NSPE-AK Outreach in Action: Supporting STEM Education

Alaska PEs support the next generation of engineering and science students across the Last Frontier. This summer was filled with highly successful STEM-related presentations and training for many students, teachers, and parents.

Preparing Students for Future Careers
On August 16, NSPE-AK member and HOD representative Craig Bledsoe, P.E., CSP, was invited to participate in the Anchorage School District’s Powerful Partnerships Program providing guidance to ASD teachers and other attendees about future trends in STEM education in Alaska. This widely publicized all-day event was focused on preparing students for their future careers in the workforce of the Far North.

Ham Radio Satellite Demonstrations
Craig Bledsoe provided ham radio satellite demonstrations to students and their parents at two major amateur radio conventions across the state. He operates under the FCC Amateur Extra Class callsign of KL7H.

Bledsoe shows students, educators, and their parents the importance of ham radio to communications, particularly when usual forms of communication are not available. These demonstrations also provide STEM education in a fun way!

The first was in Kenai at the Moosehorn ARC Hamfest on July 16 where he delivered the Amateur Satellite Corporation PowerPoint presentation and carried out several live satellite radio contacts with the help of a crowd of awestruck future engineering students. During this event, an auction sale of donated ham radio equipment raised $1,800 for nonprofits focused on providing support and services for disabled veterans.

On September 10, Bledsoe offered a similar demonstration featuring four extraterrestrial communications opportunities and a PowerPoint briefing to the students and parents who attended the Matanuska Amateur Radio Association Hamfest at the Lions Arena in Big Lake, Alaska. At this event he was introduced by
David Stevens, KL7EB, the national representative from the American Radio Relay League, who spoke about the importance of STEM education as an option for all of the young people in attendance.

**Governor Issues Proclamation for Clean Energy Week**

Governor Mike Dunleavy has declared **September 26 – 30, 2022**, as Alaska Clean Energy Week.

The proclamation encourages all Alaskans, local governments, corporations, and small businesses to support common sense solutions to address the United States' evolving economic and energy needs and tap into Alaska's limitless potential to develop clean, sustainable energy solutions for the future.

**Interior Department Invests Over $3.3 Million for Wildfire Resilience in Alaska**

The US Department of the Interior announced that it has invested over $3.3 million in fiscal year 2022 funding from the Bipartisan Infrastructure Law to advance wildfire resilience work and support fuels management projects in Alaska on 7,952 acres of land across the state.

This is part of $103 million allocated by the department earlier this year to reduce wildfire risk, mitigate impacts and rehabilitate burned areas, according to a news release. The additional funding will help complete fuels treatments on nearly 2 million acres nationwide this fiscal year, a substantial increase over the prior year.

"As climate change drives harsher heat waves, more volatile weather, and record drought conditions, we are seeing wildfire seasons turn to wildfire years, threatening communities, businesses, wildlife and the environment," said Deputy Secretary Tommy Beaudreau. "Through President Biden's Bipartisan Infrastructure Law, we are investing in Alaska communities, advancing wildfire resilience work across the country, improving resources for the heroic firefighting workforce, and reducing the risk of wildfire." Read more.

**New US Climate Law Could Lead to a Mining 'Renaissance'**

The nation's recently passed $370 billion climate law, called the Inflation Reduction Act, is ramping up interest in Alaska and focusing attention on the state's mining prospects as a possible source for lithium minerals, the Anchorage Daily News reports.
This spring, a small Australian prospecting company sent geologists to a state warehouse to scour old rock collections. The geologists leveled handheld scanners over samples of rock pulled from shelves at the Alaska Geologic Materials Center in Anchorage, drilled in the Cantwell area decades earlier by other mining companies.

They found what Discovery Alaska described to shareholders as the "widespread presence" of lithium, the mineral used in rechargeable, lithium-ion batteries for everything from iPhones to electric vehicles.

Whether the lithium can be profitably extracted won't be known for a while, said Jerko Zuvela, the company's director. "A lot more exploration needs to be done," he said.

But the hunt for the mineral highlights the world's growing interest in the so-called critical minerals used in the solar panels, wind turbines and electric vehicles that increasingly power the global economy. Read more.

Stay up to date on legislative issues through the NSPE Advocacy Center.

Moving the Society Closer to Our Vision

By Britt Smith, P.E., F.NSPE, President 2022-2023

What does NSPE mean to you? I'd like to try to tell you what it means to me. I began my career with a small civil engineering firm with a focus on municipal engineering. After a few years, I moved to the public works department in Jefferson City, Missouri. This is the same city where my wife and I have raised our three children. As a result, I've had the privilege of working for the community that I have called home most of my career.

Like many of you, I was approached by another engineer early in my career and asked to join NSPE. I have moved through various leadership and volunteer roles at the chapter, state, and national levels. I could not be more humbled to be the president of NSPE. I never dreamed that I would be in this position. As I got involved with NSPE, I met and built friendships with many wonderful engineers within my community, around the state, and across this great country. Each time I get involved and want to give back, I seem to receive so much more than I give.

Our founder David Steinman probably had similar thoughts. Steinman understood that the technical problems of the various engineering disciplines are different, but the interests of the profession are shared. He founded NSPE to unite the profession around those common interests. NSPE was created, and continues
today, to be the single national professional society, with solidarity of purpose and concentration of strength, to provide for the professional interests of the engineering profession.

NSPE has adopted as our vision: A world where the public can be confident that the engineering decisions affecting their lives are made by qualified and ethically accountable professionals. Our vision statement is a simple statement, but a very powerful message. I heard once that the average engineer holds the lives of more people in their hands than any doctor could see in a lifetime. As I considered that statement, I couldn't help but think about the awesome responsibility we carry. NSPE was created and continues today to help all members of our profession fulfill that responsibility.

Read more.

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**Nominations Open: Federal Engineer of the Year**

Honoring the commitment of federal engineers to innovation and service is the hallmark of the Federal Engineer of the Year Award. Nominations for the award, which attracts participation from more than a dozen federal agencies, are open until October 31.

The FEYA ceremony is scheduled for February 24, 2023, at the National Press Club in Washington, DC. Tickets will be available for sale in January. Apply or nominate a worthy engineer.

**The 2022 Federal Engineer of the Year**

**Robert Zueck, Ph.D., P.E.**, was named NSPE's 2022 Federal Engineer of the Year for his discoveries and contributions in the engineering field during a virtual awards event in February.

Prior to retirement, Zueck worked in the US Department of the Navy's Naval Facilities Engineering Systems Command (NAVFAC), Expeditionary Warfare Center at Port Hueneme, California. He is heralded for applying his vibration research to military defense projects for which engineers can now design beyond the speed, agility, and stealth limitations of many military sensors, weapons, and platforms. Find out more about Zueck in a *PE* article.
Access Free WORKability Wednesdays Webinars

The reviews of the Engineering: Addressing Unintended Consequences as a Professional webinar are excellent. “Applicable to all engineering disciplines,” says one attendee.

If you were busy this summer and missed it, there is time to watch this thought-provoking webinar at NSPE’s PE Institute. All webinars in the spring series are available free to members. Watch for more information soon about what to expect in the fall series lineup!

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