

Snowbirds – Canadian North and Winter Flying

By Laval St. Germain, Chief Pilot Canadian North

Most people who have flown on a Canadian North flight have had experience flying during cold weather. Our airline has years of experience operating in all weather conditions, especially the one season that Canada is famous, in some cases, infamous for – winter. Here are a few common questions we received:

1. Is it more difficult to fly when it's cold?

Yes, because similar to automobiles, operating machinery in bitter cold requires more preparation like preheating engines, block-heaters, window scraping or aircraft de-icing.

No, because an airplane performs better at cold temperatures. Using some complicated thermodynamic calculations I can show that as air temperature drops, the density of the air increases, but I'll spare you. This 'denser' air means that the engines develop more power than they develop on a warm day – the aircraft has more 'get up and go' on a cold day. Combined with the increase in engine power we get an increase in lift. The cold air flowing over and under the wings allows the wings to make more 'lifting force'.

2. Runways must be slippery and more difficult to take off from and land on in cold weather?

Runways are just like roads in some respects to winter conditions but runways differ in the treatment they receive and in the way we, as pilots, prepare for possible poor conditions. Runways get a lot more care and attention from snow plows, sweepers and graders. Analysis of a runway's friction is also provided to our pilots. This is performed by a vehicle mounted decelerometer which measures how quickly a vehicle stops when brakes are applied. This measurement is expressed as a coefficient of friction called the CRFI (Canadian Runway Friction Index). Pilots and dispatchers will take this CRFI value and chart wind speed, wind direction and aircraft weight to determine if the runway conditions are safe – if not, we simply do not land or take off and the airports maintenance crews continue working on the runway.

Canadian North – Partner Air Carriers

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3. De-icing or spraying the wings must be an inconvenience?

Yes, because it results in departure delays and inconvenience for you, our passengers.

No, because it's a fact of life and a necessity when operating in Canadian winters. Ice and snow that sticks to an aircraft's wings cause the high speed air that flows over and under the wing to become rough or turbulent. Imagine a creek flowing over a rocky creek bottom, resulting in ripples and rapids. This turbulent air reduces the wing's lift and increases the drag on the wing. We remove any snow or ice that is sticking using brooms, blowers or de-icing fluid. De-icing fluid is a heated ethylene or propylene glycol based fluid which is sprayed over the entire aircraft to wash off and melt off any ice or snow on the aircraft. The de-icing fluid is either orange or green in color and due to the high glycol content has a very low freeze point.

As you look out your window, while sitting in a warm aircraft, gazing at the spectacular winter landscape of the Canadian north passing underneath, know that all of our staff are more than comfortable and specially trained to deal with the hardships and benefits of our winter.

All of our employees at Canadian North certainly appreciate your patience when dealing with the inevitable winter delays, and we all wish you a very pleasant flight.



Inuvik Youth Centre

Canadian North is proud to be a supporter of the Inuvik Youth Centre which currently hosts a number of programs for youth between the ages of 6 and 19.

The Inuvik Youth Centre receives incredible support from community members who volunteer their time to help serve the youth of Inuvik better. Programs include: drug awareness, athletics, BP-IYC Environmental Club, craft night, Young Entrepreneurs, educational workshops, games night, literacy programs, photography, Teen zine, work experience and youth leadership. Visit their website to learn more www.inuvikyouthcentre.org.

Experience Travel Convenience with Web Check-in

Go online to canadiannorth.com and print your boarding pass up to 24 hours before departure. All you need to do at the airport is proceed directly to security (drop your bags at check-in if needed).



On behalf of our senior management team and all of the employees at Canadian North I want to thank you for your on-going support.

It is at this time of year that we all begin to anticipate the first signs of spring that signal the coming of warmer weather and longer days. At my house, this is also the season when spring-cleaning begins. This spring, at Canadian North, our way of spring-cleaning includes preparing for increased leisure travel. Let me share with you some of the steps we are taking to ensure your future travel is as smooth as possible.

In 2006, we were fortunate to have expanded our operations substantially with a 25% growth in our fleet. To support this growth, we have:

- bolstered our airport operations with additional ground handling and counter staff at our key airports;
- added supervisory staff and augmented the ongoing participation of my senior management team (including myself) in the operation of our key airport locations;
- enhanced our training programs for new and existing staff and
- reviewed all of our ground handling equipment requirements and are adding additional equipment as necessary to ensure flights run smoothly.

These changes will not only help enhance our service during leisure travel, but will improve our on-time-performance and enhance our ability to deliver consistent, value-added service to each of our customers throughout the year.

