Monthly Review

August 1992

Vol. 14

CLIMATIC HIGHLIGHTS

Cool weather continued across the southern parts of Ontario and Manitoba, as a bracing pool of air covered these regions as well as the eastern half of the United States. Alberta received both hot, sultry summer and winter-like weather all within a few days. Fickle weather to say the least. The month also dispensed numerous severe weather events across the country; not surprising since August is normally the peak of the severe weather season. Near the end of the month, the remnants of hurricane Andrew raced along a frontal zone lying over the southern half of Ontario, drenching some areas with over 100 millimetres of rain in 24 hours.

Severe thunderstorms across the country

Unsettled weather during the first two weeks of the month yielded many severe weather events. During the first week of August, thunderstorms rumbled across the Prairies and produced torrential rains and golf ball size hail. Snow ploughs were mobilized to clear the roads of hail 30 cm deep. Thunderstorms in the Alberta foothills resulted in serious flooding in some sections of Calgary. A teenager was struck by lightning and on the 5th, a tornado touched down at Lamond, north of Lethbridge. Manitoba and Saskatchewan also experienced heavy downpours, large hail and winds gusting to in excess of 100 km/h.

In Ontario, a hailstorm on August 4, passing through the Niagara Peninsula, destroyed about 25 percent of the peach crop, while a late afternoon downburst in Quebec produced winds of 150 km/h. A six kilometre path between Martinville and Sainte-Edwidge-de-Clifton, 25 km southeast of Sherbrooke, was carved up by the winds. Later that evening, heavy rains caused flash floods in the Beauce region, 90 km south of Quebec City, resulting in \$10 million worth of damage. On the 8th, small twisters were reported near Chatham and Markham, Ont.

During the middle of the first week of the month, a slow moving low pressure system drenched Newfoundland and Labrador. Burgeo received 76 mm of rain on the 5th, while 50 to 60 mm were reported across central Newfoundland. Heavy rain during the latter half of the first week moved across the southern Yukon. As much as 44 mm fell at Watson Lake. The rains washed out the Alaska Highway near the B.C. border. On August 6, lightning disrupted power to a portion of Yellowknife, NWT.

During the second week, on August 10, severe thunderstorms over Lake Huron and Georgian Bay spawned funnel clouds and tornadoes. Tornadoes latched onto parts of Elora, west of Toronto. Winds as high as 100 km/h were reported in many areas of southern and central Ontario. On the 14th, a heavy thunderstorm, with hail, spawned a funnel cloud over Fort Smith, NWT.

Prairies blow hot and cold

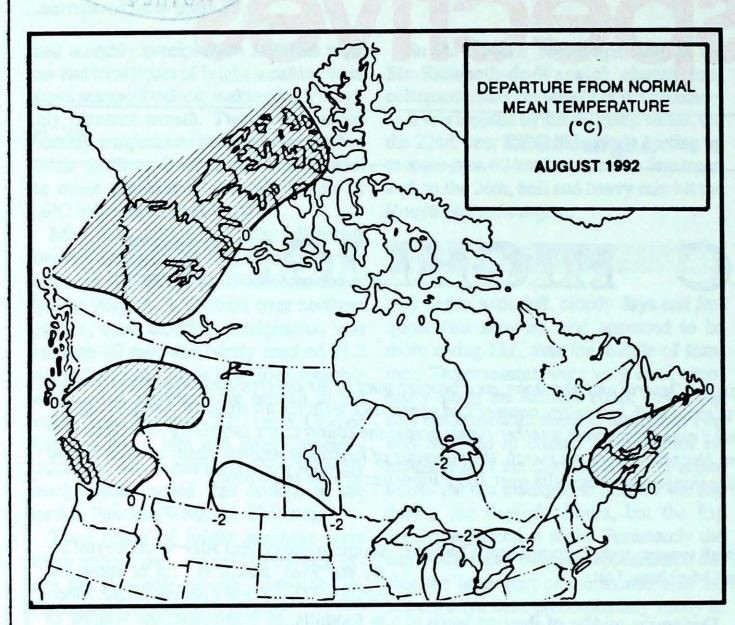
A few days after Alberta seared in thirty degree heat, a cold Arctic air mass gave snow and record-low temperatures to

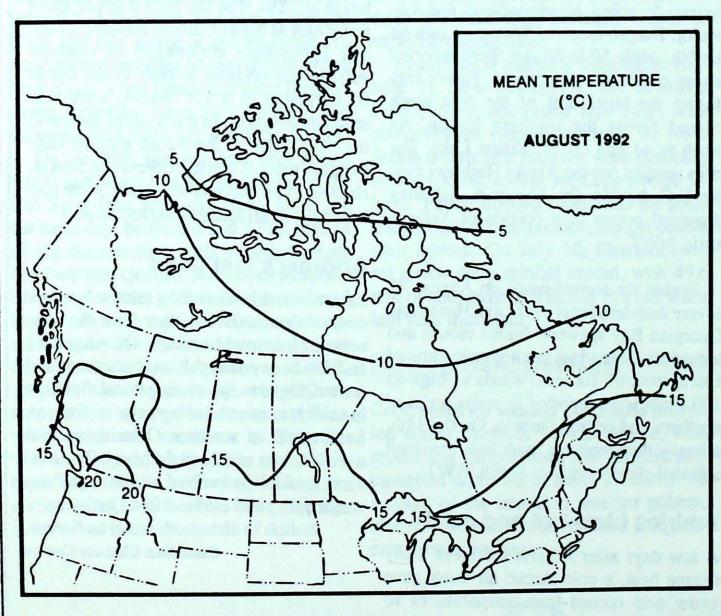
southern and central Alberta on August 21. By the 23rd, almost 60 cm of snow had fallen at Carbondale Lookout, in the Alberta foothills. In Edmonton, the August 21 snowfall was the earliest since records began in 1884. The icy blast dumped snow as far east as Swift Current, Saskatchewan. The agricultural community of southern Alberta was ravaged, as grain crops, due to be harvested in a few weeks, were flattened by the snow. In the wake of the snow, the cold dome of Arctic air toppled temperature records across Alberta and Saskatchewan. New records were set for the earliest frost in all areas of Saskatchewan.

Andrew's last gasp

Eastern Canada received a relatively minor dose of destructive weather from the remnants of hurricane Andrew. On August 27 and 28, heavy rain fell over southern and central Ontario, producing local flooding in several areas, including parts of Toronto. Some areas of southern Ontario received over 100 mm of rain in 24 hours. The heaviest rain fell between London and Petawawa, Ont., and into western Quebec.

> Aaron Gergye, Canadian Climate Centre





Across the country

Yukon and Northwest Territories

August in the Yukon was relatively comfortable. Mild conditions and normal or below normal amounts of precipitation let Yukoners enjoy the waning days of summer.

Although maximum temperatures in the thirties can be quite common in central Yukon during the summer, this year August has failed to produce any. In Whitehorse, the temperature exceeded 30°C only once this summer. This month's hot spot honours go to Mayo and Watson Lake, each recording 27°C during the first week of the month. In contrast, by the latter part of the period nearly every community had recorded a nighttime low below the freezing mark. A territorial low of -6°C was reported at both Burwash and Sheldon Lake, and several new record lows were set at other Yukon locations. Only one new record maximum temperature was established during August, and that was at Old Crow, with a reading of 22.8°C on the 24th, beating the old record of 21.0°C degrees.

The northern Yukon and the central and southern interior received near normal amounts of precipitation. A measurable amount of rain fell on only eight days in Whitehorse, three days less than the normal eleven. This summer's rainfall at Whitehorse also averaged less than normal. Other areas in the Yukon received only 50 to 75 percent of their normal precipitation in August. The greatest amount of precipitation fell at Klondike, where 89.3 mm was collected. Normally Klondike receives 69 mm of precipitation in August.

On Baffin Island, a number of maximum temperatures records were broken early in the month. At the same time, new low temperature records were established in the high Arctic and the Keewatin district. A brief influx of warm air reached the southern District of Mackenzie and southern Baffin Island during the second week of the month, but was replaced by record

etting cold values during the third week of August.

Fresh snow returned to the Arctic Islands, with accumulations of 5.8, 6.0 and 7.0 centimetres at Resolute Bay, Mould Bay and Eureka, respectively.

