

# FIVE DECADES OF LOOKING INTO DEEP SPACE

# **Goldstone antenna turning 50 today**

## **BY PATRICK THATCHER**

## **STAFF WRITER / DAILY PRESS**

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### FORT IRWIN

Tracking more than 30 unmanned spacecraft beyond t h e moon, NASA's Deep Space Network's Goldstone antenna located at Fort Irwin, is turning 50 today.

There are a number of activities planned for the celebration, including speakers from NASA, the Jet Propulsion Laboratory at the California Institute of Technology and Goldstone.

There will also be a visit to the original antenna, named Pioneer that was built in 1958. Warner said it was decommissioned in 1981 and is a national historic landmark.

Some of those attending the ceremonies are from the Lewis Center for Educational Research, in Apple Valley, where a unique program between the school, Goldstone and NASA has been going on since 1996. The program is known as Goldstone Apple Valley Radio Telescope, or GAVRT, and the school has its own mission control center for the antenna.

Kim Bunnell, manager of educational projects at the Lewis Center, said GAVRT is used to train teachers and students from all over the world to use radio astronomy, control a huge antenna and collect science data from objects in the universe. The Internet is used to log into LCER's mission control from anywhere in the world.

"A teacher has to become GAVRT trained, and once they are GAVRT trained, their students — whether (they're) in Alabama or Idaho or Germany — can operate the antenna through our Mission Control here. So we run 24-hours a day," Bunnell said.

The Deep Space Network features three deep space communications complexes placed approximately 120 degrees apart around the world: Goldstone in the Mojave Desert; near Madrid Spain; and near Canberra, Australia.

The three sites ensures that an antenna is always within sight of a given spacecraft, day and night as the Earth rotates.

Right now, t h e Deep Space Network's Goldstone antenna facility is tracking 35 spacecraft. Anyone can look up the location of a selected spacecraft and follow it as it travels to a galaxy far, far away.



To visit, log on to http://deepspace.jpl.nasa.gov/dsn/features/ goldstonetours.html.

PHOTO COURTESY THE NASA DEEPSPACE NETWORK FAR BEYOND THE MOON:A Dawn shot of the 70m antenna at Goldstone. NASA is celebrating 50 years of operation of the deep space network's goldstone antenna facility. Used with permission by Freedom Communications, 2009