The Great Thaw: our melting Arctic must be monitored and Canada should lead the way

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The following OpEd written by Ocean Networks Canada President Kate Moran was published in The Hill Times on Monday, 8 May 2017.

Imagine autumn in the Gatineau?s without trees, or the Rideau River without water. Now imagine the Arctic without ice. All unimaginable images, yet despite our proud ?Great White North? designation, the problem in grasping the magnitude of this meltdown is that it seems so far away. In fact, the vast majority of Canada?s 35 million citizens know only of the Arctic through the pages of school textbooks, and it?s easy to see why. According to the 2016 census, 66% of Canadians live within 100 kilometres of the U.S. border, as far from the Arctic as possible, representing just 4% of Canada?s total territory.

The dramatic melting of sea ice impacts nearly everyone on the planet. In 2016/17, Canada saw the Rideau Canal open for just 25 skating days, Vancouver blanketed with more snow in one week than in two years, the Prairies endure their most intense storm season on record, and Fort McMurray weather their driest spring in over 70 years before ?The Beast? wildfire became the costliest natural disaster in Canadian history.

The scientific community has long warned about the irreversible effects of a steady rise in global temperatures on our Arctic, even influencing some Hollywood blockbusters. And although the slow burn has materialized into tangible results over the years, too many have grown accustomed to thinking of climate change in Day After Tomorrow-like scenarios. Think of it not as a sprint, but a marathon.

The arctic sun sits low on the horizon over Cambridge Bay, Nunavut in February 2016.

In the last decade alone, what once seemed incomprehensible is now imminent: the Arctic Ocean will be ice-free for the summer by 2030. That same year, the Organization for Economic Cooperation and Development (OECD) estimates the value of the world?s ocean economy will more than double, reaching USD $3 trillion.

With the Northwest Passage open for the first time in human history, the Arctic promises a new Silk Road, with access to hitherto inaccessible shipping routes and resources. The need for Canada to collect benchmark data through Arctic Ocean observatories cannot be overstated.

ONC?s Cambridge Bay observatory has been gathering real-time data from the Arctic Ocean since 2012.

Only by monitoring unprecedented changes in this unique-to-the-globe ocean can we hope to protect and mitigate the stressors on our Arctic. An observing network of undersea internet-connected stations operated by Ocean Networks Canada (ONC) has been collecting data and detecting environmental change for over a decade in the northeast Pacific, and for over five years in the Arctic Ocean at Cambridge Bay, Nunavut. ONC?s technology and capabilities to better understand how the Arctic functions and responds to climate change are world leading, but commitments have not yet matched the need to expand more sensors into Arctic waters

before it becomes a multinational trade hub.

ONC?s Arctic Youth Science Ambassador, Mia Otokiak (left), and her mother (right) pose in front of the cruise ship Crystal Serenity (centre) and its pilot ship RRS Ernest Shackleton (far left). The Crystal Serenity was the first luxury cruise ship to sail through a virtually ice-free Northwest Passage.

Late last year, international science ministers met in Washington, D.C., to discuss the need for increased collaboration on Arctic sciences, recognizing that we owe a legacy of cooperation to future generations. Following the meeting, Minister of Science Kirsty Duncan stated that ?research done by Canadian and other scientists gives governments the evidence necessary for sound development for this vitally important region.?

Canada has become known for this type of resolve, substituting a state vs. state mentality with one focused on international collaboration to better observe, understand and preserve our planet. But, if we are to lead the conversation around Arctic diplomacy in our northern territories, we need to harness new opportunities through ocean-wise initiatives like the historic $1.5 billion Oceans Protection Plan, and leverage Canada?s seat at the Arctic Council to bring forth proven, world-leading, sustainable shipping practices already in place (like the Vancouver Fraser Port Authority?s ECHO and EcoAction programs) as models of effective ocean protection policy for international use in Arctic waters that will soon be open for business.

The Arctic once caught the world?s attention as an impassible new frontier in the age of exploration, and that farfetched dream of unobstructed Arctic Ocean trade routes will soon become a reality.

A group of Cambridge Bay youth learn about ocean observing with the help of the ONC observatory team.

In a banner year for Canada, when science and state are more aligned than ever before, we owe our future generations the courtesy of protecting the natural wonder of our North by shining a light on its limitations before pursuing its opportunities. If we don?t act soon, we risk

losing control over a defining piece of our 150-year identity that is melting away before our very eyes into the pages of history.

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