



SA and Aus to collaborate on mega telescopes



Thursday, 26 February 2009



An artist's impression of the MeerKAT radio telescope on site in the Karoo. Pic: Jeroen de Boer / SKA

Despite competing to see who will host the world's largest and most sensitive radio telescope, South Africa and Australia have decided to join forces and collaborate on the development of their respective preliminary radio astronomy facilities.

The international astronomy community has for many years sought to create a telescope that would help to unravel the mysteries of the origins and age of the universe. Known as the Square Kilometre Array (SKA) telescope, this instrument will help scientist to answer questions about dark matter, the formation of the first galaxies, stars and planets and whether or not there really is life somewhere else in the universe.

In 2003, proposals to host SKA were received by the International SKA Steering Committee from nations around the world including USA, China, South Africa, Argentina and Australia. Now only South Africa and Australia remain on the shortlist and must wait until 2010 to find out who will host the world's first mega telescope.

In the meantime, however, both nations have embarked on developing slightly smaller yet extremely powerful radio astronomy facilities. South Africa's 'pilot-project' telescope is based in the Northern Cape and is known as the Karoo Array Telescope or MeerKAT, while the Australian SKA Pathfinder (ASKAP) is set in the heart of the Outback in the mid west region of Western Australia. Both locations are perfect for such telescopes as they are sparsely populated and have little radio interference from electronic equipment such as televisions and cell phones.

It is in developing MeerKAT and ASKAP that South Africa and Australia will collaborate. Addressing the global astronomy fraternity at the International SKA Forum in Cape Town on Wednesday, South Africa's Minister of Science and Technology Mosibudi Mangena said he and his Australian counterpart Kim Carr had agreed to work together on their mini-array telescope projects for the benefit of the greater SKA effort.

"It is now time for Australia and South Africa to work more closely together....This collaboration will enhance the scientific impact of both pathfinders and contribute to advancing the international SKA program overall."

Mangena explained that the countries would collaborate in a scientific and technical programme. "Astronomers will be able to exploit the complementary and common nature of the two SKA pathfinder facilities, conducting science that is aligned

with the SKA reference mission, as well as capitalizing on science opportunities provided by new astronomical facilities at other wavelengths," he said.

The collaboration is expected to create opportunities for academic exchanges and will also see the two nations work together to promote the benefits of SKA to the world.

Mangena reminded guests however that despite the collaboration, he remained convinced that South Africa should win the final bid.

"We are all absolutely convinced – despite the fact that Perth, where last year's SKA Forum was held, is a beautiful city, that the Australians are most gracious hosts, and that our countries were part of the same land mass before the continental drift separated our cricket teams for ever – that there is no place better than South Africa in which to station the Square Kilometre Array."

For more information, visit www.ska.ac.za