

October 23, 2012

Al Kellie, Director
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National Center for Atmospheric Research (NCAR)
Boulder, CO 80307-3000

Dear Al:

The semi-annual meeting of the CISL High-performance-computing Advisory Panel (CHAP) was held on October 18th at the NCAR-Wyoming Supercomputing Center (NWSC) in Cheyenne, Wyoming. The meeting occurred at an opportune time, only three days following the Grand Opening of the Center and only two weeks before all users will be able to start using the new supercomputing system on November 1st. Twelve out of sixteen CHAP members were able to attend, most of whom had never been to the Wyoming site before.

CHAP members were extremely pleased with everything they heard and saw during the meeting. The presentations by Anke Kamrath and Dave Hart provided details of progress to date with all system installations and testing, with the transition of supercomputing operations from the Mesa Lab in Boulder to the NWSC, and with the process of getting large ASD (Accelerated Scientific Discovery) projects and all general users running on the system. It was very clear that CISL personnel had resolved all but a few minor issues related to NWSC startup and would resolve the remaining ones quickly with some help from vendor teams. This will successfully complete the overall process to obtain a petascale supercomputing system that began over two years ago.

Following the presentations, CHAP members assembled in the public lobby area for an introduction by Rich Loft to the impressive education stations and video facilities. The CHAP then embarked on an extensive tour of the entire NWSC led by Gary New, the CISL on-site manager of the NWSC, and Aaron Andersen, the lead CISL engineer for the NWSC. This was quite a remarkable experience for the CHAP to be able to see not only the powerful system consisting of a 1.5-petaflops Yellowstone supercomputer, an initial 11 petabytes of GLADE disk space, and an initial 30 petabytes of HPSS tape archive, but also the infrastructure to support this system and many future systems. It was in the latter category that the CHAP could see the results of over five years of planning and building a center that would be efficient, flexible, expandable for decades, and protected against power outages and extremes of weather and climate. The CHAP thanks Gary and Aaron for this most interesting tour, which made it clear that CISL and NSF, along with NCAR, UCAR and their Wyoming partners, have succeeded magnificently in designing, building, and provisioning the NWSC.

The rest of the CHAP meeting was devoted to reviewing large requests for NWSC resources. Counting previously allocated core-hours to university users, at most 40 M core-hours were available to allocate; and the requests totaled 65 M core-hours. By judicious considerations, whereby some multi-year requests could be supported for at least a year and some requested amounts needed to be recalculated in terms of Yellowstone core-hours, final allocations totaling 31 M core-hours were recommended for support.

The CHAP congratulates CISL on its success in building the NWSC and provisioning it with an outstanding supercomputing system to serve the atmospheric and closely related sciences as well as the needs of Wyoming researchers. We are very glad that our meeting was able to be held at the NWSC. Future CHAP meeting will revert to the NCAR Mesa Lab; and the next meeting will be held there on May 2nd, 2013.

Respectfully submitted on behalf of the CHAP,

Bert Semtner
CHAP Chair

cc: Anke Kamrath, Rich Loft, Dave Hart, Aaron Andersen, Gary New, Sarah Ruth, Roger Wakimoto, CHAP members, Bryan Shader