COLD RUSH
The coming fight for the melting north
By McKenzie Funk

On the first full day of the sovereignty operation, the captain slowed the frigate and we took out the machine guns and sprayed the Northwest Passage with bullets. It felt pretty good. It was foggy, and the unpolluted water boiled as we polluted it with lead. There was no life we could see, and few waves. The wind was cold, the Arctic Ocean a drab green. There wasn’t any ice. But if there had been ice, we would have shot it.

The guns were C7s—American M16s but rechristened, like many Canadian weapons, with a patriotic “C”—and most of the shooters were camo-clad teenagers from Quebec’s celebrated 22e Regiment, who are known as the Vandoos, from vingt deux (“twenty-two”). The Vandoos lined up three in a row on the back deck, each of them held in place by a sturdy navy man, and fired away in the spirit of joint-operations camaraderie. They went from semi-automatic to fully automatic and shot more. They switched to pistols and then shotguns and shot until the deck was littered with shells. When they finished, they kicked the shells into the sea. There were journalists on board, and the Arctic was warming, and the Canadians—a peaceful people, a people who take immense pride in their own decency—were trying their hardest to seem violent, dangerous, prepared. They were baring their teeth.

The frigate was named the Montreal. It was the length of two city blocks and painted warship gray, packed with two-dozen torpedoes and nearly 250 people. There were sailors, Vandoos, and Mounties. There were Canadian wire-service reporters and photographers
from at least two in-flight magazines. There were Inuit dignitaries and observers from Nunavut Tunngavik Incorporated, the pseudo-governmental Inuit corporation that had negotiated the 1999 creation of its people's own 800,000-square-mile territory, Nunavut. Our cruise speed was 15.5 knots. Our fuel stores were at 125 percent. With diesel taking the place of water in the auxiliary tanks, our showers were capped at two minutes. We were steaming north, farther north than the Canadian Navy had gone in decades.

Prime Minister Stephen Harper himself had made the long journey to Iqaluit, the former U.S. military base that is now the capital of Nunavut, to kick off the operation. In the previous months he had sparred publicly with the American ambassador over ownership of the Northwest Passage, the storied, still mostly frozen shipping route from the Pacific to the Atlantic across the top of the continent. The military had been referring to the passage as the Canadian Internal Waters, and Harper had promised to build new heavy icebreakers, a new Arctic warfare and training center, a new Arctic deepwater port, and a new Arctic network of undersea sensors and aerial drones. Now, as the north melted and Arctic shipping promised to become ground for most of a week, scanning the Northwest Passage for invaders.

There had been sovereignty operations before, including Exercise Narwhal Ranger in 2002 and Operation Nunavut (Inuitut for “the land is ours”) in 2006. For Exercise Frozen Beaver, in 2005, Canadian troops heli-copterred to Hans Island—a kidney-shaped, half-square-mile rock near Greenland claimed by both Denmark and Canada—and planted a supposedly windproof steel flag and flagpole that the wind toppled almost immediately. They also confiscated a Danish flag, which the government then delivered to Denmark’s ambassador in Ottawa. Despite assurances by a spokesman that Danish pastries would still be served in the cafeteria of Canada’s foreign affairs ministry, Denmark nearly sent a warship to Hans in retaliation.

Today’s was the largest such operation to date, however, and it was occurring on the hundredth anniversary of the Northwest Passage’s first crossing (which was by a Norwegian, though no one dwelled on that). Its name was Operation Lancaster, and its stated goal was to “project a credible size military force over a broad area of the Eastern Arctic.” It would last twelve days in all. The Montreal would lead a flotilla of two navy warships and two coast guard icebreakers into Lancaster Sound, the eastern entrance of the passage, and patrol back and forth as the skies buzzed with Aurora surveillance planes and Griffon helicopters. Meanwhile, the Vandoos—accompanied by Inuit reservists, there to ensure that no one was eaten by polar bears—would take the smaller ships to shore and set up observation posts on both sides of the sound. To the north, on rocky Devon Island, would be Observation Post 1. To the south, on glaciated Baffin Island and the adjacent Borden Peninsula, would be Observation Posts 2 and 3. The troops would hold the high ground for most of a week, scanning the Northwest Passage for invaders.

But all of this would be preceded by a bold display of Canadian resolve: a mock interdiction. After watching the machine guns fire and the Maple Leaf flag flutter, I strolled up to the bridge and stood next to the Montreal’s head officer, Commander Paul Dempsey. He and his crew had donned green helmets and green flak jackets. The radio crackled, and a Canadian approximation of the voice of a California surfer filled the bridge. It was the supposed captain of the Killer Bee, which in actuality was the Goose Bay, a 180-foot Canadian coastal-defense vessel that the war gamers had decided would be a rogue “American” merchant ship.

The Killer Bee was four miles away in the fog, sailing a course that would intersect with ours in an estimated fourteen minutes, forty-two seconds. It would not say where it was going. It would not say what was in its hold. “Merchant vessel Killer Bee, what is your cargo?” our radioman asked. “This is Warship 336. Again, what is your cargo?” The Killer Bee’s answers were brief, rude, American in their tone save for the occasional slipup: “We’re about forty miles off the coast, which constitutes international waters. Are you sure you have the authority to be questioning me out here? Can you just tell me again why I’m being asked these questions? You guys are the almighty Canadian government, so I’m sure you can access this sort of information somewhere else.”

