Earth Science Advisory Committee Report 28th October 2024 Meeting Via Teleconference

From: The NASA Earth Science Advisory Committee (ESAC) - Sara Tucker (Chair), Christine Chiu, Indrani Das, Belay Demoz, Venkataraman Lakshmi, Jennifer Logan, Rowena Lohman, Dylan Millet, Helen Pillar, Beth Plale, Melanie Preisser, Sara Rivero-Calle, Jennifer Watts, Robert Wright, Lisan Yu.

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

Cc: Lucia Tsaoussi (Executive Secretary, Earth Science Advisory Committee), Julie Robinson (Deputy Director, ESD), Jack Kaye (ESD Associate Director for Research), Scott Schwinger (ESD Associate Director for Flight Programs), Tom Wagner (ESD Associate Director for Earth Action), Michael Seablom (ESD Associate Director for Earth Technology), Katie Baynes (ESD Earth Data Officer).

Date: October 28, 2024

Dear Dr. St. Germain,

The Earth Science Advisory Committee met on 28 October 2024 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 six Focus Areas within NASA's Earth Science Division: Atmospheric composition, Weather and Atmospheric Dynamics, Carbon Cycle and Ecosystems, Water and Energy Cycle, Climate Variability and Change, and Earth Surface & Interior.

After reviewing and discussing pertinent documentation, the committee unanimously voted Green for both APGs, indicating that the committee found the science objectives fully met for Fiscal Year 2024.

The committee was impressed with the dedication and overall performance of the Earth Science research community, particularly on matters related to our changing climate. 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.

The ESD GPRA 2024 annual report is attached. The next ESAC meeting is planned for early 2025

Sincerely,

Sara C. Tucker, Chair

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Earth Science Advisory Committee

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