



Environment
Canada

Environnement
Canada

Canada

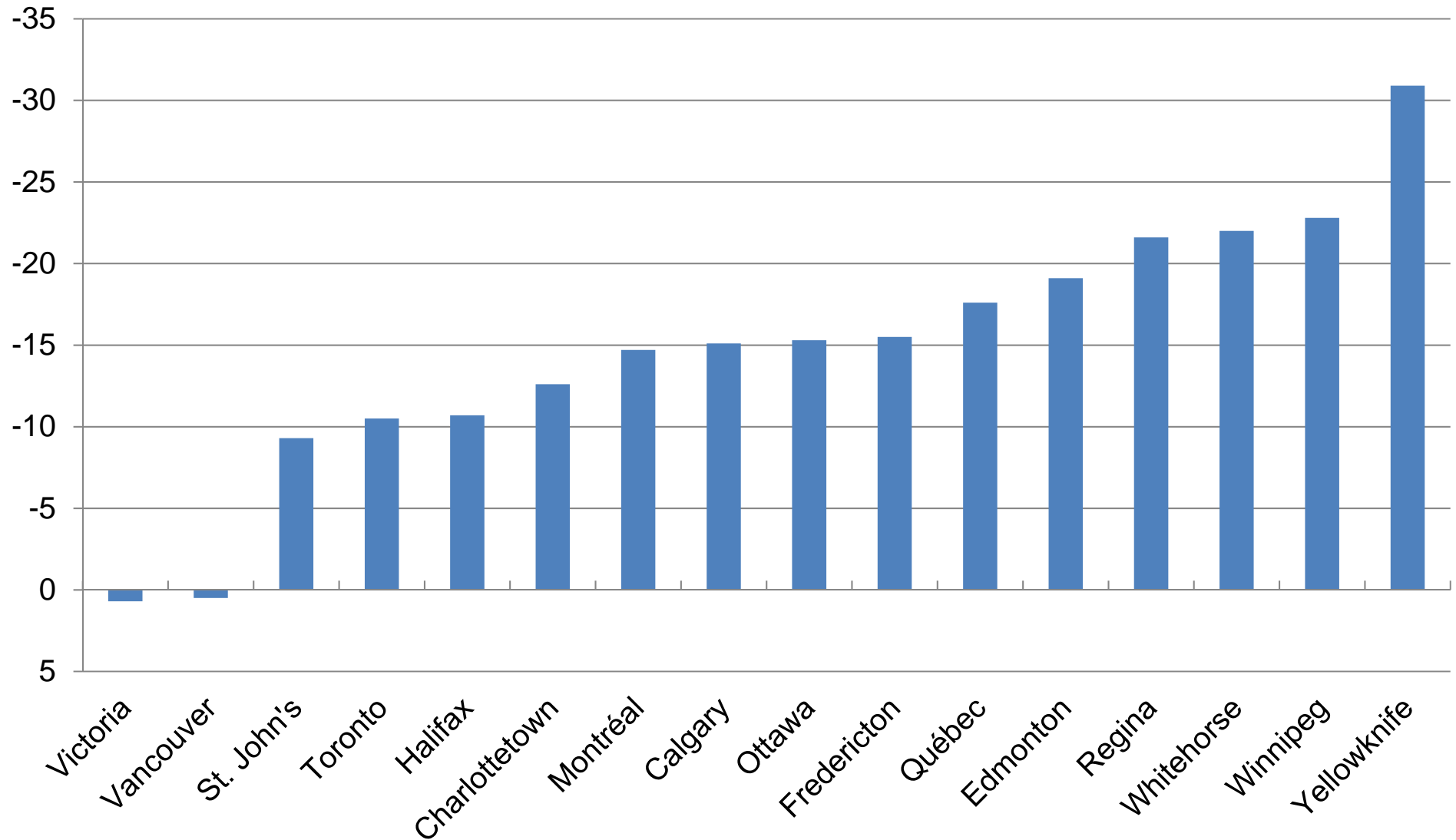


Weather in Saskatchewan

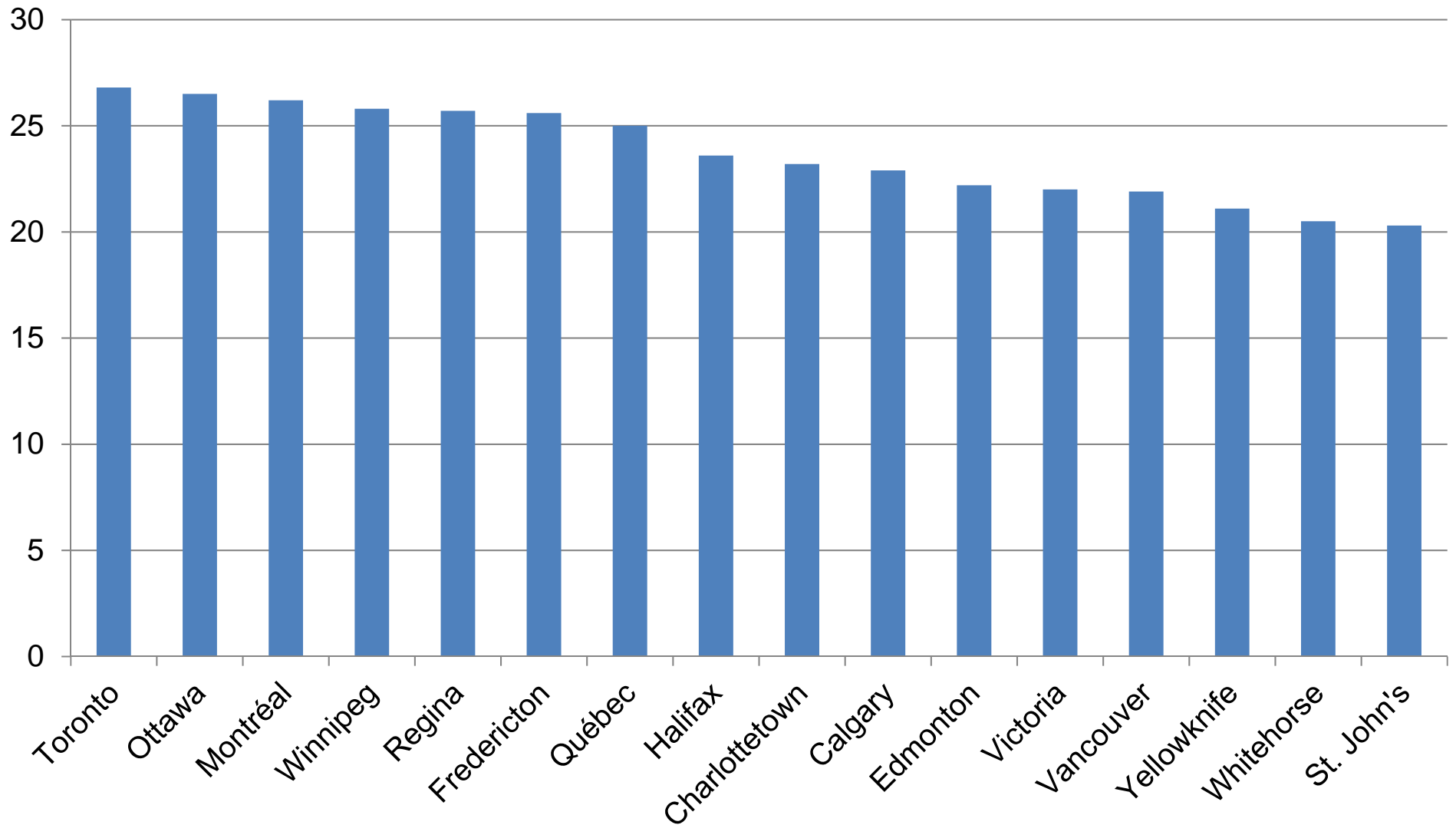
John Paul Cragg
Warning Preparedness Meteorologist
Environment and Climate Change Canada