Dempsey passed a message to the colonel running Operation Lancaster, Christine Whitecross, asking for clearance to send over a boarding party and, if necessary, to initiate “disabling fire.” The sailors on the bridge peered into the mist off our port side. We informed the Killer Bee that we would be boarding it, and its captain replied that he wouldn’t be “too down with that.” The engine churned. We began to close the gap: 700 yards, 600 yards, 500 yards. The ship appeared, and we aimed our 50-caliber machine gun at it. “Bullying your way around the ocean is not a way to foster cooperation between our two countries,” the voice told us. Dempsey took over the radio, commanded the Killer Bee to remove all personnel from its top decks, and directed a barrage oftracer fire 1,000 yards off its bow. The smell of gunpowder wafted through the bridge. The next barrage was 500 yards off the bow. Finally, our 57-millimeter cannon swiveled toward the Killer Bee. There were five loud booms in quick succession, five puffs of smoke, and then, seconds later, a sixth round. The ocean in front of the Killer Bee erupted. Its captain relented. “I thought Canada was a nation of peace-keepers,” whined the faux-American.

For the next 500 miles, we saw only water and fog and an occasional glimpse of the chutes and pinnacles of Baffin Island’s peaks. It wasn’t until 10:00 A.M. on the operation’s fourth day that a much-awaited announcement came over the loudspeaker: icebergs ahead. We rushed to the portside deck where the officers normally gathered to smoke. We were at seventy-two degrees north, and there were three of them: two- and three-hundred-foot
giants that towered over the frigate. The icebergs' walls were riven by small waterfalls, and chunks of ice were falling off into the sea. The bergs were drifting south toward the Atlantic, bound for warmer waters where they would soon melt into nothing. The Vandoos leaned over the railing and snapped photos.

This was the year that drought-crazed camels rampaged through a village in Australia, a manatee swam past Alaska’s Shishmaref village decided to evacuate before being lost to the Chukchi Sea. Canadian scientists reported that the forty-square-mile Ayles ice shelf had broken off Ellesmere Island and formed a rapidly melting island of its own. A European satellite showed a temporary crack in the ice pack leading from northern Russia all the way to the North Pole. The National Oceanic & Atmospheric Administration announced that last winter was the warmest since it began

In April the issue of global warming went before the United Nations Security Council. The discussion was led by Britain, which houses its climate-change office, the Hadley Centre, in its Ministry of Defence, and which had recently asked its chief economist, Sir Nicholas Stern, to conduct a review of global warming's likely effects on world markets. Stern’s findings were dire: The cost of unchecked greenhouse-gas emissions will be the equivalent of losing 5 percent or more of global GDP a year, every year, forever. We are on the brink of an upheaval on the scale of the two world wars and the Great Depression.

Tropical Africa is expected to see a 9 to 14 percent rise in exposure to malaria by around 2050, a 5 to 10 percent drop in crop yields, and up to 250 million more people affected by drought. Nearly 200 million South and East Asians will be threatened by sea-level rises resulting from collapsing ice sheets, and nearly a trillion dollars of regional GDP could be lost. In South America maize production will fall by 15 percent in fifty years and the desiccating Amazon will be pushed toward collapse, its forest replaced by savanna.


But the future did not seem universally dark. At the margins of the crisis, some saw opportunity, especially in the wealthy nations that are causing climate change in the first place. In the short term in Europe, Russia, Canada, and America, rain will still fall, growing seasons will extend, agriculture will expand, and wheat, rice, and soybean crops will be bolstered by the “carbon-dioxide fertilization” effect: The higher the atmospheric concentration of carbon dioxide, which is a key building block for plant growth, the higher the yields.

Chelsea Piers in New York City's Hudson River, and the Netherlands announced that its famous Elfstedentocht ice-skating race might have to be postponed forever. Armadillos reached northeast Arkansas. Wolves ate dogs in Alaska. Fire consumed 50 million acres of Siberia. Greenland lost a hundred gigatons of ice. The Inuit got air-conditioning units. The polar bear lurched toward the endangered-species list. India’s Ghoramara Island was mostly lost to the Bay of Bengal, Papua New Guinea’s Malasiga village was mostly lost to the Solomon Sea, and keeping records, which was in 1880. The Intergovernmental Panel on Climate Change announced that eleven of the last twelve years were the warmest in human history.

This was the year that we began to believe in global warming—not in the abstract science of the prospect, which most people could already passively accept, but in the fact that there was money in it, power to be won and lost, scraps to tussle over, profit to be wrung from crisis. We stopped wondering whether climate change was real and started grappling with the consequences.
Farther north, in the Arctic, the “ice albedo feedback” effect—the fact that sea ice, which reflects 85 to 90 percent of solar radiation, melts to become seawater, which absorbs all but 10 percent—is expected to keep temperatures climbing at twice the current global rate. This will speed up the melt, and the melt may speed up northern economies. More than a fifth of the world’s undiscovered oil and liquid gas—175 billion barrels, according to one estimate—is thought to be hiding in the Arctic. The less ice there is, the more oil there is within reach. Meanwhile, the Northwest Passage, along with its counterpart across the top of Russia, the Northeast Passage, could someday cut 5,000 miles out of the shipping route between northern Europe and East Asia, 10,000 miles out of the trip around Cape Horn for ships too large for the Panama or Suez Canal, and a thousand dollars out of the cost—$1,500—of sending a container to Japan.