At Fort Smith, near the Alberta - North West Territories border, a heavy thunderstorm and funnel cloud were reported on August 14. Small craft wind warnings were common for Great Slave Lake during August, with a few additional wind warnings posted for the Mackenzie River. During the middle of the month, gale warnings were frequently issued for the waters in the southern Arctic.

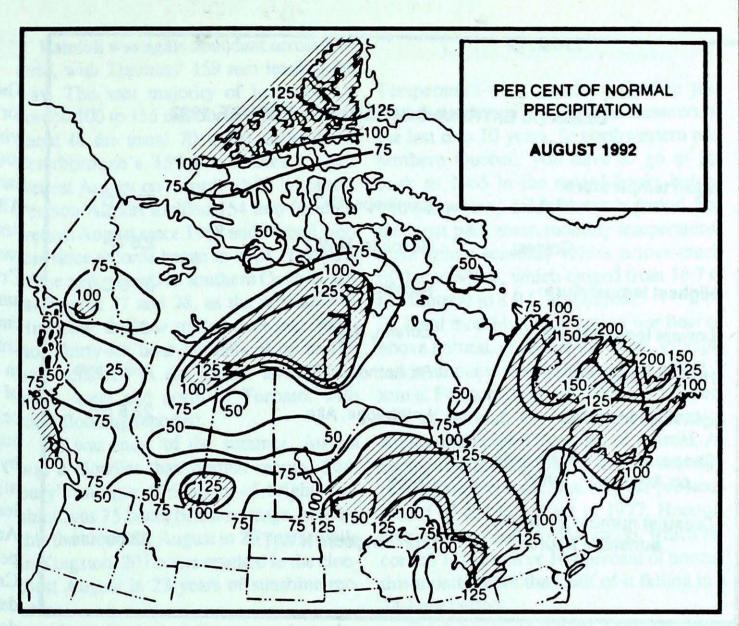
The cool summer caused ice problems for canoeists throughout the District of Keewatin, with some giving up and calling on aircraft to pick them up. Naturalists also noted bears and caribou in areas that they rarely frequent at this time of year. Further north, a hunting party of 25 from Arctic Bay were trapped by ice for one week during the latter part of the month and eventually had to be flown out by helicopters.

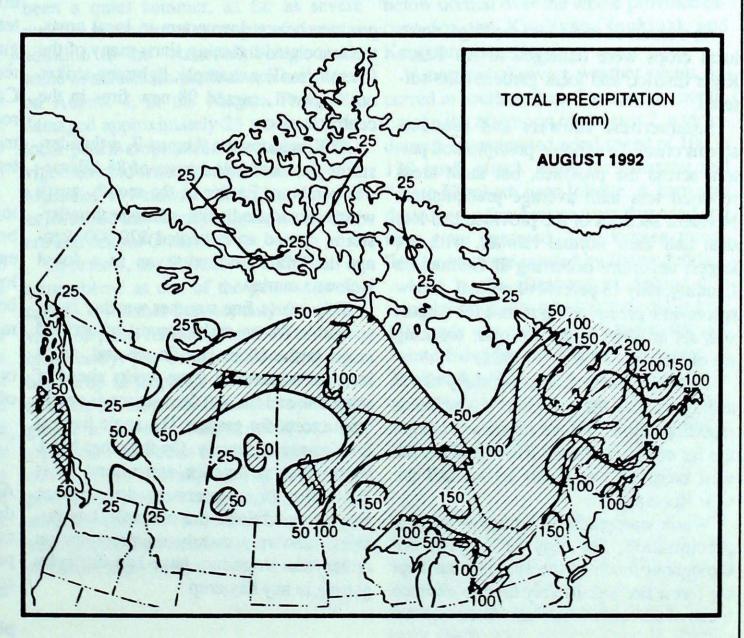
In the central Arctic, hours of bright runshine varied either side of normal. One of the highest totals was 225.2 hours at Coral Harbour followed by Eureka's 223.1 hours of bright sunshine. Mould Bay tallied the least with only 88.1 hours.

British Columbia

Although not as pleasant as previous months, most of B.C. continued to experience good summer weather during August. For the majority of areas, temperature, precipitation and sunshine values were fairly close to long-term averages.

Much cooler air invaded interior sections of the province during the last ten days of the month, resulting in many stations reporting new record low temperatures for August. Blue River, -3.5°C (-1.1°C, 1973); Castlegar, 2.5°C (3.2°C, 1984); Cranbrook, -1.3°C, (0.0°C, 1987); Fort Nelson, -4.5°C (-1.7°C, several years); Fort St. John, -2.9°C (-1.2°C, 1977); Mackenzie, -4.2°C (-2.4°C, 1978); Princeton, -1.2°C (-0.8°C, 1980).





CLIMATIC EXTREMES IN CANADA - AUGUST, 1992 Mean temperature: 20.9°C Highest Kamloops, B.C. 2.5°C Coldest Resolute, N.W.T. 37.6°C Kamloops, B.C. **Highest temperature:** -5.4°C Eureka, N.W.T. Lowest temperature: Heaviest precipitation: 269.3 mm St. Anthony, Nfld. Heaviest snowfall: 22.8 cm Lethbridge, Alta. Deepest snow on the ground None on August 31, 1992 Greatest number of bright 322 hours sunshine hours: Fort Simpson, N.W.T.

As a result of these low readings, some local crops were damaged in the Peace River district, and local gardens also suffered.

Summertime showers and thunderstorms created a variable precipitation pattern across the province, but most areas reported less than average precipitation. Northern sections of the province had less than half their normal rainfall, with the largest departure occurring at Germansen Landing, only 13 percent of normal. A new record-low precipitation record for August was set at Mackenzie, 8.6 mm, breaking the old record of 9.0 set in 1981.

Sunshine was at least marginally above average across the province. Those areas reporting below average sunshine included the far north, the Peace River district, the west coast of Vancouver Island and the west Kootenays.

Warm temperatures and below average precipitation, not only in August, but throughout much of the summer has kept the forest fire hazard very high to extreme much of the time. While thunderstorms can

produce heavy downpours in local areas, the associated lightning starts many of the forest fires. For example, lightning strikes on August 1, caused 98 new fires in the central interior.

At Kamloops, on August 7, a thunderstorm produced wind gusts of 85 kilometres per hour. Earlier in the month, gusty winds associated with another thunderstorm, caused an estimated \$20,000 damage to boats and wharves at a local Kelowna marina.

This year's fine summer weather is responsible for an early harvest of orchard crops in the Okanagan. In general, crops have been maturing three weeks ahead of schedule, and the soft fruit season is nearly over except for grapes. The apple harvest is currently underway. On the other hand, some southern interior agricultural areas did suffer from extremely dry summer weather conditions. For example, hay farmers, who rely mostly on precipitation rather than irrigation, have had difficulty getting in any hay crop.

Alberta

The month of August will be remembered for its early snow. A complex system, which developed August 20 - 21, moved southwards over the province, dropping an early snowfall over central and southern Alberta from the 21st to the 23rd. By the time the storm ended, up to 60 cm of snow had fallen in the foothills west of Pincher Creek. Some of the larger snowfall amounts recorded were: Pincher Creek, 33 cm; Waterton Park, 38 cm; Lethbridge,23 cm; and Suffield, 12 cm. Several stations in central Alberta recorded lesser amounts of 5 to 10 centimetres. Crops in the eastcentral districts, which survived the lack of summer moisture, were quickly flattened by the heavy wet snow. In addition, overnight temperatures fell to record low values during and after the storm, as a cold Arctic air mass covered the province. Temperatures fell as low as -7.5°C at Pincher Creek, where only a few days earlier the daytime highs were in the low thirties under sunny skies. Nineteen new low maxima and 61 new low minimum daily temperature records were set during August. Several stations also set new all-time record low temperatures for the month. Calgary's low of -3.2°C was an August record; however, the -1.2°C reading in Edmonton was only the 5th coldest August temperature since 1880.

Another significant weather events during the month occurred north of Lethbridge, where a tornado was sighted in early August. Also, later in the month, a low pressure system, crossing northern Alberta, gave rainfall amounts of up to 46 mm.

