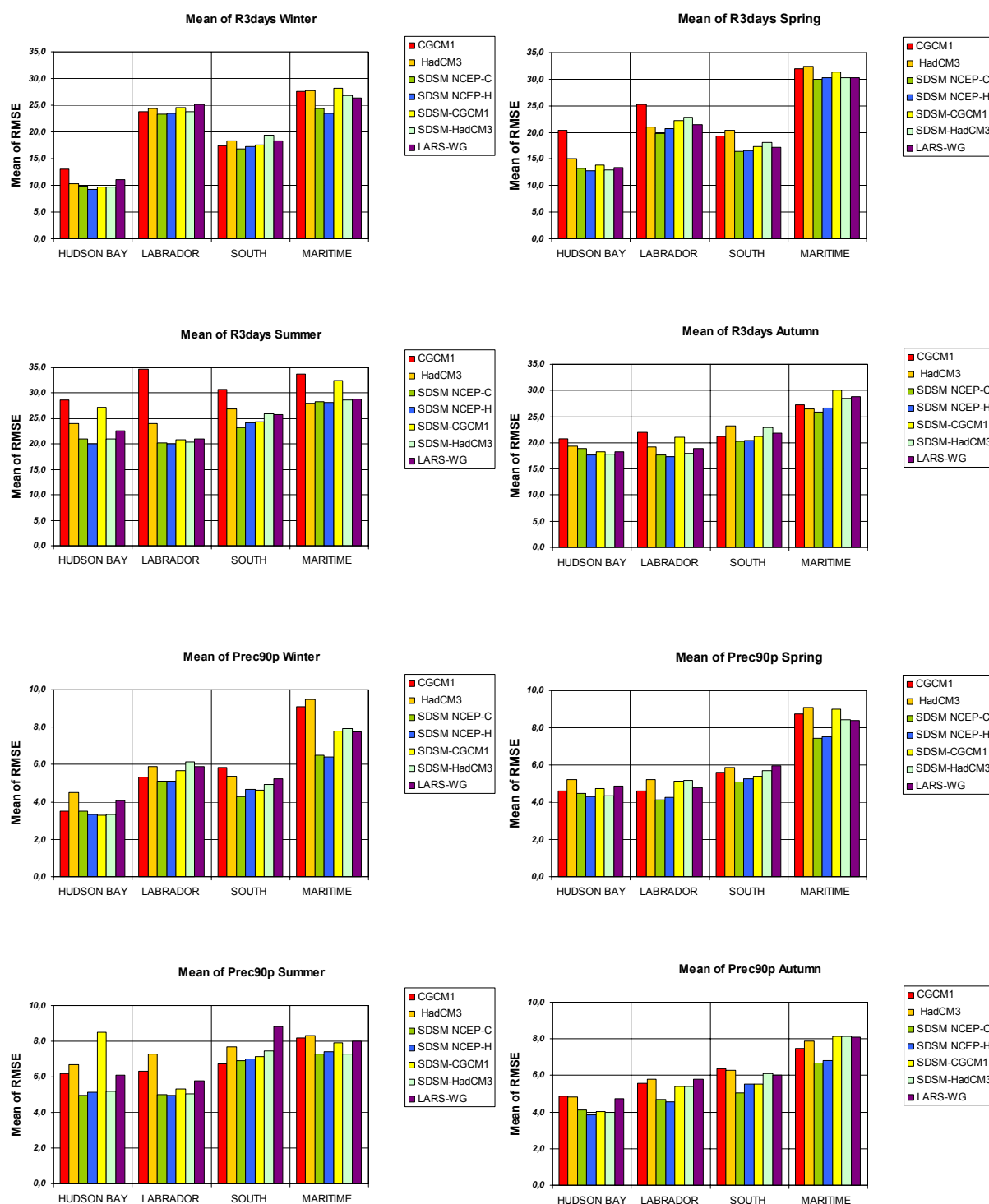


Figure 2.56. Same as Figure 2.54 but for the greatest 3-days precipitation amount (in mm/day, upper four panels), and 90th percentile of precipitation (mm/days, lower four panels).

Appendix A

**Metadata report for the meteorological stations
given in Table 1.1.**

Prepared by

Nicolas Major (Environment Canada, Québec region)

Inukjuak (7103282 et 7103283) :**Description**

La station d’Inukjuak a été ouverte au mois de novembre 1921 sous le nom de Port Harrison. La station est située à l’embouchure de la rivière Inukjuak sur la côte est de la Baie d’Hudson. La rivière Inukjuak est à 500 mètres à l’est de l’aéroport. La topographie générale est inégale avec des collines, dont la hauteur varie entre 90 et 120 m, mais la région immédiate a été nivelée et recouverte de gravier. La plus haute élévation dans un rayon de 20 km se trouve à 12 km au sud-ouest de l’emplacement et fait 162 m. L’abri Stevenson est situé à 30 mètres au sud-ouest de l’aérogare. Le projecteur à plafond et le mât anémométrique sont situés à 155 mètres au nord-est de l’aérogare et sont bien exposés. Une station automatique de type AWOS (7103283) a été installée en 1994 et est localisée à 150 mètres au SSE du terminal de l’aéroport d’Inukjuak. La station automatique est responsable de l’émission des messages synoptiques. Elle est située le long de la route menant à la station de pompage qui alimente le village en eau potable. La rivière Inukjuak coule à 300 mètres à l’est de la station. Le terrain est plat et composé de toundra et offre peu d’obstruction au libre écoulement du vent.

Dates importantes

- Novembre 1921 : ouverture de la station. Altitude 5 m.
- Mars 1923 à septembre 1937 : plusieurs fermetures de la station sur une période 43 mois au total.
- Avril 1968 : déplacement des instruments de 900 m vers le sud sud-ouest. Altitude 5m.
- Juin 1988 : déplacement du site des instruments vers l’est nord-est. Altitude de 25 m.
- Août 1994 : début des opérations de la station automatique. Altitude 25 m.

Historique du mât anémométrique

Numéro Id	Station Nom	Période		Hauteur (mètres)	Type d'anémomètre
		Début	Fin		
7103282	Inukjuak UA	19560902	19631000	7.6	45B
7103282		19631000	19680322	9.5	45B
7103282		19680322	19690925	10	45B
7103282		19690925	99999999	10	U2A/R
7103283	Inukjuak A	19880613	99999999	10	U2A/DIAL
7103283	Inukjuak A AWOS	19940115	99999999	10	78D

Kuujjuarapik (7103536)

Description

La station se trouve à moins de 1 km du village de Kuujjuarapik. D'abord connu sous le nom de Great Whale lors de l'ouverture de la station en octobre 1925, la station a été rebaptisée Poste-de-la-Baleine en août 1966 avant de changer à nouveau de nom pour s'appeler Kuujjuarapik en mai 1982. Le site actuel des instruments se trouve à 20 mètres à l'ouest des bâtisses de Nav. Canada. Le terrain est sablonneux et en légère pente vers la Baie d'Hudson sauf en ce qui trait à la station et au site des instruments où le terrain a été nivelé. La rivière La Grande Baleine se trouve à environ 1,3 kilomètres au sud de la station. La Baie d'Hudson occupe les quadrants du sud-ouest au nord. Les autres secteurs sont composés de collines avec végétation de type toundra et de vallées partiellement boisées de petites épinettes. Le site de mesure des vents se trouve à 75 mètres à l'est de la piste d'atterrissage. La tour n'est que de 7,6 mètres en raison de sa proximité de la piste. Elle est bien exposée aux vents de tous les secteurs.

Dates importantes

- Octobre 1925 : ouverture de la station. Altitude 14 m.
- Février 1938 : fermeture de la station
- Septembre 1938 : réouverture de la station.
- Mai 1945 : fermeture de la station
- Octobre 1946 : réouverture de la station. Altitude 18 m.
- Décembre 1957 : déplacement des instruments de 750 m vers le nord. Altitude 26 m.
- Avril 1961 : déplacement des instruments de 105 m vers l'ouest nord-ouest et de l'anémomètre de 60 m vers le nord-ouest.
- Octobre 1970 : déplacement des instruments de 50 m vers le sud-ouest et de l'anémomètre de 90 m vers l'ouest sud-ouest.
- Août 1985 : déplacement des instruments de 30 m vers l'est sud-est. Altitude 21 m.
- Septembre 1990 : relocalisation de l'anémomètre près de la piste.

Historique du mât anémométrique

Station		Période		Hauteur (mètres)	Type d'anémomètre
Numéro Id	Nom	Début	Fin		
7103536	Kuujjuarapik	19500101	1957XXXX	7.6	N/D
7103536		195712XX	1961XXXX	11.6	N/D
7103536		196104XX	1970XXXX	13.7	N/D
7103536		197010XX	19820605	10	N/D
7103536		19820605	19850819	10	U2A/R
7103536		19850819	19900922	10	U2A/R
7103536		19900922	19970909	7.6	U2A/R
7103536		19970909	99999999	7.6	78D

Moosonee (6075425) et Moose Factory (6075400):**Description**

De 1877 à 1938, les relevés de précipitation et de température dans la région étaient effectués à la station de Moose Factory (6075400), située sur une île à environ 2,4 km en face du village de Moosonee. Le premier site des instruments de Moosonee se trouvait au centre du village, distant d'environ 150 m de la rivière Moose. Le site fut déplacé par la suite à l'extérieur des limites du village en 1966. Même si la station de Moosonee demeure en opération, deux autres stations météorologiques effectuent aussi des relevés de température et de précipitation presque au même endroit. Il s'agit de Moosonee A (6075428) et Moosonee RCS (6075435). L'environnement autour des stations est composé de petits arbres et de marécages caractéristique des basses terres de la Jamésie et de l'Hudsonnie. La station de Moosonee répond aux normes de sélection des sites d'observations météorologiques.

Dates importantes

- Octobre 1877 : ouverture de la station Moose Factory (6075400). Altitude 9 m.
- Octobre 1932 : ouverture de la station Moosonee (6075425). Altitude 10 m.
- Décembre 1938 : fermeture de la station de Moose Factory (6075400).
- 1966 : déplacement de la station vers le sud de 1,3 km à environ 150 m de la rivière Moose.
- 1993 : déplacement de la station sur le terrain de l'aéroport de Moosonee, au nord du village (un peu plus de 2 km).
- Avril 1995 : Début des relevés quotidiens depuis la station Moosonee A (6075428). Altitude 9 m.
- Novembre 2003 : Ouverture de la station Moosonee RCS (6075435). Altitude 9 m

Historique du mât anémométrique

Station		Période		Hauteur (mètres)	Type d'anémomètre
Numéro Id	Nom	Début	Fin		
6075425	Moosonee	19321000	19590313	16,8	45B
6075425		19590313	19661213	12,2	45B
6075425		19661213	19671109	10	45B
6075425		19671109	19681006	10,1	U2A
6075425		19671109	19761126	10	45B
6075425		19681006	19690915	10,2	U2A
6075425		19690915	19761126	10	U2A
6075425		19761126	99999999	10	U2A/R
6075428	Moosonee A	19830401	99999999	12,7	U2A/DIAL
6075435	Moosonee RCS	20031101	99999999	10	N/D

Goose Bay (8501900):**Description**

La station de Goose Bay se situe sur un plateau surélevé entre la rivière Churchill et la rivière Goose. Ce plateau, de superficie de 41 km² de superficie, se termine par un à-pic à 7,4 km à l'ouest de l'emplacement. La ville de Gosse Bay se trouve à 2 km au nord nord-est et Happy-Valley, le seul autre centre urbain de la région, se trouve à 7 km à l'est sud-est de l'aéroport. La rivière Churchill coule vers l'est à environ 3 km au sud de l'aéroport et se jette dans la Baie de Goose à 16 km au nord-est de l'aéroport. À 8 km au nord, la rivière Goose serpente également vers l'est et se jette dans la Baie de Goose à 8 km au nord-est de l'emplacement. Au-delà de la rivière Goose, des collines se dressent à une altitude de 183 à 244 m. Elles forment la limite du plateau intérieur qui atteint 610 m à moins de 130 km au nord-ouest de l'aéroport. Dans un rayon de 20 km de l'aéroport, les points culminants sont les suivants : 395 m à 16 km au nord-ouest et 457 m à 19 km au sud-ouest. À une distance de 40 à 50 km de l'emplacement, les points culminants atteignent 434 et 593 m.

