Kodiak Kenai Cable Company

September 16, 2009

BY E-FILING AND BY HAND

Ms. Nancy Sutley
Chair, Council on Environmental Quality
734 Jackson Place
Second Floor
Washington, D.C. 20500

Re: Interagency Ocean Policy Task Force – Response to Request for Comments

Dear Ms. Sutley:

On behalf of the Kodiak Kenai Cable Company LLC (KKCC), I am writing to you in your capacity as the Chair of the Administration's Interagency Ocean Policy Task Force, in response to the Task Force's invitation to comment on the issues set forth in the President's June 12, 2009 memorandum on the need for a national ocean policy. We particularly want to comment on the first issue identified in the President's memo: The need for a national policy that "ensures the protection, maintenance, and restoration of the health of ocean, coastal, and Great Lakes ecosystems and resources, enhances the sustainability of ocean and coastal economies, preserves our maritime heritage, provides for adaptive management to enhance our capacity to respond to climate change, and is coordinated with our national security and foreign policy interests."

Such a national policy can only achieve these goals if it is based on the best, most current information about what is actually occurring in our oceans. Our comments focus on an opportunity to gain the benefit of tremendous amounts of information about oceans that are in distress due to climate change, namely the Arctic Ocean (particularly the Beaufort Sea and the Chukchi Sea) and the Bering Sea. Specifically, we want to bring to the Task Force's attention a proposed infrastructure project that would make that opportunity a reality.

Introduction and Background

High-speed broadband connectivity has changed the way the world shares information, does business, and conducts scientific research. However, the entire western half of Alaska does not have reliable high-speed broadband service. It is instead served by high cost, sporadic satellite service, which is plagued by limited capacity and frequent disruptions.

This is a chronic problem for all who live and work in western Alaska, but it particularly impedes the work of scientists studying the Arctic Ocean and the Bering Sea. To be meaningful, huge amounts of data – including the populations and migratory patterns of sea life, changes in temperature and water chemistry brought on by climate change, and the changing uses of shipping lanes -- must be gathered, shared, and evaluated by scientists in the field and around the world, all on a real-time basis. Only then does such data become useful to policymakers, allowing them to weigh and implement critical decisions within a timeframe consistent with the rapid changes occurring in the environment.

Today, no fiber optic broadband system exists in western Alaska to support that critical process, and there is universal consensus within the scientific community, including both governmental and non-governmental entities, that the prompt deployment of such a system is essential.

KKCC was formed in 2001 by the Old Harbor Native Corporation and the Ouzinkie Native Corporation, both Alaska Native village corporations under the Alaska Native Claims Settlement Act, to construct and operate the Kodiak Kenai Fiber Link System, an undersea fiber-optic cable connecting the 60,000 people of the Kenai Peninsula and Kodiak Island to Anchorage. That project was completed on time, within budget, and has operated without interruption since it was placed in service in January 2007. KKCC operates the Kodiak Kenai Fiber Link System as a neutral "carriers' carrier," offering high-speed, broadband capacity to local and long-distance exchange carriers for the provision of internet, telephone, video, and other data services.

Building on the success of the Kodiak Kenai Fiber Link System, KKCC has proposed to construct the Northern Fiber Optic Link (NFOL) system. The NFOL will begin at the terminus of the existing cable system on Kodiak Island, adding a 5,700-kilometer high-speed submarine fiber optic cable system that will encircle western and northern Alaska. The new system will include landing points at Narrow Cape, King Cove, Unalaska (Dutch Harbor), Naknek (King Salmon), Dillingham, Platinum, Bethel, Nome, Kotzebue, Barrow, and Prudhoe Bay (Deadhorse). The backbone also has a branching unit for a future landing at Emmonak to serve communities along the Yukon River. Like the Kodiak Kenai Fiber Link System, NFOL will be operated as a neutral carriers' carrier.

When complete, NFOL will provide access to robust broadband capacity for 142 rural communities and 143 federally recognized Indian Tribes (comprising 25% of all Tribes in the U.S., and about 80% of all Alaska Native villages). NFOL will connect – for the first time - the region's indigenous peoples, businesses, hospitals, medical clinics, schools, remote university campuses, public safety offices, U.S. Coast Guard communications sites, researchers, state and federal agencies and non-governmental organizations with real-time telecommunications, Internet, video, and data services. In addition to the scientific benefits, NFOL will dramatically improve the educational, telemedicine, public safety, and social services provided in western Alaska and the North Slope, and facilitate much-needed economic development in the region, enhancing the sustainability of these coastal communities.