Hours of sunshine for August were near or just above the long-term normal values of about 250 to 300 hours.

Manitoba and Saskatchewan

August was cool. In the south, this is the third consecutive month with well-below normal temperatures, making the summer period, June to August, the coldest on record.

Crops that were delayed because of late planting and a cool June and July, were not

124

fact, one of the earliest frosts ever reported affected southern Saskatchewan from August 21 to the 31st, and southern Manitoba on the 25th, 26th and 31st. Accumulated heat units are so low in Manitoba this summer that corn and sunflower crops will not mature this year.

Precipitation amounts were variable, ranging from a maximum of 111.4 mm at Churchill, Man., (191% of normal) to a minimum of 13.1 mm at North Battleford, Sask., (29% of normal). Prince Albert, Sask., was also dry, tallying only 13.3 mm compared to a normal of 52.1 mm.

On August 21 and 22, a cold front, that delivered up to 60 centimetres of snow to southern Alberta, produced 8 to 12 centimetres of snow near Lloydminster and Meadow Lake, Sask., and between 2 and 10 centimetres of snow in the Cypress Hills. Hours of bright sunshine were below normal by 20 to 40 hours in the southern districts, above normal by 10 to 40 hours in central areas, and near to below normal by up to 20 hours in the far north.

Ontario

Ontario's cool wet August brought an imperfect ending to a second-rate summer. While August was only the coolest since 1982, the June - August summer period was generally the coolest since 1927. In fact, the summer of 1992 could be described as a "triple E" summer; "endlessly cool, extra wet and especially cloudy."

Monthly mean temperatures lagged 1 to 2 degrees below normal in the north and 2 to 3 degrees below in southern Ontario. While most sites endured an even cooler August back in 1982, London, Hamilton and Sarnia actually observed their coldest August on record; and both Windsor and Muskoka recorded their coldest since 1964. A brief taste of hot and hazy weather encompassed most of the province during August's final week, and as a result, some 30°C highs turned up for the first time since early June. However, whereas Windsor normally records 20 days with an afternoon high of 30°C or more, this summer saw only 2 "hot days".

Rainfall was again abundant across Ontario, with Timmins' 159 mm leading the way. The vast majority of locations recorded 100 to 155 millimetres of rain compared to the usual 70 to 90 millimetres. Peterborough's 155 mm makes it their wettest August on record, while Toronto's Pearson Airport totalled 154 mm for their wettest August since 1968 and second wettest since records began in 1938. The bulk of the rain, at least in southern Ontario, fell on August 27 and 28, as the remnants of Hurricane Andrew spilled over into Ontario. Thirty-six hour rainfalls of up to 120 mm occurred in the Elmira and Aurora areas, west and north of Toronto, with local flooding reported.

As was most of the summer, August was a cloudier than normal month. Sudbury's meagre 176 hours of bright sunshine was 75 hours below average, making this the cloudiest August in 20 years, while in Kingston, 201 hours resulted in the cloudiest August in 23 years of sunshine records.

Although the cool summer has also been a quiet summer, as far as severe weather is concerned, a couple of events in addition to the "Andrew" deluge made some headlines. In particular, a hail storm on August 4, in the Niagara Peninsula, damaged approximately 25 percent of the local peach crop, while on August 10, a vigorous cold front produced tornadoes in Muskoka, at Petawawa and Elora, as well as localized hail damage throughout southern and central Ontario.

In review, the Summer of 1992 will be remembered as one of the poorest in decades - a summer that not only dampened vacation plans for many families, but more importantly, put Ontario's corn and soya bean crop in jeopardy. Given the lack of heat, the development of these crops is lagging 2 to 4 weeks behind schedule, with significant shortfalls in yields likely. For the farmers already facing depressed prices, this summer means more than just an inconvenience or news headlines, it is a summer that could determine the survival or failure many farms.

Quebec

Temperature-wise, southern Quebec just experienced one of their worst summers in the last 6 to 10 years. In northwestern and northern Quebec, you have to go as far back as 1965 in the record books before you encounter a colder summer period. For the most part, mean monthly temperatures were below seasonal values across much of the province, which ranged from 18.7 C at Montreal to 8.9 C at Inukjuak.

Total monthly precipitation was near or above normal, except in the north. Precipitation amounts ranged from a high of 161.7 mm at Fermont-Wabush, which is 171 percent of normal, to a low of 31.2 mm at Kuujjuarapik, or 33 percent of normal. At Fermont/Wabush, this is a new monthly precipitation record, breaking the previous record of 153.9 mm set in 1977. Honourable mention goes to Maniwaki, which recorded 149.6 mm or 164 percent of normal this month, more than half of it falling in a 24-hour period.

Total hours of bright sunshine were below normal over the whole province except for the Kuujjuaq, Inukjuak and Kuujjuarapik regions.

A number of severe weather events occurred in southwestern Quebec this month. Late in the afternoon on August 2, a tornado with an estimated wind speed of 100 to 130 km/h struck Rang du Ruisseau and Sainte-Elisabeth near Joliette. A barn was destroyed, a few houses were damaged and trees were uprooted. Two women travelling by car were injured by flying debris.

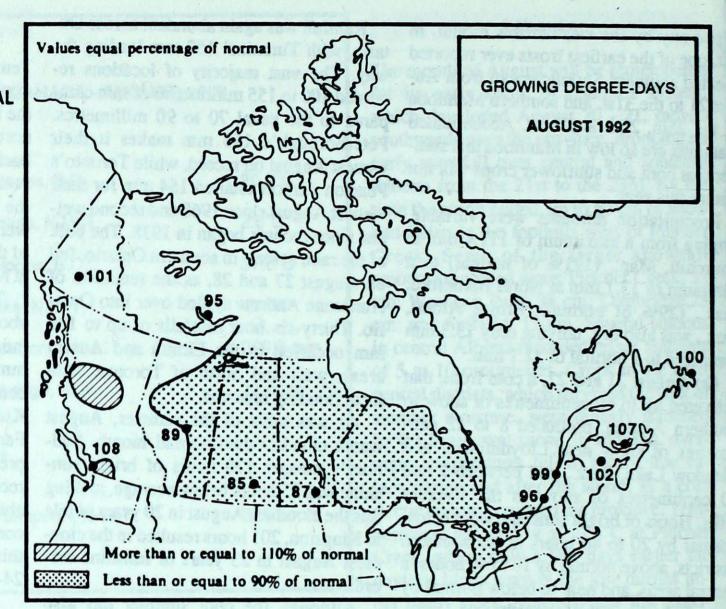
Late in the afternoon of August 4, a microburst or downdraft estimated at near 150 km/h was reported in Martinville and Sainte-Edwidge-de-Cliton, southeast of Sherbrooke. Within a 6 km by 50 m corridor, trees were broken and uprooted, barn and shed roofs were ripped-off and another barn was completely destroyed.

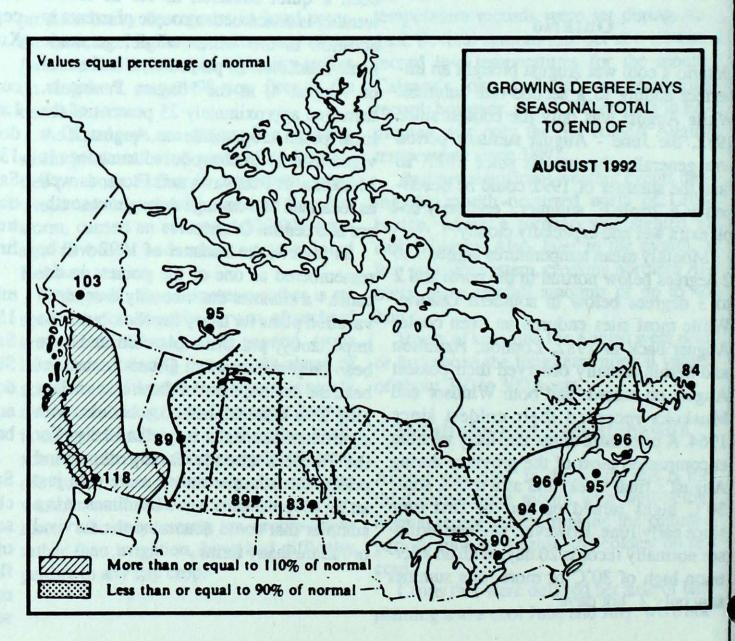
A few hours later, torrential rains fell on Saint-Georges-de-Beauce and Lac Etchemin, south of Quebec City. The storm sewer system could not cope with the runoff fast enough and basements were flooded. The rushing waters tore off the asphalt pavement from some streets, while some roads were washed away or eroded.