Dates importantes

- Décembre 1941 : ouverture de la station. Altitude 49 m.
- Septembre 1963 : déplacement des instruments 60 m vers l'est.
- Juin 1972 : déplacement de l'anémomètre de 490 m vers le nord-est.
- Juin 1977 : déplacement des instruments de 43 m vers le sud.

Historique du mât anémométrique

Station		Période		Hauteur (mètres)	Type d'anémomètre
Numéro Id	Nom	Début	Fin		
8501900	Goose Bay	19520800	19630900	14,3	U2A
8501900		19630900	19660400	19,2	U2A
8501900		19660400	19720600	18,9	U2A
8501900		19720600	19740710	10	U2A
8501900		19740710	19750400	10	U2A/R
8501900		19750400	19760700	15,2	U2A/R
8501900		19760700	99999999	10	U2A/R

Cartwright (8501100):**Description**

La station est située en bordure de la Mer du Labrador (océan Atlantique) et est fortement influencée par cette dernière.

Dates importantes

- Novembre 1934 : ouverture de la station. Altitude 10 m.
- Décembre 1936 : fermeture de la station
- Juillet 1937 : réouverture de la station.
- Octobre 1963 : déplacement de la station vers le sud-ouest. Altitude de 14 m.

Historique du mât anémométrique

Station		Période		Hauteur (mètres)	Type d'anémomètre
Numéro Id	Nom	Début	Fin		
8501100	Cartwright	19341100	19411002	N/D	45B
8501100		19411002	19490915	4,6	45B
8501100		19490915	19530911	7,8	45B
8501100		19530911	19590727	8,8	45B
8501100		19590727	19610718	9,8	45B
8501100		19610718	19630920	10,4	45B
8501100		19630920	19710927	10,7	45B
8501100		19710927	19780625	10	U2A
8501100		19780625	19810623	10,3	U2A
8501100		19810623	99999999	10	U2A

Kuujuaq (7113534):**Description**

La station a été ouverte en mars 1947 sous le nom de Fort Chimo, puis a été rebaptisée Kuujuaq en mars 1981. L'emplacement initial de la station météorologique était au village même jusqu'à son transfert vers l'aéroport en 1985. Le site actuel des instruments est situé à 55 mètres au sud de la tour FSS de l'aéroport. La surface du site est recouverte de gravier et est légèrement inclinée afin de permettre l'écoulement et le drainage lors des précipitations. Le terrain immédiat est relativement plat et dégagé. La rivière Koksoak coule plus au sud à environ 700 mètres dans un axe ENE-OSO. Des montagnes de 500 mètres et plus s'élèvent de tous les points cardinaux à des distances variables. Les plus rapprochées sont à environ 5 kilomètres. Le sol est surtout recouvert de lichens et de roches. La tour de l'anémomètre est située sur une aire dégagée du côté nord de la piste 07-25 et à mi-chemin entre les extrémités de la piste.

Dates importantes

- Mars 1947 : ouverture de la station. Altitude 37 m.
- Septembre 1960 : déplacement de l'anémomètre de 30 m vers le nord-ouest.
- Mai 1964 : déplacement des instruments de 20 m vers l'ouest de l'emplacement initial. Déplacement de l'anémomètre à 1 km au sud-ouest.
- Octobre 1966 : déplacement des instruments de 25m vers le nord-ouest.
- Octobre 1985 : déplacement des instruments sur le terrain de l'aéroport de 500 m vers le sud. Altitude 34 m.

Historique du mât anémométrique

Station		Période		Hauteur (mètres)	Type d'anémomètre
Numéro Id	Nom	Début	Fin		
7113534	Kuujuaq	19520919	19600928	8,5	45B
7113534		19520919	19600928	10,9	45B
7113534		19600928	19640521	12,2	45B
7113534		19640521	19650312	6,1	45B
7113534		19640521	19791000	10	U2A
7113534		19650312	19680325	10	45B
7113534		19791000	99999999	10	U2A/R

Schefferville (7117825):**Description**

D'abord connu sous le nom de Knob Lake, la station a été rebaptisée Schefferville en juillet 1967. Le site actuel des instruments est à 150 mètres à l'est de l'aérogare, entre le tablier des aéronefs et la piste d'atterrissage. Il n'y a pas réellement d'obstacles pouvant nuire à l'observation de la visibilité si ce n'est de quelques collines dans le quadrant sud-ouest, qui limitent l'horizon à environ trois kilomètres. Tout autour, l'environnement est composé de collines et la forêt, clairsemée, est composée de conifères et d'arbustes. Le sol, en majeure partie rocaillieux, est recouvert de lichens. La tour d'anémomètre et le site des instruments sont libres d'obstacles pouvant perturber l'écoulement libre de l'air.

Dates importantes

- Août 1948 : ouverture de la station. Altitude 489 m.
- Février 1953 : déplacement de l'anémomètre de 75 m vers le nord-ouest.
- Décembre 1953 : déplacement des instruments (incluant l'anémomètre) 10 km à l'ouest. Altitude 512 m.
- Octobre 1954 : déplacement des instruments de 90 m vers le nord-ouest et de 90 m vers l'ouest pour l'anémomètre.
- Octobre 1964 : déplacement de la station sur une courte distance vers le nord-ouest.
- Juillet 1967 : Altitude de la station 522 m.
- Novembre 1967 : déplacement de l'anémomètre vers le sud-est
- Mars 1979 : déplacement des instruments de 90 m vers le sud.
- Août 1993 : installation de la station automatique AWOS. Altitude 517 m.
- Septembre 1994 : fermeture de la station humaine.

Historique du mât anémométrique

Numéro Id	Station	Période		Hauteur (mètres)	Type d'anémomètre
	Nom	Début	Fin		
7117825	Schefferville	19481202	19530212	12.8	45B
7117825		19530212	19590207	10.9	45B
7117825		19590207	19640925	14.6	45B
7117825		19590207	19640925	14.6	U2A
7117825		19640925	19730413	10.6	45B
7117825		19640925	19700400	10.6	U2A
7117825		19700400	19730413	10.6	U2A/R
7117825		19730413	19940930	10	U2A/R
7117825	Schefferville AWOS	19930810	99999999	10	78D

Amos (7090120):**Description**

La station appartient au Ministère de l'environnement et de la faune du Québec. Le terrain est plat et bien dégagé; la station se retrouve en milieu urbain (résidentiel et industriel) dans une région vallonnée avec une forte pente vers le sud.

Dates importantes

- Juin 1913 : ouverture de la station. Altitude 305 m.
- Novembre 1927 : fermeture de la station.
- Décembre 1928 : réouverture de la station au nouveau site.
- Avril 1962 : fermeture de la station pour relocalisation.
- Janvier 1963 : réouverture de la station au nouveau site (vers l'ouest).
- Août 1968 : déplacement de la station 75 m vers l'ouest. Altitude 310 m.
- Octobre 2000 : Fermeture de la station.

Historique du mât anémométrique

Station		Période		Hauteur (mètres)	Type d'anémomètre
Numéro Id	Nom	Début	Fin		
7090120	Amos	S/O	S/O	S/O	S/O

Val-d'Or (7098600):**Description**

Le site d'instruments (AWOS) est situé à mi-chemin entre la tour de contrôle et le terminal. Lors des heures d'opération du personnel, les observateurs se servent de ces instruments. Le terrain est dégagé et légèrement en pente descendante, la piste d'atterrissage se trouve à l'est à 200 mètres du site. L'écoulement libre du vent s'effectue dans toutes les directions. Tous les instruments rencontrent les normes de zonage. La surface du terrain environnant est gazonnée. L'aéroport se situe à 5 km au sud de la ville de Val-d'Or. La station est entourée de nombreux lacs et ruisseaux. Le lac Montigny, le plus grand de la région immédiate est à 8 km au nord-ouest de l'aéroport. L'aéroport est situé dans une vallée relativement plate de près de 100 km de large et d'orientation nord-sud.

Dates importantes

- Juin 1949 : ouverture de la station. Altitude 337 m.
- Juillet 1951 : début de l'envoi des données quotidiennes de température et de précipitation.
- Mai 1961 : déplacement des instruments de 210 vers le sud-ouest et déplacement de l'anémomètre de 175 m vers le sud sud-ouest.
- Décembre 1968 : déplacement des instruments de 780 m vers le nord-est et déplacement de l'anémomètre de 600 m vers le nord-est. Altitude 335 m.
- Juillet 1978 : déplacement des instruments de 820 m vers le sud-ouest et déplacement de l'anémomètre de 640 m vers le sud. Altitude 337 m.
- Octobre 1993 : déplacement de l'anémomètre à 180 m à l'est du site des instruments.
- Novembre 1995 : fermeture de la station humaine.
- Décembre 1995 : ouverture de la station automatique AWOS à environ 700 m au sud de l'ancienne station. Altitude 336 m.

Historique du mât anémométrique

Station		Période		Hauteur (mètres)	Type d'anémomètre
Numéro Id	Nom	Début	Fin		
7098600	Val-d'Or	19490600	19581100	19.2	45B
7098600		19581100	19610600	10.8	45B
7098600		19610600	19671008	18.7	45B
7098600		19610600	19681200	16.9	U2A
7098600		19681200	19690622	11	U2A
7098600		19690622	19790300	10	U2A/R
7098600		19790300	19931026	16.2	U2A/R
7098600		19931026	19951130	10	U2A/R
7098600	Val-d'Or AWOS	19951201	99999999	10	78D

Causapscal (7051200):**Description**

La station appartient au Ministère de l'environnement et de la faune du Québec. Le site actuel est terrain plat gazonné et situé en milieu semi-urbain dans la vallée de la Matapédia. Un garage au nord et une maison à l'ouest sont les principaux obstacles à la station.

Dates importantes

-Septembre 1913 : ouverture de la station. Altitude 149 m.

-Mars 1916 à octobre 1920 : fermeture de la station sur une période de 46 mois.

-Octobre 1988 : déplacement de la station vers le nord-ouest vers un site semi urbain. Altitude 168 m.

Historique du mât anémométrique

Station		Période		Hauteur (mètres)	Type d'anémomètre
Numéro Id	Nom	Début	Fin		
7051200	Causapscal	S/O	S/O	S/O	S/O

Daniel's Harbour (8401400) :**Description**

La station est située près du village de Daniel's Harbour, sur la côte nord-ouest de Terre-Neuve. La topographie est telle que les agglomérations sont regroupées dans les zones côtières. La proximité de l'océan a une influence majeure sur la région. Le golfe du St.-Laurent est situé immédiatement à l'ouest et la mer du Labrador (océan Atlantique) se trouve à 75 km à l'est de la station. De nombreux petits étangs et rivières composent le paysage. La région environnante est plate bien que quelque peu marécageuse. Au-delà de cette région, on aperçoit les Monts Long Range qui dominent le paysage. La limite occidentale très escarpée de cette chaîne est située à 11 km au sud-est. Dans un rayon de 20 km, l'altitude des points culminants de cette chaîne montagneuse varie de 640 à 673 m.

Dates importantes

- Novembre 1946 : ouverture de la station. Altitude 24 m.
- Août 1955 : déplacement de la station de 210 m vers le sud. Altitude 20 m.
- Novembre 1963 : déplacement de la station de 51 m vers le sud et de l'anémomètre de 46 m vers le sud.
- Juin 1988 : fermeture temporaire de la station.
- Septembre 1988 : réouverture de la station. Altitude 18 m.
- Juillet 1996 : automatisation complète de la station. Altitude 19 m.