The Climate of Saskatchewan

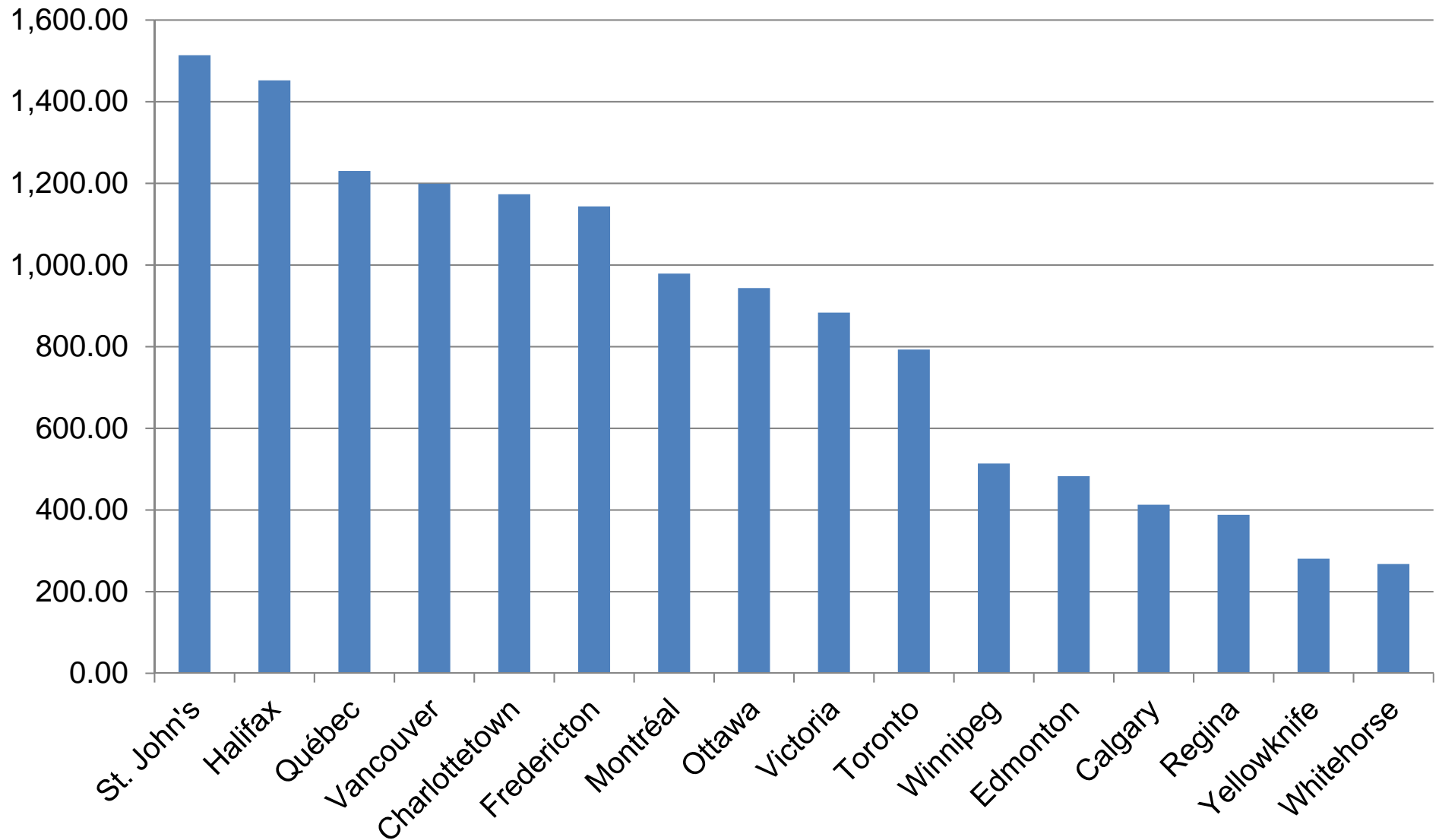
Average January Low Temperature



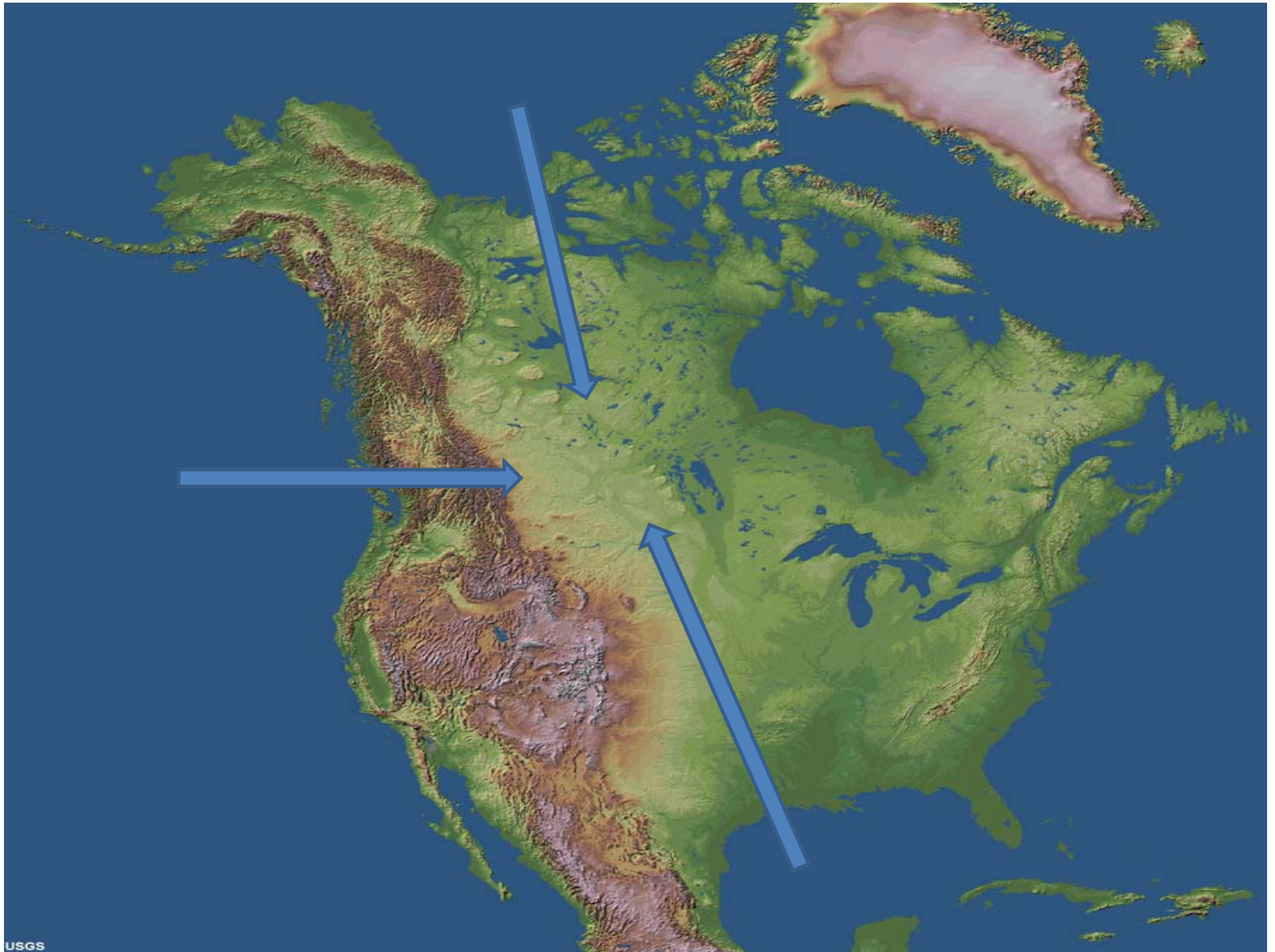
Average July High Temperature

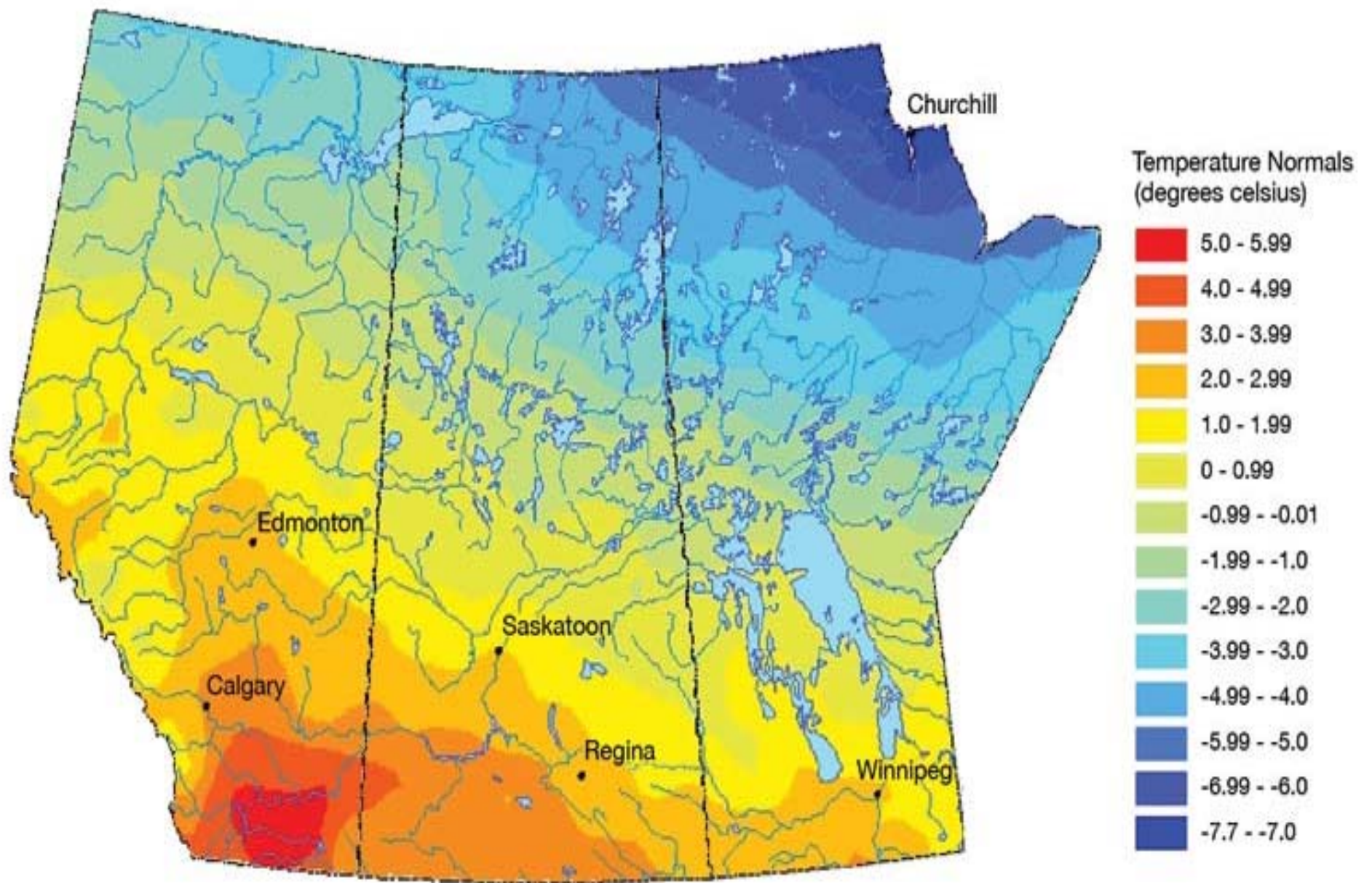


Yearly Precipitation









Saskatchewan Land of Extremes

Saskatoon From Summer extreme highs to Winter extreme lows there is a difference of over 90 degrees C

WindChill in Saskatoon has been below -60

Hottest Day on Record in Canada - July 5, 1937. Midale and Yellowgrass, Saskatchewan 45°C.

