

Sun-Earth Day Highlights (1-22-08)

Polar Gateways Arctic Circle Sunrise 2008

Barrow, Alaska, January 23-29, 2008

[Troy Cline]

"We shall not cease from Exploration. And the end of all our exploring will be to arrive where we started, and to know the place for the first time. (T.S. Eliot)

My name is Troy Cline and welcome to another Sun-Earth Day Highlights podcast. In this special edition our team headed to the northernmost town in the United States, Barrow, Alaska, where we joined in on a celebration of the Polar Sunrise. So what makes this particular sunrise so special? Well Barrow is located over 300 miles north of the Arctic Circle and as a result doesn't see a sunrise for 84 days of the year! Imagine not seeing the Sun for 84 days! So when it does peak over the southern horizon on January 23rd... it's something to shout about.

To mark this special day, teams of scientists from all over the world traveled to Barrow and held the 4th polar conference called, "Polar Gateways Arctic Circle Sunrise 2008'. One of their main goals was to share information about changes in the Earth's Polar Regions due to global climate change and how it will impact our daily lives and the future of our planet. Other topics included cutting edge information about our Sun's influence on the solar system as well as our future exploration of other planets.

During the next several podcasts, you will hear from some of the scientists who attended this conference. You will also hear from the residents of Barrow who will share what it's like to live in such icy world where traditional marine mammal hunts and other subsistence practices are still an active part of the culture.

During each podcast, make sure to visit the Sun-Earth Day podcast page for related information and imagery.

So let's get started by talking with the Chairperson of the Polar Gateways conference, Dr. John Cooper, from NASA Goddard Space Flight Center. The day before the Polar Sunrise, we were able to catch up with Dr. Cooper out on the tundra where we could feel the deep chill of the arctic air with temperatures around 5 degrees Fahrenheit. You'll certainly be able to hear the icy wind hitting his mic during our chat. We asked Dr. Cooper to tell us more about the conference, the science being discussed and why they chose Barrow as the place to meet.

[John Cooper]

This conference brings together scientists who are working in polar science of the earth, as well as other planets and can influence people who are dealing with interaction science learning and the planetary requirements .

So this is a joint Heliophysics and International Polar year conference. This conference is called Gateways Arctic Circle Sunrise partly because we agreed we would meet beginning on January 23rd this year 2008, that is the first day of official sunrise in Barrow Alaska and of course the closer you are to the poles the later in the year you see sunrise because of the tilt of the earth and so this week that we are meeting, from tomorrow until next week, is the first week of sunrise in this region of the arctic. That is the connection to Heliophysics because of the connection of the sun and the earth by meeting at this time, and then standing here in the Barrow environment the icy cold environment the icy worlds that we are exploring elsewhere in the solar system.

[Troy Cline]

As I mentioned earlier, we interviewed Dr. Cooper on January 22nd just one day before Polar Sunrise. It was close 2:00PM Alaskan Standard Time and although it looked as if the sun just might peak up over the southern horizon ...it didn't quite make it. So we asked John to describe the scene and to give us a basic explanation for what was happening...or should I say wasn't happening. You can view an image of the exact scene John is describing on the Sun-Earth Day podcast page.

[John Cooper]

Well the sun is coming close to rising above the horizon so you see a red glow. We are actually past the time that it is highest in the sky, which means highest below the horizon. It hasn't quite risen above the horizon yet it will do that tomorrow on January 23rd, so we should just see the sun itself poking above the horizon and it will be above the horizon for a half hour or so and that will be the first day of sunrise for this year in this location.

[Troy Cline]

Towards the end of our interview, we switched gears and asked Dr. Cooper to give us a little bit of insight into how and why he became a space scientist?

[John Cooper]

Well I became a scientist because I was born in 1950, and so I was going to school and sort of coming into age in elementary school at the time of the international geophysical year, 1957-58, and of course the launch of sputnik in October of 1957, and that was followed of course by the manned space program and the speeches of John Kennedy and the Apollo program. So I grew up in the space age. And I was very interested in that for a long time. My brother who was 7 years older than I was and was very interested in Wiley Post books. So I would spend a lot of time reading his books about science, so I was inspired in that. My brother became a lawyer. I kept my focus on science. I didn't actually plan originally to get into space science. I got into physics for my undergraduate work. And then I went off and joined the navy for a few years and came back for graduate school. And was looking around for what type of research I should be doing and ended up joining a space science research group at the University of

Chicago. So that was how I ended up in space science. I had always been interested in it from the early days of school just like everyone who was growing up those days, the boomer generation.