Historique du mât anémométrique

Numéro Id	Station	Période		Hauteur (mètres)	Type d'anémomètre
	Nom	Début	Fin		
8401400	Daniel's Harbour	19461100	19490700	7,6	45B
8401400		19490700	19530812	8,5	45B
8401400		19530812	19551114	7,3	45B
8401400		19551114	19631108	7,4	45B
8401400		19631108	19710811	9,7	45B
8401400		19710811	19831118	10	45B
8401400		19831118	99999999	10	U2A/DIAL

Gaspé (7052605) :**Description**

De 1895 à 1985, des relevés de températures et de précipitations ont été effectués ailleurs qu'à l'aéroport. Le site actuel des instruments (à l'aéroport) est situé à environ 140 mètres au sud sud-ouest de l'aérogare, sur l'ancien site AWOS. La station AWOS avait été installée au début des années 90 mais elle n'a jamais été mise en service. Le site est situé sur une légère butte qui s'élève d'environ 1 mètre par rapport au terrain environnant et est composé de gravier. L'environnement est composé de forêt et de collines dont les sommets varient de 200 à 400 mètres de hauteur. La visibilité au nord est limitée par une ligne d'arbres située à une centaine de mètres de l'aérogare. L'anémomètre est situé à 165 mètres au sud sud-ouest de l'aérogare où aucun obstacle ne perturbe l'écoulement du vent.

Dates importantes (Gaspé – 7052600)

- Août 1895 : ouverture de la première station à Gaspé. Altitude 91 m.
- Avril 1897 : fermeture de la station.
- Septembre 1915 : réouverture de la station.
- Juillet 1947 à août 1949 : fermeture de la station sur une période de 21 mois.
- Octobre 1947 à mai 1949 : douze mois de données provenant de la station Gaspé 2 (7052609). Altitude 27 m.
- Décembre 1963 à juillet 1966; Absence de relevés de température quotidienne.
- Août 1966 : nouvel emplacement de la station. Altitude 31 m.
- Janvier 1985 : fermeture de la station.

Dates importantes (Gaspé A – 7052605)

- Février 1965 : ouverture de la station Gaspé A (7052605). Altitude 33 m.
- Avril 1968 : début des relevés quotidiens de température de précipitations.
- Novembre 1973 : relocalisation des instruments du côté nord de la piste. Altitude 34 m.
- Mai 1974 à août 1977 : absence de relevés quotidiens de température et de précipitations.
- Décembre 1999 : déplacement de la station de 135 m vers le sud sud-est et de l'anémomètre de 200 m vers l'ouest. Altitude 35 m.

Historique du mât anémométrique

Station		Période		Hauteur (mètres)	Type d'anémomètre
Numéro Id	Nom	Début	Fin		
7052605	Gaspé	19650226	19680205	8.5	45B
7052605		19680205	19711100	10	U2A
7052605		19711100	19990614	10	U2A/R
7052605		19990614	99999999	10	78D

Mont-Joli (7055120):**Description**

La station se trouve sur un plateau, à 2 kilomètres au sud du fleuve St.-Laurent. Le terrain environnant est dégagé et libre de tout obstacle pouvant perturber la circulation de l'air. Au sud-est, on trouve la ville de Mont-Joli à 1.5 kilomètre sur une colline légèrement plus élevée que l'aéroport. Les instruments sont installés à 150 mètres à l'est de la station et la tour anémométrique à 130 mètres au nord-est. Le terrain est plat et il n'y a pas d'obstacles à l'écoulement du vent. Le terrain s'élève vers le sud et à 16 km au sud sud-ouest, on retrouve l'extrémité nord des Monts Notre-Dame, culminant à 573 m. Avant le 6 juin 1968, Les instruments étaient installés sur le toit du hangar, à une hauteur de 4 mètres au-dessus du sol.

Dates importantes

- Février 1942 : ouverture de la station. Altitude 60 m.
- Janvier 1943 : début des relevés quotidiens de température et de précipitations.
- Juin 1968 : déplacement des instruments de 200 m vers l'ouest nord-ouest et de l'anémomètre de 215 m vers l'ouest nord-ouest. Altitude 46 m.
- Octobre 1972 : déplacement des instruments de 600 m vers l'ouest sud-ouest. Altitude 48 m.
- Novembre 1992 : réfection complète du site.

Historique du mât anémométrique

Station		Période		Hauteur (mètres)	Type d'anémomètre
Numéro Id	Nom	Début	Fin		
7055120	Mont-Joli	19490802	19580724	16.8	45B
7055120		19580724	19590707	18.3	45B
7055120		19590707	19680606	18.3	U2A
7055120		19680606	19691000	10	U2A
7055120		19691000	19930914	10	U2A/R
7055120		19930915	99999999	10	78D

Natashquan (7045400) :**Description**

Le site météorologique de l'observateur est situé à l'extrémité est du village de Natashquan. La surface du site proprement dit est sablonneuse où on trouve une rare végétation herbeuse clairsemée. Les environs sont constitués de terrains plats et sablonneux, recouverts de broussailles. On retrouve le golfe St.-Laurent à environ 500 mètres au sud-ouest. La station elle-même constitue un obstacle et peut nuire au libre écoulement de l'air; elle est située à 54 mètres au sud-sud-est du mât des détecteurs du vent. Les instruments sont exposés selon les normes établies. En 1996, une station de type AWOS a été mise en service à l'aéroport. L'aéroport est situé à environ 2 kilomètres au nord-est de la station humaine. La charge de produire les relevés quotidiens revient à la station automatique.

Dates importantes

- Octobre 1914 : ouverture de la station. Altitude 6m.
- Décembre 1936 à février 1938 : absence des relevés quotidiens de température.
- Octobre 1968 : léger déplacement de la station vers le sud. Altitude 7 m
- Juin 1996 : ouverture de la station automatique. Altitude 11 m.

Historique du mât anémométrique

Numéro Id	Station Nom	Période		Hauteur (mètres)	Type d'anémomètre
		Début	Fin		
7045400	Natashquan	19590824	19690119	14.6	45B
7045400		19690119	19820407	10	45B
7045400		19690119	19810603	10	U2A
7045400		19810603	20031110	10	U2A/R
7045400	Natashquan AWOS	19960604	99999999	10	78D

Sept-Îles (7047910 et 7047912) :**Description**

Le site est dans un environnement plat à environ 500 mètres au nord du littoral du golfe St.-Laurent, avec une chaîne de montagnes s'étendant d'ouest en est à plus de 8 kilomètres de l'aéroport. Le site est gazonné, il n'y a aucun obstacle à l'écoulement libre du vent. L'aéroport est entouré de conifères dont la hauteur moyenne est de 12 à 15 mètres. Le mât anémométrique et le projecteur à plafond sont installés à 500 mètres au nord de l'aérogare. Il n'y a aucun obstacle dans la zone immédiate de l'emplacement des instruments pouvant perturber le libre écoulement de l'air. Depuis janvier 2002, les relevés quotidiens de température et de précipitations sont assurés par une station automatique. Cette station (Sept-Îles (auto) 7047912) est située sur le terrain de l'aéroport de Sept-Îles. Les bâtiments sont à 500 mètres au nord de la route 138 à environ 2,7 kilomètres à l'est de l'entrée principale de l'aéroport. Le site des instruments se situe à 40 mètres au sud des bâtiments. Le terrain est gazonné et dégagé de tout arbre sur un périmètre de 180 mètres carrés. La forêt qui entoure le site est principalement constituée d'épinettes noires.

Dates importantes

- Août 1944 : Ouverture de la station. Altitude 51 m.
- Novembre 1955 : déplacement de la station de 110 m vers l'ouest.
- Juin 1964 : déplacement des instruments de 115 m vers l'est du site précédent.
- Novembre 2001 : installation de la station automatique (7047912). Altitude 52 m

Historique du mât anémométrique

Station		Période		Hauteur (mètres)	Type d'anémomètre
Numéro Id	Nom	Début	Fin		
7047910	Sept-Iles	19440900	19551000	18.3	45B
7047910		19551000	19631000	19.5	U2A
7047910		19631100	19671000	18.6	U2A
7047910		19671000	19690707	10	U2A
7047910		19690707	19690800	13.4	U2A
7047910		19690800	19741126	13.4	U2A/R
7047910		19741126	99999999	10	U2A/R
7047912	Sept-Iles auto	20011101	99999999	10	RM YOUNG

Drummondville (7022160) :**Description**

La station appartient au Ministère de l'environnement et de la faune du Québec. La station est située sur le terrain de l'usine de filtration depuis son déplacement en 1993.

Dates importantes

- Septembre 1913 : ouverture de la station. Altitude 82 m.
- 1961 : déplacement de la station de 45m.
- 1961 : déplacement e la station de 120 à 150 m vers l'ouest.
- Mai 1962 à octobre 1962 : absence de données à la station.
- Juin 1993 : déplacement de la station de 1,2 km vers le sud-est. Altitude 76 m.

Historique du mât anémométrique

Station		Période		Hauteur	Type
Numéro					d'anémomètre
Id	Nom	Début	Fin	(mètres)	
7022160	Drummondville	S/O	S/O	S/O	S/O

Maniwaki (7034480, 7034481 et 7034482):**Description**

La station de Maniwaki (7034480) se trouve en bordure du village de Maniwaki. De nombreux petits lacs et rivières sont présents dans l'environnement de cette station sise dans la vallée de la Gatineau. La station est d'ailleurs située à 90 m de la rivière Gatineau. La région environnante est vallonnée et principalement couverte de forêt de conifères. Les collines environnantes atteignent en moyenne 250 à 350 m d'altitude. Suite à fermeture, une station automatique a été installée à l'aéroport (7034482). L'environnement de l'aéroport est situé sur un plateau sablonneux dominant l'ensemble aéroportuaire; la végétation y est pauvre et clairsemée. Le site est à 180 mètres à l'ouest de la piste d'atterrissage et domine celle-ci par 4.5 mètres; par sa position, le site est exempt de toute obstruction à l'écoulement libre de l'air sauf pour le secteur nord où l'on retrouve des pins de 20 mètres de hauteur à environ 120 mètres du site. L'aéroport de Maniwaki est situé à 10 km du centre ville de Maniwaki. Une étroite bande de terres agricoles borde les routes de la région.

Dates importantes

- Octobre 1913 : ouverture de la station Maniwaki 2 (7034481). Altitude 174 m.
- Juin 1927 : ouverture de la station Maniwaki (7034480). Fonctionnement intermittent jusqu'en août 1943. Altitude 170 m.
- Juillet 1953 : réouverture de la station Maniwaki (7034480).
- Juin 1963 : déplacement de l'anémomètre de 50 m vers l'ouest nord-ouest (7034480).
- Décembre 1975 : fermeture de la station Maniwaki 2 (7034481).
- Novembre 1981 : déplacement de l'anémomètre de 85 m vers le sud sud-est (7034480).
- Août 1989 : réfection complète du site des instruments (7034480) au même endroit.
- Mai 1993 : fermeture de la station Maniwaki (7034480).
- Juin 1993 : ouverture de station automatique Maniwaki (7034482). Altitude 199 m.

Historique du mât anémométrique

Station		Période		Hauteur (mètres)	Type d'anémomètre
Numéro	Id Nom	Début	Fin		
7034480	Maniwaki	19280514	19530828	S/O	S/O
7034480		19530828	19590515	12.6	45B
7034480		19590515	19630605	12.2	45B
7034480		19630605	19640526	10	45B
7034480		19640526	19741104	10.6	45B
7034480		19741104	19820700	10	45B
7034480		19741104	19811100	10	U2A
7034480		19811100	19910319	10	U2A/R
7034480		19910319	19930531	10	78D
7034482	Maniwaki auto	19930515	99999999	10	RM YOUNG

Montréal/ Dorval (7025250) :**Description**

Le site actuel des instruments est situé à 300 mètres au sud-ouest des installations d'Air Canada et à un kilomètre au nord nord-ouest de l'aérogare, à l'intérieur des limites de l'aéroport de Dorval. Du 1^{er} avril 1995 au 31 octobre 2003, les relevés quotidiens ont été effectués par une station automatique de type AWOS. Depuis le 1^{er} novembre 2003, des observateurs ont à nouveau la charge d'effectuer ces relevés. Le relief environnant est constitué de terrains plats et il n'y a pas d'obstacles pouvant affecter les données de précipitations. La visibilité est restreinte dans le secteur nord-est par la présence des installations d'Air Canada. Ces hangars créent de l'interférence dans l'écoulement du vent, particulièrement par vents du nord-est.