Estevan, in the southeast, is known as the “sunniest place in Canada,” with an average of 2,537 hours of bright sunshine each year.

Saskatchewan: most tornadoes of any province and deadliest tornado Regina 1912

Blizzard of 1947, One of the worst in Canadian history



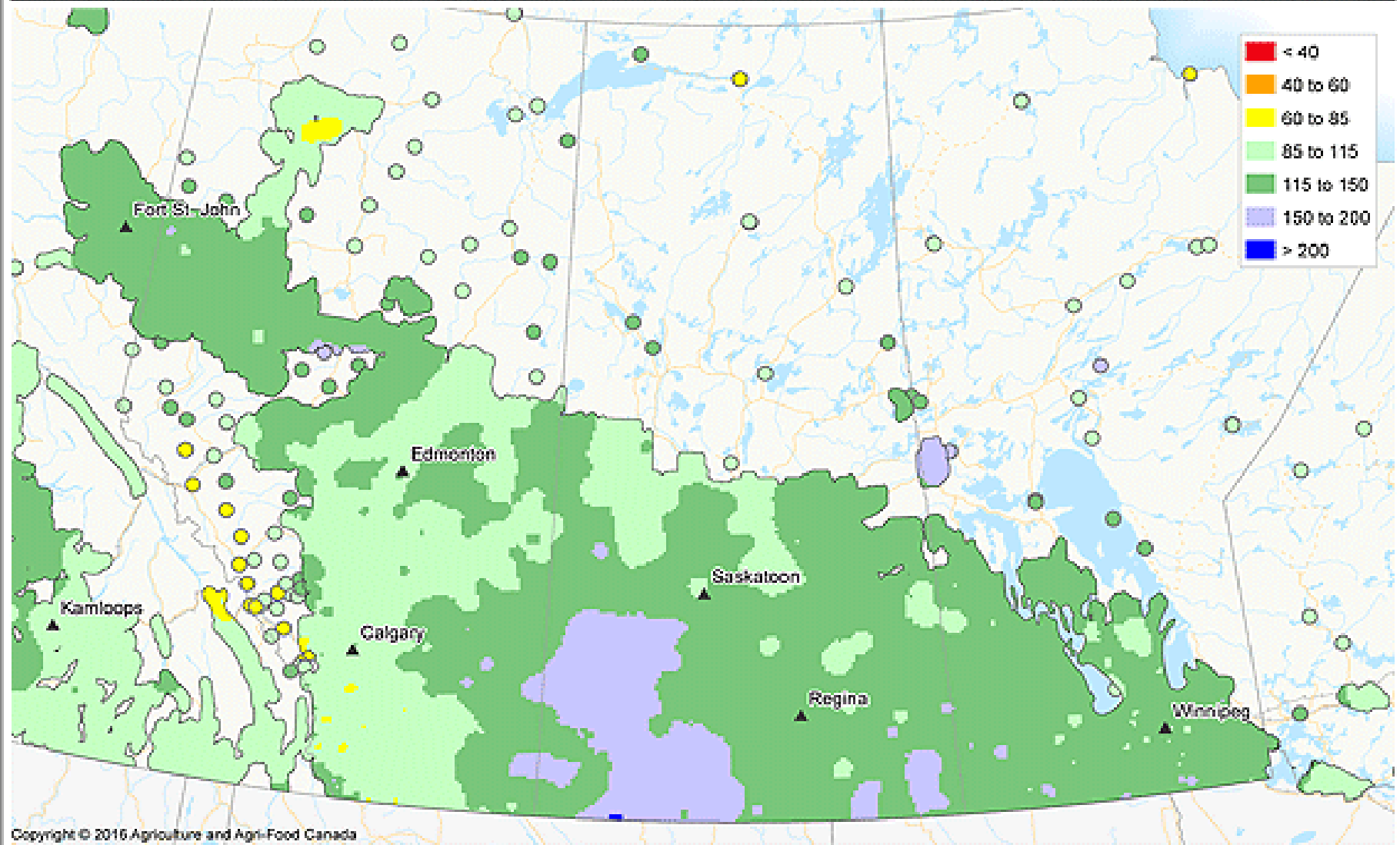
Agriculture and
Agri-Food Canada

Agriculture of
Agroalimentaire Canada

Canada

365 Day Percent of Average Precipitation

January 2, 2016 to December 31, 2016



Prepared by Agriculture and Agri-Food Canada's Science and Technology Branch. Data provided through partnership with Environment Canada, Natural Resources Canada, Provincial and private agencies.
Produced using near real-time data that has undergone some quality control. The accuracy of this map varies due to data availability and potential data errors.

Created: 2017-01-11
www.agr.gc.ca/drought



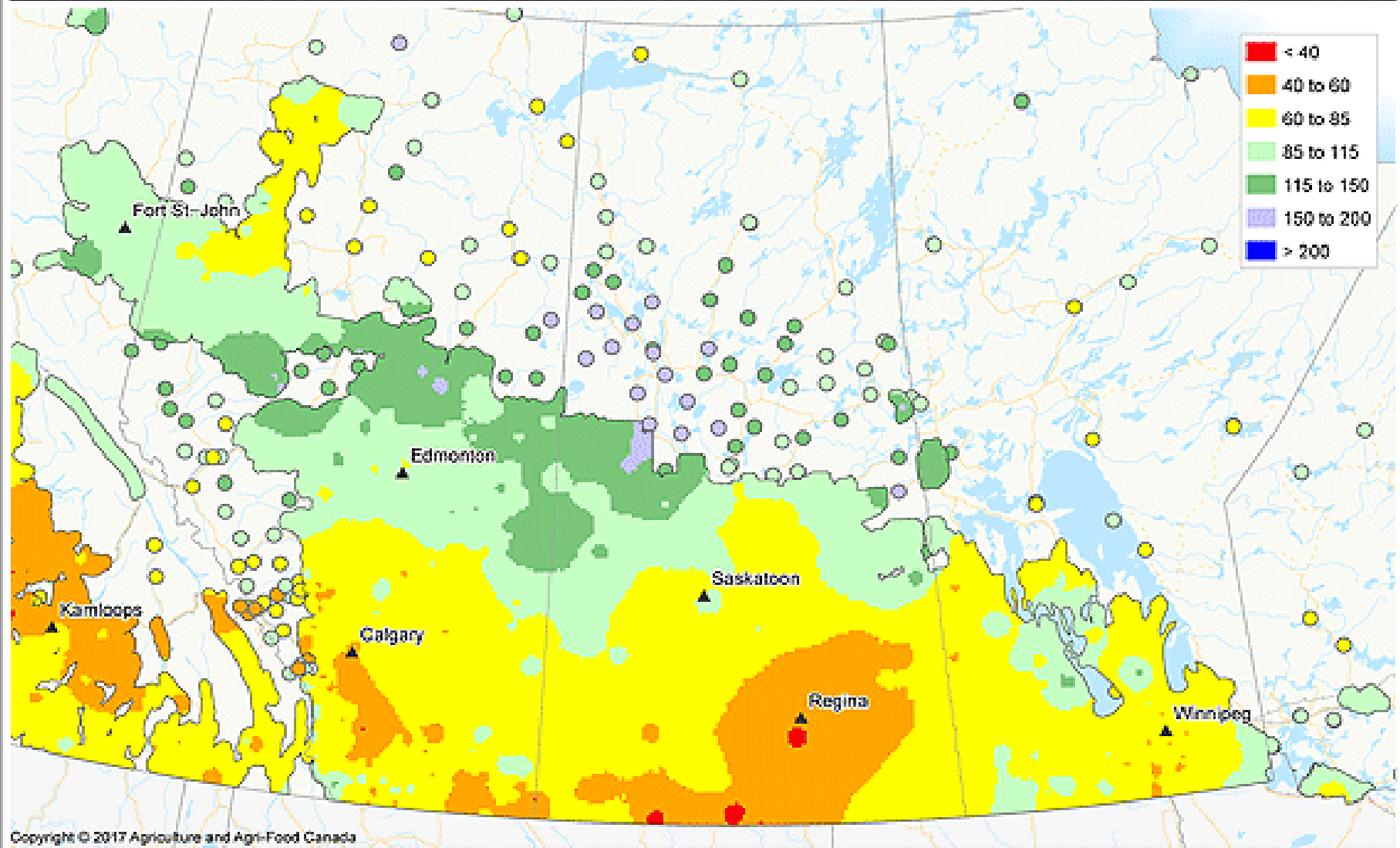
Agriculture and
Agri-Food Canada

Agriculture et
Agroalimentaire Canada

Canada

Percent of Average Precipitation

in past 180 days, as of October 23, 2017



Prepared by Agriculture and Agri-Food Canada's Science and Technology Branch. Data provided through partnership with Environment Canada, Natural Resources Canada, Provincial and private agencies.
Produced using near real-time data that has undergone some quality control. The accuracy of this map varies due to data availability and potential data errors.

Created: 2017-10-24
www.agr.gc.ca/drought

Top 10 driest November to September periods on record

Regina Climate station
126 years of records

2017	125.4
1885	136.7
1894	146.0
1961	177.2
1893	179.5
1937	194.0
1917	208.9
1929	211.5
1897	221.7
1984	225.3

Swift Current Climate station
in 126 years of records

2017	133.4
1937	178.6
2001	184.7
1914	207.7
1973	222.0
1971	243.3
1889	244.5
1961	246.7
1985	249.1
2007	254.0

Yorkton Climate station
in 76 years of records

1961	225.8
2017	244.1
1960	264.7
2001	267.6
1979	273.1
1967	278.2
1958	280
1972	289.7
2015	302.4
2003	315.2

Regina crews working to fix 40 water main breaks reported this month

City crews have been repairing an average of 7 to 10 water main breaks a day in September

CBC News Posted: Sep 08, 2017 12:21 PM CT | Last Updated: Sep 08, 2017 12:21 PM CT



ADVERTISEMENT

Since the start of September, the city has received reports of 40 new water main breaks as a result of ground shifting caused by the persistent hot, dry weather, according to a news release issued Friday.