.... continued on page 14

SEASONAL TOTAL OF GROWING DEGREE-DAYS TO END OF AUGUST

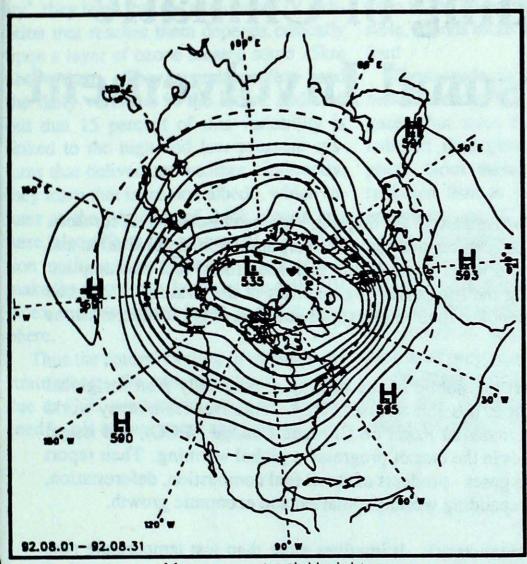
ni manimum la	4000	4004	NORMA
BRITISH COLUMBIA	1992	1991	NORMA
Abbotsford	1705	1469	1365
Kamloops	1964	1825	1705
Penticton	1872	1685	1619
Prince George	1073	1092	855
Vancouver	1662	1448	1412
Victoria	1443	1279	1245
ALBERTA			
Calgary	*	1113	
Edmonton Mun.		1315	
Grande Prairie		1152	*
Lethbridge	*	1311	*
Peace River	*	1179	* 1
SASKATCHEWAN			
Estevan	1004	1485	1242
Prince Albert	836	1379	922
Regina	1038	1488	1170
Saskatoon	917	1443	1015
Swift Current	*	1333	*
MANITOBA			
Brandon	946	1453	1158
Churchill	89	560	98
Dauphin	936	1411	1138
Winnipeg	1037	1597	1243
ONTARIO	OW SUB THE	1051	nica ent
London North Bass	1244	1854	1445
North Bay	703	1491	834
Ottawa Thunder Bay	1463	1853	1574
Toronto	841	1220	1024
Trenton	1407	1877	1567
Windsor	1366 1637	1765	1581
QUEBEC	1037	2131	1817
Baie Comeau	594	918	706
Maniwaki	1182	1493	1260
Montréal	1515	1785	1616
Québec	1275	1548	1335
Sept-Îles	685	823	791
Sherbrooke	1015	1393	1086
NEW BRUNSWICK	1015	1373	1000
Fredericton	1213	1505	1273
Moncton	1059	1150	1106
NOVA SCOTIA	delegate	arli en	Exercise
Sydney	1009	1013	1073
Yarmouth	990	859	1028
PRINCE EDWARD			
ISLAND			
Charlottetown	1056	1119	1098
NEWFOUNDLAND			
Gander	538	680	634
St. John's	660	562	783
Stephenville	767	802	838



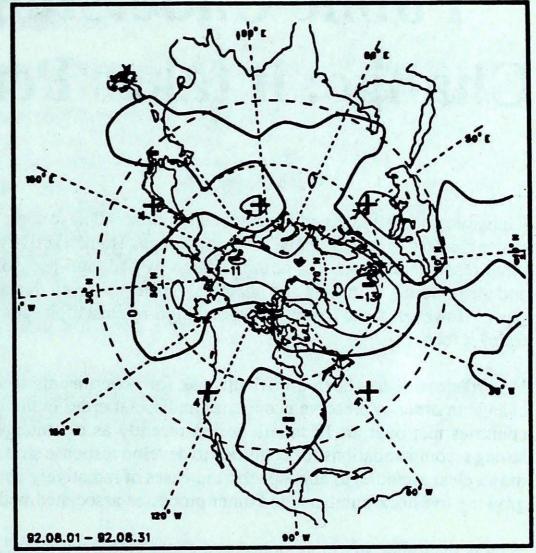


50-kPa ATMOSPHERIC CIRCULATION

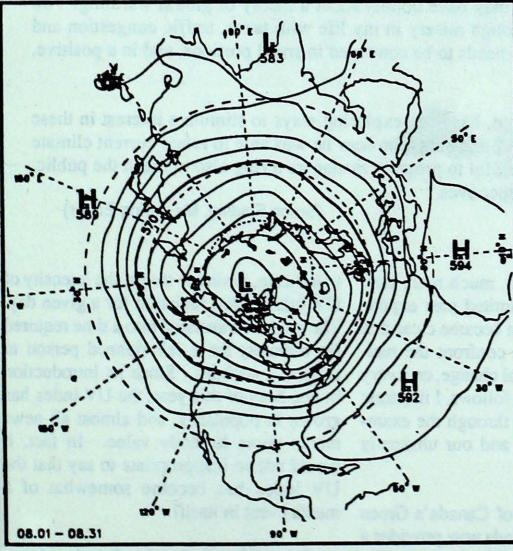
August 1992



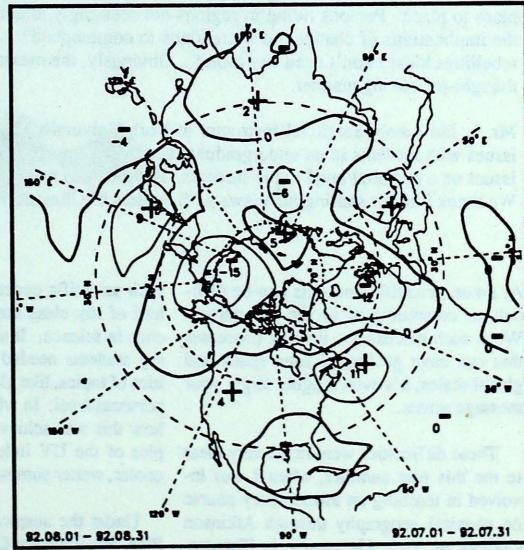
Mean geopotential heights - 5 decametre interval -



Mean geopotential height anomaly - 5 decametre interval-



Normal geopotential heights for the month
- 5 decametre interval -



Mean heights difference w/r to previous month - 5 decametre interval -

Public Understanding of Climatic Change: it takes Personal Involvement

Climatologists and other environmental scientists all have some involvement in the ongoing vigorous discussion of foreseen major changes to the Earth and its living things. Human activity has been blamed for this: overpopulation, deforestation and other resource exploitation, desertification by bad land-use, soil and water degradation, increased fossil fuel consumption and air pollution from this and chemical emissions, even damaging the life-preserving qualities of the stratospheric ozone layer. However, these issues go beyond high-interest topics for scientists; their implications could have grave repercussions for everyone.

Nevertheless, it has been a difficult task for governments to alert the public of the need to strategically plan for global change in order to preserve economies and social order in the light of possible stresses. Representatives from many world countries met over an 18 month period recently as the Intergovernmental Panel on Climatic Change (IPCC), and issued strong recommendations for countries to develop response strategies in the face of progressive global warming. Their report draws clear attention to atmospheric increases of radiatively-active gases - products of fossil fuel combustion, deforestation, growing livestock numbers, and other processes associated with expanding world population and economic growth.

Why is the public not more concerned about global warming?, scientists ask. It involves more than just temperature rise. Precipitation, wind, storminess and sea-levels are affected. Major changes to the biosphere and water resources are implied. Is the issue too complex for most people to understand? Atmospheric and surface changes are likely to be uneven from place to place. Persons living in regions not seemingly affected may have doubts about a theory of global warming. Are the implications of change too horrendous to contemplate?... Enough misery in my life with taxes, traffic congestion and rebellious kids; I don't need any more!... Obviously, the message needs to be conveyed in small portions, and in a positive, thought-provoking manner.