The $49 million grossed by Al Gore’s An Inconvenient Truth may have been global warming’s first true financial windfall, but a new mentality is taking hold. Reports by Citigroup, UBS, and Lehman Brothers have recently advised investors on how to wring a buck out of global tailspin. Citigroup’s report, “Climatic Consequences: Investment Implications of a Changing Climate,” released in January, is particularly helpful. It highlights investment opportunities at seventy-four companies in twenty-one industries in eighteen countries, including Aguas de Barcelona (drought-afflicted Spain’s “leader in water supply”), Monsanto (drought-resistant crops), and John Deere (more tractors needed in America as drought wipes out Australia’s wheat exports). It shows a graph of the six top natural-gas-producing countries in the world. Four of them—Russia, the United States, Canada, and Norway—are Arctic nations.

My bunkmate on the Montréal was a man I’ll call Sergeant Strong, a tall Canadian in his forties who had a thick brown mustache and a runner’s build and wore a dark beret with a gold crest. He had killed people in the Balkans, Afghanistan, and places he would not specify, and every time I pulled out my camera, he stepped out of view. He did not want me to use his real name. He was a patriot and a lifelong soldier, and recently he’d become a reporter for Canadian Army News. He roamed the ship with a pair of Nikons slung from his shoulders. We first met on the back deck, near the helicopter hangar, and he immediately asked who I thought owned the Northwest Passage. I said I wasnt sure. “It’s ours,” he told me. “It’s fucking ours.” Then he shared his solution for the territorial dispute over Hans Island. “We should just nuke Denmark,” he said. He was kidding, of course. Canada has no nuclear weapons. His real solution was more typically Canadian, and it revealed him as a believer in the basic boots-on-the-ice premise of Operation Lancaster. “Just put a trailer on the island,” he said. “Two guys, two months at a time. Give them TVs and VCRs. And guess what: Problem solved.”

The sergeant had a partner, Master Corporal Bradley, a giant videographer with whatever the opposite of a Napoleon complex is. Bradley’s mustache was gray and waxed into dueling barbs, and he wore noise-canceling headphones even when he wasn’t filming. He walked like a hunchback through the bowels of the Montréal, constantly hitting his head on doorways. The three of us, it turned out, would be part of the landing team forming Observation Post 1 on Devon Island. We would be joining eight Vandoos and four Inuit—reservists outfitted with red cotton hoodies and known as Canadian Rangers—to go ashore at Dundas Harbor, a shallow fjord where the Royal Canadian Mounted Police had manned its own outpost in the 1920s. Back then, two constables had been lost to self-inflicted gunshots to the head: the first, a suicide; the second, an apparent walrus-hunting mishap.
Two days before our "insertion," which is what everyone insisted on calling our mission to Devon, we were allowed to take a tour of the Montréal's operations room—a cave of damp air lit only by radar and sonar screens and low red lights. Inside we met the ship's underwater-warfare officer. "Could you detect a passing submarine?" I asked. He could not. The ship couldn't drop sonar rays in the water without NATO permission. "They'd wonder only by radar and sonar screens and low-frequency "which is what everyone insisted on calling "underwater-warfare officer."

"Could you allow to take a tour of the "mess, once again promoting his "army career?"

Last October, I traveled to Vancouver to meet Michael Byers, the former director of Duke University's Canadian Studies Program and an expert on Canadian security and sovereignty. Byers, who is a young-looking forty years old and has two days' worth of beard every day, had recently returned home, surrendering his U.S. green card to a border guard in a burst of patriotism. He had taken a position at the University of British Columbia, and I was invited to sit in on his graduate seminar on climate change, a ten-person class held in a corner room with tall windows looking out on tall fir trees. When I walked in fifteen minutes late, a lanky student named Ryder McKeown was delivering a PowerPoint presentation called "Climate Change and National Security." He wore jeans and glasses and Puma sneakers that happened to be red, white, and blue.

"Given the choice between starving and raiding," one of McKeown's slides read, "people raid." He wasn't talking about refugees from the tropics—at least not just them. The United States has a worsening water shortage, he said, and Canada has 20 percent of the world's freshwater. He described "fantastic schemes" to export it across the border in bulk, including one proposal to divert Canadian rivers to run southward rather than northward. In another plan, fjords in British Columbia would be dammed at one end and filled with freshwater; tankers would arrive, top up, and chug south to Los Angeles. "We have it," he said. "They want it."

Byers jumped in. "We are talking about 300 million people with the world's largest military and with a desperate need for water," he said, "and to some degree the constraints of international law will fade into the background. But luckily water conservation is much cheaper than enormous engineering projects. They'll find it hard to justify the expense."

