

## SCIENCE DATA HOME

NASA's **SCaN** (Space Communications and Navigation) program enables science and exploration missions to transmit vital data to and from Earth! Spacecraft in Earth orbit out to interstellar space can rely on NASA SCaN's Near Space Network and Deep Space Network for essential communications and navigation support.



The Near Space Network uses space relays in geosynchronous orbit and a global system of government and commercial antennas on Earth to bring down terabytes of science data each day. The network can support missions 1.2 million miles away. The Near Space Network is managed by NASA's Goddard Space Flight Center in Greenbelt, Maryland.



The Deep Space Network is comprised of massive antennas in California, Spain, and Australia. These locations, each separated longitudinally by approximately 120 degrees, allow distant spacecraft to always be in Earth's sight. The network can support missions beyond geosynchronous orbit to interstellar space. The Deep Space Network is managed by NASA's Jet Propulsion Laboratory in Southern California.

**NEAR SPACE NETWORK** 

NEAR SPACE NETWORK AND DEEP SPACE NETWORK

L1



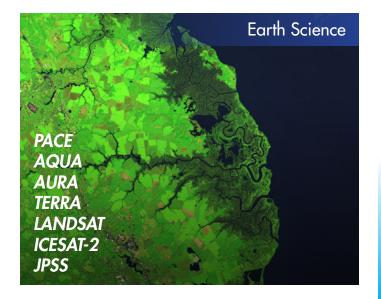
2,000,000 km



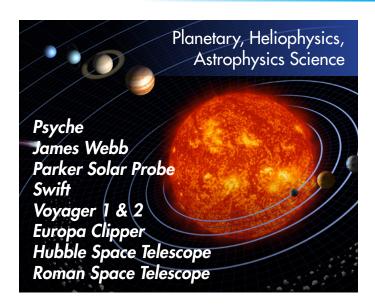




The networks bring down terabytes of data each day from missions orbiting our Earth to beyond our solar system. The following are just a few of the 100+ missions SCaN enables.



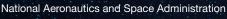






NASA SCaN maintains the networks while also investigating innovations in space communications and navigation tech.

- Optical/Laser Communications
- Delay/Disruption Tolerant Networking (DTN)
- Autonomous Navigation



NASA Headquarters 300 E Street SW Washington, DC 20546

www.nasa.gov

FS-2024-10-353-GSFC