KKCC has applied for funding under the American Recovery and Reinvestment Act from the Agriculture Department's Rural Utilities Service (RUS) and the Commerce Department's National Telecommunications and Information Administration (NTIA).

Figure 1: NFOL Network Configuration

Support for Oceanic Research

In addition to serving coastal communities, KKCC has reached out to the scientific community, including federal and state agencies, universities, and other research organizations, to determine how NFOL could best facilitate research regarding the waters surrounding Alaska. As a result of those discussions, KKCC has included in its system configuration three strategically located Science Node Interfaces (indicated by yellow triangles on the map in Figure 1, above). Each Science Node Interface consists of a state-of-the-art four port branching unit and a cable from the nearest cable landing station to service the power requirements of a future ocean

observatory. Data from the observatory will be transported through the cable to the nearest NFOL landing station, where it will be multiplexed onto the NFOL network for access by scientists. These interfaces will allow for the real-time transport of data collected by remote sensing and other advanced capabilities for oceanic research, dramatically improving the effectiveness of research on such vital issues as species population and migration, the effects of climate change on water temperature and chemistry, and seismic activity.

NFOL will also support ongoing and future field research throughout western and northern Alaska by enabling the robust telecommunications services, live video conferencing, and Internet services that will allow scientists to collaborate, access files remotely, and compile and compare data with the same ease as they would in an urban setting. This will greatly enhance the productivity of research teams working in remote parts of Alaska. KKCC has prepared the attached white paper, providing more detail regarding the role of NFOL in advancing scientific research in Alaska.

The Importance of Scientific Research in Arctic and Subarctic Waters

Climate change is already having a clear impact on the habitat of many vital Arctic species. For example, recent research has found that ocean acidification, which threatens the ability of crabs and other marine life to build shells, is much more severe in the Arctic than in tropical waters. Fisheries managers also fear that climate change may be responsible for dramatically reduced salmon runs. Early this year, Secretary Locke approved the Arctic Fishery Management Plan, which prohibits the expansion of fishing in U.S. Arctic waters until more information on threats to the fishery can be gathered. Access to the NFOL broadband system will enable marine scientists to better understand these habitat changes.

Other examples of species receiving heightened attention in the Arctic as changes occur include polar bears, the Pacific walrus, and ribbon seals. The U.S. Arctic Research Commission has identified studying environmental change in the Bering Sea and Arctic Ocean as a major research priority for the 2007-2011 period (*see* Report on Goals and Objectives for Arctic Research 2007, http://www.arctic.gov/publications/usarc_2007_goals.pdf). However, the Commission's 2007 report to Congress noted that success in such research will require substantial investment in infrastructure, particularly in ocean observatories. NFOL can play a key role in filling that need by providing the monitoring and data transmission backbone capacity and shored-based power that ocean observatories require.

According to the Arctic Council's 2009 Arctic Marine Shipping Assessment, significant portions of Arctic waters may be ice-free in the summer as early as 2015 (*see* http://www.arctic.gov/publications/AMSA_2009_Report_2nd_print.pdf). The Council expects that ship traffic will increase sharply as ice-free areas grow and the ice-free season increases in duration. In 2008, the U.S. Coast Guard established two temporary stations in northern Alaska in the summer to serve and monitor increased ship traffic. The Coast Guard has repeatedly expressed concern that existing resources are insufficient to meet growing demand.

In fact, a recent New York Times story indicates that increases in shipping traffic are already occurring. See *Arctic Shortcut Beckons Shippers As Ice Thaws,*

http://www.nytimes.com/2009/09/11/science/earth/11passage.html?_r=1&hp). An increase in ship traffic is likely to lead to an increase in marine mammal ship strikes, acoustic effects on sea life, and emissions of sulfur dioxide and nitrogen oxides. Without accurate, real-time data collection, it will be impossible to monitor and understand how ship traffic is affecting the Arctic region.

It has also been estimated that the world's Arctic regions may contain up to 25% of undiscovered oil and gas. Changes in sea ice may open many previously inaccessible areas to exploration. Real-time data collection capacity will allow U.S. researchers to track the effects of exploration, production, and conservation activities in the Arctic.