The discussion turned to the Northwest Passage, where the United States has twice enraged Canadian nationalists by sending ships through without asking permission. The 1969 voyage of the S.S. Manhattan, an ice-strengthened supertanker that tested the frozen route's viability for transporting North Slope oil (the verdict: not yet), led to 1970 legislation in the Canadian Parliament that asserted Ottawa's right to control Arctic traffic, which in turn led to failed eleventh-hour maneuvering to forestall the new law by Henry Kissinger and the U.S. State Department, then to a retaliatory cut in U.S. imports of Canadian oil. The 1985 crossing of the U.S. Coast Guard icebreaker Polar Sea led to more uproar and the negotiation of an informal "don't ask, don't tell" policy: Before making any transits of the passage, the Coast Guard now notifies Canada (without exactly asking); Canada agrees never to tell its neighbor no. As the ice melts and the world's oil deposits dry up, it's a policy few believe will hold. American submarines already use the passage to travel between the Atlantic and the Pacific, and I had heard unprovable tales of Inuit hunters mistaking those subs for whales and shooting at them, only to have their bullets bounce off.

"We are talking about moving from a country that, in practical terms, had two coastlines, to one that now has three coastlines," Byers said. "And we're being told that our new third coastline isn't subject to full Canadian jurisdiction—that it's the wild, wild West." He said that drug smuggling, gun smuggling, illegal immigration, and environmental damage could go unchecked if Canada didn't take control.

McKeown suggested there was a deeper threat as well. As divisive as the Northwest Passage may be, he said, Canada and the United States are drawn together in times of crisis—not
pulled apart. He rattled off examples of cross-border cooperation: the Permanent Joint Board on Defense in 1940, NATO in 1948, NORAD in 1958, the Smart Border Declaration in 2001. In the mid-1950s, the Distant Early Warning Line—fifty-eight Soviet-facing radar posts—was built with mostly American money on mostly Canadian land. If climate change is truly as disruptive as both world wars, might Canada be drawn into an inescapable embrace with America?

McKeown was running out of time, so he raced through his last slides, laying out a climate-change scenario designed to “stretch our way of thinking”: First, rising seas flood Bangladesh, Mumbai, and Shanghai. Refugee applications then flood Canada. A terrorist group based in Canada soon attacks America. The United States closes its borders. In retaliation, Canada ceases water exports. But then, as immigrants sneak in from the Arctic and Russian and Chinese subs cruise the Northwest Passage, Canada asks for America’s help.

“Canada,” McKeown concluded, “remains an independent country in name only.” Byers let that sink in. “If we’re in a Mad Max world, when things are increasingly dangerous and it’s survival of the fittest,” he said, “it’s not implausible to argue that our future is bound to the United States.” He was playing devil’s advocate. It worked.

The class erupted. “Integration is a slippery slope,” said McKeown. A student on the far side of the room agreed. “We could lose our central-banking independence, our monetary independence, our social democratic Canadianism,” he said. “Our sovereignty is us, right? Without it we lose independent policy all over the board.”

“Has anyone here been to Puerto Rico?” Byers asked. “Is it part of the United States?” The students answered that it was a commonwealth, a protectorate. “They’re American citizens—sort of—but they can’t vote,” one said. “They don’t have minimum-wage standards,” said another.

“There are a lot of people who support greater integration with the United States,” Byers concluded, “and they’re all under the assumption that we would become the next California—that we would become a state. But someone once told me that we Canadians need to pay more attention to Puerto Rico.” A student sitting across from me spoke up. “They would definitely never give us the vote,” he said. “They don’t want thirty million more Democrats.”

The class burst into laughter, but it was short-lived. “The United States is no longer a democracy at the federal level,” someone said, “and I don’t want to see us becoming subjects of a quasitotalitarian military state. The real question is, What are our alternatives? I think an alliance with Europe would make a lot of sense for us.” I was reminded of a Canadian radio contest some years ago in which listeners were challenged to come up with a national slogan equivalent to “as American as apple pie.” The winning entry: “As Canadian as possible under the circumstances.”

Our insertion onto Devon Island began with a frenzy of packing and map-reading and sorting through food rations in the helicopter hangar. A rope ladder was soon thrown over the side of
the Montréal, and we put on black life jackets and climbed down to a Zodiac raft that was pitching on six-foot seas. The Vandoos' sergeant, Dany Saleh, went first. The surprisingly graceful Bradley, all 300 or so pounds of him, came last. We filled the front of the Zodiac with rucksacks and ration packs and weapons, and then we zipped across the ocean until the Moncton, a small warship just shorter than a hockey rink and supposedly better than the Montréal at landings, appeared out of the haze. We scaled its ladder and formed a bucket brigade to unload the gear. The Moncton was homey—its crew consisted of forty reservists—and so tight on space that the Vandoos had to set up cots in the hallways. Most of its sailors were as new to the Arctic as we were.

I'd known Devon Island only as the site of NASA's Mars on Earth project, in which investigators attempt to live on a rocky, frigid, and analogue to the Red Planet, and I was surprised by its beauty when we approached the next day. It loomed large even from thirty miles out, its glaciers pouring down from desolate 3,000-foot peaks. The fog was gone, the sun was high, and icebergs kept floating past. The water was milky, glacial. An Aurora surveillance plane appeared and made a triple pass above us, plumes of smoke trailing behind its four props.

