SA a step closer to prototype telescope

By Staff Reporter

The site where a prototype of the Karoo Array Telescope (KAT) will be built was officially opened by Science and Technology Minister Mosibudi Mangena at the Hartebeest-hoek Radio Astronomy Observatory on Thursday.

The minister also unveiled a scale model of the prototype dish.

An engineering team will use the full-size prototype dish - 20m high and 15m in diameter - to test all the components and systems of the KAT. The next phase will be to construct 20 similar dishes on a remote site near Carnarvon in the Northern Cape.

The prototype dish has to be finished by mid-2007, after which the computing and digital signal processing components will be added.

Once the KAT trials have been completed, the prototype dish will be used for radio astronomy research, including the study of pulsars.

The development is intended to boost South Africa's chances of hosting the world's largest radio telescope, the Square Kilometre Array (SKA).

"This prototype dish will be the test bed for all KAT components, but it will also strengthen our industry's capacity to design and construct large dishes," said Anita Loots, KAT project manager.

"This will make it possible for South African industry to compete for contracts on SKA, no matter where the telescope is ultimately built. A consortium led by IST Dynamics, a South African engineering company, has been awarded the contract to design and construct the prototype."

The department of science and technology and the National Lotteries Board are the joint funders of the first phase of the KAT, while the National Research Foundation administers the project.

South Africa and Australia are the only two countries still in the running to host the mega telescope.

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