

Share the Journey!

The Alaska-Canada Barrenlands Traverse- Spring 2007



Travel with Dr.
Matthew Sturm
(Research Physical Scientist)

Arctic peoples, polar science, diamond mines, fascinating history – share

our journey

through the North American Arctic as we travel 3000 miles by snowmobile from Alaska across Canada. Here's how schools can join us.

Track our trip: Want to follow our daily progress? We will send you a poster-sized map and markers to track our progress. Daily trail updates available on the web will include latitude/ longitude, major landmarks, snow and weather conditions, and more. You can compare the conditions we experience with those in your community.

Tune in to Trail Tales: Want to learn more about the places we go? Our updates will include descriptions of the places we visit, the history of

the regions, our science activities, and more. Suggestions for further reading will be available on the website. We will upload photos during the journey so you can see what we see.

Share School-to-School: Want to hear from students in the communities we will visit? Want to tell students there what your part of the North is like? We will be recruiting teachers and classrooms to participate in a poster exchange with other northern schools along our route. Make a poster about your school and community. We will make copies to take with us and give to the schools we visit. We will bring back posters, photos, and greetings in return.

For more details, to sign up, or if you have any questions, please contact:

Matthew Sturm: 907-353-5183.

msturm@crrel.usace.army.mil

Henry Huntington: 907-696-3564.

hph@alaska.net

Dave Andersen: 907-378-0726.

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Learn more about Dr. Sturm by going to:
<http://www.crrel.usace.army.mil/personnel/sturm.matthew.html>



Follow an Antarctic Exploration with your students

Allan Miller, an ALISON (Alaska Lake Ice and Snow Observation Network) participant at Sterling Elementary School,

is currently an Einstein Fellow in the NSF Office for International Science and Engineering. He is about to leave for Antarctica to participate in the Oden cruise from Buenos Aires to McMurdo Station. While in Antarctica Allan will be communicating back to teachers and students in schools. Here is what he says:

Here is the basic calendar for the expedition:

Depart from Chile Dec. 10
Cross the Drake Passage - enter the more protected pack ice within 2 days
Travel to McMurdo traveling west along the Antarctic Peninsula and then the coast
Arrive McMurdo Station on Dec. 25
Transfer to station by helicopter on Dec. 26
Depart on C-17 military transport jet on Dec. 28 for Christchurch New Zealand
Arrive back in the USA via Auckland, NZ, and Los Angeles on Dec. 29

During the trip there are several ways for students, classes and anyone else interested to interact with us:

1. By following our web-blogs on the PolarTREC website www.polartrec.com My participation (and that of fellow US teacher Ute Kadan from Brownsville, TX) in this trip is supported by a National Science Foundation grant to the Arctic Research Consortium of the US (ARCUS) to create a program called PolarTREC (Teachers and Researchers Exchanging and Collaborating). Our expedition will be the first of at least 30 which will allow classroom teachers to travel to field research sites in the Arctic and Antarctic and work with scientists engaged in many different types of polar research throughout the upcoming International Polar Year (IPY - 2007-2009). I will regularly e-mail text and pictures to ARCUS which they will post on the Virtual Base Camp section of their website. In each post I will also include our current location in latitude and longitude coordinates, along with some basic meteorological information - this should allow any interested classes to track our progress on an Antarctic polar project map. . This website is still under final development and should become available by this weekend.

2. By posting comments and questions on the www.polartrec.com website - Through this site students, teachers and the general public can also post questions and comments to me, the other teachers (from USA, Sweden, and Chile), or researchers about the posts - creating an online dia-

logue about the expedition. If you are interested in this please follow these simple instructions once the site comes up this week:

Go to the PolarTREC website: <http://www.polartrec.com>
Note: You do not need to login to post comments or questions. However, if you are in a classroom ARCUS would like you to login to the Oden Expedition so that they can better track users on the website for statistical purposes.

Please remember practice safe Internet skills with your students. Students should not to post any personal information on the website and sign their questions or comments with only their first name.

