

Alaska Innovators Hall of Fame 2022 Inductees

The brilliant minds behind a brighter future

By Nancy Erickson for *Alaska Business*

Innovation comes when and where it's least expected; if it were obvious, it wouldn't be new. Honoring innovation in Alaska is itself relatively new, with the Alaska State Committee on Research starting its Innovators Hall of Fame as recently as 2014. The stated mission is "to celebrate and honor outstanding individuals who put Alaska on the map as leaders in innovation and to contribute to Alaska's growing culture of innovation."

Past honorees include the ancient creators of the Tlingit fishhook and Alutiiq angyaq skin boat; discoveries in ecology, aurora physics, and hibernation medicine; engineers of bridges and oil field facilities; promoters of the Gold Rush, television, alternative energy sources, peony horticulture, and innovation itself; and a vast array of inventors, often of measuring devices but also consumer products such as pack rafts, fat bikes, and fish oil tablets.

The class of 2022 inducted at a ceremony in Juneau in March is relatively small, with just three individuals, yet they represent the diversity of innovation: new computer software, new ways to communicate, and new ways to heal a wounded spirit.

Professor Robert Merritt

"I never heard anybody say less than... that he was a genius," says Bruce Merritt of his father, posthumous Hall of Fame inductee Robert P. Merritt. "His hands-on mechanical ability to shape things and fix things and even invent things was beyond the scope of most of us."

Robert Merritt was born in 1924, an only child of a miner and a schoolteacher. He earned his engineering degree from Oregon State University and joined the military during World War II. While in the service, he found himself working on communications almost before he knew it, his son says.

In his nomination letter, 2015 Hall of Famer Alex Hills writes that Merritt became an expert in two fields of electrical engineering: power transmission and radio. "He knew about receivers, transmitters, and—most important in Alaska—the behavior of radio waves," says Hills. "Bob could build just about anything—and then make it work."

Merritt and his wife arrived in Alaska from Oregon in 1949 to take positions at UAF.

At that time, healthcare in Alaska villages was provided by specially trained health aides who consulted with physicians remotely via shortwave radio. However, active aurora borealis could sever communication for days at a time.

“People literally died waiting for Alaska to get its satellite technology up and running,” says Bruce Merritt.

The elder Merritt saw an opportunity to change that when NASA launched a series of experimental communication satellites in 1966 that used VHF radio, which is less sensitive to atmospheric conditions than shortwave. Merritt and his students modified 100-watt taxicab radios to build an experimental health aide communication system, and they also designed a special antenna.

Bruce Merritt traveled to villages with his father in the ‘70s to help install the antennas, giving health aides reliable access to medical advice and support.

Although Robert Merritt’s work in the ‘60s and ‘70s helped transform telecommunications in rural Alaska, his son says his father’s passion was education. “If he couldn’t have been teaching, everything else he did probably wouldn’t have been as significant,” he says. “He and the students in his classroom were the love of his life—besides his wife and family.”

Two years before he died in 1999, Merritt was named Engineer of the Year by the Alaska Section of the Institute of Electrical and Electronics Engineers. His gold pan plaque reads: “In recognition of outstanding contributions and innovations in the field of telecommunications, extraordinary commitment to the education of electrical engineers, which has profoundly impacted the profession in Alaska, and exemplary dedication to the IEEE of Alaska Section.”

For additional recognition by the Innovators Hall of Fame, the letters nominating Merritt read like a Who’s Who of engineering, telecommunications, and satellite technology—each noting his skill to fix anything he put his mind to.

Dr. Stacy Rasmus

As an anthropologist, Dr. Stacy Rasmus may not exactly fit the stereotype of an innovator.

“Innovation isn’t necessarily trying something new,” she says. “Sometimes an innovation starts with trying something old and applying it in new ways.”

Rasmus is an Indigenous health disparities scientist whose research tackles the issues of suicide and substance abuse in Alaska Native and American Indian communities by emphasizing cultural strengths and community partnerships.

Alaska Native youth are often pulled between traditional ways of life and the Western lifestyle. The problem is compounded by Western treatment methods that emphasize risk factors, with the side effect of portraying Native communities as helpless and burdened by disease.