We sailed in from the east, and as we turned the corner into the fjord, we were surprised by a ship sneaking up from the west: the Russian-flagged, Australian-chartered, 6,600-ton Akademik Ioffe. It was a tour boat. I recognized it from the watchman's picture book, in which its photo was sandwiched between images of Danish warships and surveillance aircraft. The Ioffe's ice pilot radioed over. "Good afternoon, Warship 708, this is the Akademik Ioffe. We are a small passenger ship, an expedition ship. We have many Canadians—myself included—onboard." His voice had a slight tremor to it. "It looks like you'll be into Dundas Harbor before us, so we'll be sure to stay out of your way." The officers on the Moncton snickered and rolled their eyes, pleased at the fear they generated. "You're damn right," one said. "I can't believe he called us before we called him," said another. It was reminiscent of the confrontation with the Killer Bee, only this time with a real, albeit Canadian, foe.

Our warship surged past the tour boat and arced a dramatic right turn into the fjord. We then slowed to a crawl. Our fifty-year-old charts, it turned out, couldn't tell us how deep the harbor was, and the captain was worried that we might run aground. We took depth soundings and peered into the silty water. The charts said it was thirty feet deep. Our sonar said it was more than two hundred. Best to stay put. We dropped anchor a mile offshore and began the slow process of readying the Zodiacs. The Akademik Ioffe steamed past us and anchored a half-mile closer. As Sergeant Saleh and others put on orange survival suits and the crew of the Moncton put on baby-blue helmets, the Ioffe put boats in the water. "They're beating us!" someone yelled. A hundred tourists made it to shore before our dozen soldiers were off the ship.

The Canadian Forces reached the narrow, rocky beach just as the Ioffe's tourists were finishing their stroll. The tourists were white-haired and frail and dressed in matching blue-and-yellow Gore-Tex jackets. They had paid as
much as $8,845 apiece to see the vast, empty Arctic. Cameras and binoculars hung from their necks. They seemed confused. The Vandoos shouldered their hundred-pound packs and struggled mightily up the beach, grunting, assault rifles in hand. They proceeded across the soggy tundra, their boots sinking into the mud with every step. One of the guides from the Loft, a man from Seattle with a bushy beard and a brown fedora, interrupted this long march to remind us to “leave no trace”—Devon’s environment was fragile. Sergeant Strong looked at the American. “A lot of us have spent a lot of time in the north,” he said. “We’re actually here to protect it.”

A month after visiting Michael Byers’s class, I decided to travel to Washington, D.C., to see what Canada was so afraid of. I found a capital that was awakening to the security risks posed by global warming, and also awakening, perhaps, to the idea that northern riches could be ours—yet barely connecting the dots between the two. No one really seemed to think that Canada would get in our way. No one really seemed to think about Canada at all.

In the United States, studies linking global warming and security date at least to 2003, when futurist Peter Schwartz released a groundbreaking report commissioned by the Pentagon, “An Abrupt Climate Change Scenario and Its Implications for United States National Security.” In 2004, the National Intelligence Council included global warming in its Global Briefing, a twice-a-decade look at future flashpoints. In early March of this year, Schwartz released a second report for an unnamed agency, and three days later a special committee on global warming was formed in the House. The Senate’s Global Climate Change Security Oversight Act—legislation that would require the sixteen main intelligence agencies to produce a National Intelligence Estimate on the topic—was introduced later that month. The study “National Security and the Threat of Climate Change,” produced by eleven retired generals and admirals assembled by the government-financed Center for Naval Analyses, was released a few weeks later. The Pentagon’s fears, Schwartz told me, could be boiled down to a single word: Mogadishu. “Massive drought led to famine, which led to the collapse of Somalia, which led to the U.N. intervention, which led to the U.S. intervention, which led to a military disaster,” he said. “They see a string of Mogadishus rolling off into the future.”

The only Arctic link I dug up was an outdated website from an April 2001 Navy symposium, “Naval Operations in an Ice-Free Arctic.” In a bakery on the west side of Farragut Square, I met Dennis Conlon, the former head of the Office of Naval Research’s Arctic program and the organizer of the symposium. He told me that the fifty participants—military officers, civilian ice captains, scientists—had determined that sonar function would improve as the ice melted but that charts and GPS coverage would fall short, and that submarines would need to find a new place to hide. They role-played future conflicts: a fight over fishing rights in the Chuckchi Sea, a special-operations strike against “environmental terrorists” who had seized oil facilities in the Svalbard Archipelago, a “Freedom of Navigation Operation” to loosen Russia’s grip on the Northeast Passage, which experts believe will become ice-free decades before the Northwest Passage. Yet by the time the symposium’s report was ready, the Pentagon and the World Trade Center had been hit, and its findings were lost in the fog of 9/11. “We couldn’t even brief the thing,” Conlon said. He mentioned that he drives a Prius these days. He is also out of a job. The Navy, which spent in the neighborhood of $30 million a year on polar research in the mid-Nineties—when fears of a Soviet attack from the north were still fresh—phased out its Arctic program in 2003. But, Conlon told me, there was good news: a follow-up symposium would take place this summer.

In Washington, Canada experts were hard to find—a measure, perhaps, of Canada’s status as a strategic non-entity. I lunches with two of the few—David Biette of the Woodrow Wilson International Center for Scholars and Christopher Sands of the Center for Strategic and International Studies—on back-to-back days, and I listened as each framed the dispute over the Northwest Passage as a dispute over freedom of navigation everywhere.

