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Arctic Shortcut Worries Canadians

By JAMES BROOKE

TUKTOYAKTUK, Northwest Territories -- In this Arctic village, beachfront real estate means a summer view of polar sea ice glinting a few miles offshore.

But last summer, Inuvialuit natives here on the northern edge of Canada had front-row seats for unusual open-water traffic -- a Chinese research vessel examining ice conditions, a Russian boat towing a huge drydock from Siberia and an American cruise ship navigating the once forbidden **Northwest Passage**.

For four centuries, explorers and shipping executives have dreamed of sending ships from Europe to Asia across the top of North America. The quest for an Arctic shortcut consumed hundreds of lives, becoming a romantic obsession in Victorian times. Even though successful passages were finally made in the 20th century, the route was written off as impractical because its labyrinthine channels seemed to be perpetually frozen.

Now, as global temperatures rise, a **Northwest Passage** no longer seems like an adventurer's pipe dream. But for Canadians worried about inexperienced freighter captains' probing Arctic waters, the dream could become a nightmare if the fragile environment becomes the Panama Canal of the North.

"If there is an accident, who is going to wear the damage?" Col. Pierre Leblanc warned this week as he stepped down as commander of Canada's

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northern military forces in Yellowknife. "It's going to be the Canadian islands. If the freighter is registered in the Bahamas, there will be \$34 in the bank for cleanup."



A decade after the Exxon Valdez spilled 10.5 million gallons of crude oil off the Alaska coast, the environmental effects remain visible, Colonel Leblanc added.

While scientists argue about the causes of global warming, they generally agree that world temperatures are rising. In a flurry of conferences and articles this summer, scientists also are saying that warming is most visible in the extreme polar latitudes.

In this village of caribou hunters, where melting permafrost is causing some houses to tilt, scientists who are using satellite and submarine data are confirming what native elders have been saying all along. According to NASA analyses of satellite photographs, the late summer expanse of open waters of the Beaufort Sea roughly tripled from 1996 to 1998, to 375,000 square miles.



Tim Atherton

In the eastern Arctic, as warmer waters push farther north, the ice sheet that covers most of Greenland is losing 1.25 trillion gallons of fresh water a year, enough to sustain all 120 million households in the United States for almost five months, according to a new article in Science magazine.

The natives of Tuktoyaktuk rely on the polar sea for basic items like whale skin and blubber. With the growing likelihood of shipping in their area because of warmer waters, they fear harm from accidents and contamination.

Over all, the late summer icecap of the North Pole has shrunk 6 percent over the last 20 years, according to the National Aeronautics and Space Administration. Of greatest concern, though, is that the average thickness of the Arctic icecap has thinned 42 percent since the 1950's, according to sonar measurements by American and British submarines.

If those trends continue, some scientists predict, by the second half of the century, the polar icecap, which covers 80 percent of the Arctic Ocean at its September minimum, could vanish every summer.

"What people see now is not what they saw centuries ago," said Ann Savours, author of "The Search for the North West **Passage**," (St. Martin's Press 1999), one of several recent books on the **passage**. "The ice has deteriorated, or improved, depending on how you look at it."

The opening of the Arctic to commercial navigation could bring the biggest change in American shipping routes since the Panama Canal opened in 1914. Ships taking cargo from Rotterdam to Yokohama could cut 5,000 miles, almost cutting travel time in half from the Panama route.

On the far side of the Arctic from here, shipping companies are finalizing plans to send freighters with reinforced hulls steaming in summer months through the Northeast **Passage**, a route above Russia that similarly nearly halves the time and distance compared to the Suez Canal route between Hamburg and Yokohama.

With fewer islands, fewer icebergs and more open water, the Northeast **Passage** is considered safer than Canada's treacherous maze of straits and channels.

For now, high insurance costs, the iceberg threat, the need for icebreakers and expensive reinforced hulls and an extremely short open-water season keep all but the most prepared captains from attempting the **Northwest Passage**. But Canadians fear a confluence of events that would place enormous pressure on the **passage**, including 10 additional years of global warming and an accident that could block the Panama Canal, which 14,000 ships a year use.

