13 March 2008

The Honorable Daniel K. Inouye
Chairman, Committee on Commerce, Space, and Transportation
United States Senate
Washington, D.C.

The Honorable Ted Stevens
Vice Chairman, Committee on Commerce, Space, and Transportation
United States Senate
Washington, D.C.

Dear Senators Inouye and Stevens:

I am writing in regard to S. 2307, the “Global Change Research Improvement Act of 2007.” The bill as currently written, mentions computing only once; yet, high-performance computing is the necessary Great Enabler of progress in climate science. Achieving better understanding of the earth’s climate system, narrowing the uncertainties associated with the system’s response to greenhouse gas emissions, and generating more useful predictions of future climate states, especially on regional and local scales, requires the most powerful computers industry can provide.

Discussions with Committee staff resulted in an invitation to propose language that would strengthen the bill in this regard. The modifications we suggest are not numerous nor extensive, but we believe will result in a stronger bill. They are as follows, with the proposed amendments in italics:

1. Section 102, page 4, paragraph beginning on Line 11: (5) Although significant…and increased levels of Federal resources for observing systems, advanced computing including data access, and research.

2. Section 102, page 5, insert a new item (9) Reliable climate projections and improved understanding of global climate change depend crucially on the availability of high-performance computing, high volume data archives, and expert scientists.
   Renumber the old item (9) to become (10).

3. Section 105, page 11, paragraph beginning on line11: “identify existing capabilities…to address such gaps, with particular attention directed to high-performance computing”.

4. Section 112, page 22. Add new item (a) (2) (E) beginning on line 4. E) the degree to which additional high-performance computing is needed to facilitate progress in understanding hurricane intensity and frequency.

Thank you very much for the opportunity to contribute to this effort.

Sincerely,

Keith L. Seitter
Executive Director

C: Chan Lieu
   Ann Zulkosky
   Todd Bertoson