Dates importantes

Septembre 1941 : ouverture la station. Altitude 31 m.

Mars 1942 : déplacement des instruments de 274 m vers l'est.

Octobre 1948 : déplacement des instruments de 46 m vers le sud sud-ouest.

Septembre 1961 : déplacement des instruments de 18 m vers le nord-est.

Octobre 1962 : déplacement des instruments à 274 m au sud de l'ancien site.

Février 1995 : installation d'une station automatique de type AWOS à côté du site d'observation existant.

Juin 2001 : fermeture de l'anémomètre du site des instruments. Les données proviennent de l'anémomètre au bord de la piste.

Historique du mât anémométrique

Numéro Id	Station Nom	Période		Hauteur (mètres)	Type d'anémomètre
		Début	Fin		
7025250	Montréal / Dorval	19420311	19481124	21.3	DYNES
7025250		19481124	19630226	23.1	45B
7025250		19630226	19660700	10	U2A
7025250		19630226	19690303	24	45B
7025250		19660700	19690303	10	U2A/R
7025250		19690303	19770511	18.9	U2A/R
7025250		19770511	19950331	10	U2A/R
7025250	Montréal / Dorval AWOS	19950219	20010629	10	78D
7025250	Montréal / Dorval AWOS	20010629	99999999	10	78D

Montréal/McGill (7025280) et Montréal McTavish (7024745) :**Description**

La station McGill est située sur un petit plateau; le terrain montre une pente ascendante vers l'ouest en direction du Mont-Royal alors qu'au nord et à l'est, le terrain descend abruptement vers les édifices du Collège qui se trouvaient alors à environ 10 m du site original. L'édifice a été agrandi dans les années 1880 et dans les années 1890. Cet agrandissement combiné à l'érection d'immeubles avoisinants à l'est et au sud de la station a possiblement eu un effet sur le site d'observations. Le nouvel emplacement se trouvait à côté de l'édifice Macdonald Physics. L'érection de l'édifice Burnside Hall en 1970, à environ 15 m au nord de la station a contribué à réduire la qualité des données de précipitations à partir de cette date. L'anémomètre était installé sur le toit de l'édifice. Une station automatique (Montréal / McTavish) assure la continuité des observations depuis la fermeture de la station originale. Le site des instruments est installé sur le réservoir d'eau municipal McTavish au pied du Mont Royal. C'est un environnement urbain avec de nombreux édifices pouvant affecter principalement les données de vent. Seul le côté nord-est est suffisamment dégagé pour rencontrer les normes. Le site est clôturé et gazonné.

Dates importantes

- Automne 1862 : érection de l'observatoire de McGill.
- 1863 : début des observations au site original.
- Juillet 1871 : début des données archivées.
- Janvier 1963 : déplacement de la station de 180 m à côté de l'édifice Macdonald Physics. Altitude 57 m.
- Août 1992 : ouverture de la station McTavish. Altitude 72 m.
- Avril 1993 : fermeture de la station McGill.

Historique du mât anémométrique

Numéro Id	Station	Période		Hauteur (mètres)	Type d'anémomètre
	Nom	Début	Fin		
7025280	Montréal / McGill	19640108	19840705	36.6	45B
7025280		19840705	19930331	64	45B
7024745	Montréal / McTavish	19920811	99999999	10	RM YOUNG

Bagotville (7060400):**Description**

La station est située sur la base des forces armées de Bagotville au Saguenay sur un plateau à 8 km à l'ouest de l'arrondissement de La Baie. Comme le parc à instruments est près d'une voie de circulation où les tuyères des avions à réaction pointent souvent en direction des instruments, les observations peuvent parfois ne pas être représentatives de la région environnante. Les arrondissements de Chicoutimi et de Arvida sont les deux autres centres urbains importants de la région. La rivière Saguenay, qui coule à 12 km au nord de l'aéroport en direction est sud-est se jette dans le St-Laurent environ 100 km plus loin. À environ 40 km au nord et au sud de l'aéroport, des chaînes de montagnes dont l'altitude varie entre 762 m et 1 067 m s'étirent en direction est-ouest.

Dates importantes

- Septembre 1942 : ouverture de la station. Altitude 159 m.
- Novembre 1945 à février 1947 : absence de données à la station sur une période de 12 mois.
- Juillet 1967 : déplacement de l'anémomètre de 550 m vers le sud.

Historique du mât anémométrique

Station		Période		Hauteur (mètres)	Type d'anémomètre
Numéro Id	Nom	Début	Fin		
7060400	Bagotville	19451003	19460729	19.8	45B
7060400		19460729	19461123	10.9	45B
7060400		19461123	19590622	22.8	45B
7060400		19590622	19620622	18.5	45B
7060400		19620622	19650513	N/D	45B
7060400		19650513	19700800	19.8	U2A
7060400		19700800	19730829	N/D	U2A/R
7060400		19730829	99999999	10	U2A/R

Appendix B

Indices definitions and Statistical methods used

Indices Definitions

Precipitations related indices

- *Days with precipitation (Prcp1) (% days)*

P_{ij} being the daily total precipitation amount for day i in period j . The number of days is counted where:

$$P_{ij} \geq 1mm$$

The number of days is brought back in percentage to avoid having variations due to absences

- *Simple daily intensity (SDII) (mm/rainday)*

P_{wj} being the daily total precipitation amount on wet days, w ($P \geq 1$ mm) during period j and W being the number of wet days in j . The intensity of precipitation is defined by:

$$SDII_j = \frac{\sum_{w=1}^W P_{wj}}{W}$$

- *Maximum of consecutive dry days (CDD) (days)*

P_{ij} being the daily total precipitation for day i during period j . The maximum number of consecutive dry days is defined by:

$$CDD_j = \max(P_{ij} \leq 1mm)$$

- *Maximum of total precipitation for 3 consecutive days (R3d) (mm)*

P_{3j} being the total precipitation amount every 3 days during period j . The maximum of precipitation for 3 days is defined by:

$$R3d_j = \max(P_{3j})$$

- *90th percentile of the total precipitation (Prec90pc) (mm)*

P_{wj} being the total daily precipitation amount for days with precipitation W ($P \geq 1$ mm) in period j . The values of P_{wi} are sorted out in increasing order then the rank of the percentile 90 is defined by the non-parametric Cunnane (1978) formula:

$$rank90p = (0,9 * (W + 0,2)) + 0,4$$

The Prec90pc value corresponding to rank90p is obtained by a linear interpolation between the two closest values. The ending c letter in the index name refers to Cunnane.

- *Percentage of days with precipitation > 90th percentile (61-90 based period) (R90p) (% days)*

Let P_{wj} be the daily precipitation amount at wet day w ($P \geq 1$ mm) of period j and let P_{wn90} be the 90th percentile of precipitation at wet days in the reference period. The number of days is counted where:

$$P_{wj} > P_{wn90}$$

The number of days is brought back in percentage to avoid having variations due to absenteers

Temperatures related indices

- *Mean diurnal temperature range (DTR) (°C)*

T_{xij} and T_{nij} being the maximum daily temperature and minimum in the day i for period j . The mean diurnal temperature range is defined by:

$$DTR_j = \frac{\sum_{i=1}^I (T_{xij} - T_{nij})}{I}$$

- *Frost season length (FSL_c) (days)*

T_{ij} being the daily average temperature in the day i during period j . We begin to count when we have at least 6 consecutive days with :

$$T_{ij} < 0^{\circ}C$$

And we stop to count when we have at least 6 consecutive days with :

$$T_{ij} > 0^{\circ}C$$

the “c” suffixe stand for continuous.

- *Growing season length (GSL) (days)*

T_{ij} being the daily average temperature in the day i during period j . We begin to count when we have at least 6 consecutive days with :

$$T_{ij} > 5^{\circ}C$$

And we stop to count when we have at least 6 consecutive days with:

$$T_{ij} < 5^{\circ}C$$

- *Freeze / thaw (Fr/Th) (%days)*

T_{xij} and T_{nij} being the maximum and minimum daily temperature in day i for period j . The number of days with cycle freeze / thaw is defined where :

$$T_{nj} < 0^{\circ}C \ \& \ T_{xj} > 0^{\circ}C$$

The number of days is brought back in percentage to avoid having variations due to absenteers.

- *10th and 90th percentile of the maximal temperature (Tmax10pb and Tmax90pb) (°C) and of the minimal temperature (Tmin10pb and Tmin90pb)*

T_{ij} being the daily maximal (or minimal) temperature in the day i during period j . The values of t_{ij} are sorted out in increasing order then the rank of the percentile 10 (or 90) is defined by the non-parametric method of Blom (1958):

$$rank10p = (0,1 * (J + 0,25)) + 0,375$$

$$rank90p = (0,9 * (J + 0,25)) + 0,375$$

The value Tmin10pb (Tmax10pb) corresponding to rank10p (Tmin90pb and Tmax90pb to rank90p) is then obtained by a linear interpolation between the two closest values. The ending b letter in the index name refers to Blom.

- *Sum of days in sequences > 3 days where Tmin < daily Tmin normal - 5°C (CWDI3d) (days)*

Let Tn_{ij} be the daily minimum temperature at day i of period j and let Tn_{inorm} be the calendar day mean calculated on a 5 day window centred on each calendar day during the 1961-1990 base period. Then counted is the number of days per period where, in intervals of at least 4 consecutive days:

$$Tn_{ij} < Tn_{inorm} - 5$$

- *Sum of days in sequences > 3 days where Tmax > daily Tmax normal + 3°C (HWDI3d) (days)*

Let Tx_{ij} be the daily maximum temperature at day i of period j and let Tx_{inorm} be the calendar day mean calculated on a 5 day window centred on each calendar day during the 1961-1990 base period. Then counted is the number of days per period where, in intervals of at least 4 consecutive days:

$$Tx_{ij} > Tx_{inorm} + 3$$

- *Percentage of days with Tmin < 10th percentile of daily minimum temperature (61-90 based period) (TN10p) (%days)*

Let Tx_{ij} be the daily minimum temperature at day i of period j and let Tx_{in10} be the calendar day 10th percentile calculated on a 5 day window centred on each calendar day during the 1961-1990 base period. The number of days is counted where:

$$Tx_{ij} < Tx_{in10}$$

The number of days is brought back in percentage to avoid having variations due to absenteers

- *Percentage of days Tmax > 90th percentile of daily maximum temperature (61-90 based period) (TX90p) (%days)*

Let Tx_{ij} be the daily maximum temperature at day i of period j and let Tx_{in90} be the calendar day 90th percentile calculated on a 5 day window centred on each calendar day during the 1961-1990 base period. The number of days is counted where:

$$Tx_{ij} > Tx_{in90}$$

The number of days is brought back in percentage to avoid having variations due to absenteers

Statistical methods used

Kendall-tau

The Kendall-tau (Sen, 1968) test is used to estimate the trend probability. It is calculated over all possible pairs of data points using the following:

$$\tau = \frac{\text{concordant} - \text{discordant}}{\sqrt{\text{concordant} + \text{discordant} + \text{sameX}} \sqrt{\text{concordant} + \text{discordant} + \text{sameY}}}$$

where concordant is the number of pairs where the relative ordering of x and y are the same, discordant where they are the opposite, sameX where the x values are the same and sameY where the y values are the same.