If you are classroom that is following me, use the following login name and password:

1. Login Name: Miller Password: class
2. Click on the Oden Expedition in on the side navigation bar (located under the "Virtual Base Camp" tab)
3. Click on "Ask the Team" link.
4. Click on "Post new forum topic" at the top right.
5. Fill in the "Subject" field.
6. In the section labeled, "Body", type in your text and format accordingly.
7. After you have finished entering your text in the large white form field, click "Submit".

If you want to post comments to a specific post in the 'Ask the Team' forum:

1. Open the "Ask the Team" forum.
2. Open the Topic you are interested in posting a comment to.
3. Enter a subject in the subject field and a comment in the large, white comment field.
4. You may Preview your comment to see what it will look like or Post the comment directly.

To reduce spam, you will see the following message after submitting: Your comment has been queued for moderation by site administrators and will be published after approval. ARCUS will publish the comment as soon as it has been screened.

3. Participating in teleconferences and weblinks - ARCUS will also be coordinating a series of teleconferences that will link us live from the Antarctic on the Oden using a satellite telephone. Information about these opportunities will be available on the www.polartrec.com website - or you may also contact Program Manager Janet Warburton at warburton@arcus.org if you would like more information about the times, technical requirements or expectations.

4. By sending me e-mail - I will have access to e-mail at least once each day while on the Oden. My e-mail address on the ship will be allan.miller@oden.polar.se Please note that these must be small messages with no attachments - with a maximum size of 100k per e-mail file. This e-mail address will not become active until I actually embark on the ship - which is scheduled to be on Dec. 10. Feel free to email me while on the ship but post questions and comments on the PolarTREC website. It is not likely that I will be checking this e-mail address (amiller@nsf.gov) at anytime between Dec. 6 when I leave DC and Jan. 7 when I return to Washington, DC.

5. By tracking the trip using google.earth - later this week the ship will begin uploading its data directly to google earth so

that the progress of our ship can be tracked through the google earth website in near real-time. The PolarTREC website will have a link to google earth but you will need to download google earth before you can follow the Oden's track online.

If you enjoy being on the outside looking into an expedition - think how much more rewarding it would be to actually join in one. By applying to become the next PolarTREC teacher - applications for upcoming spring and summer '07 expeditions will soon be available on the www.polartrec.com website - you could head to Antarctica in the future. Check out the website for details and deadlines or join ARCUS' Polar Education List Serve (<http://www.arcus.org/Education/educationlist/index.html>) to receive emails about up various events and opportunities.



Consider joining ASTA

The Alaska Science Teachers Association is a valuable organization for all teachers in the state, especially science teachers.

You are invited to join NOW, so that you can take advantage of the benefits of membership.

Check out the ASTA website <http://www.aksta.org> and get your quarterly newsletter via email.

The 2007 Math/Science Conference is scheduled for October 18-20 in Anchorage at the BP Center. The conference theme is "Math + Science = Pipeline to the Future".

Don't miss out on the many benefits of being an ASTA member. Go to the ASTA website, download and complete the attached membership form and mail it in today!

MSDS and Teacher Resources @ Flinn Scientific

Did you know? The MSDS for chemicals may be downloaded from the Flinn Scientific Web site at http://www.flinnsci.com/search_MSDS.asp

You can search by keyword or alphabetically.

This is a valuable resource for the busy teacher!

Furthermore...

If you have not checked out Flinn's Teacher Resources - it is worth a few minutes of your time.

<http://www.flinnsci.com/resources.asp>

NSTA Web Seminars

NSTA Web Seminars are 90-minute, live professional development experiences that use online learning technologies to allow participants to interact with nationally acclaimed experts, NSTA Press authors, and scientists, engineers, and education specialists from NSTA government partners such as NASA, NOAA, FDA, and the NSDL.

