

Submission Date: Feb 15, 2008

Priority: 1 of 1



Ted Stevens

United States Senator for Alaska

Please Note:

- Fill out one request form for each request
- This form (and any attachments) can be returned via:

Fax - (202) 224-2354
 Mail - The Honorable Ted Stevens
 United States Senate
 522 Hart Senate Office Bldg.
 Washington, D.C. 20510

- Requests are due by February 15, 2008.

FISCAL YEAR 2009 PROJECT REQUEST FORM

Project Name: Barrow Global Climate Change Research Facility

Project Location: Barrow, Alaska

Project Description (please attach additional pages as required):

Please see attached Project Description.

Related Appropriations Bill: CJS (NOAA), NSF, EPA, DOI, and DOE

Amount of federal funding requested for FY09: 6,500,000

Total funding to complete this project: 61,000,000

Number of years to fund this project: 5

Matching funds from the State of Alaska: _____

Matching funds from local and private entities:

Please see attached.

List legislation that authorizes this project:

Section 998 of Energy Policy Act of 2005 (P.L. 109-58)

Check all that apply:

- A change in the current law is necessary in order to proceed with the project. (If so, attach language and a list of laws that need to be amended)
- Bill or report language is needed. (If so, attach requested language)

If this project was funded in prior appropriations bill: (within the last five years), list each bill and the amount funded:

\$23 million: FY02, FY04, FY05 & FY06 CJS bills and FY04 VA/HUD Bill

Amount included in the President's FY09 Budget: _____

Amount included in the State of Alaska FY09 Budget: _____

Check this box if state funding was sought but not provided.

Matching funds from local and private entities:

The Ukpeagvik Inupiat Corporation (UIC) has devoted an 11-acre parcel valued at \$1.5 million on which the facility is being built.

The North Slope Borough is contributing indirectly to the Project by utilizing its own funds to support the design and construction of an inland access road to NARL, which will tie directly into the access road to the BGCCRF constructed under Phase I. The Native Village of Barrow is also considering a contribution for the construction of the access road to NARL utilizing available funding through the BIA Indian Reservation Roads (IRR) Program. This project is currently in the initial design phase and will likely see construction occurring in 2009 or 2010.

The alternative access road will provide a stable and vital access route to NARL that will be less vulnerable to erosion and storm damage from the Chukchi Sea. More importantly, this access route will support the utility infrastructure to NARL and the BGCCRF, including power, natural gas, and piped water/sewer utilities. Currently the BGCCRF is on a water and sewer holding tank system that will require a trunk haul service. With the Borough's support, the BGCCRF will have quicker access to reliable utility systems.

The National Science Foundation has funded an IT and Security Access Control Upgrade to Phase I of the facility, in the amount of \$514,238. This upgrade was essentially a request by the scientific research community that was unfunded until NSF agreed to sponsor this change order work. This work was completed in the Spring of 2007.. In addition, the NSF has plans to provide approximately \$1.2 million for the development of an IT computer network and communications system that will include the construction of a tower needed to enable communications with US Coast Guard icebreakers within a 5 mile radius of the BGCCRF.

Project Description:

The Research Facility concept has been in development for several years under the leadership of Senator Stevens and the Barrow Arctic Science Consortium (BASC). To date, the Ukepeagvik Inupiat Corporation (UIC), of which LCMF Inc. is a subsidiary, has unanimous support from Alaska's Congressional delegation for this project. Senator Stevens, especially, has long been a champion of the facility in particular, and of doing more global climate change research in the Arctic in general. In the latter half of 2002, major developments added compelling justification to proceed with implementation of this Research Facility. At the national level, President Bush's Climate Change Research Initiative (CCRI) was announced. In parallel, a resolution passed by the Alaska Legislature (SJR044) requires several agencies to develop a joint state-federal research and development plan. More recently, Section 998 of the Energy Policy Act of 2005 that was signed into law on August 8, 2005, codified the authorization for this project and gave authority for funding to a broad number of agencies, including the NOAA, EPA, NSF, and the Departments of Energy and Interior. Senator Stevens authorized this provision authorizing funding for the facility.

