

KEYNOTE ADDRESS

ALASKA AND THE ARCTIC

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Alaska is the United States' Arctic. The future of the Arctic is vitally important to us as Alaskans. But it is also important for us as Americans and citizens of the world to be focusing on this region. What will the changes that are already happening in the Arctic mean, not only to the four million people who call the Arctic home, but also to the world? Today my goal is to challenge previously held impressions about the Arctic by exploring some of the important policy and legal questions redefining and reshaping the Arctic's future.

There has been a great deal of recent media coverage about the Arctic. For a long time, those of us who live in Alaska felt that the "lower 48" only knew of us as a place to take cruises or to go fishing and not much more. But when your state is discussed on the Colbert Show, you know that you have really arrived. All forms of media have brought more attention to the Arctic. The information has not always been accurate, but it is always presented in a way that is intended to capture the public's attention.

Let's start with a simple question: "what is the Arctic?" It can be defined in a variety of ways: by latitude or tree line or permafrost or national borders. In 1984, Congress passed the Arctic Research and Policy Act. While the Act defined the Arctic for purposes of the provisions of that law, its definition has been adopted for other purposes as well: the entire Arctic Ocean with surrounding land, including some areas not usually considered part of the Arctic, parts of

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the North Pacific and Bering Sea—to embrace the interdependent ecosystems for scientific purposes.

Much of the media coverage has been about how climate change is impacting the region and setting the quick pace of change, environmentally, socially, economically and culturally. While the Arctic has been warming faster than other regions, its warmth is not the sole reason why the rapid changes are attracting so much attention. Other global forces—primarily economic forces such as expanded marine shipping and natural resource development—are also driving the attention.

It is increasingly obvious to everyone that the rate of change is accelerating. That is not to say that it is always warmer every single year. Weather is what happens everyday. Climate is what happens over a long period of time. But over that long period of time, there has been significant change, particularly in the retreat of Arctic sea ice. Scientists estimate sea ice loss based on satellite images and other measures to be 50% less in extent and about 75% less in volume.

How about Alaska? Alaska is warming much more rapidly than global temperatures. Warmer temperatures thaw permafrost, in addition to melting ice. Since the region is home to many ice-dependent species—from ring seals to polar bears—this warming and the retreat of ice is impacting the ecosystems dramatically, and quickly.

These changes also affect the people who live here. Bowhead whales are harvested by the Inupiaq on the North Slope of Alaska. As is their tradition, the meat is carved and then shared with all the villagers. The indigenous people of the Arctic have been reliant on marine mammals for thousands of years. When the United States passed the Marine Mammal Protection Act in 1972, it permitted traditional harvest and involvement of local people in the management system. If you have ever been to a village on the North Slope or many other places throughout the Arctic region, you will understand its cultural importance of these animals, their harvest and sustainable management. It is core to the identity of the people. That is at risk in the changing Arctic.

But there are many other dangers associated with warming in the Arctic, including impacts on infrastructure from coastal erosion, increased storm activity and thawing permafrost. You probably all have seen pictures of Shishmaref, Kivalina, Noatak and other communities in northern Alaska that are experiencing considerable coastal erosion and collapse of infrastructure. Permafrost is no longer a stable platform for constructing buildings or roads or airports, at least not everywhere. This is very significant to the engineering and construction community. Whether it is the public sector or the private sector, whether it is the oil

industry or a municipality trying to decide where to put a new airport, the rapid rate of change means that the future is not going to look anything like the past or the present. It is extremely difficult for professions based on the principle that you use experience to make decisions about how and where to construct buildings to have very few reliable guide posts about what the future will look like or how rapidly it is going to change. For engineers, just as it is for lawyers, legislators, and public policy people, it is a time of increasing uncertainty, because as this change happens so quickly, it is so hard to make good choices.¹

Of course, economic opportunities may also come with these changes. Whether it is fishing, shipping or oil and gas, there is a lot of speculation and excitement about the possibilities, which come with risks as well as rewards. Managing development in ways that avoid damage to the environment and to the culture of those living in the region is the challenge. Another major issue is ensuring that those people who actually live in the region obtain some of the benefits of the development – not just the burdens.

The U.S. Geological Survey and others have tried to estimate what is the region's oil and gas potential and have concluded that it is considerable. The USGS report released in late May that said 30% of the world's undiscovered gas and 13% of its undiscovered oil are estimated to be located north of the Arctic Circle. This is why companies are increasingly interested in exploration throughout the region. Russia is almost half of the Arctic. Even though Alaska never likes to think of itself as small, our share of the Arctic actually is relatively small compared to Canada or Russia. According to the estimates, most of the oil and gas is located within countries' exclusive economic zones. In general, it is quite clear who owns the projected oil and gas.

