

Don't leave Earth without us

Deep Goldstone Space Canberra Network Madrid

Deep Space Network

Goldstone Canberra rk Madrid

When it comes to making a long-distance call, it's hard to top the DSN - NASA's Deep Space Network. It's the largest and most sensitive scientific telecommunications system in the world. One of three networks in NASA's Space Communications and Navigation (SCaN) program, the DSN is an international array of giant antennas that supports interplanetary spacecraft missions, plus a few that orbit Earth. It also provides radar and radio astronomy observations that improve our understanding of the solar system and the larger universe. The DSN is operated by NASA's Jet Propulsion Laboratory (JPL), which also operates many of the agency's interplanetary robotic space missions.

The DSN consists of three facilities spaced approximately 120 degrees apart in longitude – around the world. These sites are at Goldstone, near Barstow, California; near Madrid, Spain; and near Canberra, Australia. The strategic placement of these sites permits constant communication with spacecraft as our planet rotates – before a distant spacecraft sinks below the horizon at one DSN site, another site can pick up the signal and carry on communicating.

The antennas of the Deep Space Network are the indispensable link to explorers venturing beyond Earth. They provide the crucial connection for commanding our spacecraft and receiving their never before seen images and scientific information on Earth, propelling our understanding of the universe, our solar system and ultimately, our place within it.

https://go.nasa.gov/about-dsn