Mr. L. Ian Lumb, Sessional Instructor at York University, Toronto, has been exploring ways to stimulate interest in these issues with students in an undergraduate geography course. He reports below on how he was able to relate current climate issues on a personal level to his students. His methods may be helpful to program managers trying also to reach the public. We thank him for sharing his views with readers of Climatic Perspectives.

(Bruce Findlay, Managing Editor)

At times, scientific concepts can be difficult to communicate to the lay person. When such discussions involve processes that can have geological time spans and global scales, it's even tougher to get your message across.

These difficulties were made very clear to me this past summer, when I was involved in teaching an introductory course on physical geography through Atkinson College at York University in Toronto. Although one might think that an audience of this type would not be challenged by

such scientific concepts, much more than half of my class had limited past experience in science. It soon became clear that my students needed to confront the realities of topics, like global change, on a very personal level. In what follows, I illustrate how this was achieved through the examples of the UV index, and our unusually cooler, wetter summer.

Under the auspices of Canada's Green Plan, Environment Canada now provides a daily value of the UV index for many Canadian centres. The index is a scale used to indicate, in simple terms, the intensity of UV (ultraviolet) radiation for a given day. The index is translated into a time required (in minutes) for a fair-skinned person to acquire a sunburn. Since its introduction in late May of this year, the UV index has grown in popularity, and almost all news media quote its daily value. In fact, it would not be inappropriate to say that the UV index has become somewhat of a media event in itself!

Once UV radiation developed an interest on a personal level through the sunburn

time scale, my students became inquisitive about the science behind the index.

In this process of 'need-to-know curiosity', they learn that the amount of UV radiation that reaches them depends critically upon a layer of ozone located some 25km above them. They experience first hand the daily variation in the index, and find out that 15 percent of this variability is linked to the high and low pressure systems that deliver our weather. Indirectly, they learn that increased albedo, which relates to the presence of thick clouds and haze, also affects the amount of UV radiation reaching them. The more curious also make the connection between the daily UV index and the 'ozone hole' in the stratosphere.

Thus the natural cycling of ozone in the stratosphere, the human-induced cycling due to CFC production, all reach heightened levels of awareness and interest.

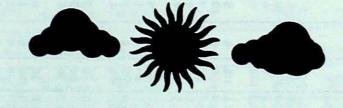
In almost everyone's perception, this summer has been cooler and wetter than is typical. To state that the eruption of a volcano in the Philippines last June is responsible, sounds more like science fiction than fact!

Those students who listen with an open mind, find out that the volcanic ash and gases that were ejected into and redistributed throughout the Earth's atmosphere, block more of the incoming solar radiation than is usual. Since less solar energy travels all the way to the Earth's surface, this increased albedo has the effect of lowering the temperature. The redistributed ash and dust particles can also provide sites for moisture to condense, favour the growth of rain droplets, and result in increased precipitation.

On further investigation, the students learn that volcanoes also play a role in ozone depletion. In contrast to their preconceived notions about all science being quite 'cut-and-dry', they learn that there may be other explanations for our unusual summer weather as well.

Both of these examples illustrate that scientific information can be communicated very efficiently when there are direct human consequences. In this way the UV index, and our unusual weather this past summer, acted as vehicles through which my students were able to gain an understanding of scientific concepts. By biting off small, chewable pieces of this complex scientific reality, I feel that my students were able to gain a better appreciation for global change on a very personal level.

L. Ian Lumb
Department of Earth and Atmospheric
Sciences
York University, Toronto, Ontario



AU	GL	IST	19	92
		7/200		

	Tem	mperature C						5 8	(ED)	more		P	= 2	31 1992	3 1	Temp	perature	e C						(cm)	more	ben		T G
STATION	Mean	Difference from Normal	Maximum	Ninimum	Snowfall (cm)	% of Normal Snowfall	Total Precipitation (mm)	% of Normal Precipitation	Snow on ground at end of month (c	No. of days with Precip 1.0 mm or n	Bright Sunshine (hours)	% of Normal Bright Sunshine	Degree Days below 18 C	STATION	Surface buy away the control of	Mean	Difference from Normal	Maximum	Minimum	Snowfall (cm)	% of Normal Snowfall	Total Precipitation (mm)	% of Normal Precipitation	Snow on ground at end of month (c	No. of days with Precip 1.0 mm or r	Bright Sunshine (hours)	% of Normal Bright Sunshine	Degree Days below 18 C
BRITISH COLUMBIA	0.7	31										Telephone I	Ander Street for	YUKON TERRITO	ORY								TISLANDIN N		Bod		Const S	TOTAL TOTAL
ABBOTSFORD A ALERT BAY AMPHITITE POINT	18.2 14.7 15.0	1.3 '0.4 0.7	32.3 24.7 24.2	6.2 7.0 9.8	0.0		36.4 71.0 86.2	76	0 0 0	6 10 4	258	105	28.4 103.7 94.2	DAWSON A WATSON LAKE A WHITEHORSE A	de de de	12.4 12.4 12.3	-0.7 -0.2	24.7 27.0 23.7	0.0 12.3 -1.1	0.0 0.0 0.0	* 0	49.2 46.0 22.1	110 58	0 0	:	237 196	104 85	17. 176.
CAPE ST JAMES CAPE SCOTT CASTLEGAR A COMOX A	15.9 14.7 13.9 19.4 17.7	0.9 0.4 -0.4 0.7	35.0 20.3 19.0 36.7 30.1	-3.5 10.3 9.8 2.5 6.8	0.0 0.0 0.0 0.0		91.5 68.0 15.2 25.0	60	0 0 0 0	9 8 10 1	237 228 266 301	105	101.5 127.5 35.4 31.3	NORTHWEST TERRITORIES BAKER LAKE A		8.8	-0.9	25.3	-0.5	0.4	100	52.4	140	0	8	177	84	285.
CRANBROOK A DEASE LAKE FORT NELSON A FORT ST JOHN A	17.2 11.1 14.3 15.3	-0.3 -0.5 -0.5 0.9	26.5 30.2 30.9	-1.3 -3.3 -4.5 -2.9	0.0 0.0 0.0 0.0	* * 0	9.3 23.4 36.6 16.9	25 45 60 28	0 0 0	8 5 5	305 203 257 262	110	81.3 214.2 125.9 107.1	CLYDE A COPPERMINE A CORAL HARBOUR		5.4 3.5 8.9 6.6	-1.1 -0.5 0.2 -0.8	16.6 12.5 26.4 19.8	-1.8 -1.4 -2.6 -2.1	3.4 0.0 0.0	43 0 0	11.2 17.7 28.2 42.6	40 68 73 96	0 0 0 0	3 6 7 8	147 145 273 225	75 143 100	388. 448. 282. 352.
KAMLOOPS A KELOWNA A MACKENZIE A	19.5 20.9 19.4 14.7	1.1 1.1 1.3 0.9	37.6 36.5	5.3 3.0 -4.2	0.0 0.0 0.0 0.0		50.1 5.6 20.5 8.6	20 64	0 0 0 0	2 5 4	314 297 307	129 112 115 128	16.6 18.9 31.7 109.9	FORT SIMPSON A FORT SMITH A IQALUIT HALL BEACH A	Material Sept.	1.4 14.7 13.5 6.8	-1.9 0.6 -0.7 -0.1	30.4 30.1 19.3	-5.4 -1.8 -1.2 -0.7	7.0 0.0 0.0 0.0 0.0	259	16.8 45.6 56.0 21.8 29.4	98 132 37	0 0 0 0 0	8 * 6 8 7	322 260 176	93 131 99 109	513. 124. 152. 349. 408.
PENTICTON A PORT ALBERNI A PORT HARDY A PRINCE GEORGE A	20.8 17.9 14.2 15.3	1.3 0.3 0.4 1.2	34.1	6.1 4.4 5.9 -3.8	0.0 0.0 0.0 0.0	:		156 106	0 0 0	6 4 10 5	293 275 225 298	108 * 122 118	14.0 32.4 116.9 104.1	HAY RIVER A INUVIK A MOULD BAY A NORMAN WELLS A		4.8 14.2 11.7 1.9 14.4	0.2 -0.2 1.0 0.5 1.0	15.0 30.6 26.8 8.4 28.1	-0.4 0.4 -3.0 -2.7 -1.2	0.0 0.0 6.0 0.0	0 67	15.7 29.0 23.3 42.4	67	0 0 0	6 7 7	210 88 291	97 67 123	144. 197. 499. 117.
PRINCE RUPERT A PRINCETON A REVELSTOKE A SANDSPIT A	13.6 17.7 18.5 14.6	0.6 0.6 0.7 -0.1	36.2 35.0	3.9	0.0		98.5 20.2 29.6 50.8	79	0 0 0	12 5 7 13	181 314 243 181	131 * 100 103	136.1 * 40.5 91.7	POND INLET A RESOLUTE A YELLOWKNIFE A	Sent Printer	2.9 2.5 13.5	0.1	12.8 6.8 27.1	-4.2 -4.4 1.7	9.0 5.8	87	25.7 22.7 9.8	73	0 0	3 5 3	207 199 323	125	467. 518. 145.
SMITHERS A TERRACE A VANCOUVER INT'L A	14.8 17.1 17.8	0.7 1.3 0.7	31.0 29.2 26.0	-1.2 5.2 10.0	0.0	:	24.2 21.8 23.2	34	0 0	5 7 4	273 254 293	117 126 114	110.4 48.6 22.7	BANFF CALGARY INT'L A		12.7	-1.1	29.0	-4.5	3.4		35.6	73 75	0 0	9 5	283	* 100	133.
VICTORIA INT'L A WILLIAMS LAKE A	16.2 15.0	0.1	30.4 31.4	7.0	0.0	*	13.2 45.4	107	0	3 5	313 308	114	67.3 108.9	COLD LAKE A CORONATION A	THE STATE OF	14.1 14.2 14.3	-1.1 -1.3 -1.8	31.4 32.4 32.3	-3.2 -1.5 -4.6	4.0		41.5 44.4 51.2	58	000	5 7	283 283 287	111	177.1
					M. C.								Manual Control					Sales of the sales			STATE OF THE STATE		A SECOND		E 01 0.201		000 to 100	unk atmos
75 1			18					1				2	2 5				1	100			3		7					0.0

