



10 June 2013

The Honorable Barbara Mikulski
503 Hart Senate Office Building
Washington, D.C. 20510

The Honorable Richard Shelby
304 Russell Senate Office Building
Washington, D.C. 20510

Dear Senator Mikulski and Senator Shelby:

On behalf of the American Geophysical Union and its 62,000 members – Earth and space scientists striving to advance scientific research for the benefit of humanity – I urge you to take into consideration the impact Earth and space science research and development have on America’s economy, public health and safety, and national security as you work to complete FY 2014 appropriations. The need to reduce the nation’s debt is real, but budget cuts cannot come at the cost of programs that save American lives and spark innovation and economic growth.

The recent tornados in Moore and Oklahoma City, Oklahoma stress the invaluable role NOAA and its National Weather Service play in keeping Americans safe and informed about severe weather. Other line offices in NOAA, particularly the National Ocean Service (NOS) and the Office of Oceanic and Atmospheric Research (OAR), also have a vital role in supporting public safety. When disaster strikes along America’s coasts – home to over half of U.S. citizens – the NOS conducts primary response to assess damage, forecast health and safety hazards, and provide the positioning framework needed for rescue, recovery, and rebuilding activities. Research at the OAR focuses on enhancing our understanding of many natural phenomena, which can greatly impact American safety and livelihood, including tornados, hurricanes, and El Nino/La Nina events.

Federal investment in Earth and space science can also build innovation and economic growth. Scientists and engineers in NASA’s Planetary Science Division are preparing missions to every corner of the Solar System to seek out the discoveries needed to push the boundaries of their science – science that not only helps us better understand our own planet, but also requires the development state of the art technologies and materials. NASA’s planetary missions have a storied history of sparking public interest in science and



engineering and help spawn the next generation of U.S. scientists, engineers, and mathematicians. The education and public outreach programs at NASA are also essential to effectively reach our nation's youth and get them excited to pursue these rewarding fields of study.

NSF also plays a valuable role as a science agency supporting both public safety and economic growth and innovation. Many of the programs in the Geosciences Directorate (GEO) at NSF fund ground-breaking research to better understand natural hazards that threaten our nation's people and infrastructure. GEO enables research on earthquakes, floods, tsunamis, volcanoes, landslides, solar storms, and climate variability. NSF is also renowned for supporting transformative basic research that sparks innovation including internet and laser technologies.

Climate research at the federal science mission agencies and NSF is vital to better understand Earth's climate system and humanity's influence on natural cycles. Severe weather events are expected to increase in magnitude and frequency with a changing climate, and a warmer planet results in rising sea levels that threaten our nation's shorelines. As climate is affected by and affects Earth's atmosphere, land, and oceans, no one agency can successfully understand and prepare for all of the repercussions of our changing climate. Support for climate science at all science agencies, coupled with cross-agency collaboration, is integral to best understand, mitigate, and adapt to a changing climate and environment.

America's economic competitiveness, public safety, and national security depend on our commitment to invest in the Earth and space sciences. As you continue to work on the FY 2014 appropriations, I encourage you to act strategically as you move forward, including a sustained level of support for federal Earth and space science research and development.

Sincerely,

A handwritten signature in black ink that reads "Christine W McEntee". The signature is written in a cursive style with a prominent "W" and "M".

Christine McEntee
Executive Director/CEO
American Geophysical Union
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