Sen slope

Sen's method is used for the estimation of trend. The slopes b_{ij} are first computed between each possible pair of datapoints (x_i, y_i) and (x_j, y_j)

$$b_{ij} = \frac{y_i - y_j}{x_i - x_j}$$

The trend estimate is then the median of all the pairwise slopes.

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Appendix C

**Trends in average, standard deviation and extreme climate
indices**

1941-2000

Temperature related analysis

Seasonal analysis			DJF		MAM		JJA		SON	
Average			neg	Pos	neg	pos	neg	pos	neg	pos
Labrador (4)	Minimum temperature	tnav						1		
	Mean temperature	tav						1		
	Maximum temperature	txav								
	Mean diurnal temperature range	DTR		1		2				
Hudson Bay (3)	Minimum temperature	tnav						2		
	Mean temperature	tav						3		
	Maximum temperature	txav			1			2		
	Mean diurnal temperature range	DTR								1
Maritime (6)	Minimum temperature	tnav			1			4		1
	Mean temperature	tav	1					3		1
	Maximum temperature	txav	1					2		3
	Mean diurnal temperature range	DTR	2	2	3	1	1	1		3
South (7)	Minimum temperature	tnav		1	1			5		1
	Mean temperature	tav						2		1
	Maximum temperature	txav		1						3
	Mean diurnal temperature range	DTR	1		1		3			3
Standard deviation										
Labrador (4)	Minimum temperature	tnstd	1							
	Mean temperature	tstd	1							
	Maximum temperature	txstd	1					1		
Hudson Bay (3)	Minimum temperature	tnstd								
	Mean temperature	tstd								
	Maximum temperature	txstd			1					1
Maritime (6)	Standard deviation tmin	tnstd						1		1
	Standard deviation tmean	tstd								2
	Standard deviation tmax	txstd		1		3				1
South (7)	Standard deviation tmin	tnstd	1					1		
	Standard deviation tmean	tstd						1		
	Standard deviation tmax	txstd						2		1

Table C1. Number of stations grouped into regions with significant negative (blue number) or positive (red number) trend for temperature average and standard deviation over 1941-2000 period (significance at 5% level, Sen slope $\neq$ 0) for each season: DJF (winter), MAM (spring), JJA (summer) and SON (fall). Number in parenthesis after the region name gives the number of stations per region. Shaded results designate that more than 1/3 of the stations have significant trend.

Seasonal analysis			DJF	MAM	JJA	SON
Extremes Indices			neg pos	neg pos	neg pos	neg Pos
Labrador (4)	Maximum temperature	Tmax10pb Tmax90pb TX90p	1	1	1 2	1 1
	Minimum temperature	Tmin10pb Tmin90pb TN10p			1 1 1	
Hudson Bay (3)	Maximum temperature	Tmax10pb Tmax90pb TX90p		1 1	1 2 2	
	Minimum temperature	Tmin10pb Tmin90pb TN10p		1	1 3	
Maritime (6)	Maximum temperature	Tmax10pb Tmax90pb TX90p	1	2	2 1 1	1 2 3
	Minimum temperature	Tmin10pb Tmin90pb TN10p	1	1	1 2	1 1
South (7)	Maximum temperature	Tmax10pb Tmax90pb TX90p	4 3	2	1 1	2 6
	Minimum temperature	Tmin10pb Tmin90pb TN10p	3 3 3	2	3 1 5	1 1 1

Table C2. Number of stations grouped into regions with significant negative (blue number) or positive (red number) trend for extreme indices over 1941-2000 period (significance at 5% level, Sen slope $\neq$ 0) for each season: DJF (winter), MAM (spring), JJA (summer) and SON (fall). Number in parenthesis after the region name gives the number of stations per region. Shaded results designate that more than 1/3 of the stations have significant trend.

Annual Indices

Labrador	(4)	Frost season length	FSLc	2
		Growing season length	GSL	
		Heat wave duration index (JJA)	HWDI3d	
		Cold wave duration index (DJF)	CWDI3d	
Hudson Bay	(3)	Frost season length	FSLc	1
		Growing season length	GSL	
		Heat wave duration index (JJA)	HWDI3d	
		Cold wave duration index (DJF)	CWDI3d	
Maritime	(6)	Frost season length	FSLc	1
		Growing season length	GSL	
		Heat wave duration index (JJA)	HWDI3d	
		Cold wave duration index (DJF)	CWDI3d	
South	(7)	Frost season length	FSLc	2
		Growing season length	GSL	
		Heat wave duration index (JJA)	HWDI3d	
		Cold wave duration index (DJF)	CWDI3d	

Table C3. Number of stations grouped into regions with significant negative (blue number) or positive (red number) trend for annual based indices over 1941-2000 period (significance at 5% level, Sen slope $\neq$ 0). Number in parenthesis after the region name gives the number of stations per region. Shaded results designate that more than 1/3 of the stations have significant trend.

Monthly analysis		Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov
		- +	- +	- +	- +	- +	- +	- +	- +	- +	- +	- +	- +
Labrador (4)	tnav					1	1	1	1	1			
	txav									2			
	Fr/Th					1	1	2			1		1
Hudson Bay (3)	tnav								1	2	1		
	txav						1		1	1			
	Fr/Th							1			1	1	1
Maritime (6)	tnav					1	1	3					1
	txav			2		1	1	2	1	1	1	2	
	Fr/Th			1	1	1	2				2		2
South (7)	tnav						2	3	4	1	1	1	
	txav	1									1	2	
	Fr/Th	2		1	1	1	2				2	1	1

Table C4. Number of stations grouped into regions with significant negative (blue number) or positive (red number) trend for monthly based analysis over 1941-2000 period (significance at 5% level, Sen slope $\neq$ 0). Number in parenthesis after the region name gives the number of stations per region. Shaded results designate that more than 1/3 of the stations have significant trend. Note that the first

month is December to facilitate the comparison with the seasonal analysis.

Precipitation related analysis

Seasonal analysis			DJF		MAM		JJA		SON	
			neg	pos	neg	pos	neg	pos	neg	pos
Labrador (4)	Average	pav				2		2		2
	Frequency	Prcp1			1		1			1
	Intensity	SDII			1					
	Dry extremes	CDD								
	Wet extremes	R3d			1					1
		Prec90pc			1					
		R90p			1					
Hudson Bay (3)	Average	pav	1	1	2	1				2
	Frequency	Prcp1	1	1	2		1		1	1
	Intensity	SDII		1		1		1		1
	Dry extremes	CDD	1			2	1			
	Wet extremes	R3d	1	1		1				1
		Prec90pc		1		1				1
		R90p		1		1				1
Maritime (6)	Average	pav	1	1		1		2		1
	Frequency	Prcp1		3		4	1	2		5
	Intensity	SDII	2		2				2	
	Dry extremes	CDD	1		3		1		4	
	Wet extremes	R3d	2	1						
		Prec90pc	1		2				1	
		R90p	2		1				1	
South (7)	Average	pav	1			3				
	Frequency	Prcp1	2	1	1	1				2
	Intensity	SDII	1			1				
	Dry extremes	CDD		2					3	
	Wet extremes	R3d	1							
		Prec90pc		1		1				
		R90p		1		2				

Table C5. Number of stations grouped into regions with significant negative (blue number) or positive (red number) trend for precipitation analysis over 1941-2000 period (significance at 5% level, Sen slope $\neq$ 0) for each season: DJF (winter), MAM (spring), JJA (summer) and SON (fall). Number in parenthesis after the region name gives the number of stations per region. Shaded results designate that more than 1/3 of the stations have significant trend.

Monthly analysis		Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov
Labrador(4)	pav					1				2		1	1
Hudson (3)	pav	1	1	1	1	1	1	1			1	1	1
Maritime(6)	pav	1	1	2	1	1		1				1	
South (7)	pav			1	1	2		1	1			1	

Table C6. Number of stations grouped into regions with significant negative (blue number) or positive (red number) trend for monthly based analysis over 1941-2000 period (significance at 5% level, Sen slope $\neq$ 0). Number in parenthesis after the region name gives the number of stations per region. Shaded results designate

that more than 1/3 of the stations have significant trend. Note that the first month is December to facilitate the comparison with the seasonal analysis.

Appendix D

Trends in average, standard deviation and extreme climate indices

1961-1990

Temperature related analysis

Seasonal analysis			DJF		MAM	JJA	SON	
Average			Neg	Pos	neg	pos	neg	pos
Labrador	(4)	Minimum temperature	tnav			1		
		Mean temperature	tav			1		
		Maximum temperature	txav					
		Diurnal temperature range	DTR		1			
Hudson	Bay (3)	Minimum temperature	tnav					
		Mean temperature	tav					
		Maximum temperature	txav					
		Diurnal temperature range	DTR				1	
Maritime	(6)	Minimum temperature	tnav			2	1	
		Mean temperature	tav				1	
		Maximum temperature	txav	1			1	
		Diurnal temperature range	DTR	1	1			
South	(7)	Minimum temperature	tnav					
		Mean temperature	tav		1			
		Maximum temperature	txav		1			
		Diurnal temperature range	DTR				1	
Standard deviation								
Labrador	(4)	Minimum temperature	tnstd					1
		Mean temperature	tstd					
		Maximum temperature	txstd			2		
Hudson	Bay (3)	Minimum temperature	tnstd					1
		Mean temperature	tstd					
		Maximum temperature	txstd					
Maritime	(6)	Standard deviation tmin	tnstd					1
		Standard deviation tmean	tstd					1
		Standard deviation tmax	txstd		1	1		2
South	(7)	Standard deviation tmin	tnstd		2	1		
		Standard deviation tmean	tstd		1			
		Standard deviation tmax	txstd		1			

Table D1. Number of stations grouped into regions with significant negative or positive trend for temperature average and extreme indices over 1961-1990 period (significance at 5% level, Sen slope $\neq$ 0) for each season: DJF (winter), MAM (spring), JJA (summer) and SON (fall). Number in parenthesis after the region name gives the number of stations per region. Shaded results designate that more than 1/3 of the stations have significant trend.

Seasonal analysis			DJF		MAM		JJA		SON	
Extremes Indices			neg	Pos	Neg	pos	neg	pos	neg	Pos
Labrador (4)	Maximum temperature	Tmax10pb								2
		Tmax90pb				1				
		TX90p				3		1		1
	Minimum temperature	Tmin10pb						2		1
		Tmin90pb								
		TN10p					1			
Hudson Bay (3)	Maximum temperature	Tmax10pb								
		Tmax90pb								
		TX90p				1				
	Minimum temperature	Tmin10pb								
		Tmin90pb	1							
Maritime (6)	Maximum temperature	Tmax10pb								3
		Tmax90pb				2		1		
		TX90p						1		
	Minimum temperature	Tmin10pb						2		1
		Tmin90pb				2		1		
South (7)	Maximum temperature	Tmax10pb								
		Tmax90pb		1		3				3
		TX90p				2				
	Minimum temperature	Tmin10pb								1
		Tmin90pb		1		1				
		TN10p			1					1

Table D2. Number of stations grouped into regions with significant negative (blue number) or positive (red number) trend for extreme indices over 1941-2000 period (significance at 5% level, Sen slope $\neq$ 0) for each season: DJF (winter), MAM (spring), JJA (summer) and SON (fall). Number in parenthesis after the region name gives the number of stations per region. Shaded results designate that more than 1/3 of the stations have significant trend.

Annual Indices

Labrador	(4)	Frost season length Growing season length Heat wave duration index (JJA) Cold wave duration index (DJF)	FSLc GSL HWDI3d CWDI3d	
Hudson Bay	(3)	Frost season length Growing season length Heat wave duration index (JJA) Cold wave duration index (DJF)	FSLc GSL HWDI3d CWDI3d	
Maritime	(6)	Frost season length Growing season length Heat wave duration index (JJA) Cold wave duration index (DJF)	FSLc GSL HWDI3d CWDI3d	
South	(7)	Frost season length Growing season length Heat wave duration index (JJA) Cold wave duration index (DJF)	FSLc GSL HWDI3d CWDI3d	2 1

Table D3. Number of stations grouped into regions with significant negative (blue number) or positive (red number) trend for annual based indices over 1941-2000 period (significance at 5% level, Sen slope $\neq$ 0). Number in parenthesis after the region name gives the number of stations per region. Shaded results designate that more than 1/3 of the stations have significant trend.

