

As I have said many times, this region has one of the most formidable concentrations of brainpower anywhere in our country.

The Department of Energy unleashed that brainpower when, later that year, it selected Oak Ridge, along with its partners, three national labs and seven universities, to lead one of the Office of Energy Research's—now the Office of Science—new high-performance computing research centers to serve scientists from national laboratories, universities, and private industry.

Meanwhile, in 2002, Japan introduced its Earth Simulator, which was at the time five times more powerful than any other high-performance computer in the world.

I traveled with former Senator Jeff Bingaman to Japan, and we were briefed on the significance of Japan's investment in the Earth Simulator.

Japan's development of the Earth Simulator meant that the United States no longer was the clear leader in high-performance computing, and for the first time, American researchers were looking abroad to obtain access to the latest computing tools.

Senator Bingaman and I made it a priority to recapture the lead in high-speed computing by introducing and passing the High-End Computing Revitalization Act of 2004.

This legislation paved the way for Oak Ridge to regain the lead in supercomputing. Within a few years, the Oak Ridge Leadership Computing Facility deployed a supercomputer called Jaguar that would break the petaflop barrier—a quadrillion calculations per second—in 2008 and take back the top spot on the TOP500 list in 2009.

For the past 25 years, the Oak Ridge Leadership Computing Facility has not only been home to some of the world's most powerful computers, but it has also been a global leader in the development of software applications and tools for scientific research. That is important because it is not just about having the fastest computer, it is also about having the experts who know how to program and use them.

Each year, the facility provides computer systems 10 to 100 times more powerful than most other computers available for research for the lab's own scientists, as well as international teams of scientists trying to make breakthroughs on the toughest science challenges.

Those scientists publish new science discoveries in nearly 500 research papers per year.

Beyond basic science, dozens of companies, from small businesses to Fortune 500 giants, have used Oak Ridge supercomputers to accelerate their own research and development and gain a competitive advantage in the global market.

For example, these high-performance computers have allowed companies to develop an add-on for long-haul trucks to optimize airflow, which improves fuel mileage by up to 10 percent.

Other companies were able to use simulations to extend the shelf life of consumer products and to analyze combustion in gas turbines to improve performance and lower emissions.

Not only does supercomputing help scientific discoveries and companies, supercomputers at our national laboratories can be used by Federal agencies as a “secret weapon” in the effort to combat issues like Medicare and Medicaid waste, fraud, and abuse; to find terrorists and criminals; and to help the National Institutes of Health find cures and treatments for disease.

Other countries have taken notice of the Oak Ridge Leadership Computing Facility's success, tried to duplicate it, and now threaten our lead in scientific computing.

The United States faces a choice between falling behind competitors like China or advancing technologies that can make us safer and more competitive.

In the June 2017 ranking of the world's most powerful supercomputers, China maintained the top two places, Switzerland was third, and Titan at the Oak Ridge National Laboratory, which is the fastest supercomputer in the United States, moved down to fourth.

In 2018, the Oak Ridge Leadership Computing Facility will complete Summit, which will be more than five times faster than Titan and will help researchers better understand materials and nuclear power and support more energy breakthroughs.

The fiscal year 2018 Energy and Water Development Appropriations bill, which I wrote with Senator FEINSTEIN, prioritizes supercomputing and recommends \$150 million for the Oak Ridge Leadership Computing Facility, as well as \$381 million to support the delivery of the first exascale machine.

I am very proud of the men and women from all over the world who have come to east Tennessee and Oak Ridge National Laboratory to make the Oak Ridge Leadership Computing Facility a world-leading center for computational scientific research.

I thank them for 25 years of hard work and dedication, and I look forward to their continued success answering some of the hardest scientific questions.●

#### RECOGNIZING ROBERTS, MONTANA

● Mr. DAINES. Mr. President, with Veterans Day approaching this weekend, I would like to recognize and express my gratitude for the patriotism, selfless service, and community spirit of a small community in southern Montana. The town of Roberts, in Carbon County, is honoring military veterans by lining Highway 212 with crosses and dogtags to represent servicemembers who have lived in Roberts. The crosses signify veterans who have passed away, while the dogtags symbolize living veterans.

The breadth of service in this scenic town north of Yellowstone Park is evi-

dent in the 133 dogtags on display this year. The depth of service to our great county is rooted in the 308 crosses, some of which date back to service in the Civil War. A total of 441 individuals, with service spanning over a century and a half, is an impressive display of patriotism for any small community. The record of service among the people of Roberts is even more awe-inspiring when you consider that, during the last census, the town had just 361 residents.

As we gather to celebrate Veterans Day, let us be encouraged by the example of the folks in Roberts and take time to remember the accumulated sacrifices and ongoing commitment that allow so many to live in freedom. To the people of Roberts, thank you for punching above your weight class for our Nation.●

#### TRIBUTE TO RONNIE LUPE

● Mr. MCCAIN. Mr. President, I would like to pay tribute to Ronnie Lupe, a foreign war veteran and current chairman of the White Mountain Apache Tribe in Arizona. Chairman Lupe will be retiring next year following 50 years of distinguished public service to his Tribe.

Ronnie also honorably served his Nation overseas in Korea. As a young man, he journeyed far from his hometown of Cibecue to enlist in the U.S. Marine Corps. He soon found himself across the Pacific and entrenched in combat. Thankfully, Ronnie returned home safely to his family and friends.

Ronnie first joined the Tribal council in 1996. Since then, he has served as chairman of the council for a remarkable nine terms. I have enjoyed working closely with Chairman Lupe over the years. Ronnie is a tireless advocate for the principles of Tribal self-governance and Indian self-determination. He led efforts to resolve the Tribe's water rights claims and developed a reservation-wide system for clean drinking water.

Ronnie was also a pioneer in Federal Indian policy concerning wildlife conservation, expanding Tribal control over reservation land, its forest, and natural resources. He oversaw the Tribe's response and recovery in the Rodeo-Chediski Fire in 2002 and the Wallow Fire in 2011—the two worst wildfires in Arizona history. As chairman, he labored to build and nurture Tribal enterprises like Hon Dah Casino and Sunrise Park Resort, which today are hubs of tourism and recreation in the White Mountains of Arizona.

Chairman Ronnie Lupe is a celebrated Tribal leader who brought about transformative and lasting changes to the people of the White Mountain Apache Tribe. I am proud to call him my friend. I thank him for his service.●