

The Canadian Government: How to Cope with the Canadian Winter

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ABSTRACT

The Canadian Federal Government has several responsibilities towards the cold season in this country. Several agencies, departments and other institutions are in charge for everything from stamps, money, passport, Environment Canada and Climate change, National Defence, Natural Resources, Fisheries and Oceans. This article analyzes the work done for each of them when it comes to winter, snow and cold in a modern perspective.

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Introduction

Canada is among the snowiest and the coldest country in the world. The Canadian identity is mainly created by the coldest season in Canada and the federal government has a large part to play in it. Significant progress was made in the 20th and 21st centuries. The building of the St. Lawrence Seaway, a system of locks, channels and canals allows since the late-50's, ocean-going ships to travel year-round (with the help of icebreakers) from the Gulf of St. Lawrence in the Atlantic to the Great Lakes. Canadian and American cities and towns are linked to this vast infrastructure even during the coldest months of the year. Satellites, radars, computers and other electronic devices all contribute to better accuracy of short-term and long-term weather forecasting especially from November till April making life better for everyone.

Environment Canada and Climate Change

This is the federal government department in charge namely of protecting the environment and finding solutions to climate change. It includes divisions such as The Canadian Ice Service (CIS) that monitors ice conditions, iceberg movement and water safety in Canada's navigable waters. Since 2004 it has been working in partnership with the United States National and Naval Ice Center. Both countries now share satellite information and imagery ensuring common knowledge of ice and snow conditions at all times. This facilitates and improves safety for commercial fishing (including First Nations fishing and hunting activities), tourism and recreation, offshore resource development and better climate forecasting and local wintry weather patterns (also making flying an driving safer in the cold months).

It also shares jurisdiction over environmental matters with the 10 provinces and the 3 territories developing better policies and programs, undertaking research and providing knowledge on environmental issues, all working in the same direction to make winter, cold and snow easier for the people.

Fisheries and Oceans Canada

Fisheries and Oceans Canada is the department mainly responsible for managing the country's vast fisheries and also safeguarding its waters. DFO is also conducting scientific research, supporting marine and fisheries sectors (imports and exports) as well as protecting species at risk.

In the wintertime, its main duty is with the help of a fleet of icebreakers (about 16) from the Canadian Coast Guard (CCG, a division of DFO) to keep waterways free of ice as much as possible and ensuring public safety and sovereignty on the water by aiding navigation in particular along the St. Lawrence Seaway and along the East Coast.

In the summertime the fleet migrates to the North helping with Arctic navigation and along the Northwest Passage. At all-time icebreakers may escort ships through ice-filled waters and tow stranded ships if requested.

The department is also working on getting a better view of the bottom of the oceans. With the use of sonic mini-submarines and other state-of-the-art electronic devices, making better maps and defending in a more scientific approach its territorial claims in international or disputed waters, including the vast coastlines.

National Defence

This is one of the largest departments (DND) of the Canadian government (it includes the Canadian Armed Forces, monitoring the risk of avalanche, prevention and rescue in partnership with Parks Canada namely for the Canadian Rockies) when it comes to staff and budget. DRDC (Defence Research and Development Canada, a division within DND) with the help of several defence scientists and technicians (biologists, chemists, engineers, medical doctors, physicists and several others) conduct several projects in partnerships with industry, university and other experts to make

winter, snow and cold better for the public. This helped to develop the wind chill effect on different parts of our body during the cold months, better knowledge on the effects of hypothermia, fatigue and how to minimize the impact of the cold for the human body.

Engineering experiment is also implemented to reduce the noise from military all-terrain vehicles and snowmobiles making them noiseless and less noticeable, while in used in the North or elsewhere and increasing their efficiency in the battlefield, saving lives and creating a safer world for us to live in.

Natural Resources Canada

This federal government department (NRCan) is responsible for earth sciences (also including permafrost, ice, snow, energy related to gas, oil and offshore resources, renewable resources, uranium, nuclear energy, forests, minerals, metals and other natural resources in Canada). Tools such as geomatics, satellites, mapping and remote sensing are the driving force of NRC.

It is also in charge of publishing and updating the National Atlas of Canada (2 volumes and online since 1993 for the 6th edition). It contains several maps in helping understand winter, snow and cold.

Natural Resources Canada monitors the geography of permafrost (very sensitive to climate change, snow cover and glaciers) which covers more than 50 percent of the country. For instance in a normal winter, snow and ice (including frozen lakes, rivers and some parts of the oceans) may cover up to 95 percent of the country. The department looks after the Canadian arctic, including boundaries, scientific research, resources and manages the Polar Continental Shelf Program (providing air transportation to Canada's North, meals, accommodations, working space including a multi-purpose laboratory in Resolute, Nunavut). Among others it coordinates field logistics to serve and better understand all aspects of the North [1-5].

Passport, Mint and Stamp

Issued by Immigration, Refugees and Citizenship Canada, the Canadian Passport can now be valid for up to 10 years and is a gem when comes to winter scenes. Out of 36 pages, 6 of them relate to the cold season. Apart from the picture of an Inukshuk, one can see a map of Canada's north illustrating the route of explorer Joseph-Elzéar Bernier's expeditions through the Northwest Passage from 1906 to 1913, a Québec City winter scene and the Stanley Cup and children playing hockey.

The Royal Canadian Mint founded in 1908, produces all of Canada's circulation coins and bank notes. Some of them depicts winter such as the quarter (the caribou, an animal of the North). Special editions were manufactured for the 2010 Vancouver Winter Olympics and in 2013, some quarters commemorated the 100th anniversary (1913-2013) of the Canadian Arctic Expedition and Life in the North.

The toonie, the two-dollar coin, introduced in 1996 has featured a polar bear. Set editions show the northern harrier and the snowy owl common in the North. The 2013 edition of the five-dollar bill has possibly the best representation of winter in Canada, the reverse showing children playing hockey and tobogganing and a large snowflake. Some of the newest polymer-based 10, 50 and 100 bank notes also depict winter Canadian scenes.

Canada Post has printed several stamps featuring winter namely for the 1988 Calgary Winter Olympic Games and the 2010 Vancouver Winter Olympic Games. In 1992, stamps were printed

to commemorate the NHL's 75th anniversary. Several NHL Canadian hockey players and teams are also part of the collection.

Conclusion

As we have seen, the Federal Canadian government's agencies and departments play a major role with winter, snow and cold, working hard to make this season easier for people. They monitor glaciers, icebergs and snow conditions (avalanches), making sure that travel on land, water and air is safe. The culture of winter is also part of sceneries on coins, bank notes, stamps and passport contributing to the development of a better Canadian national culture and identity.

Websources

www.dfo-mpo.gc.ca (Fisheries and Oceans Canada)
www.canada.ca (National Defence and Immigration, Refugees and Citizenship Canada, Environment Canada and Climate Change, Natural Resources, Polar Continental Shelf and The Atlas of Canada)
www.mint.ca
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