The Need to Move Quickly

For these reasons, the deployment of the Science Node Interfaces included in the NFOL system should occur as soon as possible. KKCC is ready to begin construction of the NFOL project immediately upon notification of award from the NTIA and/or RUS. A comprehensive system design study has been completed, system configuration is finalized, vendors have been identified, landing sites surveyed, archeological reviews are nearing completion, and it is anticipated the final federal and state permits will be in hand before construction begins in January 2010, just four months from now. If notice of award is provided by the end of 2009, the entire project, including the Science Node Interfaces will be operational by December of 2011. Timing is also important for economic reasons. If included as part of the initial NFOL construction, the incremental cost to KKCC for each Science Node Interface is currently estimated to be about $1.5 million, for a total additional project cost of about $4.5 million. By comparison, the cost of adding the same Science Node Interfaces *after* project completion as a retrofit would be about $10 million per Science Node, for a total of $30 million, not including the cost of the ocean observatories themselves. Therefore, it is critical that the opportunity to include these interfaces in the initial construction not be missed.

Coordination with Scientific Community and the Interagency Ocean Policy Task Force

The NFOL project has already received very positive feedback from the scientific community, including federal and state agencies, and universities. Examples of support and/or constructive feedback include NOAA's Climate Program Office and Integrated Ocean Observing System (IOOS), the University of Alaska, the Alaska Ocean Observing System (AOOS), the Science Liaison for the Coast Guard's Icebreaker division, and Wildlife Forever (an international non-profit organization with 1.3 million members that is focused on habitat preservation and population protection for the recreational enjoyment of hunters, fishermen, and naturalists). Letters from each of these entities are attached.

The IOOS has stated that: "We are appreciative of the fact that this extra planning on your part [the inclusion of the Science Node Interfaces] will result in considerable cost savings to future scientific, research, and NGO users who might otherwise need to account in their own budgets for the deployment and installation of such nodes after the fact." According to AOOS: "With KKCC providing the funding for the initial cable system and nodes, development of the actual

observatories would become financially more feasible to potential funders. This is a tremendous opportunity for the scientific research and monitoring community that would provide untold benefits in terms of increasing our understanding of Alaska's oceans and coasts."

If the Task Force agrees that critical research in Arctic waters would be substantially enhanced by the prompt deployment of Science Node Interfaces as part of the NFOL project, we ask that the Task Force include a recommendation to that effect in its final report. We also ask that the Task Force alert its member agencies to the ongoing opportunity to provide KKCC with additional feedback regarding its system design, particularly as it relates to Science Node Interfaces and planned ocean observatories. By incorporating such feedback prior to the beginning of construction, costs could be minimized while maximizing the benefits to the scientific community.

Upon request, we would, of course, be pleased to meet with members of the Task Force to answer any questions they and you may have regarding our proposal and its role in advancing oceanic and climate research.

Best regards.

Very truly yours,

KODIAK-KENAI CABLE COMPANY, LLC

C. Walter Ebell
Chief Executive Officer

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Enclosures
cc: The Honorable Ken Salazar, Secretary of the Interior
The Honorable Janet Napolitano, Secretary of Homeland Security
The Honorable Sean Parnell, Governor of Alaska
The Honorable Don Young, Member of Congress
The Honorable Lisa Murkowski, United States Senator
The Honorable Mark Begich, United States Senator
Admiral Thad Allen, U.S. Coast Guard Commandant
Rear Admiral Herman Shelanski, U.S. Navy Director for the Chief of Naval Operations Environmental Readiness Division
Rear Admiral Sally Brice-O'Hara, U.S. Coast Guard Deputy Commandant for Operations
Capt. Byron Black, Senior Maritime Safety and Security Advisor to the Secretary, Department of Transportation
Dr. Jane Lubchenco, Administrator, National Oceanic and Atmospheric Administration
David Hayes, Deputy Secretary, Department of Interior
Peter Silva, Assistant Administrator for Water, Environmental Protection Agency
Dr. Kit Batten, Science Advisor to the Deputy Secretary, Department of Interior
Heather Zichal, Deputy Assistant to the President on Energy and Climate Change

Kim Elton, Director of Alaska Affairs, U.S. Department of the Interior
Rear Admiral Christopher C. Colvin, U.S. Coast Guard, 17th District Commander
Zdenka Willis, Director, Interagency Ocean Observing System
Arden Bement, Director, National Science Foundation
Steven Beering, Chairman, National Science Board
Karl Erb, Director, Office of Polar Programs, NSF
Simon Sephenson, Director, Division of Arctic Sciences, NSF
Martin Jeffries, Director, Arctic Observing Network Program, NSF
Mead Treadwell, Chairman, U.S. Arctic Research Commission
Molly McCammon, Executive Director, Alaska Ocean Observing System