LIFE ON THE ICE (CUBE)

Many things we take for granted are missing from the South Pole. Laura wrote about how wonderful it was to have strawberries with a holiday dinner. At the Pole, where all food had to be flown in from far away, fresh strawberries were a rare treat.

Hot showers were a rare treat, too. Laura was allowed two showers a week – each to last just two minutes! Not much time to wash your hair. But water and the fuel to heat it up are valuable. Everyone at the South Pole has to follow the rules to keep from running out of fuel.

At the South Pole Laura lived in a temporary building with around 15 other people. The temporary building is only used in the Antarctic summer. No one

LIFE ON THE ICE (CUBE)

could live there in the winter. Even in the summer, though, staying warm was a challenge. Laura wrote that she slept wearing long pants, a sweatshirt, and a hat, with three blankets and her coat draped over her. Not only that, but she had to wear a mask over her eyes to keep out the sunshine that kept coming – even in the middle of the night!

Laura had to wear a lot of heavy clothing to stay warm while she slept. She also had to wear an eye mask to keep sunlight out!

BEYOND PENGUINS AND POLAR BEARS

LIFE OF THE ICE (CUBE)

BY STEPHEN WHITT

APRIL 2010

BEYOND PENGUINS AND POLAR BEARS

http://beyondpenguins.nsdl.org

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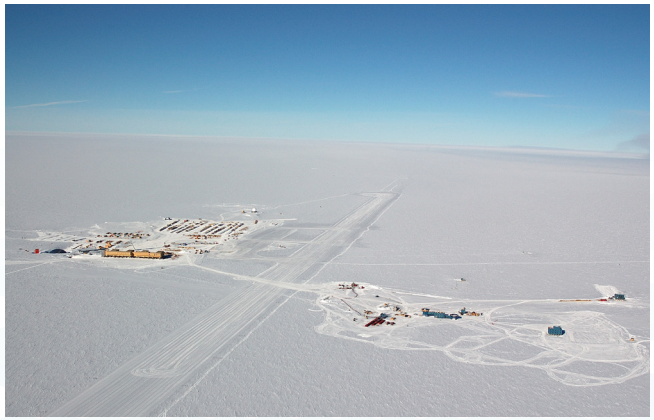

At the South Pole is a special telescope called IceCube. IceCube helps scientists to understand tiny particles called neutrinos.

This material is based upon work supported by the National Science Foundation under Grant Nos. OPP-9980474 (AMANDA) and OPP-0236449 (IceCube), University of Wisconsin-Madison

One day in December, some of the IceCube scientists made ice cream. They mixed powdered milk and water. They put their bowl outside. The ice cream froze in just three minutes! Laura said it was delicious. She had to be careful, though, not to touch the metal spoon to her lips, or else the spoon would stick!

Laura also wrote about the clothing she wore while working at IceCube. Each day, Laura wore a heavy parka filled with down, three pairs of socks, and boots with four-inch soles. Altogether her clothing weighed 13 pounds. It's a lot of work just to go outside even for a short time, so Laura needed to plan carefully.

Most scientists don't stay at the South Pole for long. Laura is now back in Wisconsin, but the work on IceCube will go on for many years. And the neutrinos Laura studied just keep coming.

Each year the scientists race around the South Pole. Photo courtesy of icecube.wisc.edu.

LIFE ON THE ICE (CUBE)

Everyone that goes to the South Pole is given a complete set of extreme cold weather gear.
Photographer: Mark Krasberg

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LIFE ON THE ICE (CUBE)

Finding ways to have fun at the South Pole is more important than you might think. It keeps the scientists and other workers interested in their tasks. It also gives the 250 or so people working at the South Pole a feeling of **tradition**.

One tradition is the Race Around the World. It is a two-mile race around the South Pole. Some run, some walk, and some ride in parade floats they've built for the occasion. Laura described her favorite, a steam-breathing dragon that **lumbered** its way around the course.

Right now, **trillions** of invisible bits of almost nothing are passing through your body. They are called neutrinos. Neutrinos are everywhere. Yet it is almost impossible to catch one.

Scientists want to understand neutrinos. To learn about them, scientists have built some of the strangest telescopes ever seen. One of these telescopes is at the South Pole. It is called IceCube.

GLOSSARY

DOWN - soft, fluffy feathers, used to stuff clothing for warmth

LUMBERED - moved in a clumsy manner

PARKA - a warm jacket

TRADITION - an activity repeated year after year

TRILLIONS - a very large number of something

One activity missing from the South Pole might surprise you. There's no ice skating. Why? Skating requires flat ice. Flat ice comes from water that has frozen over a lake or a pond. At the South Pole the ice never melts, so there's no water to freeze. No water means no flat ice, and no flat ice means no skating.

Other than the humans working at the Pole, there's no animal life at all. That means no mice or mosquitoes, not even a butterfly or a squirrel, and no birds singing or flying overhead and no dogs barking. There was one animal that made it to the Pole with Laura, though. Her stuffed penguin PJ kept Laura company every step of the way.

Laura's stuffed penguin, PJ, keeps her company at the South Pole. Photo courtesy of Laura Gladstone.

Laura Gladstone is a scientist working at IceCube. Laura is a student at the University of Wisconsin. She helped design a machine that spots neutrinos moving through ice. Laura tested this machine at IceCube.

What's it like to do science at the South Pole? Laura wrote about placing her machine down a mile-long hole in the ice. She wrote about cables that got so cold and icy that she needed a blow dryer to make them work. She wrote about working 18 hours a day (after all, there's no nighttime for half the year at the South Pole). But Laura also wrote about everyday life in the coldest place on Earth.

Laura worked at the IceCube Laboratory at the South Pole.

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