[Troy Cline]

I'd like to give a special thanks to Dr. Cooper for sharing his time with us.

Later that afternoon we I had the pleasure to meet the Deputy Director of the local Department of Wildlife Management, Harry Brower, Jr. Being a lifelong resident of Barrow he was able to give us a peak into the cultural and scientific aspects of life in Barrow: the northernmost town in the United States..

[Harry Brower]

I'm Harry Brower Jr. I have seven siblings, nine children and my parents here in Barrow. Born in Barrow and I will call my self a half breed. Though I'm not a half breed, I know two different languages, my native language is the Inupiat language and I speak English because I was taught by my parents in the western science, to get the education I need to be able to hold a job in our local community. I currently work for the Department of Wild Life Management with our local government, Department of Wildlife Management as the deputy director. I didn't get into this position in a short period of time it took me several years to get myself elevated into this position.

[Troy Cline]

I've been walking around Barrow for a few days now. Well limited because its kind of cold for me. But it is a very unique and incredible place especially when I look out over the ice and all of it. What is it that you love the most about this area or this community?

[Harry Brower]

Calling it home.

[Troy Cline]

Calling it home.

[Harry Brower]

Where ever I travel I want to come back home to Barrow, I travel pretty much all over the world, I've been to Japan, to London, Australia and everything else. I want to come back home to Barrow, start heading north.

[Troy Cline]

A place to call home.

[Harry Brower]

Yes it is a very interesting place if you take the time and opportunity to meet and greet people and see how things progress here and interaction of all the different cultures that occur and different kinds of wildlife and science research that has been happening going on here for well over 50 years and maybe even more in terms of all the specimens for different researchers showing interest of Arctic animals.

[Troy Cline]

And that's part of what you do. When scientists and people come here to Barrow you take them out to do their research.

[Harry Brower]

To conduct their research and collecting their specimens or samples or different resources that they need to draw an interest on Arctic animals. There are so many different topics that we can talk about that it couldn't happen in a short period of time but the research is provided and shared with the community has been ongoing for some time.

[Troy Cline]

That's incredible! Now I have a about question, let's say 100 years ago people made a living in one particular way. Do people still make a living like they did 100 years ago or is that really changed or a mixture.

[Harry Brower]

I indicate the latter, there's a mixture in comparison to 100 years ago, in just 20 years ago there has been change. In terms of electricity or gas, natural gas and all the vehicles that are around the community now. It's a big change. We've gone through this transition from the dog team to the motorized. Into the computer, satellite, technology It's changed. It is an exciting time, but the thing is the traditional practices continue it was happening 100 years ago and it is being shared to us and is being utilized today, because of the hunt. And the knowledge that has been shared to us is the teaching of the women. Braiding, that is ripped from the caribou tendon, and using that braiding to sew the 30 seal skins to the to make the covering of the skin boat. That is something that happened 100 years ago, that's happening today.

[Troy Cline]

And it's still going on today?

[Harry Brower]

Still happening today.

[Troy Cline]

And that quite a responsibility of people to maintain that aspect of the culture, I can image.

[Harry Brower]

Another one, dancing, drumming, traditional drums that are used for ceremonial or community events, special events that are occurring. And what's happening 100 years ago is happening today.

[Troy Cline]

We would like to give a special thanks to Harry Brower, Jr. for taking time to share the information that only a person with his experience could give.

In upcoming podcasts we'll hear more about the Inupiat culture from local elders and additional residents of Barrow. Also, in just a few weeks you'll be able to access a special webpage on the Sun-Earth Day website complete with science video clips and images taken directly from the Polar Gateways conference.

I hope you enjoyed this edition of Sun-Earth Day Highlights. We are very interested in hearing your questions and comments about the Sun-Earth Day podcasts. If you have something to say, send an email to sunearthdaypodcast@mail630.gsfc.nasa.gov .

For all other details about the Sun-Earth Day program including information about our past SED themes be sure to visit our website at sunearthday.nasa.gov.

While there, don't forget to register in order to receive Sun-Earth Day updates!