The United States, it turns out, does not disagree that the Northwest Passage runs through Canadian waters. Its claim is that the passage is an international strait like Malacca, Gibraltar, Bab-el-Mandeb, the Dardanelles, and the Bosporus—a waterway that should be open to container ships and oil tankers from all nations. The European Union shares America’s interpretation, and China—another country with much to gain from an open passage—recently signaled its thoughts when its 550-foot icebreaker Snow Dragon appeared in the Arctic and the captain nonchalantly landed passengers at the Canadian settlement of Tuktoyaktuk. “This isn’t just to stick it to Canada,” Biette said. “This is a global position.”

Sands didn’t talk about protection from Canada because he was too busy discussing protection of Canada. Although he did not use the precise phrase, he suggested that the U.S. presence in the north was a kind of modern white man’s burden. “The defense of the continent against traditional military threats such as incoming missiles or bombers is really up to us,” he said. “The Canadians aren’t going to do it, the Mexicans aren’t going to do it, and we can’t do much to stop them from being free riders.”

I went to American University, where I met with Robert Pastor, a professor and longtime adviser to Democratic presidential candidates who is often denounced by Canadian nationalists for advocating what he calls the North American Community: a sort of supersized NAFTA, this continent’s answer to the European Union. Shared security, he told me, would be part of the deal—the borders between Canada, the United States, and Mexico would open, and the one surrounding all three would be beefed up. But for the most part his proposals were economic: that we knock down all trade barriers and together fill our wallets with “ameros.”

The more people I talked to, the more it seemed that America wasn’t looking north out of fear of a warmed future. Insofar as it was looking at all,
it was to see how much money it could make: an invasion by the wealthy for the wealthy that had little to do with survival.

After four days in Washington, I finally visited the Canadian Embassy to meet Lieutenant-Colonel Douglas Martin, the affable man behind the website CanadianAlly.com, which is designed to remind Americans how much their neighbor is and wants to be their friend. The embassy sits directly between Congress and the White House. "Great place for a peacekeeper, eh?" Martin said. He acknowledged the strained political ties between America and Canada since his country declined to join the Coalition of the Willing in Iraq, but he assured me that our economic ties were as strong as ever. Canada is the biggest trade partner to thirty-eight of the fifty states. It provides 85 percent of our natural gas imports. It supplies us with more oil than any other country. "Americans have lights on in their homes because of Canadian energy," he said, "and millions of you have jobs thanks to Canadian trade. Ontario alone does more business with the United States than all of Japan." I walked out of the embassy with a fold-up map of Canada's resources for hire—the uranium we could mine from Saskatchewan if we need it, the oil sands in Alberta, the turbot fishery in Nunavut, the hydroelectric complexes in Quebec. Martin was speaking our language.

Our campsite on Devon Island was a flat patch of high ground at the base of a reddish hill of scree. In front of us was the Northwest Passage; to our side was the fjord that was Dundas Harbor; and below us, a few hundred yards away, were the weather-beaten wooden buildings of the abandoned Mountie post. There were a few bergy bits in the bay, a few patches of yellow grass around the cabins. The greenest thing in sight was the Vandoos' lineup of A-frame tents, which had been set up one next to another in a very military row. Our crew of Inuit Rangers, two men and two women who had arrived earlier by helicopter, were zipped inside a nearby dome tent, playing cards. They kept bursting into laughter because one of them kept farting. I was wedged in my own green tent along with Sergeant Strong and Master Corporal Bradley, who had been told, incorrectly, that they would be provided shelter.

There was little to do. The first evening, Saleh, the Vandoos' sergeant, spent hours trying to make contact with the Moncton and the two observation posts across the sound. Sergeant Saleh received mostly static, even after his men restrung the wire antenna a few times. "Eeny stay-shun, eeny stay-shun," he called into the void. "Thees ees Thirtee-One-Bravo ... Say ageen? Say ageen? Say ageen?" One of the Inuit, who, unlike the Quebecker, had learned proper Canadian English in his school for natives, took over, with scarcely better luck. Four of the Vandoos, apparently bored, ran off and climbed the hill behind camp, returning only after their superiors yelled at them. I counted icebergs. There were fifteen in sight, including two ship-size giants and two halves of another iceberg that the Rangers had watched break apart earlier that day. The ice was moving, but so slowly that you had to look away for a moment to detect any change. The sun tried but never really set. Night at seventy-four degrees north, if you could call it night, was a three-hour period of darker-than-normal gray.

We learned that the electric fence we'd be allotted to fend off polar bears didn't work. Our bear protection consisted of two .303 shotguns and four Inuit, so the Rangers' sergeant had the entire camp huddle around his laptop to watch a bear-safety DVD. Advice: Poking it in the eyes won't work. He said that the .303's first three rounds would be "bear bangers"—firecracker-like shots meant to spook polar bears—and the last was a slug of lead. Under Canadian law, only Inuit were allowed to kill polar bears, and there were no exceptions. But we should all be ready to use the lead slug if it became a matter of life or death. We should aim for the bear's neck or just below its shoulder, where we would have a chance at piercing its heart.