More than 100 breaks were reported in August and 28 were reported in July — much higher than the monthly averages.

Dry ground pulls power boxes from homes in Regina, causes six fires

By Staff The Canadian Press

Comments

Facebook

Twitter

Email

Print

...



WEATHER



Weather Broken Cloud:

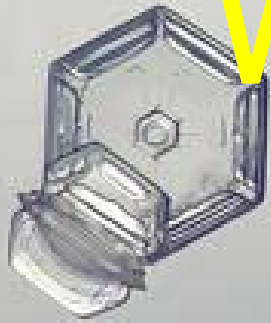
Traffic Travel times &

ADVERTISEMENT

[Advertisement](#)

Saskatchewan's power company says six power meters have caught fire in Regina in the last two weeks after the units pulled away from homes because of ground-shifting.

SaskPower spokesman Jonathan Tremblay says the ground is pulling away from homes because of extreme dry weather.



Winter weather hazards

Winter weather claims approximately 100 lives annually in Canada.

This is the largest number of fatalities caused by weather.

The best strategy ...Be aware of what can happen and prepare for the worst that winter can bring .

Special Weather Statements and Warnings

Snowfall warning

**10 cm or more of snow falls
within 12 hours or less.**

WINDCHILL	FROSTBITE RISK	TIME TO FREEZE	WHAT TO DO
-10 to -27	LOW	Not likely	Dress warmly, frostbite risk by -27
-28 to -39	MODERATE	10 – 30 minutes	Dress in layers, protect exposed skin
-40 to -47 WARNING LEVEL	HIGH	5 – 10 minutes	Cover all exposed skin, keep active
-48 to -54	EXTREME	2 – 5 minutes	Severely limit or cancel outdoor activity
-55 or lower	DANGER	<2 minutes	Stay indoors

Location	Date	WC	Wind	Temp
Edmonton	15 Dec 1964	-57.4	55 km/h	-35.6 C
Calgary	15 Dec 1964	-55.1	55 km/h	-33.9 C
Regina	17 Jan 1962	-59.2	39 km/h	-38.9 C
Saskatoon	15 Jan 1954	-59.2	32 km/h	-40.0 C
Winnipeg	9 Jan 1982	-53.5	56 km/h	-32.7 C

Frostbite

- A more severe condition, where both the skin and the underlying tissue (fat, muscle, bone) are frozen.
- Skin appears white and waxy and is hard to the touch.
- No sensation - the area is numb.

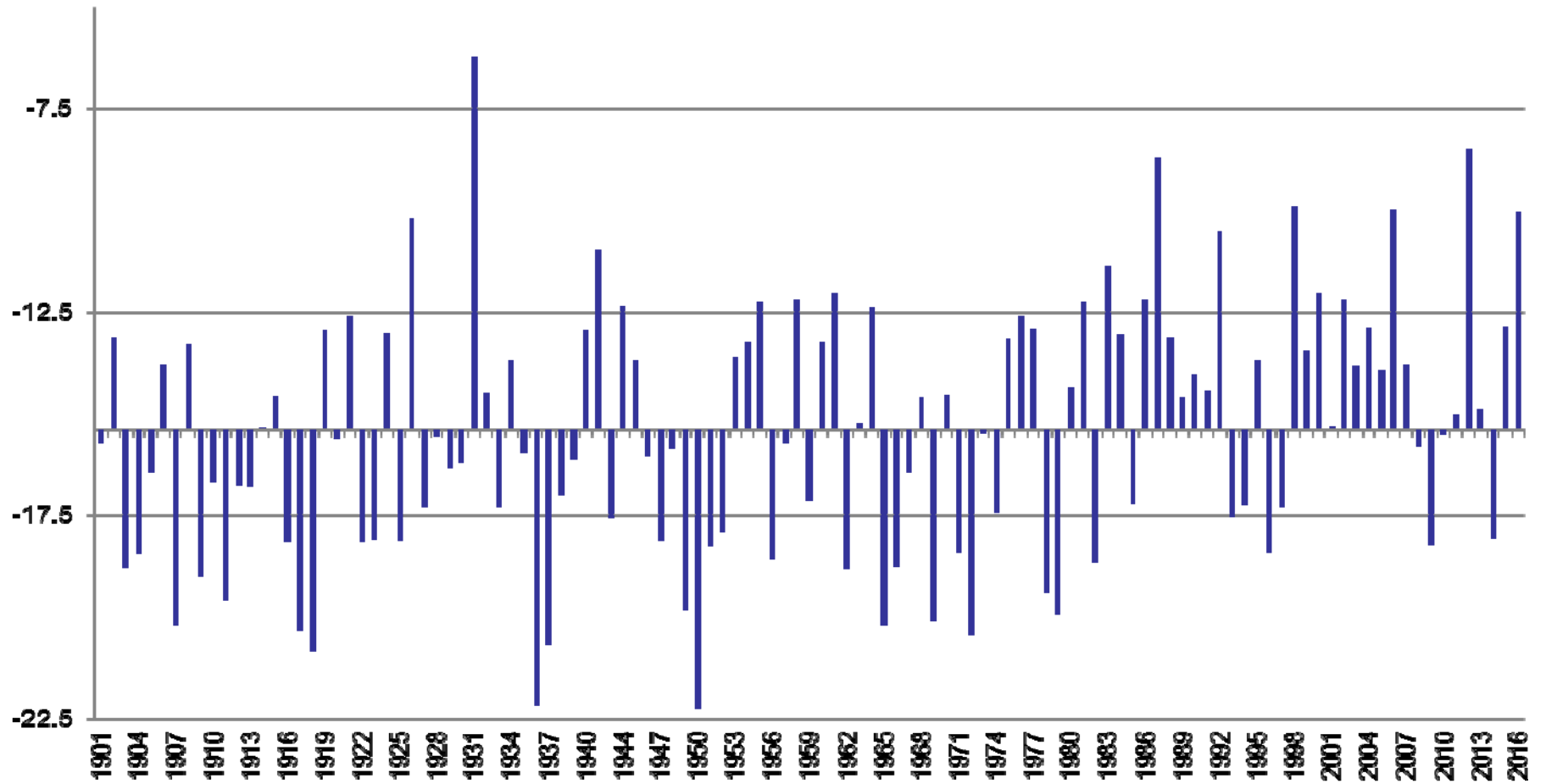
What to do

- Frostbite can be serious, and can result in amputation. Get medical help!
- Do not rub or massage the area.
- Do not warm the area until you can ensure it will stay warm.
- Warm the area gradually - use body heat, or warm water (40 to 42°C). Avoid direct heat which can burn the skin.

Extreme cold warning

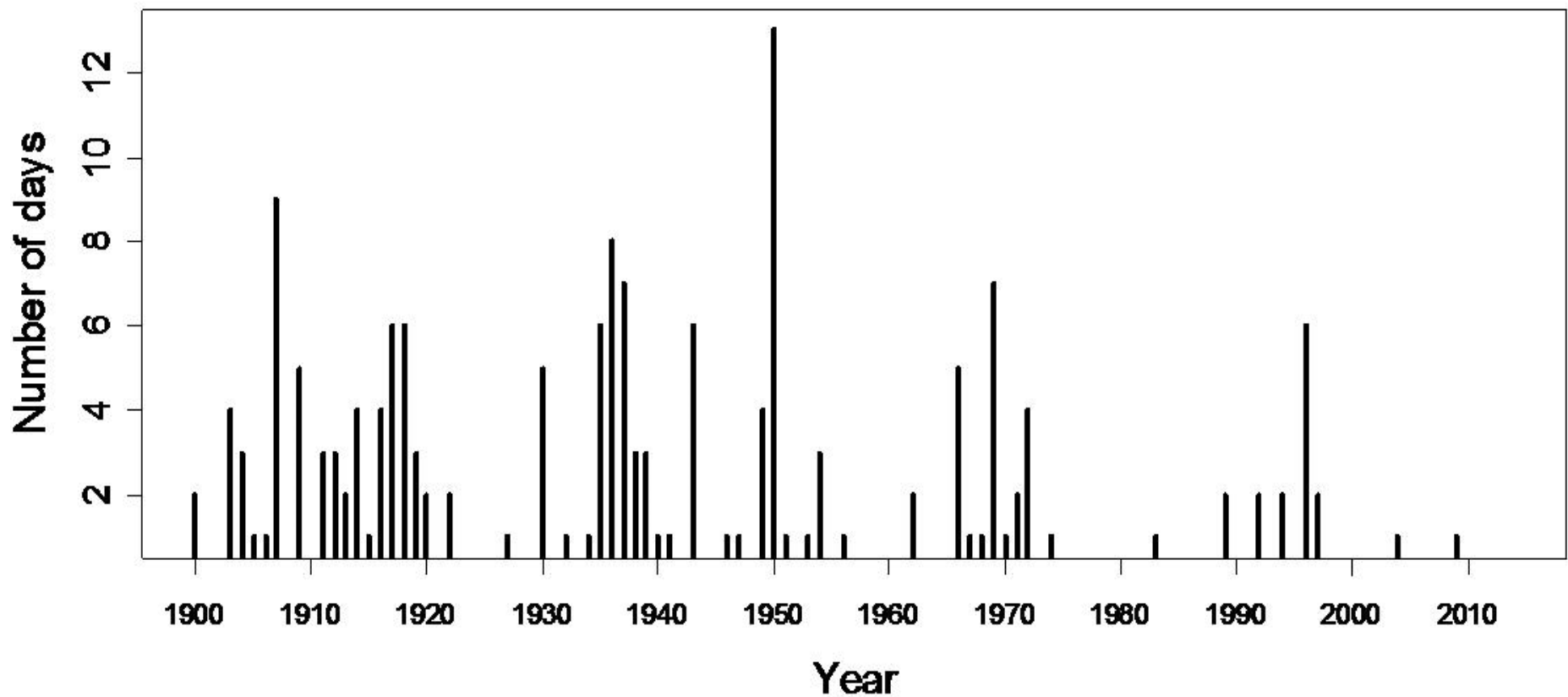
Temperature or wind chill is expected to reach minus 40°C for at least two hours.

