May 2, 2011

The Honorable Bill Nelson
United States Senate
716 Hart Senate Office Building
United States Senate
Washington, DC 20510

Dear Senator Nelson:

On behalf of the University Corporation for Atmospheric Research (UCAR) and the Weather Coalition, we are writing to thank you for reintroducing the National Hurricane Research Initiative Act of 2011 (S. 692) and for your efforts over the last several years to enact legislation that would enhance the nation’s understanding of hurricanes through scientific research and education. UCAR is a consortium of 76 premier research universities that operates the National Center for Atmospheric Research (NCAR). The Weather Coalition is made up of representatives of industry, academia and scientific and professional associations united in advancing U.S. weather observation, prediction and warning capabilities.

UCAR/NCAR and members of the Weather Coalition are already providing invaluable scientific information that helps to continually improve hurricane forecasts and prepare communities for such events. But greater investment and coordination is needed in science and engineering to improve our understanding of hurricanes and to reduce the economic impacts of hurricane activity, conserve our natural coastal resources, and avoid loss of life and injury.

As you know, the National Science Board’s (NSB) 2007 report, Hurricane Warning: The Critical Need for a National Hurricane Research Initiative, recommended that the U.S. “marshal its substantial science and engineering research enterprise to undertake a focused, sustained, and multi-agency initiative… to improve our understanding of and ability to predict, mitigate, and respond to the impacts of hurricanes on the population, the built-infrastructure, and the natural environment.” In particular, the report found that an additional $300 million is needed each year to adequately address the hurricane science and engineering research and education needs of the nation. As Dr. Kelvin Droegemeier, Co-Chair of the NSB Task Force on Hurricane Science and Engineering, said in his testimony before the Senate Commerce, Science and Transportation Committee in 2009, “We spend billions of dollars on rescue and recovery after hurricanes occur, and yet hurricane research is a modest, loosely coordinated enterprise.” Similarly, the National Oceanic and Atmospheric Administration (NOAA) Science Advisory Board Hurricane Intensity Research Working Group also called for increased investment in research and development activities and, further, urged that those resources be “protected against other budgetary pressures.” As we know you appreciate, the need for better understanding of hurricanes, from their genesis over tropical oceans, to their track and intensity, is high and the stakes are incalculable.

Given that “hurricanes” are the most intense manifestation of the category of phenomena known as “tropical cyclones,” and that to fully study hurricanes, one must study their origins in smaller storms that are spun up off the west coast of Africa, we respectfully suggest that the proposed legislation refer to “tropical cyclones” in relevant sections. This would enable researchers to study the full range of weather phenomena that produce hurricanes and would contribute to scientific understanding of the aspects of disturbances that develop into full-fledged hurricanes versus those that do not.
The recent tragic events in Japan remind us just how vulnerable we are to natural events. Though the earthquake and subsequent tsunami that ravaged Japan caused devastating damage and loss of life, it also served as a reminder that we still have much to learn about natural processes and their impacts on humans and the built environment. That is why the creation of a Natural Hurricane Research Initiative is so vitally important. We applaud the bill for calling for the development of a five-year implementation plan that will outline priorities for investment in science and technology, as well as set goals, benchmarks and milestones to measure the effectiveness of the initiative. In addition, we are very supportive of the creation of dedicated, competitive research programs at NOAA and the National Science Foundation (NSF).

Thank you again for your commitment to this important legislation, which will help the scientific enterprise advance its understanding of hurricanes, improve forecasts, and allow us to better inform the public on how best to prepare for these severe weather events. Please do not hesitate to call on UCAR should you require additional information on hurricane research activities.

Sincerely,

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Cc: John D. Rockefeller IV, Chairman, Senate Commerce, Science and Transportation Committee