More tourists invaded on the second morning—ninety-two of them, all in matching yellow Gore-Tex jackets—and streamed toward our tents. "It looks like the march of the penguins, eh?" said Sergeant Strong. An old woman with a beret and a tiny backpack arrived and fixed her gaze on him.
“Who are you?” she asked. “Who are you?” asked the sergeant. “I’m from the boat,” she said. She was an American from Chicago. Her friend, who was Portuguese but lived near Canada in upstate New York, joined us. The conversation turned to sovereignty. “The Americans are essentially greedy,” the friend said. “If there’s oil up here, they’ll be here. That’s what all these wars are about.” She mentioned Hans Island, and Sergeant Strong lit up. “I think the simple solution for Hans Island is to just put someone there,” he said. “You’ve just got to keep people there year-round.”

The woman made a face. “But then the Danes would just send someone there too,” she replied.

The pair walked off, and we stood there in camp, our hands in our pockets. “That woman has an opinion about everything,” the sergeant said. “She was way out of whack,” Bradley said. “It’s just silly to talk about a fight over oil. We’re producing so much and sending so much south that you guys don’t need to come up here and take it—we’re selling it to you freely.”

We watched the tourists return to their ship in a flotilla of Zodiacs. As soon as they were back onboard, one of the Rangers grabbed his rifle and shot a three-foot-long Arctic hare—a bullet between the eyes from 200 yards away. He’d spied it earlier but hadn’t wanted to scare our visitors. He skinned it and chopped it into chunks and left it on top of a plastic bag in the middle of camp, where it began to dry in the sun.

To the extent that America has had an Arctic policy since the Cold War, it is the doing of George Newton, a mustachioed former nuclear-submarine captain who spent fourteen years on the U.S. Arctic Research Commission, many of them as its chairman. When he and I met in Washington, he had just stepped down, and we sat in what I took to be his former office. I hoped he could tell me what we were really after in the north. He had large wire-rimmed glasses and spoke in emphatic tones, downing cup after cup of water as we talked.

I asked him first about the Northwest Passage. “Why should we be the ones negotiating with Canada over it?” he exclaimed. “Shouldn’t Japan, which has a large fleet, take the lead? Or Maersk, the big shipping company in Denmark? Shouldn’t Denmark be in on this?” Newton explained that the right of “innocent passage” through active straits is also enshrined in the United Nations Convention on the Law of the Sea—the so-called Constitution of the Oceans, a treaty signed by 155 countries as of July. (The United States, despite having drafted much of the law in the 1970s, is not yet among them.) But he granted that legal arguments on both sides are complicated by the ice: The passage is frozen, so it’s difficult to call it an active strait. And it’s equally difficult to say it will never become one. The treaty’s language regarding ice-covered areas hurts the U.S. position as much as the language regarding international straits helps it. Still, Newton was confident that the rhetoric could be toned down, that we could all act like adults about this. The economics of the thing made an agreement inevitable.

Ratification of the Law of the Sea treaty had been the Arctic Research Commission’s greatest goal under Newton, and it remains its greatest goal today. This has hardly anything to do with the Northwest Passage, though, and almost everything to do with oil. The treaty, which establishes navigational rules and sets forth nations’ rights to the fish and minerals 200 nautical miles off their coastlines, also allows them to claim further territory based on the undersea extent of their continental shelves. This latter provision, Article 76 of the Law of the Sea, will allow America to get its share of polar oil. It is the rule under which the five nations with Arctic Ocean frontage—Canada, Denmark, Norway, Russia, and the United States—will carve up the Arctic. It is the terms of engagement for the last great imperial partition.

The Law of the Sea turns the world, especially the top of the world, into a different place. In terms of sea it could someday own, the United States, with its borders extended and each of its island holdings surrounded by an oversize doughnut of sovereign waters, would grow by 4.1 million square miles. It would surpass China, Canada, and Russia, with their own expanded holdings, to become the world’s largest country.

The key to all of this is proving how far your landmass extends undersea, a process that requires collecting detailed bathymetric and seismic data. These findings inevitably would be contested, but the United States could claim an estimated $1.3 trillion worth of resources, some $650 billion in petroleum in the Alaskan shelf alone. An oilman, no matter how wary of international agreements, should love this law, and President Bush has said as recently as mid-May that he intends to sign it despite conservative opposition.

“Our need for oil is not going to go away,” Newton said. “We’re going to need every bit we can get our hands on. Even if we don’t use as much in cars and trucks, we’re going to need plastics, and fertilizers, and all these other things essential to daily life. The more oil that’s tied to us directly, the more that comes in a pipeline or in a short trip in U.S. waters, the better off we are.” Canada’s Arctic archipelago, he said, was the next “oil elephant,” and that’s not all: An estimated 21 billion tons of coal sit on Ellesmere Island, and methane bubbles up everywhere through the Arctic’s melting permafrost. Methane, as a greenhouse gas, is at least twenty times more damaging than carbon dioxide. On the upside, it has energy potential. Inuit hunters already poke holes in the ground and light them for warmth.

Newton had watched Russia—which recently announced plans for a special army to guard oil rigs and pipelines—get rich off its northern petroleum fields. “Look at how that country is digging itself out of a quagmire,” he said. “They’re getting up, flexing their muscles, feeling like big boys—people gonna pay respect. That’s all thanks to the Arctic.”