“It was frustrating seeing our young people not helped by this [Western] system when traditionally our indigenous ways had a system to teach our children at a young age to lead a healthy life based on our traditions,” writes Emmonak Community co-investigator Billy Charles in her nomination letter. “The Western model of substance abuse and suicide prevention was not working for our youth. The youth need something they could relate to, rooted in their own culture.”

The approach Rasmus took identifies strengths and reasons for living in youth and then helps communities build and implement programs to foster those strengths.

Rasmus grew up in the Pacific Northwest and attended the Northwest Indian College and Western Washington University, where she obtained her degree in anthropology. Her introduction to the strength-based approach to suicide and substance abuse came when she attended a talk at Northwest Indian College by the late Dr. Gerald V. Mohatt, a professor at UAF. Mohatt presented his “cultural intervention” called The People Awakening Project: Exploring Alaska Native Pathways to Sobriety.

Rasmus was hooked. She transitioned to Alaska twenty years ago and obtained her PhD from UAF.

“I have lived in rural communities and served in both clinical and research capacities, making efforts to reduce the unacceptable burden of suicide that disproportionately impacts Alaska Native people,” says Rasmus.

Rasmus’ work with the People Awakening Project led to development of the Qungasvik (Tools for Life) projects—the beating heart and foundational model for all other projects in her research program at the Center for Alaska Native Health Research at UAF.

The Qungasvik research has served as a model for other Indigenous communities seeking strength-based strategies to promote well-being and reduce disparities in suicide and substance

abuse disorders, including the opioid public health crisis. Efforts are underway to apply findings from Qungasvik work to address these same issues facing military service members and veteran populations of Alaska.

Elders in the Yup'ik communities of the Bering Sea where Rasmus has done most of her work often say, "We used to have to survive the weather and our hunger, but today young people have to survive their feelings. We had to work on living every single day, and that's what we need to give our young ones: reasons to live every day."

"It's learning to apply these tools to address these new problems that is the innovative aspect of our suicide prevention research," Rasmus says.

Piper Wilder

Piper Wilder was an entrepreneur in renewable energy long before she set foot in Alaska.

While living in Colorado, Wilder served as vice president of Amatis Controls, a state-of-the-art lighting controls company based in Aspen. She also served as board chair of the Colorado Solar and Storage Association.

Upon moving to Alaska in 2015, she soon formed 60Hertz Energy, a small firm that developed maintenance software for electricity assets—from microgrids to fleets of diesel generators and portfolios of renewables. The Computerized Maintenance Management Software is used by, among other utilities, the Alaska Village Electric Cooperative (AVEC), the largest rural Alaska electric cooperative, serving more than fifty remote communities.

"Piper's product has allowed them to move away from disjointed handwritten logs to a centralized software platform that is easy for power plant operators to use and allows easy tracking by AVEC to manage their assets, improve system efficiency, and avoid maintenance issues," says UAF assistant professor Jeremy VanderMeer in his nominee letter.

The software captures rich data that helps supervisors miles away have more awareness and control of expensive, remote assets, says Wilder. "Supervisors can message with the field tech to quickly answer questions or resolve issues."

60Hertz's customer base has broadened to include power and water utilities in Alaska and Canada. Wilder and her team are also working in Nigeria, Sierra Leone, and Benin through a contract with the US Department of Defense Office of Naval Research.

This company has been a labor of love, from its beginnings at a start-up weekend to a PowerPoint presentation, says Wilder. “I fell head over heels in that first weekend with this vision and it’s grown since. We now have twenty employees all over the globe and thirty customers.”

Wilder says she deeply cares about climate change and sustainable energy, so she feels it’s her calling to focus on maintaining these assets through her software.

She also values listening carefully to what people wish would make their lives better.

“I ask a potential customer, ‘If you had a magic wand, what would make the difference?’ There’s wistful gazing and then a lot of rich insights,” she says. “I think—particularly in start-up companies—that’s the meat of creating a product that will really serve the market—just by asking.”