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Teacher from Bristol gets up close with Greenland ice studies

BY JOHN KREROWICZ

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Teacher Mark Buesing watched researchers work on a NASA polar ice study with hopes it would help him inspire students across the country.

“The goal is to motivate future engineers and scientists,” said the Bristol resident. “The kids I’m talking to are good students, on the math team or playing soccer, and there’s no reason why they couldn’t be working for NASA in 10 or 20 years and do these fantastically adventurous jobs.”

Buesing, a Libertyville (Ill.) High School physics teacher, left home March 23 for a week of training in Alaska before heading to the city of Kangerlussuaq in Greenland for three weeks. He returned April 20.

Cold, hard facts

During the trip, he learned about mapping polar ice to discover links between those regions and climate as well as measuring changes in sea ice, glaciers and ice sheets.

Data collected in Greenland also will help forecast how polar ice might react to a warmer climate and, consequently, how much sea levels might rise. The study is part of NASA’s Operation IceBridge.

Buesing applied for the trip through PolarTREC, which matches K-12 teachers with polar researchers so the instructors can promote science to the public, particularly to students. About 300 teachers applied this time; 15 were selected to take part in projects worldwide. The National Science Foundation pays for the program.

Buesing believed he was chosen because of his teaching and engineering experience.

Blast from the past

He became interested after being contacted by one of his former students who is an oceanographer for the U.S. Antarctic Program. While in the Antarctic, she met a teacher and wondered “what was a teacher doing at the south end of the Earth?” The answer was PolarTREC.

She urged Buesing to apply, and he did last August.

Buesing's efforts to advance awareness of science include:

- Taking part in video chats with 450 students in 17 classrooms across the country, including his classes in Libertyville and his children's classes at Bristol Grade School.
- Planning presentations for a Libertyville grade school, his teachers union, his high school board of education and an after-school program at Bristol Grade.
- Keeping an online blog at www.polartrec.com/member/mark-buesing.
- Offering to make presentations to other classes and groups. Contact him at 847-327-7800, ext. 8555, or by email at mark.buesing@d128.org.

The best part of the arctic experience for Buesing was soaking up cutting-edge science and engineering and checking out the latest technology.

"You combine that with the adventure of flying over the most remote parts of the planet, and it was intoxicating and thrilling," he said.

Highlights of the experience

Flying above polar ice, through mountain valleys and around icebergs were among the highlights of the trip, Buesing said:

- He was in an aircraft six days a week, often six to eight hours, roaring along at 250 mph and covering up to 2,000 miles daily, weather permitting.
- There was some fear about flying over desolate, icy terrain when the nearest human being was hundreds of miles away. That ended, however, when Buesing met the pilots: One had flown in combat, another was an aviation company test pilot, and the third had flown scientists into the eyes of hurricanes. "I was thinking, 'I'm in pretty good hands here,'" he said.
- Planes sometimes flew as high as 1,500 feet off the ground or low enough that mountains were 3,000 feet above the aircraft. "Over water, the plane dropped lower, and we were dodging icebergs whose tops were higher than the plane," he said. "It was absolutely thrilling."
- Meals included traditional, local fare of seal ("smelled and tasted like old socks"), whale ("chewy"), whale blubber ("tough") and caribou, musk ox and reindeer ("all terrific").
- The highest temperature reached an unusual 50 degrees, drawing him outdoors to run in a T-shirt and shorts. Weather was much better there last month than in Kenosha, he said.