May 24, 2007

The Honorable Daniel Inouye                          The Honorable Ted Stevens
Chairman, Senate Committee on Commerce, Science and Transportation
508 Dirksen Senate Office Building
Washington, DC 20510

Vice Chairman, Senate Committee on Commerce, Science and Transportation
508 Dirksen Senate Office Building
Washington, DC 20510

Dear Chairman Inouye and Vice Chairman Stevens:

As the House and Senate make plans for conferencing the vital innovation legislation that has passed both bodies, we, the Members of the University Corporation for Atmospheric Research Board of Trustees, would like to thank you for what you have accomplished to date in support of the critical programs at the National Science Foundation (NSF), the National Oceanic and Atmospheric Administration (NOAA), and the National Aeronautics and Space Administration (NASA). We applaud the language in S. 761, the America COMPETES Act, that authorizes significant and needed increased funding for research and education programs at NSF, and emphasizes the important role that ocean and atmospheric sciences at NOAA and earth and space sciences at NASA play in U.S. competitiveness.

The geosciences, which include the atmospheric, earth, hydrologic and oceanic sciences, have much to offer the Nation as it seeks to strengthen its ability to innovate and compete in today’s global economy. These fields address the need to understand, predict, and respond to environmental events and changes to use Earth’s resources wisely. They also advance our ability to predict natural phenomena of economic and human significance, such as climate changes, weather, earthquakes, fish-stock fluctuations, and disruptive events in the solar-terrestrial environment.

A major, often unplanned cost of doing business today is caused by weather phenomena including hurricanes, tornados, blizzards, floods, and droughts. The country suffers many deaths and billions of dollars a year in losses due to severe weather events. These financial and human costs could be considerably reduced with more accurate and timely forecasts. Furthermore, global warming and climate change will alter the patterns of the past and may lead to more frequent and more disastrous events. The need is increasing for research to improve our understanding of climate and weather, to provide better forecasts for use at regional levels, and to create the technologies to cope with the impacts.

Even as the need for more environmental information increases, the recently released National Academies’ report, Earth Science and Applications from Space: National Imperatives for the Next Decade and Beyond, raised alarm bells about our deteriorating system of weather and climate observations and ability to protect our nation’s citizens and businesses from natural disasters. The work of NOAA and NASA is central to our understanding of climate and weather, and support for the entire breadth of the physical sciences, which include the earth, hydrologic and ecosystem sciences, is necessary to realize this nation’s true potential for innovation.
In addition, research projects in the geosciences are inherently multidisciplinary, push the envelope in terms of technology development, and test the boundaries of our data collection and analysis systems. These types of projects offer an effective training ground for future scientists and engineers who will have to tackle complex problems in interdisciplinary teams. This is precisely the kind of technical workforce industry says it needs to develop innovative new products.

We are very appreciative of your recognition of the integrated nature and value of the geosciences and your support for an enhanced investment in these as well as other science and engineering disciplines as part of any long term economic competitiveness policy. As the House and Senate move to conference on the innovation bills (S. 761 and H.R. 2272), we endorse and support your efforts to include NOAA and NASA in the final version of competitiveness legislation and look forward to the timely completion of this important work.

We thank you for the opportunity to convey these views and would be pleased to provide further information or assistance as you move forward.

Sincerely,
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