



NEWS

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NNSA Supercomputers Among the Fastest in the World **Agency's labs and programs are pioneering supercomputing**

WASHINGTON, D.C. – National Nuclear Security Administration (NNSA) Deputy Administrator for Defense Programs Everet Beckner today announced three supercomputers at its weapons labs are among the six fastest computers in the world.

Citing the recently released TOP500 supercomputer list, Beckner pointed out that NNSA labs not only topped the list with the BlueGene/L, but also claimed fifth with Thunder at Lawrence Livermore National Lab, and sixth with ASCI Q at Los Alamos National Lab.

“NNSA and our labs have half of the top six fastest computers in the world and we are helping to pioneer this field,” said Beckner. “NNSA remains the leader in ultra-scale modeling and simulation, contributing to the strength of the nation’s supercomputing industry and to the country’s scientific competitiveness. We are now today doing things that in the past would have been impossible to carry out due to sheer complexity.”

With BlueGene/L, ASCI Q, and other systems, NNSA uses its supercomputing capabilities through its Defense Programs Office of Advanced Simulating and Computing (ASC) to ensure the United States nuclear weapons stockpile continues to be safe, secure and reliable without nuclear testing.

As part of NNSA’s stockpile stewardship program, ASC computers develop models and simulations to understand and predict behaviors associated with aging weapons by, among other things, gauging various stages of a nuclear explosion. NNSA’s national laboratories employ the supercomputers daily to answer some of the nation’s most complex scientific and engineering questions.

NNSA’s efforts in supercomputing are enabling fundamental shifts in scientific methods by putting simulation on equal footing with theory and experiments. This fundamental shift is occurring across the NNSA complex as the world’s most capable supercomputers are being used to answer some of the nation’s most complex scientific and engineering questions.

Established by Congress in 2000, NNSA is responsible for enhancing national security through the military application of nuclear energy. NNSA maintains and enhances the safety, security, reliability and performance of the United States nuclear weapons stockpile without nuclear testing; works to reduce global danger from weapons of mass destruction; provides the United States Navy with safe and effective nuclear propulsion; and responds to nuclear and radiological emergencies in the United States and abroad.

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