"If the canal closes for whatever reason, there will be a lot of pressure to go up north," Colonel Leblanc said. Although the numbers are small, he said, the number of cruise ships venturing into the Canadian Arctic has steadily increased, from one in 1990 to 15 last summer.

The cruise ships, he said, generally follow the Polar Code, a book of Canadian regulations for shipping north of the 60th Parallel -- double hulls, cold-weather emergency gear, filing of routes and captains and crews trained in Arctic navigation.

Three summers ago, one cruise ship ran aground on a sandbar. The Canadian military fears that a ship might hit a rock or an iceberg.

"We don't have any military helicopters pre-positioned in the north," said Lt. Mark Gough, northern spokesman for the Canadian military, the agency in charge of search and rescue.

All the emergency teams are based along the United States border, the usual area for accidents. But as measured in air distances, those rescue bases are closer to the Equator than to the North Pole.

Colonel Leblanc posed what some people here call "the Titanic question." "If you have a cruise ship going down with 400 to 500 people," he asked, "who goes to rescue the people? How do you do it?"

Additionally, Canada's Arctic will be used more and more by air travelers as a shortcut between North America and Asia. Canada and Russia began allowing regular commercial flights this month over the North Pole region. Colonel Leblanc predicted that there could be as many 500 polar flights a day in five years, with up to 35 million people a year flying over the Canadian Arctic.

Although foreign airlines follow international safety standards and accept Canada's control of its airspace, many countries do not recognize Canadian sovereignty over its Arctic waters and many foreign shippers say they are not bound to follow Canada's Polar Code.

In a debate that once was the preserve of academics, the United States and the major shipping nations of Europe argue that the waters of the **Northwest Passage** constitute international

straits, just like the Strait of Gibraltar or the Dardanelles.

"Our view is very clear -- we view the **Northwest Passage** as a strait for international navigation," said a State Department lawyer, J. Ashley Roach. "The international transit regime applies there, just as it does through the Cape Horn, as it does through the Indonesian Archipelago, Strait of Singapore."

The Canadian and the United States governments have agreed to disagree on the issue. Reflecting scientific and safety cooperation between both countries, the commandant of the United States Coast Guard, Adm. James M. Loy, and his Canadian counterpart, Commissioner John Adams, made a joint visit in late July to the Coast Guard cutter Healy as it steamed through the **Northwest Passage** with Canadian permission.

"With this particular transit, we crossed the t's and dotted the i's, but the U.S. definitely has not changed its position," said Cmdr. George DuPree, chief of the United States Coast Guard icebreaking division. "The **Northwest Passage** is an international strait that any vessel can transit under the right of innocent **passage**."

Because American and European governments do not view the **passage** as internal Canadian waters, they do not believe that their ships are regulated by the Canadian Arctic Waters Pollution Prevention Act, a 1970 law that lets Canada bar any ship deemed to pose a pollution hazard. With the debate on safety regulations snagged on the sovereignty issue, there is little progress in adopting international standards for Arctic navigation.

In Canada's far north, where a jeep ride across the tundra can mar the landscape for decades, residents worry that foreign shipping companies will try to save money by cutting through the Arctic, leaving Canada to foot the cleanup bills. The critics say that despite the outcry over the Exxon Valdez, no new double-hulled tanker has been added to the Alaska route since the spill in 1989.

"The impact of pollution in the Arctic is enormous," said Richard Nerysoo, president of the Tribal Council of the Gwich'in, a large native group near the Beaufort Sea. "I take a strong stand for Canada setting the rules."

Others fear that ships arriving unannounced could cut through sea ice, leaving Inuit hunters marooned on ice floes, or that water tankers would fill up with melting glacier water, after having pumped into the Arctic bilge contaminated with foreign organisms.

"This is not an environment you want to take chances with," Joseph L. Handley, the territorial finance minister, said in an interview in Yellowknife. "People don't realize that things don't regrow up here. They don't replenish the way they do down south."

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