Winter temperatures Saskatoon





Minimum daily temperature below -40 in Saskatoon



How Freezing rain forms

ICE

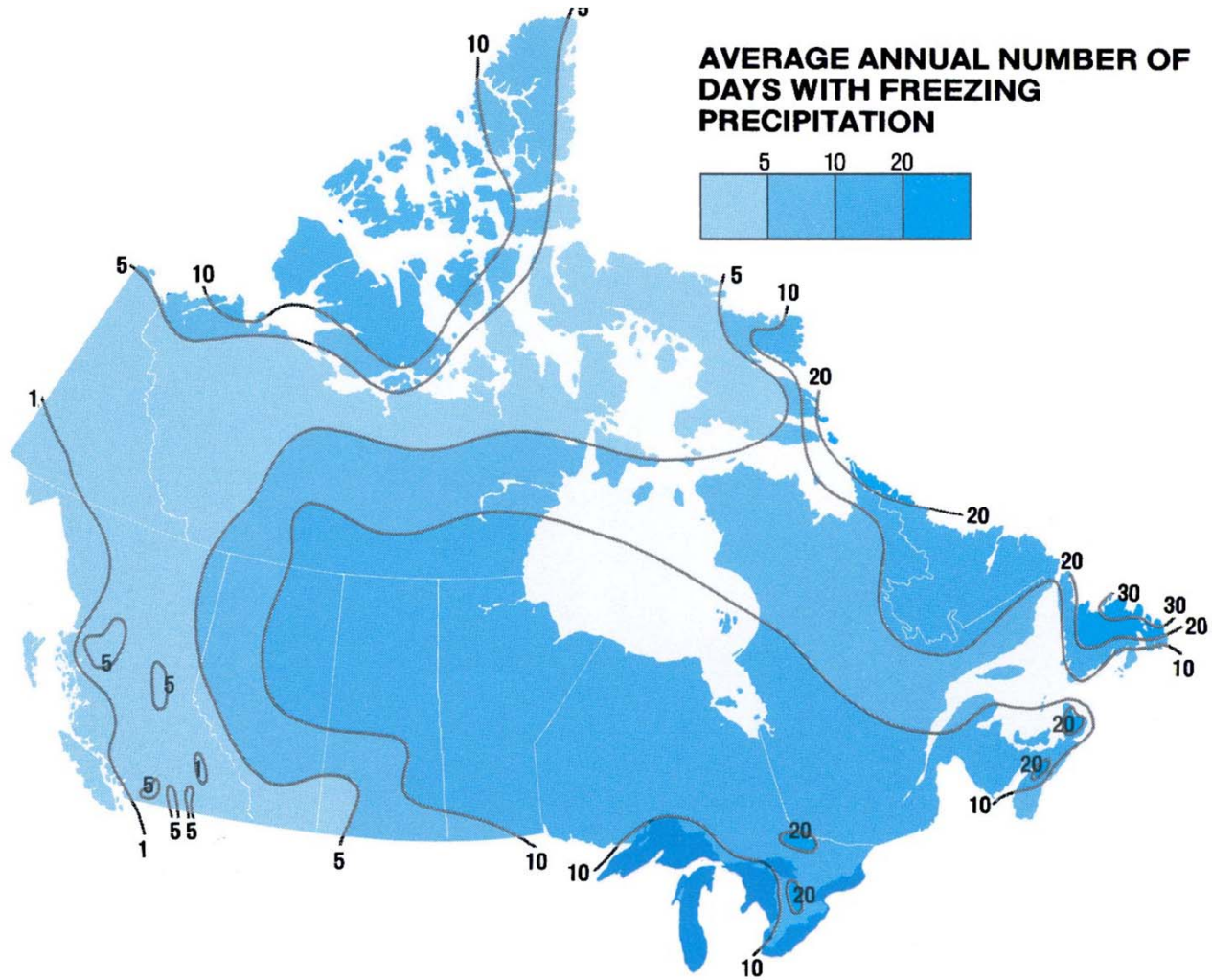
Heavy accumulations of ice can bring down trees and topple utility poles and communication towers. Ice can disrupt communications and power for days while utility companies repair extensive damage. Even small accumulations of ice can be extremely dangerous to motorists and pedestrians. Bridges and overpasses are particularly dangerous because they freeze before other surfaces.