AUGU:	ST 19	92
-------	-------	----

	Tem	perature	e C		N.				(m)	more					Tem	peratur	e C						F	more			
STATION	Mean	Difference from Normal	Naximum	Minimum	Snowfall (cm)	Z of Normal Snowfall	Total Precipitation (mm)	Z of Normal Precipitation	Snow on ground at end of month (c	No. of days with Precip 1.0 mm or m	Bright Sunshine (hours)	% of Normal Bright Sunshine	Degree Days below 18 C	STATION	Mean	Difference from Normal	Maximum	Minimum	Snowfall (cm)	% of Normal Snowfall	Total Precipitation (mm)	Z of Normal Precipitation	Snow on ground at end of month (cm)	No. of days with Precip 1.0 mm or m	Bright Sunshine (hours)	% of Normal Bright Sunshine	Degree Days below 18 C
EDMONTON INT'L A	14.0	-0.8	30.8	-3.8	2.0		23.1 32.0	30	0	6 5	285 298	100	135.2 102.3	ISLAND LAKE LYNN LAKE A NORWAY HOUSE A	15.3 13.7 14.6	-0.2 0.2	29.0 32.3 27.3	3.7 0.4 2.6	0.0 0.0 0.0	:	23.2 42.2 26.0	30 54	0 0 0	7 8 7	250	108	101.3 145.5 117.9
EDMONTON MUNICIPAL EDMONTON NAMAO A EDSON A FORT CHIPEWYAN A	15.8 15.2 13.1 14.2	-0.4 -0.4 -0.3 -0.1	31.6 31.2 30.0 29.0	-1.2 -2.0 -3.4 -1.5	1.0 4.6 0.0 0.0	0	42.9 59.4 62.4	58 68 125	0 0 0	6 9 *	274	111	110.5 157.0	THE PAS A THOMPSON A WINNIPEG INT'L A	15.2 12.9 16.4	-0.9 -0.3 -1.9	31.5 32.0 30.1	-0.7 -1.3 3.8	0.0 0.0 0.0	0	40.1 21.5 78.4	70 24 104	0 0	7 4 9	280 269 253	108 117 89	103.6 169.5 70.3
FORT MCMURRAY A GRANDE PRAIRIE A HIGH LEVEL A JASPER LETHBRIDGE A MEDICINE HAT A	14.0 15.1 13.9 13.8 15.9	-0.8 0.3 0.1 -0.4 -1.7	33.4 33.6 29.9 31.0 34.4 35.1	-2.9 -2.8 -3.4 -3.0 -1.0	0.0 0.0 0.0 0.0 22.8	0	52.4 32.0 42.2 25.8 44.2 46.3	68 53 69 53 94	0 0 0 0 0	8 6 9 7 7	279 300 268 258 319 318	113 * 105 * 107	142.4 110.0 134.0 139.4 99.4	ONTARIO BIG TROUT LAKE EARLTON A GERALDTON A GORE BAY A	14.1 14.9 13.8 16.6	-0.2 -1.3 * -1.6	27.3 29.6 25.5 26.8	2.0 4.3 1.3 6.4	0.0 0.0 0.0 0.0		91.4 116.0 137.6 105.6		0 0 0 0 0	7 13 16 10	235	5 6	129.5 104.3 133.6 61.
PEACE RIVER A RED DEER A ROCKY MTN HOUSE A SLAVE LAKE A	14.2 ' 13.7 13.1 14.3	0.0 -1.2 -1.2 0.3	31.8 29.4 29.1 32.3	-3.7 -5.1 -4.1 -2.2	0.0 0.0 0.0 0.0	0 0 0	35.5 24.8 30.4 56.0	71 38 39 77	0 0 0	10 7 8 7	* * 286	* * 117	130.5 137.7 151.2 127.6	HAMILTON RBG HAMILTON A KAPUSKASING A KENORA A KINGSTON A	18.8 17.3 13.9 16.0 18.0	-2.7 -1.4 -1.6 -1.6	31.5 28.6 28.2 26.6 25.8	9.0 5.8 2.7 6.1	0.0 0.0 0.0 0.0	* * *	147.2 124.2 78.6 132.6 106.8	170 85 154	0 0 0 0 0	14 12 12 13 8	231	* * * 79	21.9 47.5 136.9 76.6 27.5
SUFFIELD A WHITECOURT A SASKATCHEWAN	17.2 14.0	0.1	34.6	-2.9	12.4		48.5 60.8	69	0	9	290		86.1 137.1	LONDON A MOOSONEE MUSKOKA A	17.3 12.3 15.4	-2.2 -2.0 -2.0	29,1 27.7 28.5	9.1 6.5 -0.8 3.7	0.0 0.0 0.0	*	138.4 109.0 110.9	172 138	0 0 0	11 11 12	212	86 73	48.6 183.2 94.5
BROADVIEW CREE LAKE ESTEVAN A KINDERSLEY	14.7 13.8 15.7	-1.6 0.0 -2.9 -2.0	33.7 31.9 35.8 34.5	0.2 0.1 -0.2	0.0 0.0 0.0	:	39.0 8.2 29.2 48.6	12 55	0 * 0	7 10 5	269 243 267 293	91 98 86	117.1 148.4 98.8	NORTH BAY A OTTAWA INT'L A PETAWAWA A PETERBOROUGH A PICKLE LAKE	15.7 18.2 16.3 16.5 14.9	-1.3 -1.0 -1.4 -2.2 -0.2	28.6 30.5 31.9 30.2 27.5	4.4 8.8 2.9 2.4 5.1	0.0 0.0 0.0 0.0	* * *	109.4 105.0 127.4 154.8 132.9	119 161 208	0 0 0 0	12 11 11 9	185	79 78 *	84.2 33.6 74. 65.6 109.4
LA RONGE A MEADOW LAKE A MOOSE JAW A NIPAWIN A	14.5 13.4 16.4 14.4	-0.3 -2.2	31.7 33.0 34.9 33.3	-2.1 -3.6 0.2 -1.4	0.0 6.2 0.0 0.0		52.1 40.6 39.4 49.0	79 * 98 *	0 0 0	7 9 9 8	273 278 275	93	133.3 152.9 88.5 123.0	RED LAKE A ST CATHARINES A SARNIA A SAULT STE MARIE A	14.8 18.8 17.9 15.1	-1.5 -2.1 -2.6 -1.8	27.2 29.7 31.4 28.8	2.9 9.6 7.4 2.3	0.0 0.0 0.0 0.0	* * *	102.8 107.4 118.0 47.4	116 142 233	0 0 0 0	12 9 12 8	204 238 257 247	103	109.4 20.5 34.9 103.5
NORTH BATTLEFORD A PRINCE ALBERT A REGINA A SASKATOON A SWIFT CURRENT A	14.7 14.2 15.7 15.5 15.3	-2.1 -1.7 -2.1 -1.7 -2.2	34.4 32.0 35.3 32.5 33.5	-1.8 -2.0 -0.3 1.0 -0.4	0.0 0.0 0.0 0.0 0.0		13.1 13.3 28.4 47.4 57.6	26 63 124	0 0 0 0	2 5 7 8 11	270 267 * 279	101 90 * 94	127.3 129.7 98.8 108.0 113.4	SIOUX LOOKOUT A SUDBURY A THUNDER BAY A TIMMINS A	15.3 15.8 14.8 13.6	-1.3 -1.5 -1.6 -1.9	27.0 29.1 27.0 29.5	5.9 5.8 2.7 1.5	0.0 0.0 0.0 0.0		158.2 117.2 103.2 159.4	141 124	0 0 0 0	11 9 14 12	176 239	* 70 93 *	92.7 B2.0 105.6 143.2
MANITOBA	14.3	-2.6	33.8	-0.7	0.0		47.2	78	0	6	260	91	124.9	TORONTO TORONTO INT'L A TORONTO ISLAND A TRENTON A	19.1 17.9 18.3 17.4	-1.8 * -2.3	30.2 30.5 27.4 28.3	9.6 8.0 9.1 7.2	0.0 0.0 0.0 0.0	*	109.8 154.4 129.6 72.2	201 * 100	0 0 0 0	11 11 11 8		•	35.3 21.5 38.1 59.6
BRANDON A CHURCHILL A DAUPHIN A GILLAM A	15.2 11.0 15.1 14.1	-2.3 -0.3 -2.0 1.0	31.2 30.6 31.0 29.5	1.4 1.8 1.2 -0.1	0.0 0.0 0.0	•	35,3 111.4 63.6 45.0	191 102	0 0 0	6 10 10 6	287 211 268 *	* 91 97 *	105.2 222.3 104.8 166.7	WATERLOO WELLINGTO WAWA A WIARTON A WINDSOR A	16.7 12.3 16.0 19.4	-2.2 * -2.1 -1.9	28.4 26.0 27.7 33.4	6.2 2.2 5.8 10.7	0.0 0.0 0.0 0.0	:	138.0 103.0 80.7 83.2		0 0	11 12 9 8	215	84	73.7 12.6