Monthly analysis		Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov
		- +	- +	- +	- +	- +	- +	- +	- +	- +	- +	- +	- +
Labrador	(4)	tnav	1					1	1				2
		txav	3				1		1				1
		Fr/Th	1					1					1
Hudson Bay	(3)	tnav								1			
		txav										1	
		Fr/Th											
Maritime	(6)	tnav	1		1		1	1		1		2	1
		txav	1			1	2		1	1		1	2
		Fr/Th	2	1		2	2	1			1	2	2
South	(7)	tnav					1						
		txav						1					
		Fr/Th	1	1		2	1	5	2			2	1

Table D4. Number of stations grouped into regions with significant negative (blue number) or positive (red number) trend for monthly based analysis over 1941-2000 period (significance at 5% level, Sen slope $\neq$ 0). Number in parenthesis after the region name gives the number of stations per region. Shaded results designate that more than 1/3 of the stations have significant trend. Note that the first month is

December to facilitate the comparison with the seasonal analysis.

Precipitation related analysis

Seasonal analysis			DJF		MAM		JJA		SON	
			neg	pos	neg	Pos	neg	pos	neg	pos
Labrador (4)	Average	pav		1						
	Frequency	Prpc1								1
	Intensity	SDII					1			
	Dry extremes	CDD				1				
	Wet extremes	R3d	1				1			
		Prec90pc		1			1			
		R90p	1				1			
Hudson Bay (3)	Average	pav		1		1				1
	Frequency	Prpc1		1	1	1				
	Intensity	SDII		1		1				
	Dry extremes	CDD	1		1					
	Wet extremes	R3d		1		1				
		Prec90pc		1						1
		R90p		1						1
Maritime (6)	Average	pav					1			
	Frequency	Prpc1					1			1
	Intensity	SDII	1		1				1	
	Dry extremes	CDD			1			1		
	Wet extremes	R3d					1			
		Prec90pc	1		1			1		
		R90p	2		1					
South (7)	Average	pav				2	1			1
	Frequency	Prpc1				1				1
	Intensity	SDII				2				
	Dry extremes	CDD				1			1	
	Wet extremes	R3d	1							2
		Prec90pc				1				1
		R90p	1			1				2

Table D5. Number of stations grouped into regions with significant negative (blue number) or positive (red number) trend for precipitation analysis over 1941-2000 period (significance at 5% level, Sen slope $\neq$ 0) for each season: DJF (winter), MAM (spring), JJA (summer) and SON (fall). Number in parenthesis after the region name gives the number of stations per region. Shaded results designate that more than 1/3 of the stations have significant trend.

Monthly analysis		Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov
Labrador(4)	Pav						1			1	1		
Hudson (3)	Pav	1	1	1	1	1	1	1					
Maritime(6)	Pav						1						
South (7)	Pav						2	1	1				2

Table D6. Number of stations grouped into regions with significant negative (blue number) or positive (red number) trend for monthly based analysis over 1941-2000 period (significance at 5% level, Sen slope $\neq$ 0). Number in parenthesis after the region name gives the number of stations per region.

Shaded results designate that more than 1/3 of the stations have significant trend. Note that the first month is December to facilitate the comparison with the seasonal analysis.

Appendix E

Relative RMSE over each region

Temperature

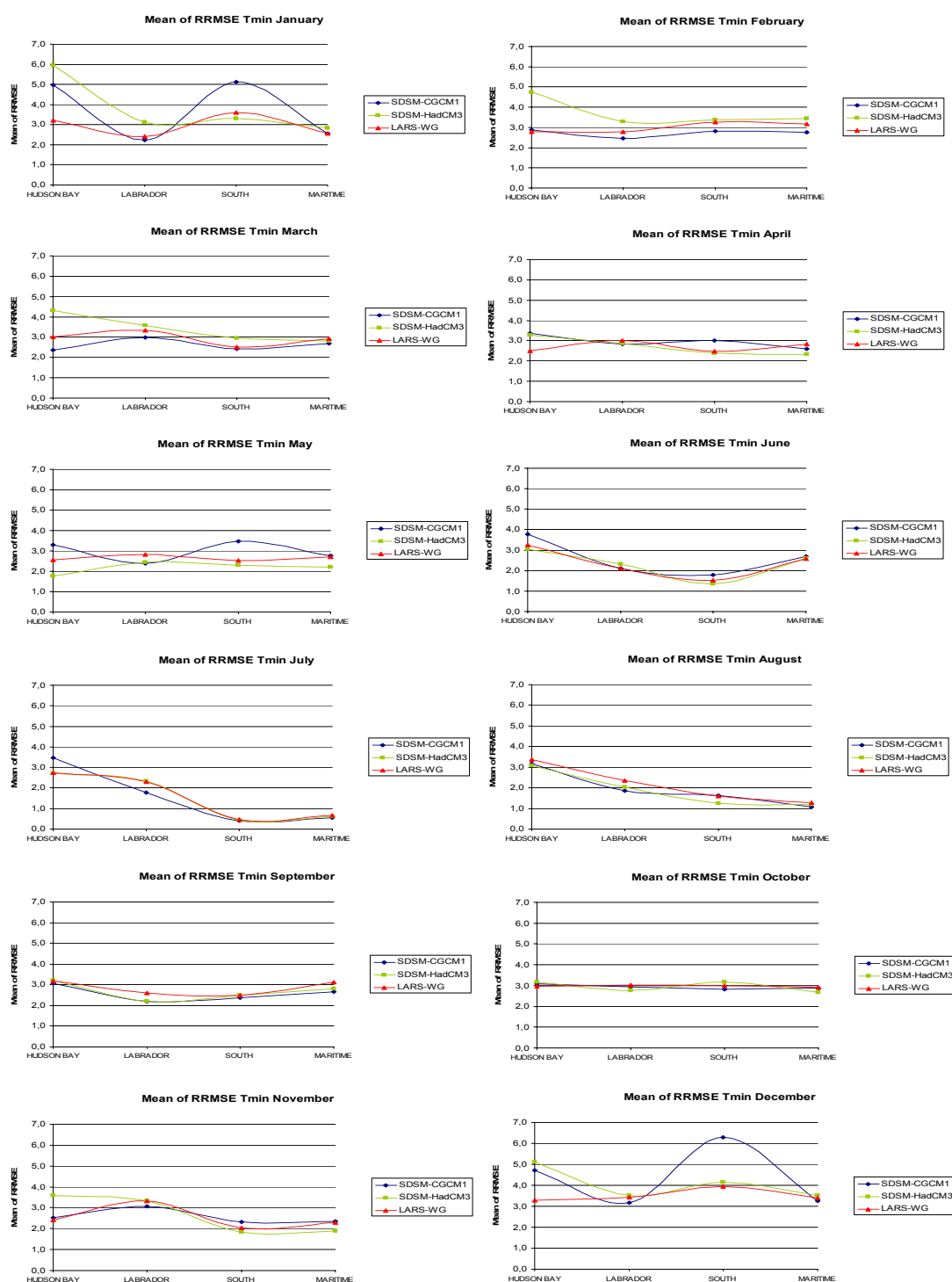


Figure E-1: Relative monthly RMSE averaged over each region from the RMSE calculation over each station (given in Table 2.3) and divided by the climatological standard deviation of the considered observed data. This latter corresponds to the RMSE obtained when a series is replaced by its long-term mean. The definition of acronyms in the legend is given in Figure 2.13.

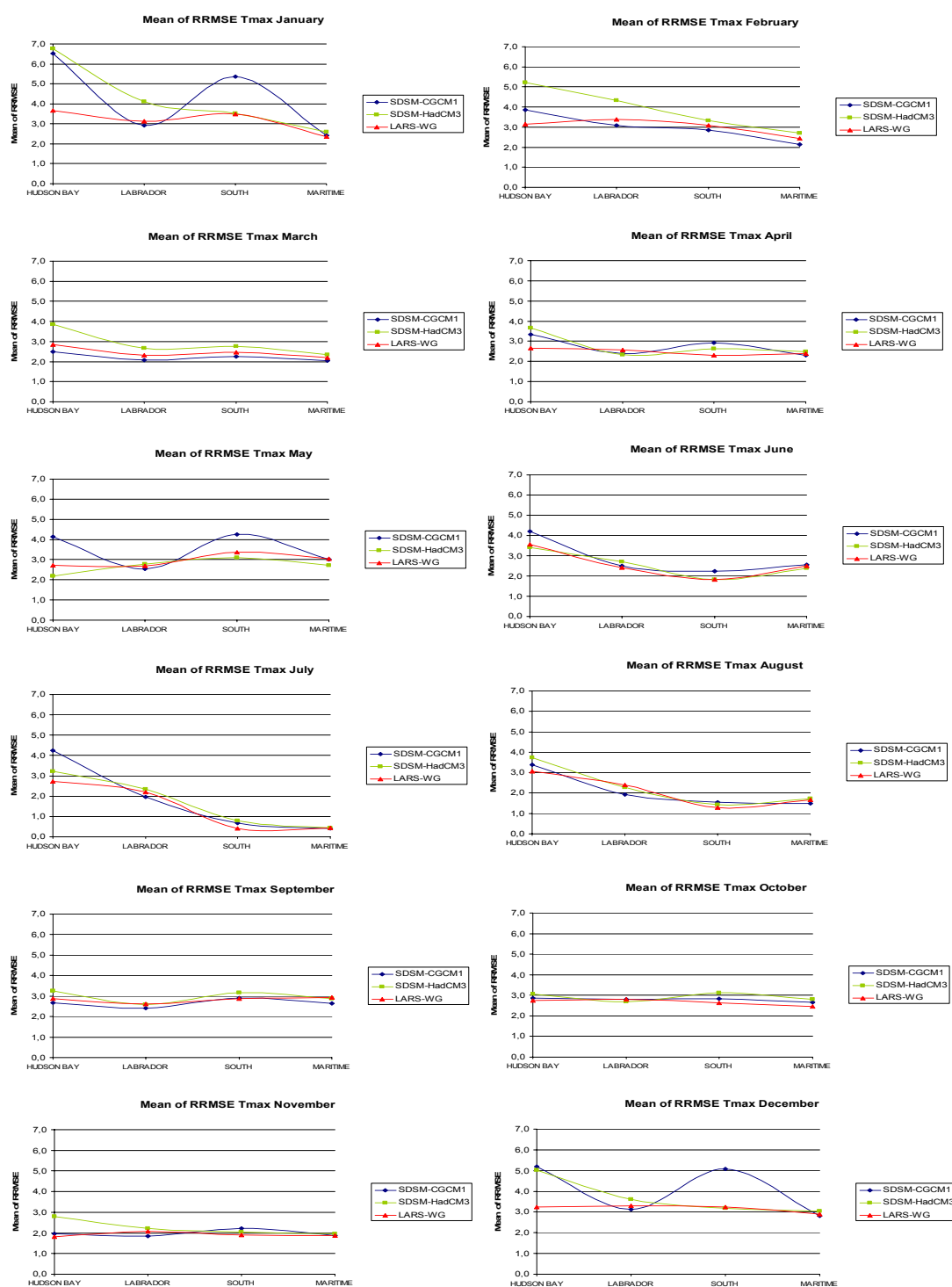


Figure E-2: Same as Figure E-1 but for the relative RMSE of maximum temperature (RMSE for each station is given in Table 2.4) over each region and month.

