

## Progress at our Observatories in Western Australia



Western Australia will be the home of several SETI receiving installations. Beginning with an installation in the far North West of Australia, near the town of Derby. Derby is 2500 km north of Perth and this is where Mr. Mario De- Reuter has started to build his radio telescope. Mario expects this to be a long term project spread over several years as he has just obtained a 5 metre dish to use on his project Further south, 1380 km from Perth, is the town of Carnarvon. Not far from the town site stands a large steerable antenna complex, used in the past by The OTC We have obtained permission from the Carnarvon Shire to use this magnificent, 33.5 metre, fully steerable precision antenna, for SETI purposes. This antenna is a Cassegrain type with the focal point situated in the control room beneath the dish. A working group consisting of the local towns people are actively working to restore this wonderful instrument back to working condition again. One of the members of the Carnarvon team, Mr. Les Bateman, worked at the complex as a technician when it was in operation and has much experience with the systems in use there.

Finally, to a SETI site, about one hours drive north of Perth, in a picturesque valley in the Shire of Bullsbrook called Chittering.



We have obtained permission from the owner of a large orange grove to use some of his land to set up a SETI receiving complex under the direction of Mr. Guido Nigro and Mr. Brian Sallur. The Chittering site, known as the Golden Grove Observatory, Will have not only the Seti instrument installed, but a fully functioning Solar Observatory that used to be located at Mount Gungin. Previously known as the MGRO, the equipment was removed from the old site due to its remoteness and susceptibility to vandal attack. Also at Golden grove is fully functioning Optical Observatory operated under the direction Of Mr. David Nicholson and his staff of helpers.

The SETI dish antenna is one of four "Troppo" Scatter antennas used to relay data from Carnarvon to another identical antennae located at the town of Dongra (approx., 1000 km from Carnarvon.) This was at the time of the historic orbiting "John Glen" space craft mission.

This antenna is 9m in diameter, constructed of Duralumin and fitted with stainless steel screens. There is no sign of deterioration even after 40 years of exposure to the elements.

The Mount Gungin Radio Observatory is now being constructed along side the SETI installation. The receiving equipment (1420 MHz) will consist of a 3-metre parabola dish antenna, incorporating a "Dickey Switch" system, and will be fitted

with a high gain Yagi beam antenna, which will face toward the south celestial pole as a constant noise temperature reference.



A dedicated computer will provide automatic tracking data for the solar dish. Two additional receivers will be employed to monitor the ionosphere. Frequencies for these receivers are 1 MHz and 70 kHz. In the near future a sensitive Magnetometer will be added. Data from all receivers is stored and displayed on a separate computer where up to eight channels can be facilitated.

Eventually the whole complex will be monitored and controlled remotely via telephone lines using modems.

Below is a list of those who have worked tirelessly to bring about the successful installations of this Historic multi faceted "Amateur" Observatories..

SETI Director  
Technical director  
Software Engineer

Guido Nigro  
Brian A. Sallur  
Mike Handley

MGRO Director

Brian A. Sallur

Assistant Director  
Software Engineer

Mike Handley

Concrete and metal  
works engineers

Robert Barnacle  
Rex C. Sallur

Invaluable support  
and on site facilities

David Nicholson

The hard work

Members of AGWA.  
(Astronomical Group of Western Australia.)

Seti Research Brisbane.