No. of days with Precip 1.0 mm or more

% of Normal Bright Sunshine

Bright Sunshine (hours)

224

* 146

174 * 149 * 168

160 * 151 * 158 *

133 171

7

107

* * 84

102 * 83 * 90

91 * * 85 *

72 89

Degree Days below 18 C

23.9 22.2 26.8 19.9 30.7

60.9

19.3

113.2 127.4 213.0

208.2 103.3 132.2 84.9 102.0

160.9 181.7 93.4 180.3 96.0 108.8

71.8 197.7

														AUGUS	ST 1992									
		Ten	peratur	e C						E	ore					Tem	peratur	e C				1015		2
	STATION	Mean	Difference from Normal	Maximum	Minimum	Snowfall (cm)	% of Normal Snowfall	Total Precipitation (mm)	% of Normal Precipitation	Snow on ground at end of month (cm)	No. of days with Precip 1.0 mm or m	Bright Sunshine (hours)	% of Normal Bright Sunshine	Degree Days below 18 C	STATION	Mean	Difference from Normal	Maximum	Minimum	Snowfall (cm)	% of Normal Snowfall	Total Precipitation (mm)	% of Normal Precipitation	Snow on ground at end of month (cm)
	QUEBEC		-13			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1									NOVA SCOTIA					00 00 03 92		400 E		000
	BAGOTVILLE A BAIE COMEAU A BLANC SABLON A GASPE A	16.6 14.0 11.0 15.7	0.2 -0.6 -0.8	29.4 25.2 19.3 30.4	4.3 3.9 2.1 4.0	0.0 * 0.0 0.0	* * *	89.4 92.8 * 130.0	90 98 *	0 0	13 13 11 14	179 137 202	* 89 *	66.8 123.1 * 7.9	GREENWOOD A HALIFAX INT'L A SABLE ISLAND SHEARWATER A SYDNEY A	18.5 18.7 17.8 18.1	0.2 0.6 0.2 0.3	30.1 29.8 23.5 28.2	7.1 9.5 9.4 10.5	0.0 0.0 0.0 0.0	*	58.1 63.9 82.1 65.0	65 57 71 67	0000
	INUKJUAK A KUUJJUAQ A KUUJJUARAPIK A LA GRANDE RIVIERE A MANIWAKI	8.9 9.8 * 12.4 16.8	0.0 -0.6 * -0.2	22.3 22.8 26.3 27.4 30.1	2.4 0.5 3.3 0.8 5.1	0.0 0.0 0.0 0.0 0.0	* * * * *	39.2 47.6 31.2 82.0 149.6	60 75 33 * 164	0 0 0 0 0	7 9 6 10 12	190 213 183 197 185	130 * 110 * 82	281.2 254.4 198.6 174.1 61.6	YARMOUTH A PRINCE EDWARD	16.2	-0.2	29.2	8.3	0.0		63.8	93	0
And the second living	MONT JOLI A MONTREAL INT'L A MONTREAL MIRABEL I/ NATASHQUAN A	15.8 18.7 17.3 13.2	-0.2 -0.9 * -0.1	27.3 29.6 29.0 20.7	8.0 7.3 4.9 5.7	0.0 0.0 *	: :	80.0 70.0 51.4 121.8	101 76 * 116	0 0 0	13 8 12 12	198 199 193 182	81 83 * 79	80.4 26.6 51.4 148.1	CHARLOTTETOWN A NEWFOUNDLAND	18.5	0.7	27.5	9.7	0.0		159.2	181	0
	QUEBEC A ROBERVAL A SCHEFFERVILLE A SEPT-ILES A SHERBROOKE A	17.2 16.5 10.1 13.4 16.7	-0.3 0.1 -0.7 -0.7 0.2	27.0 27.9 22.9 24.3 29.1	5.7 4.9 0.7 4.8 3.4	0.0 0.0 0.4 0.0	* 17 * *	116.0 101.2 147.4 107.8 108.5	103 150 104	0 0 0 0	12 12 14 14 10	168 177 143 170 175	77 * 93 76 *	44.7 65.8 247.2 142.0 58.2	BONAVISTA BURGEO CARTWRIGHT	14.5 13.9 11.2	-0.5 -0.8 -0.8	25.2 24.3 27.3	6.8 7.0 1.9	0.0 0.0 0.0	•	97.8 176.0 183.0		0 0 0
	ST HUBERT A VAL D'OR A NEW BRUNSWICK	18.5 14.7	-0.7 -0.8	30.1 27.5	5.7 4.0	0.0	•	60.4 121.4	63	0	B 12	194 167	* 71	26.6	CHURCHILL FALLS A COMFORT COVE DANIELS HARBOUR DEER LAKE A GANDER INT'L A	11.4 15.1 13.7 15.2 15.0	-0.6 -0.2 -0.8 -0.1 -0.6	24.8 28.3 21.9 26.8 26.4	1.1 2.8 5.0 3.1 3.8	0.0 0.0 0.0 0.0	* * * *	154.6 166.2 196.6 191.2 120.8	158 171 189	0 0 0 0
	CHARLO A FREDERICTON A MONCTON A SAINT JOHN A	16.6 18.3 18.4 16.7	0.2 0.1 0.8 0.1	28.8 31.1 29.6 27.5	6.9 4.6 6.6 6.5	0.0 0.0 0.0 0.0	•	121.9 88.0 80.2 123.2	101	0 0 0 0	13 7 6 10	201 198 227 209	83 * 99 98	58.8 21.1 20.5 47.1	GOOSE A MARY'S HARBOUR PORT AUX BASQUES ST ANTHONY ST JOHN'S A ST LAWRENCE	13.1 12.6 15.0 12.1 15.1 14.5	-1.2 1.7 0.3 0.0 -0.2 0.6	29.4 28.1 22.6 23.5 25.5 23.3	2.1 1.7 8.0 1.0 4.4 7.6	0.0 0.0 0.0 0.0 0.0	* * * * * * * * * * * * * * * * * * * *	125.6 198.0	122 243 107 197 60	0 0 0 0 0
		200	141												STEPHENVILLE A	15.8 11.6	-0.3 -0.2	22.9 23.8	7.6 2.2	0.0	:	120.0 161.7	115 171	0
		Marin	1223													new test	amus (

