



Department of Energy

Washington, DC 20585
June 26, 2007

Dr. Jill Dahlburg, Chair, ASCAC
Naval Research Laboratory, Code 1001
4555 Overlook Avenue
Washington, DC 20375

Dr. Michelle Broido, Chair, BERAC
Associate Vice Chancellor for Basic Biomedical Research,
and Director, Office of Research, Health Sciences
University of Pittsburgh
Scaife Hall, Suite 401
3550 Terrace Street
Pittsburgh, PA 15261

Dear Drs. Dahlburg and Broido:

I am charging the Advanced Scientific Computing Advisory Committee (ASCAC) and the Biological and Environmental Research Advisory Committee (BERAC) to convene a joint panel to investigate barriers or bottlenecks to achieving successful outcomes of complementary investments specifically in climate modeling by ASCR and BER. The joint panel should identify the key computational and information technology obstacles to advancing climate change science and improving climate change projections using state-of-the-science coupled climate models.

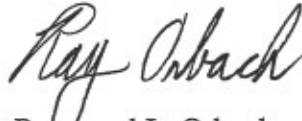
Thus, the panel would need to examine computational, software, data management, networking, and collaboration technology requirements of the Climate Change Research Program (CCRP) in BER. The panel should take a comprehensive view and consider the needs of the climate change community with respect to computational, storage, and networking resources as provided by the ASCR Leadership Computing facilities at ORNL and ANL, SciDAC, by NERSC, and by ESnet. This comprehensive view also should include collaboration tools, efficient access to observation and climate data archives, and long term support for large scale software. Furthermore, the panel should examine how progress in the climate and Earth systems modeling component of the CCRP could be accelerated through targeted investments in applied mathematics, computer science, and computational climate science.

With regard to networking efforts, there are several activities which would be complementary to this charge. In July, there will be an ASCR-BER workshop on ESnet requirements. Also, there is an on-going ASCAC subcommittee on networking research chaired by Ellen Stechel.



In order to influence funding and computing allocations decisions in ASCR, I would like a full report on findings and recommendations by the November 2007 ASCAC meeting. I appreciate ASCAC's and BERAC's willingness to undertake this important activity.

Sincerely,

A handwritten signature in cursive script that reads "Ray Orbach". The signature is written in black ink and is positioned above the printed name.

Raymond L. Orbach
Director
Office of Science