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The Latest report from the SETI Site located at Golden Grove, Lower Chittering. W.A.
Compiled by Brian Sallur and Mike Handley.

SETI OBSERVATORY



The receiving equipment for the SETI 9meter antenna complex has been rack mounted in the equipment hut, along with power supplies, computers and all the electronic control devices for steering the MGRO solar receiving antenna.

The 9meter antenna feed horn supporting arms will soon be lifted in to position and attached to the perimeter of the SETI dish antenna. These large "pods " (three in total) are approx 5 meters each in length. At the apex of the supports, is fastened a heavy-duty aluminum ring, which previously held the heavy antenna dipoles and wave-guides when it operated on 3 GHz as a tropospheric scatter communications system further up the Western Australia coast.

We are now in the process of fitting the recommended "SETI Feed Horn" in to the aluminum ring which will be attached to the dipole support structure, as will be the antenna's LNA (low noise High gain Pre- Amplifier). A sealed battery and solar panel will power the LNA directly at the dish. The Low loss cable will be directed to the Equipment Box near the base of the antenna.



Below the antenna structure will be located a waterproof container, this will house the 1420 Mhz receiver front end.

A 30Mhz line amplifier/buffer will be connected to the I.F. out put from the receiver (approx 30/45Mhz) this will enable us to run a relatively low cost coaxial cable some 50 meters to the equipment hut where the I.F. stages, detection, processing and other electronic equipment will be accessible to the engineers.

There will also be multi wire cables for power and data requirements run from the antenna to terminal boxes located in the equipment room.

SOLAR OBSERVATORY



The Solar receiving installation features a 3.2meter solid microwave dish antenna, mounted equatorial on a firm base and located quite close to the Equipment Hut. Electrically motor driven, it is designed to track the sun automatically through out the day.

The antenna automatically returns to the east at the end of each day, ready to track the sun once again. The computer driven motor drives, allow for the progression and regression of the sun through out the year.



Low loss coaxial cable is fed directly to the equipment hut from a low noise LNA located in the waterproof box close to the antenna. Once again, cables for power and data are distributed underground to the equipment hut.

The second part of the Solar Project is two special H.F. receivers. Their antenna's are located a short distance from the solar dish antenna. A waterproof container for the receiving equipment is attached to the central antenna mast, and supports the wires that form a resonant vertical directional antenna.

The purpose of the H.F. array is to monitor the Ionosphere simultaneously with U.H.F solar receiver.

There are two reasons for this.



Firstly, to monitor the increased noise level in the Ionosphere should the Microwave equipment receive signals that are closer to home, and the **second** purpose is to reveal phenomena (theoretical at this time) that we believe is a function of the Sun. As this is concept is yet to be proven, we are reluctant to explain further details at this time. A future update will elaborate further.

It is proposed to locate the main computer, TV screens and recording equipment in the large building adjacent to the equipment hut, where there will be air conditioning and space for files for amenities such as meals. There is sufficient room to hold lectures and meetings.



Using a modem to connect the computers both the solar & SETI systems can be interrogated at will, and all the recorded information can be analyzed with out the need to travel long distances to and from the site to recover the data. Ahhh, the wonders of modern technology.

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