Since the early 1970s, most of the oil and gas development in Alaska has been on land. There was little development initially in the near shore areas, and almost none offshore. But that has changed considerably in the last few years with the larger Chukchi Sea and Beaufort Sea leases that netted large amounts of money for the federal government, but not for the State of Alaska. It is important to remember

1. Another concern is the lack of a coastal management plan in Alaska. The prior Coastal Management plan was the best mechanism that Alaska had to integrate local, state, and federal conversations and decisions. It was never perfect but it was better than nothing and certainly better than where we are now. Under the prior coastal management plan, federal agencies were required to listen to what state government said, and state government had to listen to what local governments said. It did not require alignment but it required conversation at the appropriate levels. It would be best if Alaska reenacted a coastal management plan.

that the Prudhoe Bay oil field is on state land, so Alaska receives considerable revenues from that development. But the offshore oil and gas leases in the Chukchi and Beaufort areas are in federal waters with federal rights and federal revenues. These potential developments are quite a bit offshore in comparison to where the development has taken place so far in Alaska, which is why many people are concerned about the extent to which it increases the risk of oil spills.

Oil spills threaten not only fish, marine mammals and other resources relied upon by indigenous people, but also the health of unique ecosystems. Two years ago, the U.S. Arctic Research Commission—which I chair—prepared a paper that looked at all of the research that has ever been done on responding to oil spills in icy waters. This summer the National Research Council did an even more comprehensive report on the topic. In addition to listing what we do know, it also identified what we do not know about effective mechanisms and techniques for dealing with spills in icy waters. The report is a call to action: to invest in more research specific to this region, and to better prepare for the inevitable spill, whether it is small or large.

Even without oil and gas development, marine transportation in the Arctic poses oil spill risks. Some speculate that shipping will expand dramatically as the ice retreats further and earlier every year. For those of you who are not familiar with the main routes, the Northern Sea route goes through the Bering Strait up over Russia, and the Northwest Passage goes across Canada. The Northern Sea route has much less summer sea ice and more marine traffic than before. But there are considerable limitations associated with either the Northern Sea Route or the Northwest Passage becoming the kind of commercial shipping lanes that would rival the Suez or Panama Canal.

These include very limited infrastructure, limited charting of the waters, concern by the insurance industry about the increased risk, and the expense of icebreaker escorts needed during many months of the year, because there is still ice during the winter months. Given a variety of factors, including ice and depth of waters, and investment in infrastructure, it is much more likely that the Northern Sea route will see more shipping than the Northwest Passage. An initial assessment was done several years ago when the Arctic Marine Shipping Assessment identified what kind of shipping was developing. Most of the shipping was regional, not trans-arctic, although that may change over time, as resources are developed, justifying additional investment in infrastructure to support trans-arctic shipping.

It is important to note that much of shipping that is likely to occur will go through the Bering Strait which is one half US and one half Russia. When the U.S. has a good relationship with Russia, it is easier to

work out the response protocols and discuss the safety concerns that we both share. In the recent months, our relationship has chilled; it is more challenging for our respective coast guard equivalents to have that necessary communication now, although they continue to try.

As shipping increases, it is essential that the United States, and all Arctic countries to work together to make it as safe as possible. This is important for the environment and for the people who live in the region. The International Maritime Organization's Polar Code, will be completed and adopted soon, hopefully by spring 2015. The Polar Code is a positive step, but it does not answer all the challenges. For example, more work should be done to increase and improve charting the region to make navigation safer. The budget for the National Oceanic and Atmospheric Administration (NOAA) is inadequate to expedite this process, and it will require additional investment. Hopefully, the process can be expedited with private sector partnerships.

Another common media angle on the Arctic is the tension associated with countries trying to assert control over the Arctic. Is there a land rush? I do not think there is much evidence of one. Generally speaking, the provisions of the Law of the Sea treaty² have established common rules and expectations as to how a country can assert a claim and extend its continental shelf. While the United States helped negotiate the Treaty and was a signatory, the Senate never ratified it. Every other Arctic nation has done so and is in the process of using the provisions of the Law of the Sea treaty to prove up their extended continental shelf claims. Unfortunately, because the U.S. has not yet ratified the Treaty, we will not be able to do so.³

Conflict in this region is not inevitable, as some would suggest. Even though the tension between Russia and the United States has certainly complicated things, Arctic relationships have been generally very good. Border disputes—such as the dispute between Norway and Russia—have already been resolved. A border dispute between the United States and Canada has not been settled, but there have been ongoing discussions and an agreement will be reached eventually.