Looking towards the future, we will continue to seek improvements in every area of our operations in order to provide you with a travel experience that is second to none. That is my personal commitment to you.

Thanks and welcome aboard.

A handwritten signature in black ink that reads "Tom Ruth".

Tom Ruth
President, Canadian North



Enjoy Aurora Class

Aurora Class Service includes a varied choice of onboard amenities, special services and menu selections, all of which have been designed to enhance your travel onboard Canadian North.

Complimentary Beverages

Timothy's Italian Blend Coffee
Timothy's Columbian Decaf Coffee
Bottled Spring Water
Red Rose English Tea
Sir Thomas Lipton Green Tea
Sir Thomas Lipton Herbal Teas
Milk
Apple Juice
Fruit Juice Combo
Orange Juice
Tomato Juice
Extra Spicy Clamato Juice
Café Franklin*
Coke / Diet Coke
Sprite / Diet Sprite
Canada Dry Ginger Ale
Canada Dry Club Soda
Nestea Lemon Iced Tea
Tonic Water

*Café Franklin Coffee Service available on select routes/flights only

Alcoholic Beverages [\$5 CDN]

Liquor & Liqueurs

Smirnoff Vodka
Lamb's Navy Rum
Bacardi Rum
Schenley OFC Rye Whiskey
Gilbey's Gin
Glenfiddich Scotch Whiskey
Grand Marnier
Baileys

Canadian Beer

Kokanee Beer
Budweiser Beer
Labatts Blue Beer
Coors Light Beer

Wine

Sutter Home Cabernet Sauvignon
Sutter Home Chardonnay
Wente Vineyard Selection Syrah
Wente Vineyard Selection Chardonnay

Upcoming Event

(Event dates can sometimes change. To be sure, contact the communities before you travel.)



ROCK AND ICE ULTRA – MARCH 14-23

Canadian North is proud to sponsor the Rock and Ice Ultra, an annual winter endurance race held in Yellowknife, Northwest Territories. The Rock and Ice Ultra consists of four races ranging from 2 km to 300 km. Competitors can run and snowshoe or cross-country ski. Racers are competing for a purse of \$28,400 in genuine Canadian diamonds from Canada's first diamond mine; the Ekati Diamond Mine!

Call Arctic Escapes Travel 867-445-2829 to book your travel now and visit www.rockandiceultra.com to register.

The Races

FROZEN TOE TRAIL BREAK

A 2 km or 5 km family friendly hike, snowshoe or cross-country ski event. Come out, cheer on the ultra distance racers and break a trail for them as they venture out into the vast wilderness of the Eastern Great Slave. Noise makers of all ages welcome!

COLD FOOT CLASSIC

An 80.5 km / 50 mile continuous foot and snowshoe or cross-country ski race. Compete solo, as a three member team, or as a 2, 3, 4, 5 or 6 member relay. The Cold Foot Classic is a fully supported race. There are 4 road-accessible check points along a well marked trail and racers are encouraged to cache food and gear or have a support crew on standby.

K-ROCK-160

A 160 km / 100 mile foot and snowshoe or cross-country ski race. Compete solo or as a three member team. The K-Rock-160 is a partially supported, 3-day / 3-stage race following a well marked trail.

DIAMOND 300-300

A 300+ km / 186 mile+ foot and snowshoe or cross-country ski race. Compete solo or as a three member team. The Diamond-300 is a 6 day / 6-stage, partially supported race through pristine northern Canadian wilderness, rich in First Nation culture, history and Canadian diamonds! After 100 miles the course takes racers out onto Great Slave Lake, the world's eleventh largest lake (the 'other-desert'). Racers competing in the Diamond-300 are required to have basic navigational and map reading skills.

Canada's Great Northern Adventure
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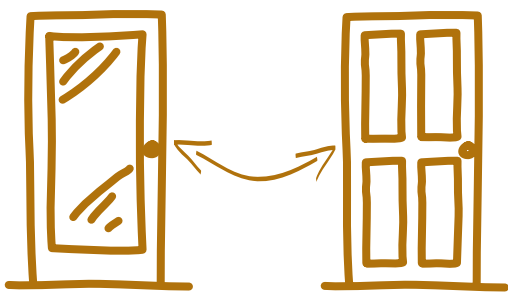
Daily from May 15, 2007 to December 15, 2008. Priced from \$879 plus applicable fees and taxes. Some restrictions apply. Visit our websites or call us for more information.

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