AVERAGE ANNUAL NUMBER OF DAYS WITH FREEZING PRECIPITATION

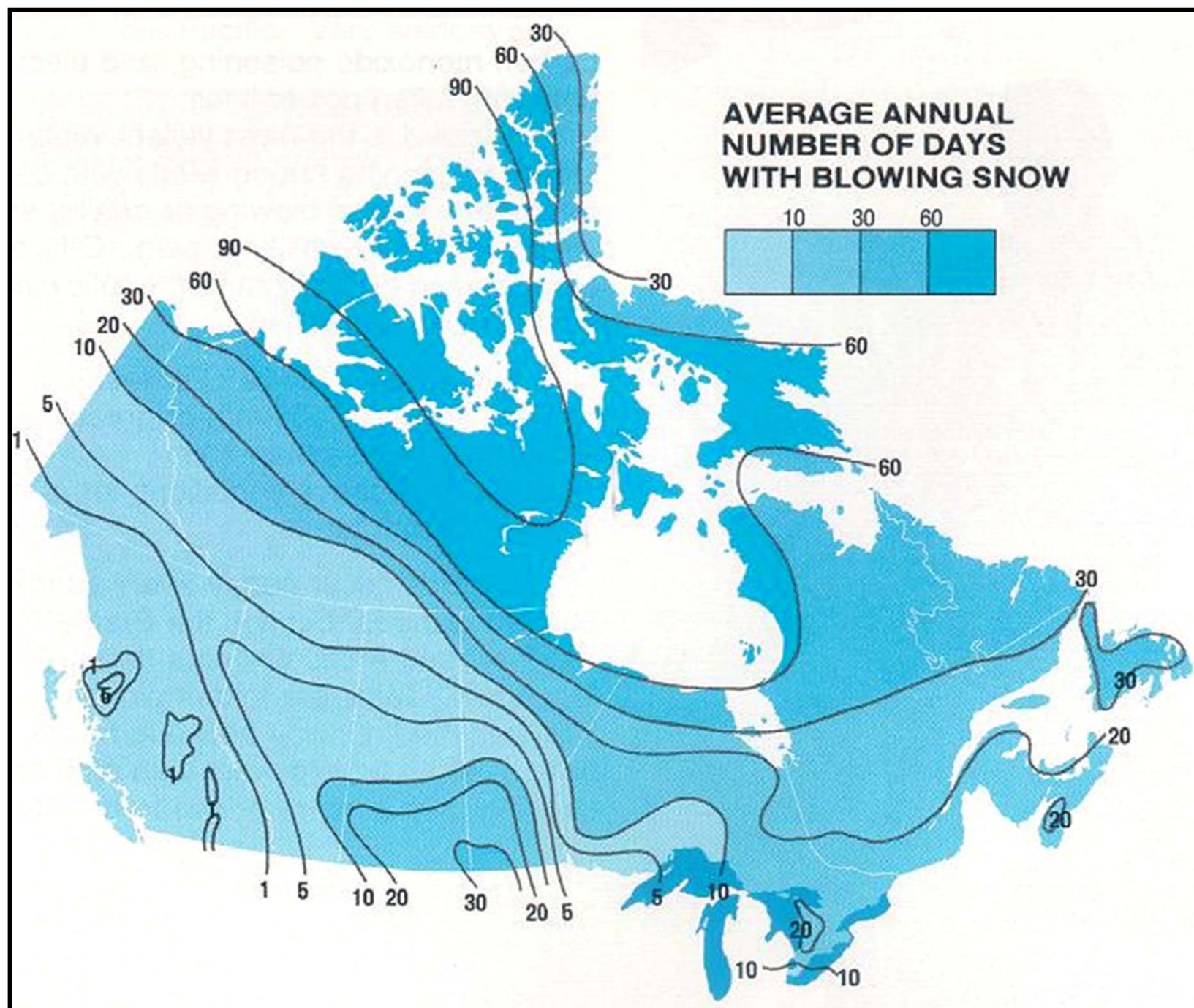
5 10 20

1 5 10 20 30



Freezing rain warning

When freezing rain is expected to pose a hazard to transportation or property

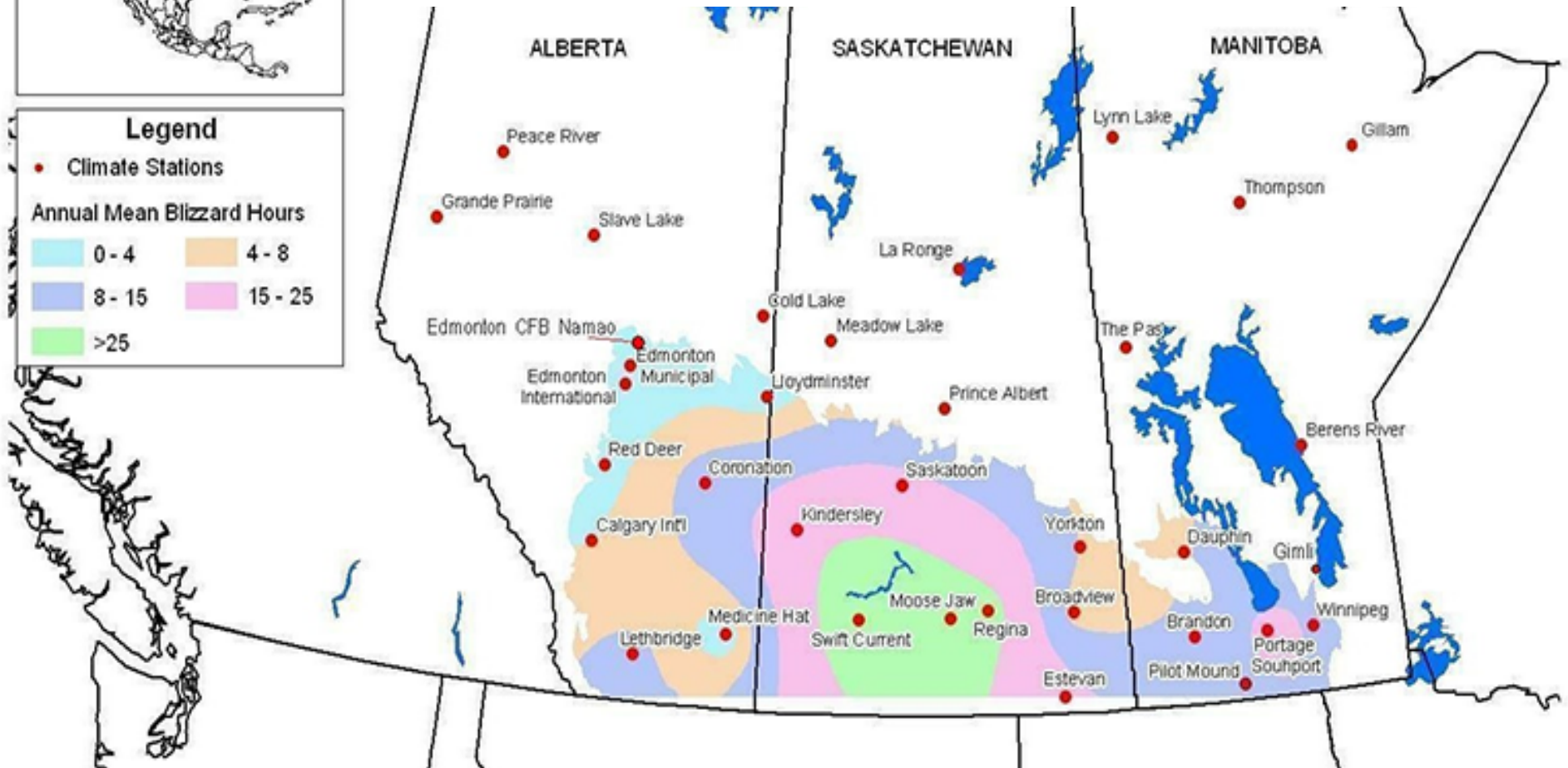
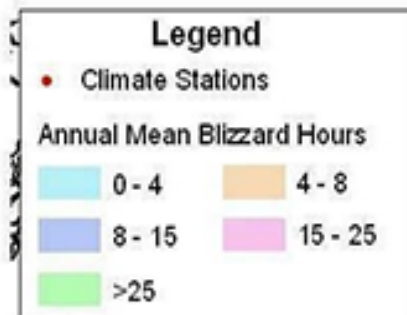


Blizzards



Blizzard Criteria

- Wind speed ≥ 40 km/h
- Visibilities in S/BS $\leq \frac{1}{4}$ mile (400 m)
- 4 or more hours duration



March 20-22, 2013





Feb. 1947.

Blizzard warning

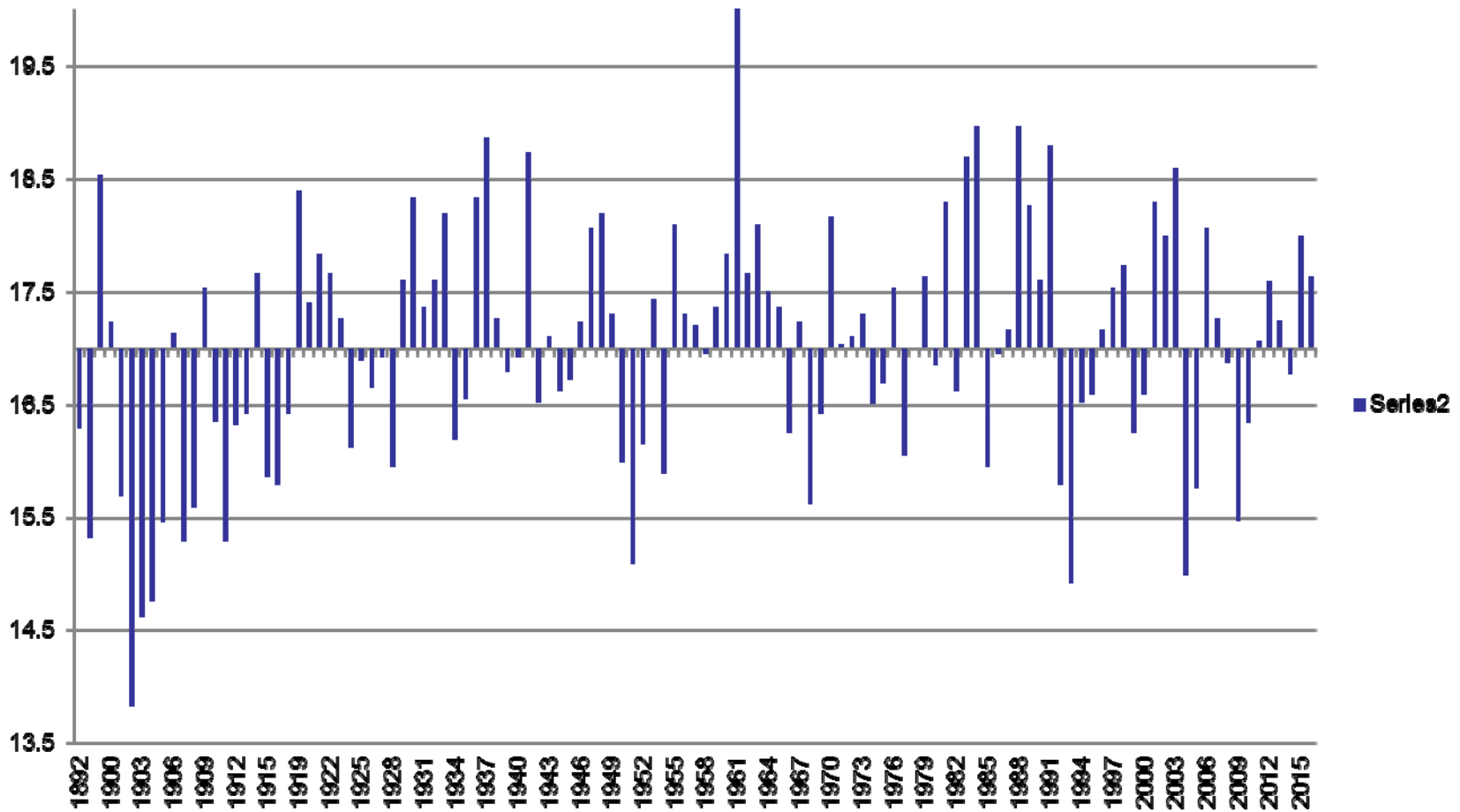
less than 400 visibility, winds 40km/h or more
for at least 4 hours