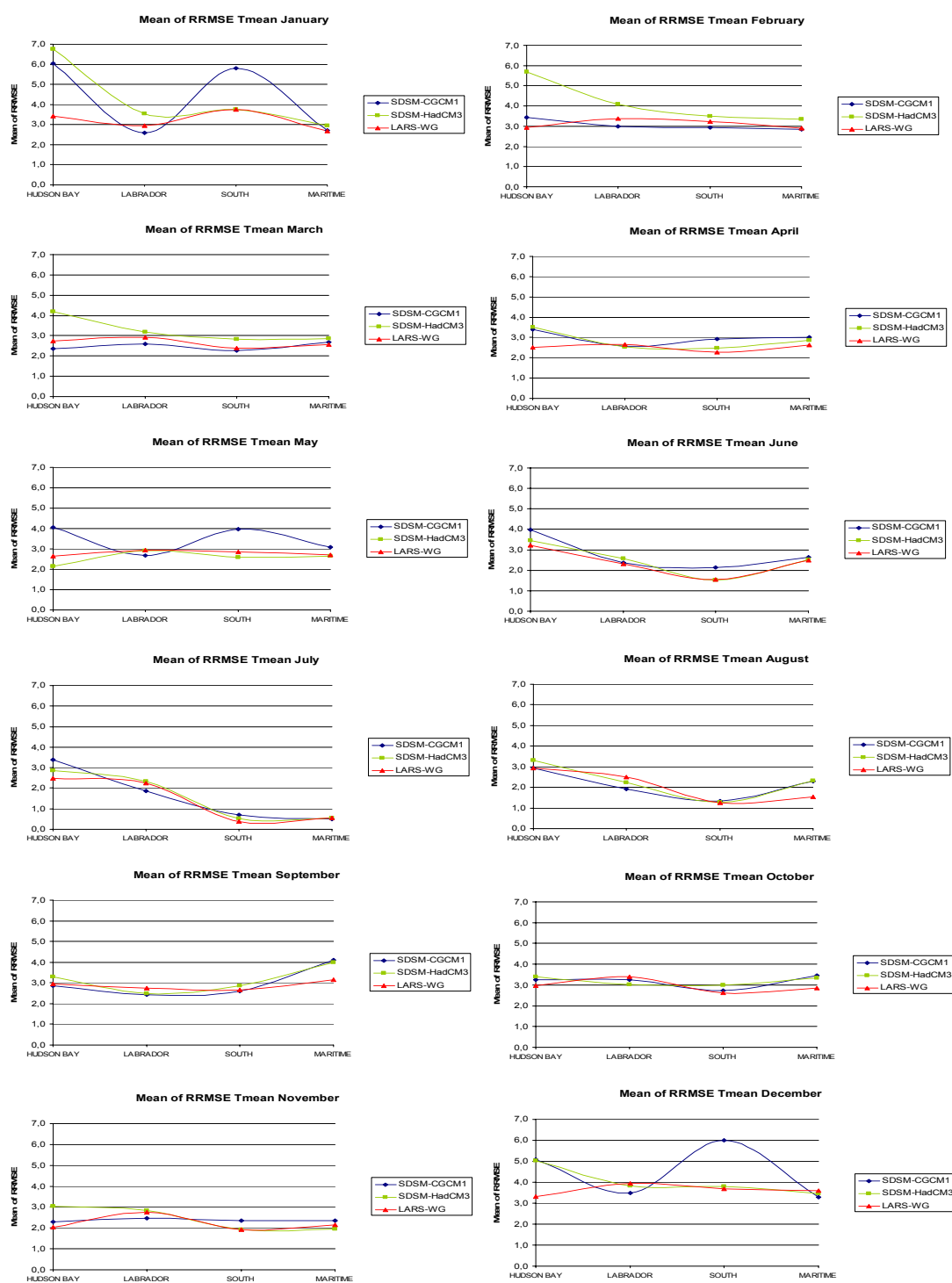


Figure E-3: Same as Figure E-1 but for the relative RMSE of mean temperature (RMSE for each station is given in Table 2.5) over each region and month.

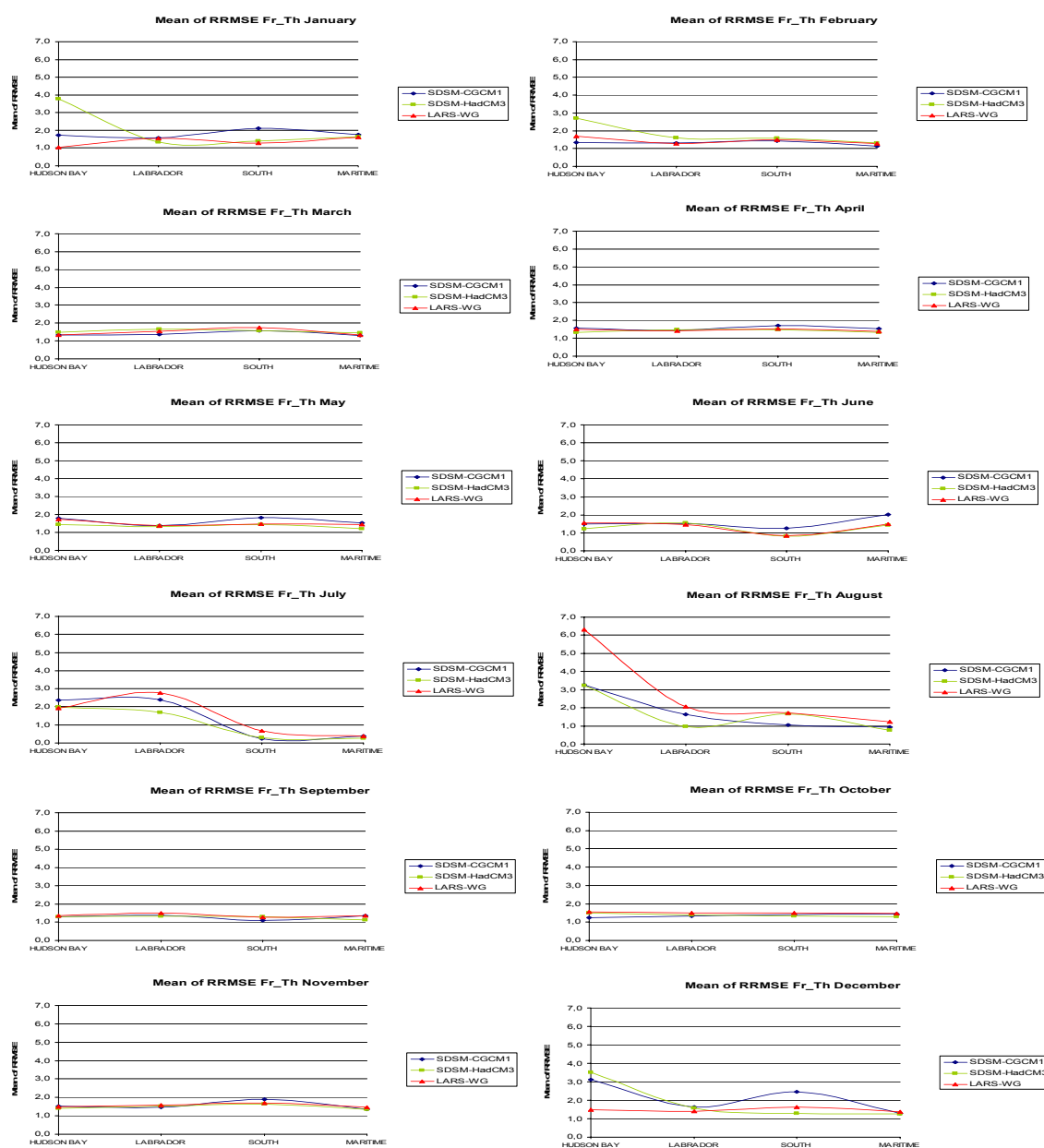


Figure E-4: Same as Figure E-1 but for the monthly relative RMSE for freeze and thaw cycle - Fr/Th (RMSE for each station is given in Table 2.9).

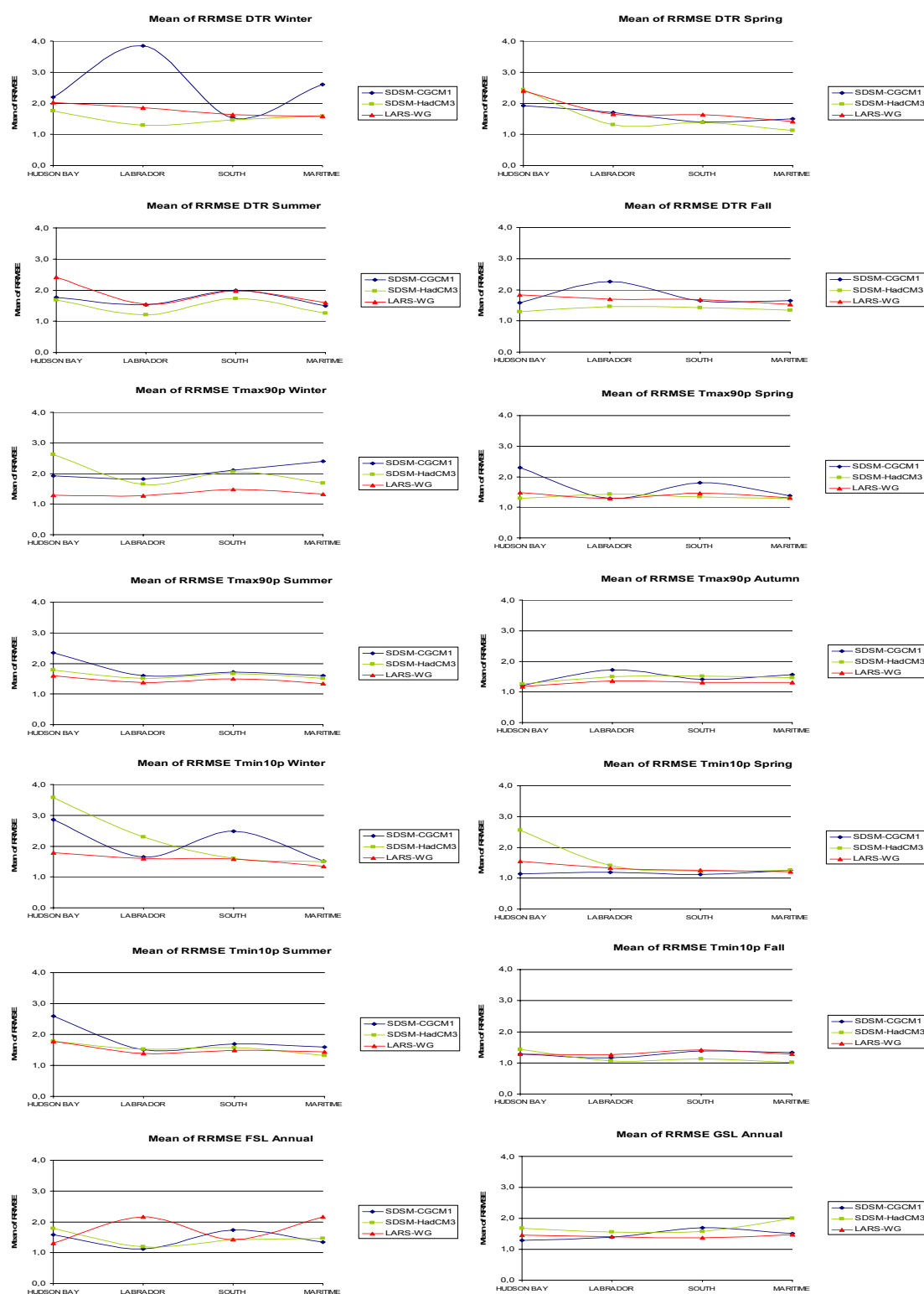


Figure E-5: Same as Figure E-1 but for the seasonal or annual relative RMSE (RMSE for each station is given in Tables 2.10 to 2.13), from the upper to the lower panels, respectively, of related indices (given in Table 2.1): DTR (four panels), Tmax90p (four panels), Tmin10p (four panels), and FSL and GSL (left and right of the lower panels).