Some people speculate about other non-Arctic countries which express interest in the Arctic and wonder about their motivation. When countries like China step forward and say that they want to be a player in the Arctic, many different scenarios come to mind. So far, what they

2. *United Nations Convention On The Law Of The Sea*, UNITED NATIONS, http://www.un.org/Depts/los/convention_agreements/texts/unclos/closindx.htm (last visited Dec. 19, 2014).

3. Although work is being done on the science that would enable a claim to be filed someday.

are doing is positive: investing in science, in research, in relationships and in infrastructure, like new ice breakers.

The countries that comprise the Arctic Council—the United States, Russia, Canada, Denmark, Norway, Finland, Iceland and Sweden—met in the 1990s and created the Arctic Council as the primary entity to coordinate communication and cooperation among the Arctic states.⁴ The Arctic Council has two fundamental responsibilities: to protect the environment and to support sustainable development. Those are the two pillars on which Arctic Council work has centered since it's being in 1996. The Arctic Council initiatives range from telecommunications to black carbon, from ocean acidification to oil spill prevention. Its work has been broad, inclusive, and relevant to the people of the Arctic. Canada chairs the Arctic Council currently. The United States will become the chair of the Arctic Council for a two-year chairmanship starting next spring. The three areas of emphasis for the U.S. Chairmanship will be ocean stewardship, climate change, and improving the economic and living conditions in the Arctic.

Each of the Arctic Eight have a national arctic strategy. Two years ago, the White House announced the United States National Strategy for the Arctic, and one year ago the Implementation Plan was released. It highlights three principal lines of effort: stewardship, security, and strengthening international cooperation. We are not unique in this regard; almost every country's Arctic strategy has these three core values of emphasis.

These core values have been consistent over time, so Arctic strategies are well aligned. For example, the National Ocean Policy has an Arctic area of emphasis. It focuses on shipping safety, more mapping and charting, and being able to better observe changes in the Arctic to help us make better decisions for the future. One would find very similar language in other national strategies. And there are very similar themes running through numerous federal agencies strategies for the Arctic (many federal agencies adopted their own either before or after the National Strategy was adopted).

Much of this work actually stands on the shoulders of the men and women who do research in the Arctic. Whether it is ice research, marine mammal research, fisheries research, or understanding of the culture

4. The Ottawa Declaration of 1996 formally established the Arctic Council as a high level intergovernmental forum to provide a means for promoting cooperation, coordination and interaction among the Arctic States, with the involvement of the Arctic Indigenous communities and other Arctic inhabitants on common Arctic issues, in particular issues of sustainable development and environmental protection in the Arctic. More information can be found on the Arctic Council's website: www.arctic-council.org.

and societal reliance on natural ecosystems, the research that has been done on the Arctic has contributed greatly to our ability to make better decisions for the region. Having said that, because it is such a vast area and research can be extremely challenging, expensive, and even dangerous, the information we have remains woefully inadequate.

Contributing to that research is the mission of the U.S. Arctic Research Commission.⁵ Given the need for Arctic residents to obtain and improved understanding of how the changes in the Arctic will impact their lives, society, culture, and dependence on place, the need for additional and better research is critical. So much of the research—surveying the uses of marine mammals, their health, the interdependence of temperature and changing ice conditions—is essential to the people who rely on the land and waters for life.⁶

5. Congress created the United States Arctic Research Commission through the Arctic Research and Policy Act of 1984. Arctic Research and Policy Act of 1984, Pub. L. No. 98-373, 98 Stat. 1242 (codified as amended at 15 U.S.C. § 4102 (2012)). In January 1985, President Reagan established the agency through Executive Order 12,501. Exec. Order No. 12,501, 50 Fed. Reg. 4,191 (Jan. 28, 1985). The Commission's principal duties are (1) to establish the national policy, priorities and goals necessary to construct a federal program plan for scientific research with respect to the Arctic, including natural resources and materials, physical, biological and health sciences, and social and behavioral sciences; (2) to promote Arctic research, to recommend Arctic research policy, and to communicate our research and policy recommendations to the President and the Congress; (3) to work with the National Science and Technology Council and the National Science Foundation to implement Arctic research policy and to support cooperation and collaboration throughout the Federal Government; (4) to give guidance to the Interagency Arctic Research Policy Committee (IARPC) to develop national Arctic research projects and a five-year plan to implement those projects; and (5) to interact with Arctic residents, international Arctic research programs, and organizations and local institutions including regional governments to obtain the broadest possible view of Arctic research needs. *Id.*

6. If you are interested in knowing more about the research priorities we have identified or following the Arctic more closely, please visit Arctic.gov, the website for the U.S. Arctic Research Commission. There, you can find a number of research papers including Responding to Oil Spills in the U.S. Arctic Marine Environment. You can also sign up for an electronic newsletter, which is produced daily. It includes information on Arctic development including new research as well as new laws from any of the Arctic countries.