Blowing snow warning

less than 800 visibility, winds 30km/h or more
for at least 3 hours

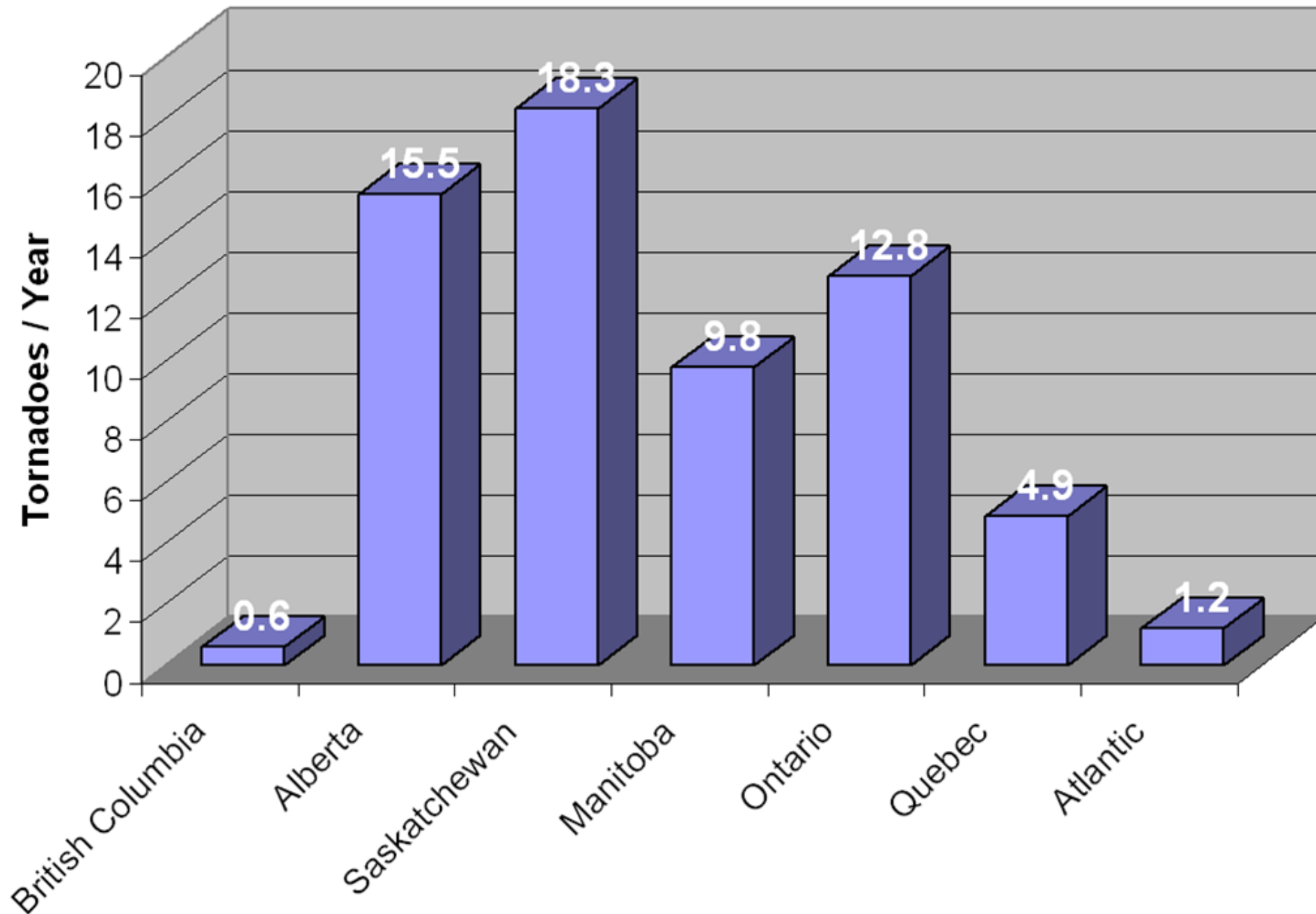
Summer Severe Weather

Summer Temperatures Saskatoon

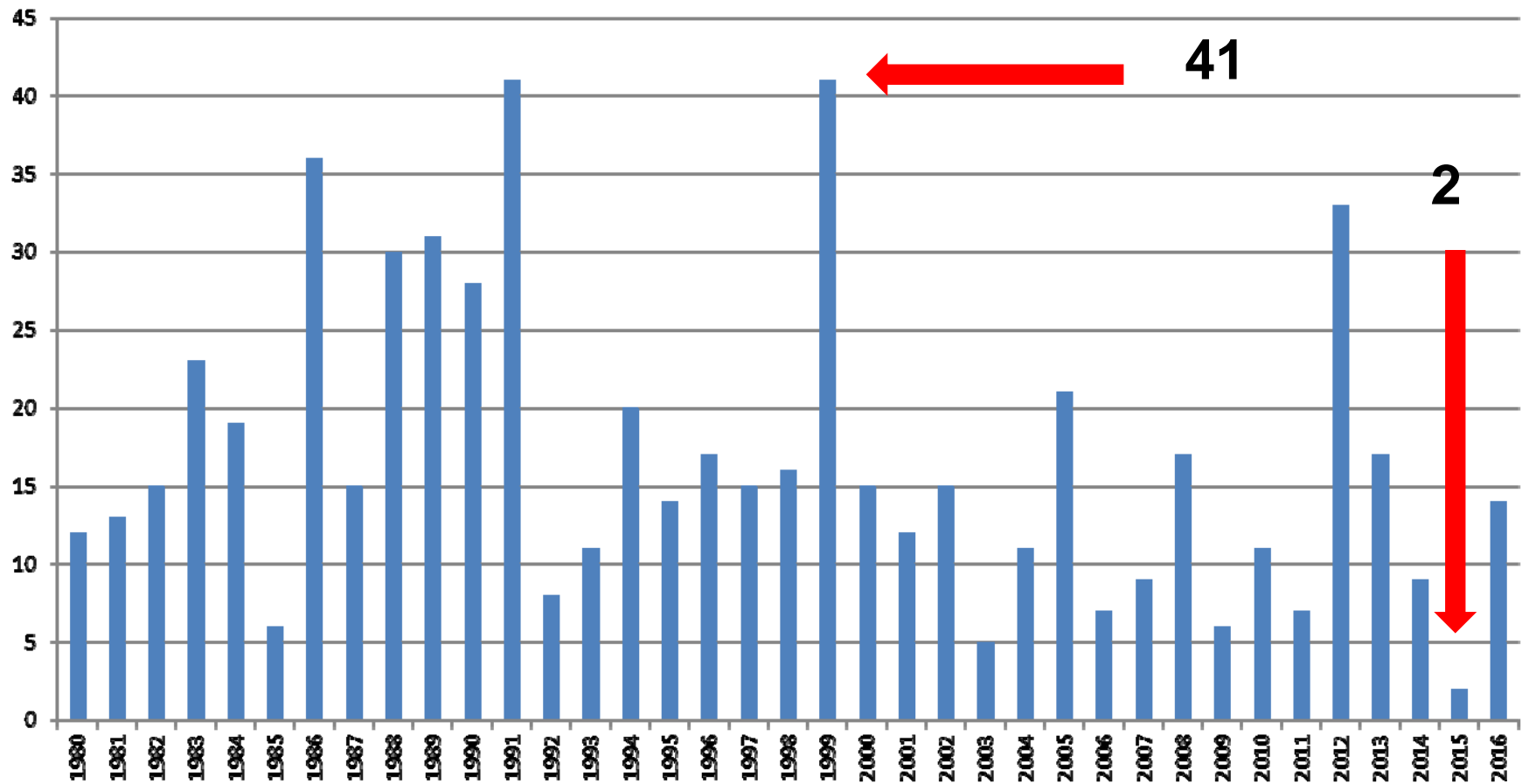


	Tornadoes	Hail	Wind	Rain	Total
2016	46	368	108	40	562
2015	17	216	55	22	310
1986-2015 Avg	34	128	51	26	239

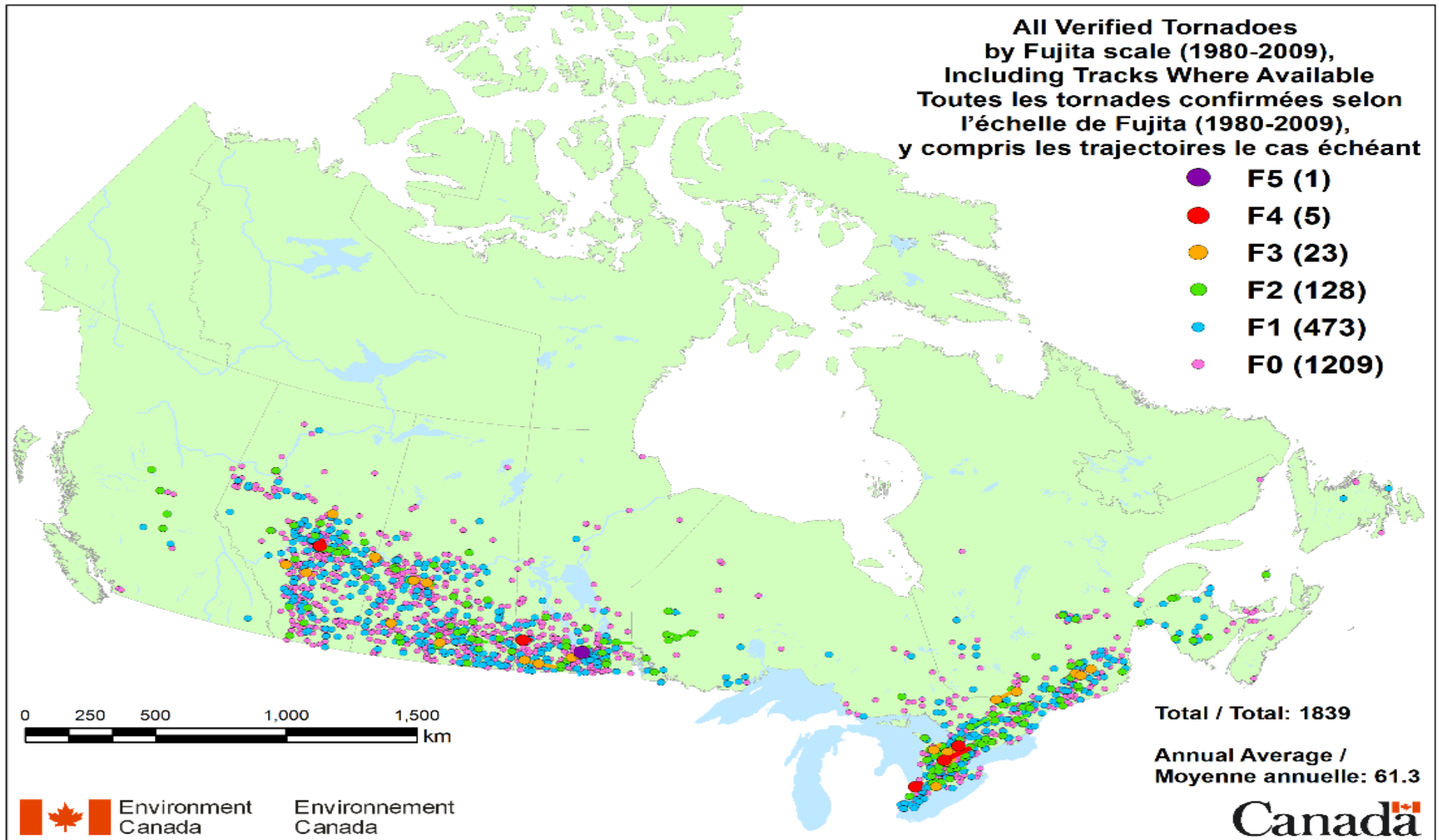
30-yr Average Annual Tornado Incidence (1980-2009)



SK Tornadoes by year 1980-2016



Canada's Tornadoes 1980-2009



Special Weather Statements
Watches
Warnings
And Knowing What To Do

Severe Thunderstorm

one or more of the following three weather conditions is imminent or occurring:

- **Wind gusts of 90 km/h or greater, which could cause structural wind damage**
- **Hail of two centimeters (cm) or larger in diameter**
- **Heavy rainfall 50mm or more in 1 hour**

Weather Watch

WATCH - Yellow Alert

Usually issued by early afternoon

Stay alert and watch for updated forecasts/warnings

Summer (Thunderstorm and Tornadoes)

- target lead time Tornado watch: 3 hours
- target lead time for Thunderstorm watch: 3 to 6 hours

Winter (Winter Storms)

- target lead time 12 to 48 hours

Weather Warning

WARNING – Red Alert

Severe weather is occurring or imminent

Take immediate action!

