DAVID PHILLIPS RECOUNTS RECENT MAJOR CANADIAN WEATHER EVENTS

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avid is a weather historian as well as a climatologist. He spoke of the weird, wild and extreme weather conditions we have experienced in Canada over the last few years.

In 1996, the Saguenay flood involved as much water as would flow over Niagara Falls in two months - 12,000 people had to leave their homes and several were killed. The Red River Flood in 1997 was the worst in 150 years. It could have resulted in $500 million in damages if it were not for the spillway and the work of the military and citizens. The ice storm in January 1998 affected an area from Kingston to New York - 1,000 metal transmission towers came down as well as 30,000 wooden power poles and enough wire was replaced to go around the world three times. The landscape never looked more beautiful, but businesses were crippled and transportation systems paralyzed.

More recently in January 2000, Toronto experienced the equivalent of three months of snow in 14 days. Mayor Mel Lastman called in 400 troops. Cost to the city was $70 million in snow removal and $2 million in lost revenues from parking tickets. Also in 2000, the Pine Lake tornado in Alberta with winds of 330 km per hour killed three people and injured 114. This was the fifth worst tornado and the first death from one in Canada. Trailers blew into the lake, fish were left on land and golf balls were embedded in trees. Overall, we had a warm summer, but it was warmer in Nunavut. Currently, there is a cool low over Hudson’s Bay that is giving us this winter’s seemingly drastic “blast from the past.”

Should we be concerned? Weather extremes are hard to plan for. Because of global warming, 22 years in a row have been warmer than any in the past. Sea levels are rising. In the Arctic, there is water - representing an area half the size of Lake Superior - at the North Pole. Thirty billion dollars have been spent on weather related problems. We now have more property to damage and more people to contend with (6 billion today versus 1 billion in 1900). More people are living in flood plain areas and more are residing in earthquake prone zones.

David stated that as humans, we are all bit players in the earth’s drama. When you change the climate, you change the weather. We have to remember that extremes are normal - they have happened before. El Nino can change 3/4 of the world’s climate. In 1912, a Regina cyclone was the worst in Canadian history.

So, what’s in store for the future? One hundred year weather observations give credence to accepted models. Ontario weather will be more like the weather that is typically 800-1,000 km south of us. We will have a longer growing season with 6% more heat units and 3-5 weeks more frost-free days. Summers will be 4-5°C hotter and winter temperatures will increase by 4-7%. This will translate into lower heating costs and changing recreation habits. There will be fewer rain days but more heavy falls of rain. Extremes with more cloud and more evaporation will be the norm and summer weather will be much more severe. There will be a decrease in soil moisture and stream flow. All of this change, while gradual, will probably occur in the next 100 years. How much of it will you be around to experience? •