

29 April 2015

The Honorable Lamar Smith, Chairman
The Honorable Eddie Bernice Johnson, Ranking Member
House Committee on Science, Space, and Technology
2321 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Smith and Ranking Member Johnson:

I am writing on behalf of the 26,000 members of the Geological Society of America (GSA) to express opposition to the large authorization cuts to Earth science research in the NASA Authorization Act for 2016 and 2017. Investment in NASA Earth science is necessary for America's future economic and science and technology leadership, both through discoveries and advances that are made and the scientific talent developed through their programs. The data and observations from Earth observing missions and research are a tremendously important resource for natural resource exploration, land use planning, and assessing water resources, the impacts of natural disasters, and global agriculture production.

Instead, this bill is a departure from the NASA Authorization Act that the House passed just weeks ago. It would considerably weaken Earth science research at the agency with cuts ranging from 18-32 percent below FY 2015 levels, depending on whether or not the Budget Control Act caps are lifted. These severely reduced levels are insufficient to comply with language in the bill that directs NASA to implement a program "consistent with the recommendations and priorities established in the National Academies' Earth Science Decadal Survey." That report begins with an explanation of the importance of this research:

"Understanding the complex, changing planet on which we live, how it supports life, and how human activities affect its ability to do so in the future is one of the greatest intellectual challenges facing humanity. It is also one of the most important challenges for society as it seeks to achieve prosperity, health, and sustainability."

GSA supports increased investment in Earth science and planetary exploration research at NASA. This research is needed to understand the past and the future of Earth; to deepen and expand human understanding of our place in the universe; to reinforce science, technology, engineering and math (STEM) education and effective training of the next generation of scientists; to increase U.S. competitiveness in science and technology development; and to enhance the quality of life through technological innovation. In addition, the discoveries and technologies of these programs form the basis of many industries and partnerships that drive economic growth. NASA's educational programs have inspired and led many into science careers. Increased NASA investments in Earth science research and education are necessary to

meet workforce needs for careers in research, public and environmental safety, and natural resources exploration and management, including America's oil and gas industry.

GSA appreciates the support for planetary science in the bill. Planetary research, however, is directly linked to Earth science research and the cuts in that program will hinder planetary research. To support missions to better understand the history and workings of the entire solar system, planetary scientists engage in both terrestrial field studies and Earth observation to examine geologic features and processes that are common on other planets, such as impact structures, volcanic constructs, tectonic structures, and glacial and fluvial deposits and landforms. In addition, geochemical planetary research studies include investigations of extraterrestrial materials now on Earth, including lunar samples, tens of thousands of meteorites, cosmic dust particles, and, most recently, particles returned from comets and asteroids.

Investment in Earth science research is vital to increase U.S. competitiveness and further our understanding of our place in the universe. We urge the committee to reconsider the cuts to Earth science research as you seek to shape NASA's future and therefore the standing of the American scientific community.

Respectfully submitted,

A handwritten signature in blue ink that reads "Vicki S. McConnell". The signature is fluid and cursive, with a long horizontal line extending to the right.

Vicki S. McConnell, Executive Director
Geological Society of America