STATION STA	Te	Temp	erature	C		E			(m)			Degree	days	1 355	Tem	peratur	e C		100		100	(cm)		1	Degree o	lays
STATION STATION STATI										E	3 4	above	5 C	1 250			E		50		E	nth (F		above	
COLUMBIA AGASIZ 19.0 1.3 33.0 7.5 0.0 58.9 95 0 5 281 *.* 2045.6 LA POCATIERE L'ASSOMPTION *.*		Wedn	from	Maximum	Minimum	Snowfall (cm)	Total Precipitation (mm)	of Normal	ow on ground at end of m	of days with Precip 1.0 more	Sunshine	This month	jan.	STATION	Mean	e from	Maximum	Minimum	Snowfall (cm)	Precipitation	of Normal Pr	w on ground at end of m	of days with Precip 1.0 more	Sunshine	This month	Since jan. 1st
BEAVERLODGE 15.3 1.1 33.0 ** 0.0 49.7 78 0 8 274 319.3 1207.8 1093.1 NOVA SCOTIA N	MBIA Z RLAND 19.0 20.0	9.0	1.3	33.0 34.5	7.5 6.0		58.9 16.1	95 59		5 5	281 295		2045.6 1996.5	LA POCATIERE L'ASSOMPTION NORMANDIN	*,*	1.1	*.*	*.*	2.2	1.1	**	***	***		378.8 *.* 294.2	1269.5 *.* 991.9
INDIAN HEAD 16.2 -1.2 35.5 0.5 0.0 23.2 42 0 6 ** 337.2 1283.9 104.0 15.0 -1.1 31.5 ** 0.0 74.5 137 0 8 242 292.5 1104.0 116.0 14.6 -2.8 33.0 ** 0.0 30.6 69 0 9 ** 296.0 1164.0 15.5 -2.2 33.0 ** 0.0 58.0 152 0 9 260 326.9 1294.4 1294.4 15.5 -2.2 33.0 ** 0.0 58.0 152 0 9 260 326.9 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1294.4 1	RLODGE 15.1 BE 13.0	5.3		33.0 30.0		0.0	49.7 18.4	78 27		8 8	29 4 277	319.3 276.1	1207.8 1093.1	FREDERICTON			**	*.*		••			•••		•	- ·
MANITOBA BRANDON MORDEN GLENLEA 16.0 -1.9 33.5 1.2 0.0 51.0 73 0 9 249 372.5 1377.5 34.0 5.0 0.0 61.2 101 0 9 249 372.5 1377.5 34.0 5.0 0.0 69.2 97 0 9 251 347.8 1274.3 NEWFOUNDLAND ST.JOHN'S WEST NEW	HEAD 16 RT 15 14 14	5.0 4.6 4.3	-1.1 -2.8 -1.7	31.5 33.0 32.0	*,*	0.0 0.0 0.0	74.5 30.6 31.8	137 69 68	000	8 9 6	242 ** 272	292.5 296.0 288.8	1104.0 1164.0 1122.4	PRINCE EDWARD ISLAND	17.6	0.2	28.5	5.0	0.0	95.8	105	0	9	198	401.3	*,* 1190.8
DELHI 18.3 -1.5 29.0 6.0 0.0 102.0 110 0 12 ** 408.2 1523.2 ELORA 16.6 -1.5 28.0 5.9 0.0 203.3 282 0 10 ** 360.9 1296.7 GUELPH 17.0 -1.8 29.2 4.5 0.0 140.9 173 0 14 206 372.1 1323.1 0TTAWA 18.2 -1.2 30.0 7.0 0.0 109.6 129 0 9 189 409.1 1502.3	ON 16.1	6.0 6.8 5.5	-1.5	34.0	5.0	0.0	51.0 61.2 69.2	73 101 97	0	9 9 9	249	342.2 372.5 347.8	1285.2 1377.5 1274.3	NEWFOUNDLAND			100							The same	328.3	844.1
	18. 16. 17. 18.	6.6 7.0 8.2	-1.5 -1.8 -1.2	28.0 29.2 30.0	5.9 4.5 7.0 7.9	0.0 0.0 0.0	203.3 140.9 109.6	282 173 129	0 0 0	10 14 9	** 206 189	360.9 372.1 409.1	1296.7 1323.1 1502.3	The second secon	1000年間の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の		dissease speed that you set a	Tale 10 spagnad traversepor			THE STATE OF MANAGEMENT AND STATE OF THE STA	discondinate leading ago openion		Control of the Contro	CONTRACTOR STREETHER	

Courtesy of Agriculture Canada

Courtesy of Agriculture Canada

Climatic Perspectives

... continued from page 5

In Saint-Georges-de-Beauce alone, municipal authorities estimate that damage could run as high as \$10 million.

On August 28, heavy rain associated with the remnants of Hurricane Andrew flooded Maniwaki with 86.4 mm of rain in 24 hours. This amount represents a new rainfall record for August. The old record was 60.0 mm set on August 29, 1984.

On the 31st, between 5 am and 6 am, severe winds estimated from 100 to 150 km/h hit the Thetford-Mines area and eastwards, reaching Beauceville, approximately 75 km south of Quebec City. Upwards of 20 houses were damaged. Of that, 13 were in Robertsonville and 6 in Pontbriand. Nearly 7000 hydro subscribers were without electricity for 12 hours.

Maritimes

August was a warm month, but a little unsettled. The final week of the month was the warmest, pushing up the average. The areas where the sun shone brightest reflected the areas where there was the least

amount of precipitation. Nova Scotia was sunnier than normal, while both New Brunswick and Prince Edward Island tallied less hours of bright sunshine than normal. As such, Prince Edward Island was the wettest province receiving 45 percent more rain than would normally be received in August. In contrast, Nova Scotia was drier than normal. Truro recorded less than half the normal August precipitation.

Newfoundland

Newfoundland during August, with above normal rainfall over central and western locations. After a damp beginning, generally fair summer conditions were common until late in the month, when unsettled weather returned. During the middle of the month maximum readings reached 27°C; however, later in the month, frost was reported in central Newfoundland, with Badger reporting -1°C on the 26th.

Rainfall was heavy at times at western locations. Deer Lake recorded 191.2 mm

or approximately double the August normal. In contrast, on the Avalon Peninsula, St. John's recorded 73.2 mm, about 50 mm below average. Thunderstorms were reported on several days this month, giving brief periods of heavy rain and even some hail at Comfort Cove.

Sunshine was below normal across most of the province, with monthly totals of 160 hours, or about 30 hours less than normal.

A changeable weather pattern prevailed across Labrador, with above average rainfall at most locations. Temperatures varied throughout the month, with Goose Bay reporting a high of 29°C on the eighteenth. Later in the month, a below normal trend became established.

Rainfall was common across the region, with Mary's Harbour reporting 198.0 mm, or more than twice the August normal. In the north, Nain recorded 74.0 mm, which is near normal. Hours of bright sunshine were less than normal, with most locations reporting 165 hours - about 25 hours below average.

Environment Canada Environnement

CLIMATIC PERSPECTIVES (MONTHLY REVIEW)

Vol: 14 Date: 920800

OTM-

1202634E ARCH.



This paper contains a minimum of 50% recycled fibres. including 10% post-consumer fibres.