

Teacher Heads South for PENGUIn and Penguins

Science News | S/L Educator

NOV 19 2012



Pennsylvania teacher Tim Spuck has headed to Antarctica to study space weather as part of The Polar Experiment Network for Geospace Upper atmosphere Investigations project (PENGUIn). He left the United States on Nov. 13 and will remain on the icy continent until Dec. 24.

Space weather is similar to the weather we experience on earth and in the near-earth atmosphere, but it takes place several hundred feet above the surface of the planet, in the ionosphere. Included within the field of space weather are auroras, solar winds, and magnetic fields around the earth and the sun. Scientists study these phenomena in order to learn how they disturb radio frequencies; take out weather, communication, and positioning satellites; expose air passengers to radiation; affect spacecraft; and cause power fluctuations.

In addition to his South Pole work with PENGUIn, Spuck also will spend 10 days with the mission's terrestrial counterpart at the Adélie penguin colony in Cape Royds. There scientists are learning about the birds' behavior and lives and how environmental changes affect them.

Spuck is in Antarctica with PolarTREC (Teachers and Researchers Exploring and Collaborating), which takes K-12 teachers out of their classrooms for 2-6 weeks of hands-on fieldwork in polar regions. Funded by the National Science Foundation, the project hopes to improve the knowledge base and understanding of both teachers and researchers within polar science fields. In addition to completing their fieldwork, Spuck and other PolarTREC teachers and researchers will share this work with others by interacting with STEM classes around the world. They will use a variety of online tools, as well as make phone calls and presentations arranged as part of an outreach program called **PolarConnect** (<http://www.polartrec.com/polar-connect>).

Spuck, who teaches earth and space science at Oil City Area High School, is blogging about his expedition experience in Antarctica. You can follow along via his **online journal** (<http://www.polartrec.com/member/tim-spuck>) or his **Twitter feed**.

Check out some of the Science NetLinks resources that relate:

The Science of Weather (Collection, K-12)

Earth Science (Collection, K-12)

Snow Goggles (Lesson, 6-8)

Satellite Orbits (Lesson, 6-8)

Air Masses (Lesson, 9-12)

Using Field Notebooks for Biodiversity Study (Lesson, 9-12)

Frozen Planet: Portrait of Earth's Polar Regions (Blog post)

PHOTO BY TIM SPUCK (POLARTREC 2009), COURTESY OF ARCUS.

CAREERS | **EDUCATION** | **PROFESSIONAL DEVELOPMENT** | **RESEARCH** | **PENGUIN** | **IONOSPHERE** | **SOUTH POLE** | **ANTARCTICA** | **SPACE WEATHER** | **FIELDWORK** | **POLAR EXPERIMENT NETWORK FOR GEOSPACE UPPER ATMOSPHERE INVESTIGATIONS PROJECT (PENGUIN)**

LEAVE A COMMENT

Your email is never published or shared. All comments are reviewed by Science NetLinks before they appear on the site.

Name*

Email address*

URL

Comment*

SNL EDUCATOR BLOG

**Teacher Heads South for
PENGUIn and Penguins**

NOV 19 2012

Join the Verizon Innovative App Challenge

NOV 16 2012

Webinar on Reading Science Texts

NOV 08 2012

© Copyright AAAS 2012. All rights reserved. [Terms of Use \(http://www.aaas.org/terms_of_use.shtml\)](http://www.aaas.org/terms_of_use.shtml) & [Privacy Policy \(http://www.aaas.org/privacy.shtml\)](http://www.aaas.org/privacy.shtml)

Supported by

