Earth Science Advisory Committee Report October 22nd, 2020 Meeting Via Teleconference

From: The NASA Earth Science Subcommittee – J. Marshall Shepherd (Chair, marshgeo@uga.edu), Roland Burgmann, Andrew Dressler, Thomas Herring, Ian Joughin, Nancy Glenn, Kathleen Green, Daven Henze, Lucy Hutyra, Jasmeet Judge, Colleen Mouw, Anastasia Romanou and Sara Tucker.

To: Karen St. Germain (Director, Earth Science Division, SMD)

Cc: Lucia Tsaoussi (Earth Science Advisory Committee Executive Secretary), Sandra Cauffman (ESD Deputy Director), Jack Kaye (ESD Associate Director for Research), Charles Webb (ESD Associate Director for Flight Programs), Lawrence Friedl (Associate Director for Applied Sciences), Pamela Millar (Associate Director for Earth Science Technology Office)

Date: October 22, 2020

Dear Dr. St. Germain:

The Earth Science Advisory Committee met on October 22, 2020 by teleconference to do the annual performance review (APR) of the Earth Science Division as required by the Government Performance and Results Act Modernization Act (GPRAMA). The Science Mission Directorate (SMD) criteria for GPRAMA voting are as follows:

• Green – Expectations for the research program fully met in context of resources invested.

• Yellow – Some notable or significant shortfalls, but some worthy scientific advancements achieved.

• Red – Major disappointments or shortfalls in scientific outcomes, uncompensated by other unusually positive results.

The ESD Science Annual Performance Goals (APG) are:

<u>1.1.8:</u> NASA shall demonstrate progress in characterizing the behavior of the Earth system, including its various components and the naturally-occurring and human-induced forcings that act upon it; and

<u>1.1.9</u>: NASA shall demonstrate progress in enhancing understanding of the interacting processes that control the behavior of the Earth system, and in utilizing the enhanced knowledge to improve predictive capability.

These are related to the following six Focus Areas: Atmospheric composition, Weather, Carbon Cycle, Water Cycle, Climate, and Earth Surface & Interior.

After reviewing and discussing pertinent documentation both APG was unanimously voted Green, indicating that the committee found science objectives fully met for 2020. The committee was particularly pleased to see improved formatting and consistency with the report, which emerged from prior teleconferences with program managers. Earth science continues to be a vital

part of NASA's mission and the committee is very pleased with the progress and trajectory of the Earth Science Division.

I am attaching the ESD GPRA 2020 annual report for background and details of our deliberations.

The next committee meeting is planned for Winter 2021.

Sincerely,

J. Mushell Maghal

J. Marshall Shepherd, Chair Earth Science Advisory Committee