



# NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

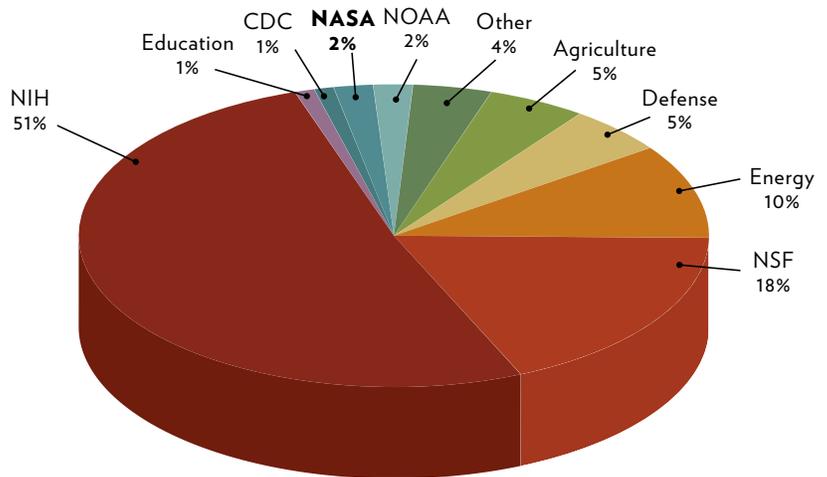
**UW-MADISON: RANKED #8 NATIONALLY WITH \$1.3 BILLION IN ANNUAL RESEARCH EXPENDITURES**

Since 1958, National Aeronautics and Space Administration (NASA) has captivated the public with accomplishments that have revolutionized our understanding of space sciences, life sciences, and aeronautics. Through its various mission directorates, NASA seeks new knowledge and understanding of the Earth, the solar system, and the universe to reveal the unknown and benefit humankind.

At UW-Madison, NASA funding supports a variety of research that improves the understanding our planet and the galaxy.

## \$14.8 million

NASA federal research awards at UW-Madison in 2019-20



### EXAMPLES OF NASA FUNDING AT UW-MADISON

#### Department of Forest & Wildlife Ecology

*Mapping and monitoring Earth's ecosystems:* Vegetation characteristics known as foliar functional traits are used to characterize leaf and canopy properties that drive how ecosystems work. Researchers at UW-Madison are using hyperspectral remote sensing — or a measurement of reflected energy — to map and quantify foliar functional traits in natural and agricultural ecosystems in an effort to provide baseline measurements of the current state of our ecosystems. The work is critical to long-term monitoring of diverse ecosystems and contributes to the development of the next generation of NASA satellites to quantify biodiversity.

#### Cooperative Institute for Meteorological Satellite Studies

*Understanding intensifying tropical cyclones:* Researchers at UW-Madison's Cooperative Institute for Meteorological Satellite Studies (CIMSS) have been studying the development of tropical cyclones for more than 30 years. A new mission, known as TROPICS, is developing and launching nanosatellites, or CubeSats, to measure precipitation, humidity, temperature and cloud properties through sampling of the atmosphere. The first launch is scheduled for 2021. Frequent sampling is crucial to better understand the rapidly evolving structure and intensity of tropical cyclones that pose a threat to millions. Information gathered can lead to improved forecasts and mitigation strategies to save lives. [Read more online.](#)

### WHY UNIVERSITY RESEARCH MATTERS

By supporting NASA, you support programs, research, and projects that promote an advanced understanding of our planet and universe, and the creation of new technologies.

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