

Senator Lisa Murkowski
Arctic Forum 2006
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Advancing Arctic research through policy and science advocacy

Thank you for inviting me to be with you today. It is a pleasure to join ARCUS members for the 2006 Arctic Forum. And I appreciate that you are still here late on a Friday afternoon after two days of speeches and workshops.

I would like to start by saying how much we in Congress appreciate and count on the work you are doing when it comes to Arctic research. The Arctic is still a new frontier for many in Congress. From climate change and development of our natural resources, to international treaties and maritime rights, more knowledge about each of these issues is needed to help us formulate and shape the policies that will impact the Arctic for future generations.

While differences of opinion on the aforementioned issues remain, one area that I believe we cannot lose focus on is the human dimension. Our policies of today, and our policies of tomorrow, have a direct impact on those who live in the Arctic region.

The fast approaching International Polar Year offers a tremendous opportunity to move the United States forward with its Arctic policies. It has been nearly 50 years since the last International Polar Year – 14 years since the U.S. last developed an Arctic policy.

The world was a different place fourteen years ago. The Cold War had just ended. Climate change was barely being considered as an issue. An accessible, navigable Arctic Ocean was nowhere near as real a prospect as it is today. The Arctic Council was just getting started. And we had nowhere near the sensitivity to the changes life is bringing to indigenous residents.

When I visit the Native villages in northern Alaska, I ask the village elders what climate change means to them. They don't speak about the Pacific Decadal Oscillation, or attempt to debunk the now infamous hockey stick theory.

They tell me what they have personally observed over the years. Native whaling captains tell me that the ice pack is less stable, and that there is more open water requiring them to travel greater distances to hunt. The snow pack is coming later and melting earlier than in years past. Salmon are showing up in subsistence nets in greater numbers across the arctic. Different types of vegetation now grow where they never grew before. The migratory patterns of animals have changed. Warmer, drier air, has allowed the voracious spruce bark beetle to migrate north, moving through our forests in the south-central part of the state. At last count, over three million acres of forest land has been devastated by the beetle, providing dry fuel for outbreaks of enormous wild fires. To give you some perspective, that is almost the size of Connecticut.

Times have changed and we need a new Arctic policy. But how do we craft it?

I believe the upcoming International Polar Year can play a large role in focusing our nation, and for that matter the world, on the work that is being done, and needs to be done, in the Arctic. It can play a large role in crafting a new Arctic policy.

But what those of us who care the most about the Arctic must do – and I put this forward as a challenge to you – is find a way to generate the public’s interest in this area. What is the theme of IPY? What is the catch phrase used to describe it? After all, ask anyone on the street what International Polar Year is, and you get a blank look in return.

According to the National Academy of Science, the purpose of International Polar Year is to “further our understanding of physical and social processes in the polar regions, examine their globally connected role in the climate system, establish research infrastructure for the future, and serve as a mechanism to attract and develop a new generation of scientists and engineers with the versatility to tackle complex global issues.”

For me, as a member of Congress, it is important that I can easily explain to my colleagues what IPY is without going into a deep explanation about what an Arctic Observing Network is, or what lives in the cold and dark – two of the currently proposed themes set for IPY.

The theme should spark an interest in those whose expertise may not be in the Polar Regions. Most importantly, the theme should be international. The Polar Regions bring every country together, whether in the area of climate change or in the issue of commerce, especially if shipping routes in the Arctic are opened.

The worst case scenario for IPY is for great scientific achievements to happen over the next two years, and nobody knows about it. Showcasing IPY is essential.

So what made the International Geophysical Year in 1957-58 successful? The focus at that time was simple – provide a burst of coordinated international research that led to significant discoveries about our planet, and left a long-term legacy for future generations. During the last IPY, we made advances in weather prediction and how to measure ice sheets in the Polar Regions.

It is important that we not lose focus on why we are having IPY: to make a contribution that will not only serve as a benchmark in understanding the polar regions, but also help leave a legacy for future scientists and researchers.

I plan to use the occasion of the International Polar Year to bring more of my colleagues to the North. It is always rewarding when a member of Congress actually travels to the Arctic and sees for him or herself what the Arctic is really like. Last summer, I helped host Senators McCain, Clinton, Susan Collins, and Lindsey Graham during their brief time in Alaska, and Senator Stevens hosted many more.

On the Administration side, earlier this year I pressed Secretary of State Condoleezza Rice for the State Department’s support during International Polar Year. Alaska and the United States have the opportunity to shine during IPY to bring the Arctic to the forefront.

If you combine the budgets of every agency involved in the Arctic, roughly \$300 million to \$400 million is allocated to Arctic research. The National Science Foundation deserves praise for taking on the bulk of the work on the Arctic.

On both international and national levels, we are increasing our collaboration with local communities and indigenous people as partners in research – from designing the projects, and collecting and interpreting the data, to disseminating the results.

There are already projects trying to achieve a greater partnership. For example, The STUDENT-PARTNERS Project (SPP), headed by the Woods Hole Research Center, unites students, teachers, and scientists to study the role of rivers in the Arctic System and create an innovative and effective education and outreach program. By partnering with K-12 grade students and teachers living beside the largest arctic rivers in Russia, Canada, and Alaska, the high frequency river water samples that are needed to understand hydrologic and biogeochemical fluxes in the river systems will be obtained. In the process, the capability we seek in a multinational arctic river observing network will be developed.

As another example, at the Bering Strait School District in Alaska, teachers are trained to educate students in grades K-12 about climate change data collection and scientific study. The project blends modern science with Native tradition, language, and subsistence needs. Full community involvement has been achieved in 13 of the 15 villages in the school district.

Scientists from the Geophysical Institute work with teachers and students to collect and use data on weather, erosion, sea ice movement, and wave and wind action. Native elders are involved in teaching the students using the Native language, culture, and historical observations. The elders use the data to assist them in predicting dangerous weather and sea conditions as the plan for subsistence activities.

What they are doing not only benefits the community and sustains Native traditions, it also generates a new generation of individuals interested in Arctic science.

IPY can and will be one of the most important periods of scientific discovery in the history of the Arctic. It can be used as a vantage point to update and revise U.S. policies toward the Arctic. It is an opportunity to craft greater coordination and cooperation among Arctic nations. It is a chance to ensure that those who live in the Arctic benefit from the attention to the Arctic.

And perhaps most importantly of all, it is an opportunity to develop the next generation of Arctic researchers to carry on your important work.

Thank you again for the opportunity to be with you today.

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