Here's what makes NSTA Web Seminars such unique professional development opportunities:

- Seminars are conveniently scheduled to allow educators from all U.S. time zones to participate!
- Travel is not required-the program takes place at your desktop!
- Get real-time answers to your questions from content and pedagogical experts!
- The programs are live and interactive -all online tools are provided!

Educators use online tools that allow them to mark-up and annotate presenter's slides or share desktop applications in addition to engaging in chat with others online and answering quizzes and poll questions. Seminars may be archived and available for viewing after the live event has occurred.



Take an Online Science Course from the American Museum of Natural History

Need to fulfill degree, certification or professional development requirements? Seminars on Science, a member of the NSTA Institute for Professional Development, offers award-winning online graduate courses in the life, Earth and physical sciences. Designed by the American Museum of Natural History (AMNH) for K-12 educators, each six-week course immerses the learner in an area of contemporary research. Come away from your class with a deeper understanding of both the science and the tools of scientific inquiry. Courses are led by educators and Museum scientists and include rich web-based discussions.

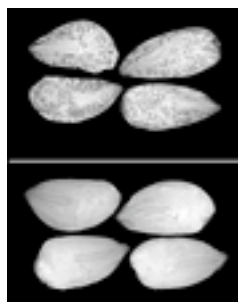
Graduate credit is available from several leading institutions. Courses may be used to meet your professional development needs, including degree, certification, NCLB, and salary gradation requirements.

January courses include *Earth: Inside and Out*, *The Ocean System*, *Genetics*, *Genomics*, *Genethics*; and *The Diversity of Fishes*. Free sample resources for each course, including essays, videos, and interactive simulations, are available online at <http://learn.amnh.org>.

Registration is now open for the six-week session that begins January 15 as well as the following session beginning March 19, which will include a NEW course on Evolution. Courses are easy to use and flexible enough to fit into a teacher's busy schedule. Each participant receives a CD of course resources suitable for classroom use.

Register by December 18th and receive a \$50 discount. For more information and to register, visit <http://learn.amnh.org> or call 800-649-6715.

Science in the News



Toxic Seed Becomes Hope for the Hungry

FUTURE FOOD? Scientists have turned the nutritious but naturally poisonous cottonseed (top) into an engineered, non-toxic source of protein

Where most people might look at a white-capped cotton plant and see the makings of next year's T-shirts, Keerti Rathore sees food for a hungry world. Rathore and his colleagues have figured out how to make poisonous cottonseeds fit for human consumption. The new, nontoxic seeds could give 500 million people an additional source of high-quality protein, the team estimates, if the genetically engineered plant is approved for cultivation. Visit

<http://www.csmonitor.com/2006/1127/p03s02-usgn.html?s=hns> to read more.

NSTA Conferences on Science Education

Open to member and nonmember science educators, NSTA conferences offer the latest in science content, teaching strategy, and research to enhance and expand your professional growth.



Take advantage of this unique opportunity to collaborate with science education leaders and your peers. Each year NSTA

hosts a national conference on science education and three area conferences on science education.

NSTA conferences are jam-packed with innovative presentations and hands-on workshops as well as special invited speakers, educational field trips, short courses, NSTA Symposia, and exciting social events. The Exhibition of Science Education Materials is the largest exhibition of its kind and is an invaluable source of curriculum and other products.

As an important addition to the national conference agenda (and selected area conferences), NSTA presents Professional Development Institutes—focused, content-based, partnered programs that explore key topics in significant depth. These daylong programs offer participants a unique



learning opportunity that includes a personalized pathway through the full conference agenda. NSTA national and area conferences may also feature one-day topical research dissemination conferences on focused topics. In plenary sessions and multiple small-group workshops, speakers present findings from their NSF-funded research. Details on these special conference events will be provided as programs are confirmed.



NSTA National Conference

March 29 - April 1, 2007

St Louis

The theme of the St. Louis conference is *Science: A River of Connections*.

Registration

Attendee registration for the St. Louis conference opens December 18. You may register online at that time or download a Registration Form and return it by fax or mail.

For information on exhibiting at the St. Louis conference. [click here](#).