For the first time, a NASA satellite has quantified in three dimensions how much dust makes the trans-Atlantic journey from the Sahara Desert the Amazon rainforest. Among this dust is phosphorus, an essential nutrient that acts like a fertilizer, which the Amazon depends on in order to flourish.

CALIPSO observes Saharan dust crossing the Atlantic Ocean

Visit: climate.nasa.gov
Kepler surveys our region of the Milky Way galaxy to discover hundreds of Earth-size and smaller planets in or near the habitable zone and determine what fraction of the hundreds of billions of stars in our galaxy host such worlds.

This animation shows an artistic concept of the planet Kepler-452b, the first near-Earth-size world to be found in the habitable zone of a star very similar to our Sun.

Credits: NASA Ames/JPL-CalTech/T. Pyle
Research: Autonomy

From rovers to self-driving cars....
Autonomous vehicle research partnerships
Next Generation Air Transportation System, or "NextGen," transforms the National Air System.

A proposed combination of portable and fixed systems for UAS, or unmanned aerial systems, traffic management (UTM).

Air traffic controllers test NASA's new surface automation operations at NASA Ames' Future Flight Central simulator.

Low-altitude air traffic management; safety, security, international perspectives, the emerging economy.
 FUNCTIONS OF THE ADMINISTRATION

Sec. 203. (a) The Administration, in order to carry out the purpose of this Act, shall--

(1) plan, direct, and conduct aeronautical and space activities;

(2) arrange for participation by the scientific community in planning scientific measurements and observations to be made through use of aeronautical and space vehicles, and conduct or arrange for the conduct of such measurements and observations; and

(3) provide for the widest practicable and appropriate dissemination of information concerning its activities and the results thereof.
Sustainability Base

- 50,000 sq. ft. high-performance office building, ~220 occupants
- LEED Platinum certified
- Living laboratory for new technologies
Explore: Cis-Lunar Space

Living and working in space…

…and on lunar and planetary surfaces.