Summer (Thunderstorm and Tornadoes)

- Target lead time Tornado warning: 10-20 minutes
- target lead time for a Severe Thunderstorm warning: 30 minutes

Other Weather Warnings (Blizzard, Snowfall, Rainfall, Wind, etc)

- target lead time 12 hours

Tornado warning

When a tornado has been reported or when there is evidence based on radar, or from a reliable spotter that a tornado is imminent.

Tornado/Downburst Safety

**Most injuries from tornadoes are caused by flying debris.
Take cover inside a solid building**

- In a basement - under a strong table or under the stairs
- On the lowest floor - in an interior room without windows
- Under a substantial piece of furniture away from windows
- Protect your head with cushions or a mattress

**If outside, find a low area such as a ditch and lay down,
protect your head**

**Even if you only deal with indoor events – you need to
know how to react.**

- E.g. don't seek shelter in the school gym or in the middle of an arena. Large roofs may collapse – hallways or washrooms are better

A Vehicle is not the safest Place to be!



(Photo Courtesy Dan Fulton EC)



Accession N

130

16E

Monog

Force

cl.

USE

ma P

na Cit

mission

line

right

lakom

U.S. GOVERNMENT PRINTING OFFICE

Avoid Building with Large Roof Spans (Auditoriums)





Damaging winds up to 131 km/h tore through Sask. overnight

Gusts were on par with the sustained winds of a Category 1 hurricane in Moose Jaw and Regina

By Christy Climenhaga, [CBC News](#) | Posted: Oct 18, 2017 8:24 AM CT | Last Updated: Oct 18, 2017 11:02 AM CT



Winds gusted to 119 km/h Tuesday night in Regina, causing trees to split. (Stephanie Taylor/CBC)

Damaging winds up to 131 km/h tore through Sask. overnight

Gusts were on par with the sustained winds of a Category 1 hurricane in Moose Jaw and Regina

By Christy Climenhaga, [CBC News](#) | Posted: Oct 18, 2017 8:24 AM CT | Last Updated: Oct 18, 2017 11:02 AM CT



Wildfire forces evacuation of southwestern Saskatchewan communities

Evacuation orders have been issued for towns of Leader, Burstall and Liebenthal

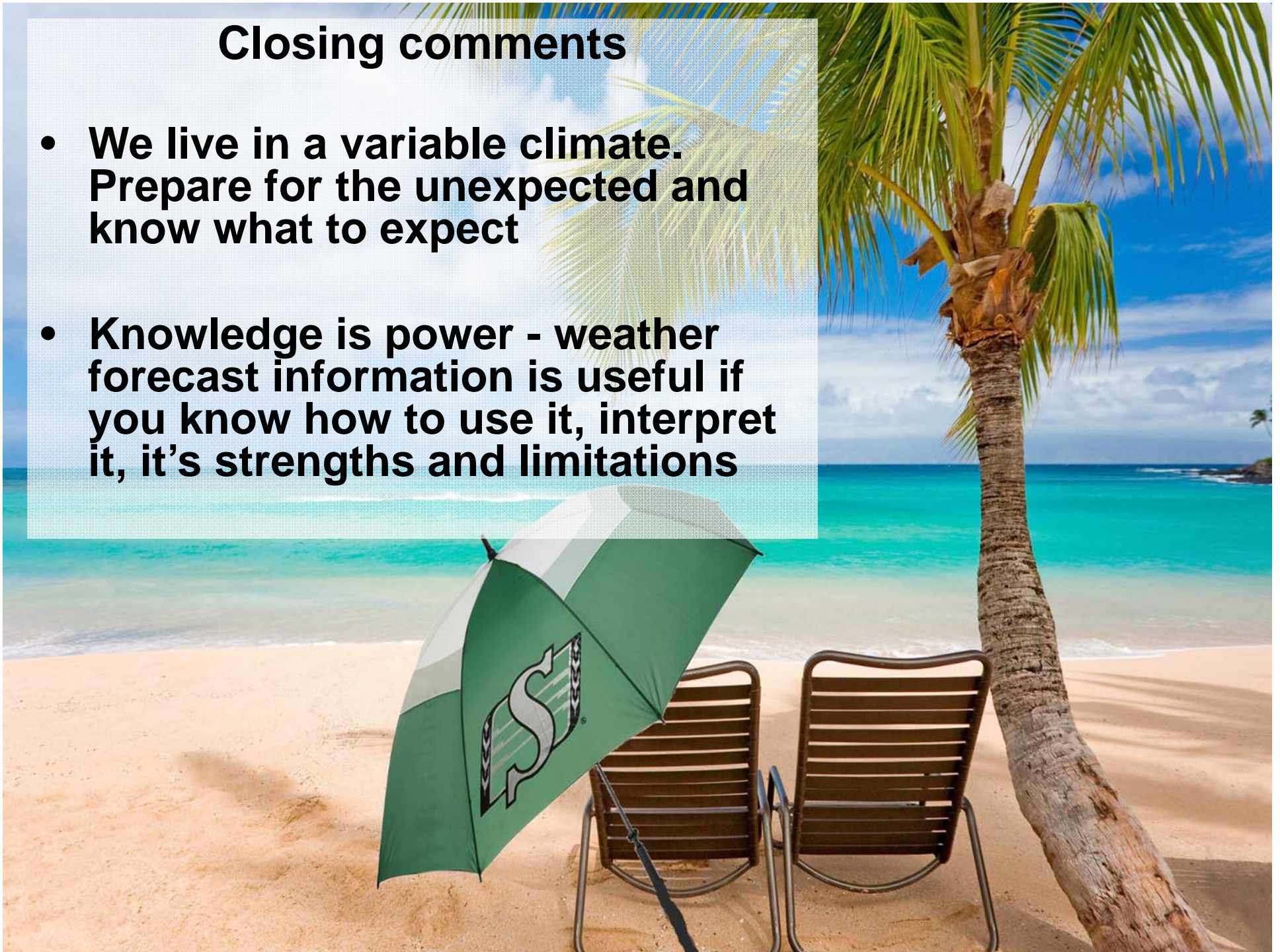
[CBC News](#) | Posted: Oct 17, 2017 3:19 PM CT | Last Updated: Oct 17, 2017 11:02 PM CT



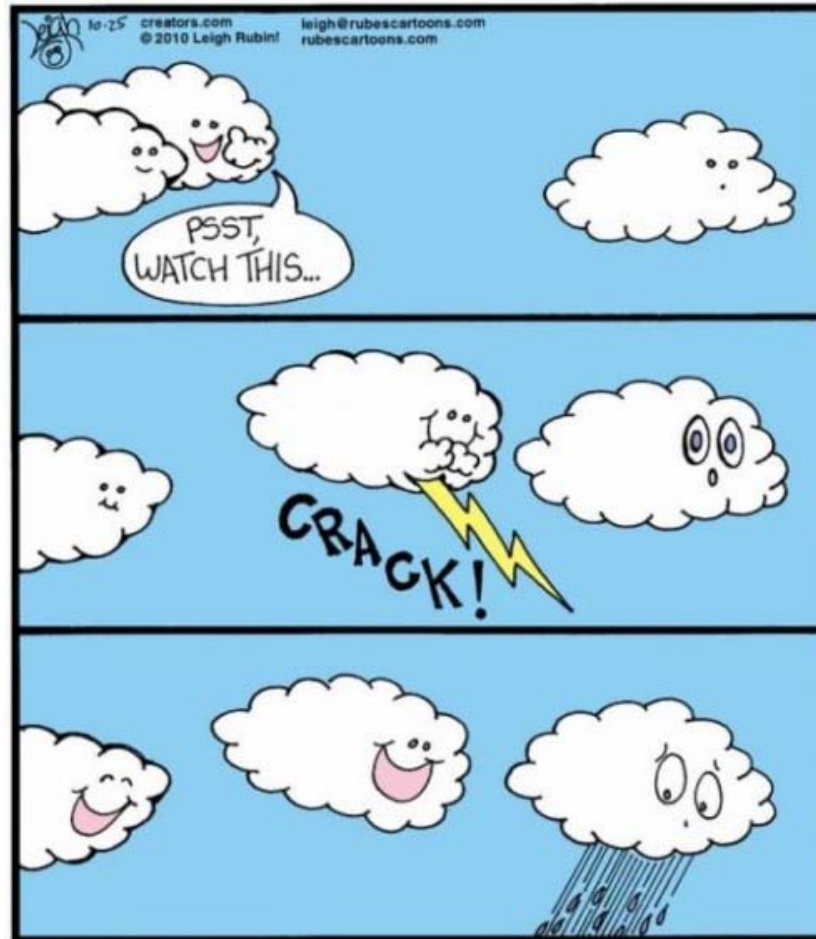
The town of Burstall, Sask., was evacuated Tuesday afternoon. (Submitted by Jackie Penny)

Closing comments

- **We live in a variable climate. Prepare for the unexpected and know what to expect**
- **Knowledge is power - weather forecast information is useful if you know how to use it, interpret it, it's strengths and limitations**

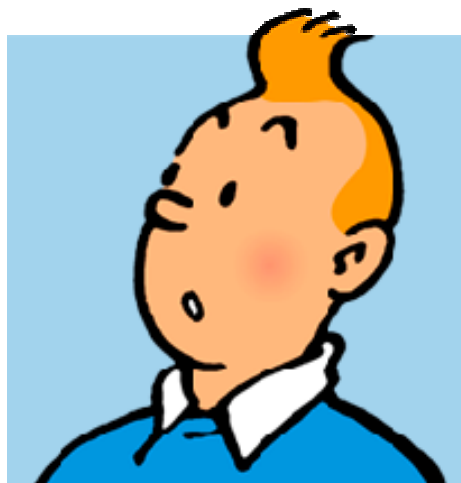


Questions...?





Thank you!



John Paul Cragg
John.Cragg@Canada.ca
306-975-6911