Appendix F

Relative RMSE over each region

Precipitation

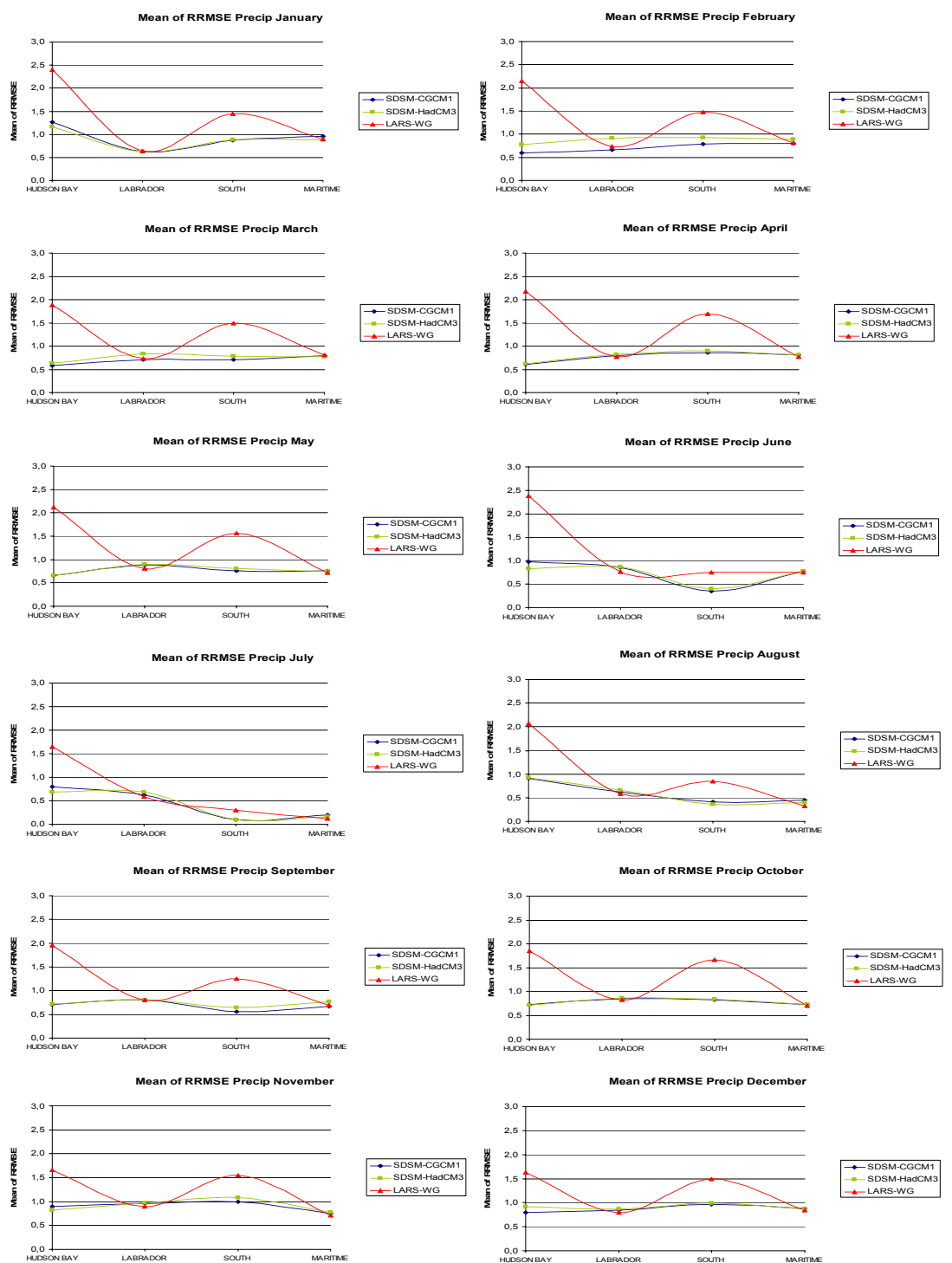


Figure F-1: Same as Figure E-1 but for the relative RMSE of mean precipitation (RMSE for each station is given in Table 2.14) over each region and month.

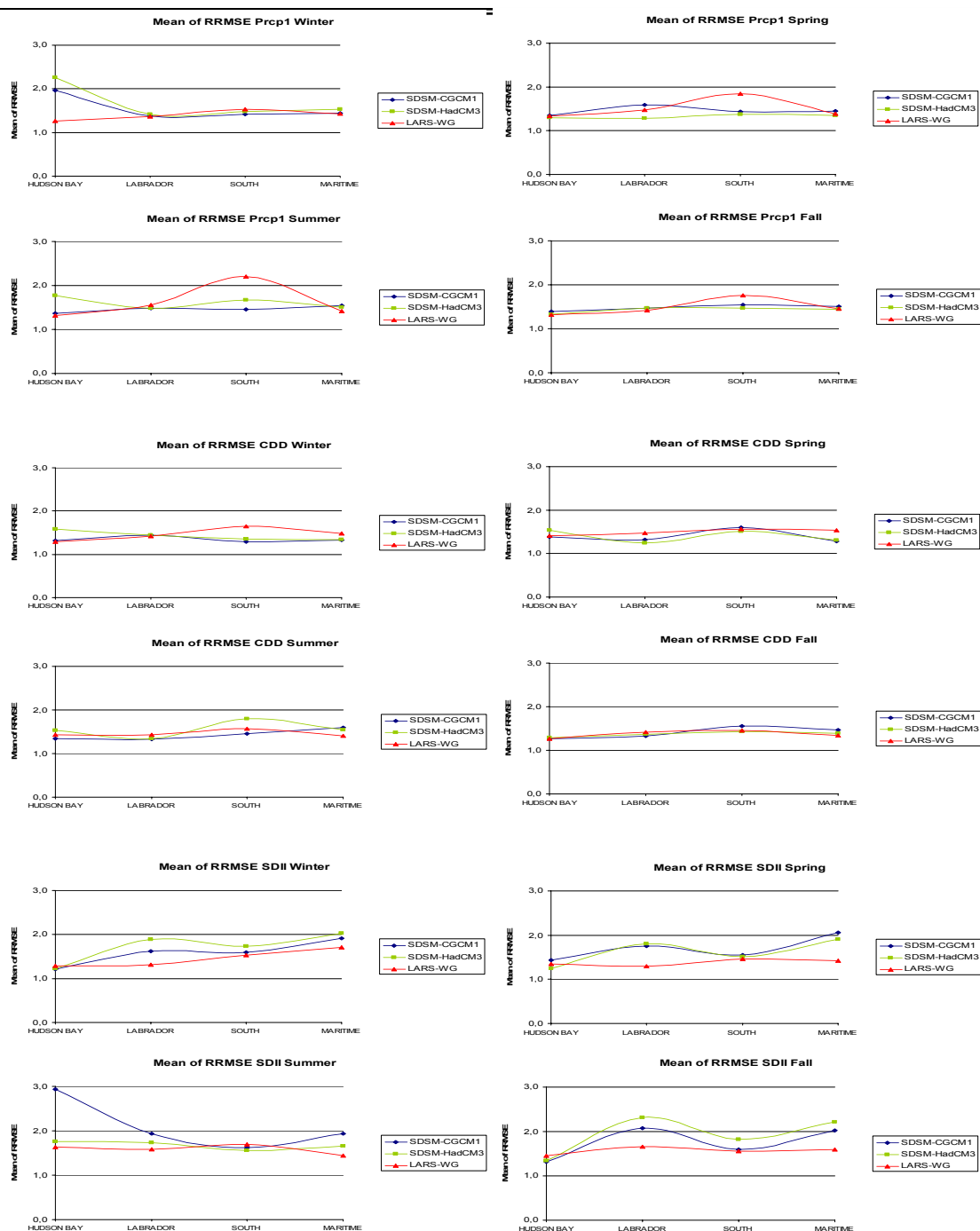


Figure F-2: Same as Figure E-1 but for the seasonal relative RMSE of precipitation indices (RMSE for each station is given in Tables 2.16 to 2.18) over each region: Prcp1 in upper four panels, CDD middle four panels, and SDII lower four panels. The definition of indices is given in Table 2.1.

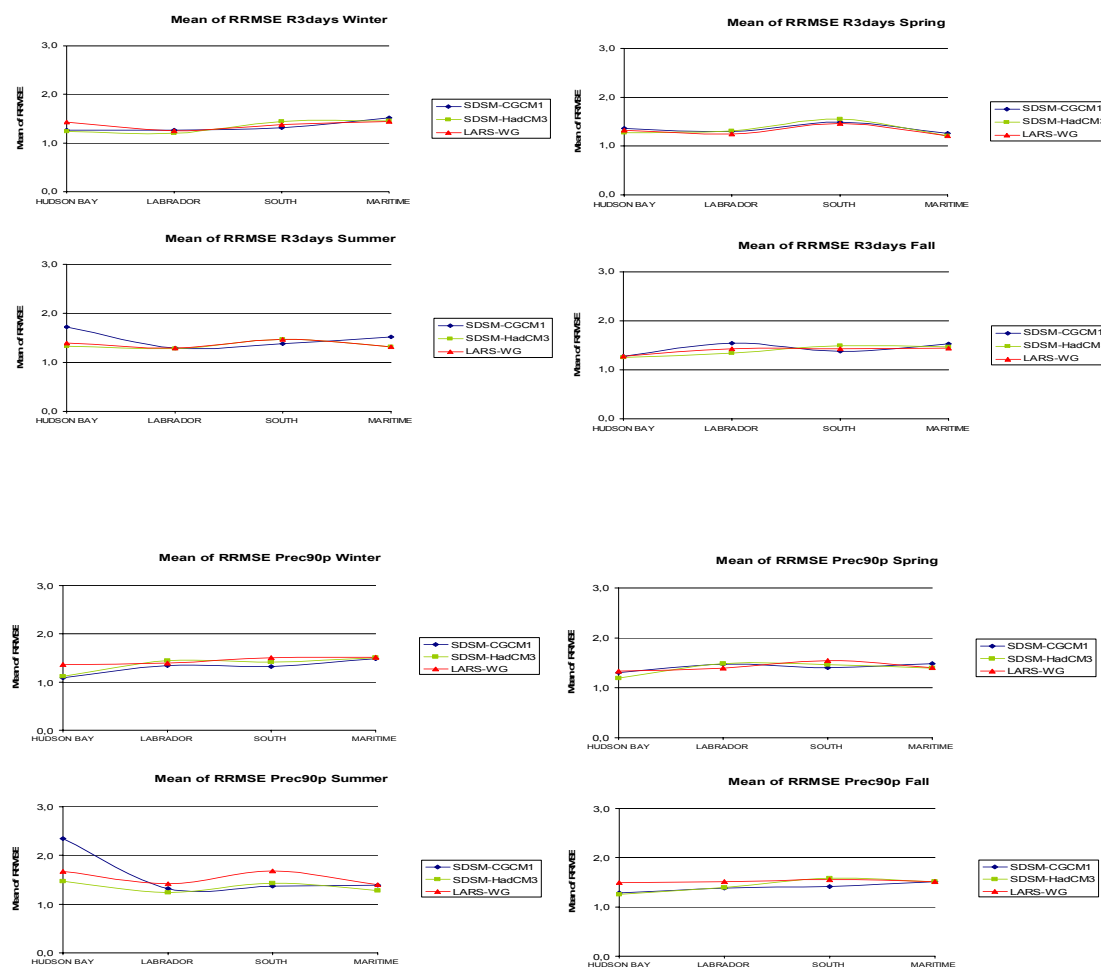


Figure F-3: As Figure E-1 but for the seasonal relative RMSE of R3days (upper four panels), and of Prec90p (lower four panels). RMSE of these indices for each station is given in Tables 2.19 and 2.20, respectively.