

02 June 2006

Astronomy

PEACE AND QUIET

By Sasha Planting

Government is to establish a radio astronomy park in the Northern Cape that is free from radio interference from cellphone masts, television broadcast signals and aircraft radar. It is designed to attract projects and investment from foreign astronomers and assert SA's growing reputation as an ideal astronomy destination.

The first project is already in the bag. The California Institute of Technology and the universities of Oxford and Manchester are involved in joint research that requires them to probe the skies of the northern and southern hemispheres. The project team will locate one telescope in California and has asked SA to host the southern hemisphere telescope.

The astronomy park will also be home to the Karoo Array Telescope (KAT), a powerful radio telescope made up of an array of 20 dishes, each 15 m in diameter.

The location is also a candidate site for the Square Kilometre Array (SKA), which, once completed, will be the largest telescope ever built. Southern Africa, along with Australia, China and Argentina, is on the short list of countries to host the SKA.

"The radio astronomy park is part of a multi million-rand package of measures from government that affirms its commitment to astronomy," says science & technology director-general Phil Mjwara. "Other measures include supplying funding for bursaries to develop the next generation of SA astronomers."

The Astronomy Geographic Advisory Bill has been drafted. If enacted, this will declare the region north west of Carnavon in the Northern Cape, the proposed site of the astronomy park and the SKA and KAT telescopes, a radio-quiet reserve. "The challenge is to provide sufficient protection for radio astronomy observations without unnecessarily denying radio communications services to the local community," says SKA project manager and renowned astronomer Bernie Fanaroff.

The department is also working on a 10-year plan to develop astronomy in SA.

"Until now, astronomers in this country have operated independently of one another," says deputy director-general Adi Paterson. "If astronomers [from different disciplines] collaborate, we can advance astronomy in SA by answering the big questions that win Nobel prizes."

Astronomers working on KAT, for instance, will collaborate with those working on SA's Southern African Large Telescope in complementary observations to form a formidable and powerful astronomical team.

Meanwhile, the SKA bid committee is gearing up for a milestone event in

its calendar. An independent international committee will review the potential sites and identify, by September , which of the proposed sites is most suitable for the SKA. This will be done on the basis of comprehensive technical and scientific information submitted by the SKA team.

SA's SKA team will make a presentation on July 4 in support of its site bid.

Please press your 'back' button to return to the previous page.