



**SQUARE KILOMETRE ARRAY RADIO TELESCOPE
4 April 2005 (in response to question of notice)**

Mrs PENFOLD: What action is being undertaken by the State Government to ensure that South Australia remains the preferred site in Australia's bid for the 'Square Kilometre Array' radio telescope?

The Hon. P.F. CONLON: I provide the following information:
I understand that since this question was put on notice, a briefing on the current status of the project has been provided to the Honourable Member by the SKA Site Selection Project Director.

Since 2000, the South Australian Government has been an active member of the CSIRO consortium trying to identify Australian sites for the core of the SKA project. South Australia's involvement has been based on the estimated \$400m in economic return to the State if the SKA was sited in South Australia and the fact that, under the site criteria, South Australia was a strong contender.

A new *Request for Proposals for Siting the SKA 1 September 2004* (RFP) has been received from the International SKA Project Office (ISPO) in the Netherlands. On close examination, the new RFP considerably weakens the South Australian case to host the SKA and puts Murnpeowie outside the RFP requirements.

The South Australian Government had identified a possible site at Murnpeowie, north of Leigh Creek, for the SKA core site, based on information previously provided by the ISPO. One of the key requirements was the need for a greater than 3000 km base line with the core site anywhere along the line. This has now changed to a "distance between the core and the farthest station being at least 3000 km." From the Murnpeowie site, the longest east-west distance is less than 2,800 km.

The Government has discussed locating an element of the SKA in New Zealand to achieve the required 3000 km base line, however, technical difficulties mean this option will not meet RFP requirements.

In addition, the previous criteria suggested that the remote stations could be located in regions with greater radio interference than the core site based on the assumption that the interference could be electronically filtered. For technical reasons, the remote stations radiating from Murnpeowie primarily went east into the more highly populated States. The new RFP is requesting a high level of radio quietness even in the remote stations. A reorientation of the array based on Murnpeowie is technically difficult.

Furthermore, under the previous criteria, Australia was planning to present several site options based on various SKA configurations to the ISPO. The new RFP requests that each country identify a single site for international consideration. It is the technical opinion of the Project Director for the SKA in SA that the South Australian bid will now be non-complying and would be inferior to Western Australia's bid. To provide the strongest national bid for the SKA, South Australia has withdrawn from the race and is supporting the Western Australian bid.

There are still considerable business development opportunities for South Australian technology companies to secure work from a successful Australian SKA bid. The Government will continue to work closely with the SKA consortium to maximise the economic, scientific and educational returns to the State from the project.

SKA RADIO TELESCOPE
17th September 2003

Mr O'BRIEN (Napier): My question is to the Premier. What is the current status of the South Australian bid for the square kilometre Array radio telescope that could be located in the far north of our state?

The Hon. M.D. RANN (Premier): The South Australian government is working closely with the CSIRO on building the case for a site in northern Australia for this US\$1400 million project. The national project aims to develop the world's most sensitive radio telescope, which is 100 times more powerful than any current telescope in existence. The astronomical community is looking for the best location in the world to site the SKA, and South Australia is one of the bidders. A site at Murnpeowie Station north of Leigh Creek (or Mumpee, as the locals like to call it) has been identified as a result of work led by the Department of Business, Manufacturing and Trade with the assistance of several other government agencies.

I congratulate the minister for his leadership in this area. Our site has all the requirements of the International SKA steering committee, including the facts that it is exceptionally radio quiet, it has a low population, the area has stable land forms, the land is flat, there is low rainfall and it experiences few electrical storms. It will also have significant benefits in technological and scientific knowledge transfer.

Mr Brindal interjecting:

The SPEAKER: Order! The member for Unley has a point of order.

Mr BRINDAL: The house has currently before it the question of addressing questions without notice. Ministers have chances to make ministerial statements, yet the Premier seems to be reading word for word a statement under the guise of an answer to the question, and I ask you, sir, whether this is the appropriate use of question time?

The SPEAKER: I have noticed for several years that intelligent ministers who wish to be well informed bring with them what they anticipate will be the nature of inquiries made of them in the house during the ensuing day or so, and that there is no reason or rule which precludes that practice. However, I note that, more and more, ministers (perhaps because of the care and analytical skill of their advisers) seem to have greater quantities of such preconceived responses; and if, notwithstanding that, the Premier, or any other minister in such circumstances, could have made a ministerial statement, it might have been better if they had done so.

In this case, neither the honourable member for Unley, the chair nor any other member can anticipate what was in the mind of the member for Napier in the lead-up to question time today; and just because, coincidentally, he has made an inquiry of the Premier, for which the Premier already has some explicit notes, is no reason for the rest of the chamber or anyone else to be suspicious. The Premier.

The Hon. M.D. RANN: Thank you, sir. I guess that, as Chairman of the state's science council, one of my roles is to educate members of parliament on important astronomical matters, and I will continue to do so. It will also, of course, have significant benefits in technological and scientific transfer. A meeting of the International SKA steering committee was held in Geraldton in July. The South Australian site was presented to the committee along with Western Australian and New South Wales proposals. Other sites being considered throughout the world include South Africa, the United States and China, with Brazil still considering its position.

All the Australian sites received strong support, and I would like to say that this is an area of strong bipartisanship, which I know members opposite will support. From an astronomical perspective, sites around latitude 30° south, such as Murnpeowie, look directly at the centre of our home galaxy, the Milky Way, and are therefore obviously preferred. A list of questions about the Australian sites is being prepared by the international steering committee, which will guide further work on proving up our sites.

The South Australian government is continuing to undertake research on the Murnpeowie site in supporting its bid and to answer the international committee's questions. These include:

- xpreparing the necessary legal framework to protect the site over the 100-year life of the telescope;
- xfurther radio frequency interference work to confirm the silence of the site;
- xlooking at the opportunities for renewable electricity sources to power the SKA, including the hot rocks power concept for northern South Australia; and
- xpreparing a business strategy to ensure that South Australian companies can maximise any opportunities that arise from the project.

This is obviously a giant long-term project. The successful country probably will not be decided until early 2006. The strength of the Australian bid is in our natural attributes: the size of our country and our low population. The telescope's role will be to answer the big questions about the formation of the universe. It could also have a significant role in supporting deep space missions, including manned missions to other planets. I understand that members of the opposition, especially the member for Flinders, have been as excited as I and the Minister for Business have been about the prospects of South Australia securing this significant project. So, I look forward to continuing bipartisan support on our bid to secure the next generation of telescopes, 100 times more powerful than any currently in existence, to power the next generation of deep space research.