# Supercomputer to study climatic change

I found an article in informationweek.com dated November 08, 2011 called **IBM Yellowstone Supercomputer To Study Climatic Change**. This Supercomputer came online at the **NCAR-Wyoming Supercomputing Center** in October 2012 in Cheyenne. It's a IBM designed behemoth – it can run 1.5 quadrillion calculations per second. It is ranked 13$^{th}$fastest supercomputer in top500.com in recently (November) updated list. "The Yellowstone supercomputer will dramatically advance our understanding of Earth," says Al Kellie, director of NCAR's Computational and Information Systems Laboratory (CISL) on NCAR's website.

Scientists use Yellowstone to studyengage in research about climate change atmospheric processes, geomagnetic storms, aviation safety, , carbon sequestration, etc.

The Yellowstone HPC system is based on IBM's iDataPlex architecture with Intel Sandy Bridge processor. Yellowstone is a 1.5-petaflops high-performance computing system with 72,288 processor cores, 144.6 TB of memory. It is integrated with a centralized file system and storage system known as GLADE. It is FDR InfiniBand system based on Mellanox interconnect solutions. Its performance is 29 times the workload throughput of NCAR's Bluefire supercomputer.

References :

http://www.informationweek.com/government/enterprise-architecture/ibm-yellowstone-supercomputer-to-study-c/231902606

http://www2.cisl.ucar.edu/resources/yellowstone