BASC currently supports about 30 NSF field projects and many projects for other agencies. BASC works closely with the North Slope Borough's research arm, the Department of Wildlife Management. In addition BASC works directly with the local landowner, UIC, and the UIC Science Division. BASC serves as landlord for the US Department of Energy (DOE) Atmospheric Radiation Measurement program, a long-term platform for many DOE research projects.

Numerous studies have shown that the Arctic is suffering the effects of climate change more than any other region of the globe. The global effects of climate change cannot be understood without understanding the Arctic. The lack of modern research facilities around the Arctic Ocean severely impedes developing an integrated global observation system to better understand climate change.

Four federal agencies that sponsor Arctic research have signed Cooperative Agreements (CA's) with BASC to "facilitate Arctic science." These include NSF, EPA, USFWS and NOAA. NSF has stated that it will be responsible for the maintenance and operations of a new research facility in Barrow, through the NSF/BASC cooperative agreement. The USCG is planning the establishment of a forward base in Barrow due to the open water aspect of the climate change occurring.

Project Justification:

The establishment of the Barrow Global Climate Change Research Facility (BGCCRF) will fill a big void in research support in the U.S. Arctic, in Alaska on the shores of the Chukchi Sea. The BGCCRF will become an important U.S. contribution to a comprehensive global observation system. New science support infrastructure must be designed to accommodate both current and anticipated future research needs in the American Arctic. For example, there is currently no capability to support continuous physical measurements of the Arctic Ocean, nor to support biological monitoring and experiments with marine organisms (krill, fish, etc.). As a result, the scientists have requested that a new facility incorporate running seawater as an integral component of its science support. The BGCCRF would be:

- Capable of supporting studies of the atmosphere, ice-covered ocean and land year round.
- Able to accommodate and manage global, regional and local research programs.
- Integrated into the worldwide flow of research data and information for the assessment and anticipation of global environmental change.
- Responsive by adjusting its research activities to the feedback from new results.
- Providing a year-round staff of experts thoroughly familiar with all aspects of research, engineering, and research support and logistics.

Project Budget Outline (include additional pages, if necessary):

• Architecture/Engineering:	
▪ Design	850,000
▪ Construction Administration	120,000
• Sitework:	
▪ Gravel, insulation, geotextile	1,400,000
• Utilities:	
▪ Electrical distribution upgrade	1,000,000
• Slab-on-grade Foundation:	
▪ Concrete, thermosiphon, insulation	1,000,000
• Structure:	
▪ Procurement of structural steel	<u>1,000,000</u>
▪ Subtotal:	5,870,000
▪ 10% Contingency:	587,000
	\$6,457,000

The construction of Phase I of the BGCCRF was completed in the Spring of 2007 and occupancy began at the time of completion with UIC Science occupying the facility and the North Slope Borough utilizing the facility for various public forum events. BASC, the North Slope Borough Wildlife Department, University of Alaska (Anchorage and Fairbanks campuses), University of Cincinnati, National Science Foundation, and the DOE Atmospheric Radiation Monitoring (ARM) Program are or have committed to occupying space in 2008. All 3 Members of Alaska's Congressional Delegation participated in the dedication ceremonies in June 2007.

This first phase of the project included the construction of a gravel access roadway and building pad, pile foundation, a 20,000 sf main facility (that provides research laboratories, IT/administrative space and a community outreach/conference room) and a detached 1,500 sf utility building that will support the out phases as well as phase one of the project. This work was completed within budget and within the accelerated project schedule. It must be stressed, however, that Phase I is not yet a complete or functional research facility. The remaining phases are critical if the facility is going to be a fully functioning arctic research center.

This Funding Request will provide for the design, permitting and construction of the Phase II gravel foundation, including installation of the thermosiphon refrigeration system necessary for a

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concrete slab-on-grade facility built over ice rich permafrost. A slab-on-grade facility allows direct vehicle access into the building without a ramp system for vehicles to enter the building. This aspect of the project provides for a useable gravel pad next to the Phase I facility and by having this aspect of the project completed a year is saved in the overall Phase II facility schedule.

The Phase II facility will be a 16,000 sf field logistics support center. Because an extensive amount of research is field-based, the scientific review committee petitioned that the next phase of the Project needed to provide space to support the logistics required for mobilization of people, gear and equipment into the environment. Storage and space to maintain repair or calibrate equipment and vehicles was included in the conceptual design, along with a field logistics operation office.