In late June, Russia’s Komsomolskaya Pravda newspaper printed a large map showing a Russian flag flying over the North Pole and a supposed new addition to the nation’s territorial holdings: 460,000 square miles of Arctic Ocean. Russia’s first Article 76 claim to the pole, in 2001, was rejected for lack of data, but a team of scientists had returned from a six-week expedition by nuclear icebreaker saying that they had gotten what they needed. The 1,100-mile-long Lomonosov Ridge, an underwater mountain range that bisects the Arc-
tic—along with the region's 10 billion tons of gas and oil reserves—would be Russia's, they said. Although the United Nations has yet to evaluate the claim, Russia celebrated. It was a reminder that our allies, no matter how many times we invite them to Kangerlussuaq, aren't waiting for America to sign the Law of the Sea. The race is already on.

Canada signed the treaty in 2003, Denmark in 2004. Despite remaining tensions over Hans Island dustups such as Exercise Frozen Beaver, the two countries are now working together to prove that the Lomonosov Ridge is in fact connected to Canada's Ellesmere Island and Denmark's Greenland. Operating from the Canadian military-intelligence outpost of Alert at eighty-two degrees north, their scientists use helicopters and ski planes to lay networks of sensors: a seismometer every kilometer, packs of explosives every fifteen kilometers. Canada is expected to gain 310,000 square miles, Denmark 62,000 square miles—an area nearly four times the size of Denmark itself. As for Norway, it made its Article 76 submission late last year. Wielding bathymetry collected by its petroleum directorate, it claimed 96,000 square miles of ocean, and it reserved the right to claim more later.

The United States, meanwhile, has been quietly scanning the Arctic seabed with multi-beam sonar since 2003. The effort, led by Larry Mayer of the University of New Hampshire, is publicly known. What hasn't been public is the State Department-led apparatus behind it. The working group that also involves the Coast Guard, Navy, and Minerals Management Service ramped up its meeting schedule last December, and $8 million was slipped into Bush's 2008 budget to fund the program. Subgroups have formed. Submarines and new icebreakers have been discussed. A mapping strategy has been laid out. "A lot of seismic work will be necessary," a senior State Department official told me. For an entire month this summer, the Healy, the United States' one fully operational icebreaker, which costs $100,000 a day to operate and is shared by the entire science community, will be dedicated to Mayer's bathymetry work. Treaty or no, the last piece of the pie is being filled in. Within a decade, five nations could own all of the Arctic Ocean save for two small holes of water too deep to be claimed, and oil exploration—helped along by the coinciding meltdown of the ice cap—could lead to a true oil boom.

At the observation post later that same day, the Montréal appeared in the sound, with the smaller Montcon trailing it like a baby elephant. They floated past. We observed them. Sergeant Saleh fiddled with the radio and sang ballads in French-accented English: "Are you lonesome tonight? Do you miss me tonight? Are you sorry we drifted apart?" The Indian fiddleed at him. "Elves," he said. "You dunno Elvees?" Later, he led a handful of soldiers on an unsuccessful fishing expedition. When they returned, they stripped and dove into the Arctic Ocean, staying in long enough to wash their hair with a bottle of Pert Plus shampoo.

We combed through the rations—unwanted items got thrown in together in a cardboard box—and I goaded Sergeant Strong about the previous day's fedora-wearing American, an invader who dared tell Canadians how to treat Canadian soil. The sergeant was too Canadian to enjoy the irony. "That's okay," he said. "He was right. We do need to be careful about the environment up here." His earnestness affected me. It will be a shame if we were to gain 310,000 square miles, Denmark's Greenland. Observation Post 3, troops were almost eaten by a polar bear. Waiting for a helicopter lift, they had taken down their bear fence and removed the ammunition from their shotguns, standard procedure before a flight. The bear was slinking up a ravine, and it was fifty yards away when the helicopter pilot spotted it. He had to dive-bomb it with the chopper to scare it off. Compared with the monotony of Devon Island, this all sounded rather appealing. But it was our job to observe, and that we did. It was our job to be a presence, and that we were.

A fog rolled in, and the world became spectral and gray. When it had passed, Sergeant Strong and I explored the Mountie outpost together. The front door was coated with faded red paint. Inside we found a sewing machine, a rusted fuel drum, and a wooden table stacked with books: Two Black Sheep, The Astounding Crime on Torington Road, Buck Rogers in the 25th Century. On the wall, someone had posted an inventory from the summer of 1945: two dog correls; one flagpole, one fire shovel, one kitchen table, four kitchen chairs, one coal heater, one forty-five-gallon water barrel, two bunker tanks. The graves of the two Mounties who died here were just up the hill. "If I had a warm cabin to come back to," the sergeant said, "I could do it. I could do a winter here."

We had three days to go. We built a fire. We stayed up later and later. The hours passed without tick marks. One night, I stood alone outside my tent, looking out at the sun that never set. The two youngest Vandoos—a sixteen-year-old and a seventeen-year-old—had been given the first watch. I saw one take out his video camera and start walking around the tundra, filming very little. His partner sat facing the Northwest Passage, raising his rifle and pointing it into space, then lowering it, then raising it, then lowering it.