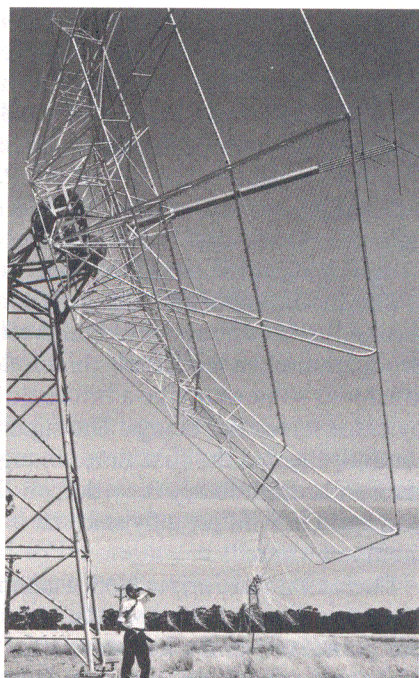


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One of the 96 antennae which compose the ring of the **Radioheliograph**, a small part of which can be seen towards the background. It was designed by Dr Paul Wild of CSIRO to give an on-line continuous record, once a second, of solar activity. *Courtesy Radiophysics, CSIRO.*



From Siding Springs onward, by private plane to Narrabri, about 350 km north, and then to Culgoora in the middle of the ‘bush’, where a brilliant new type of radio telescope was shown to us. Called a radioheliograph by its inventor, Dr Paul Wild FAA FRS, a former Royal Navy radar expert, it consists of a ring of 96 parabolic, or dish-type, spindly aerials, each of 17 m diameter. How different each looked from the massive structure of the Parkes giant! A few thin metal struts, covered with ordinary chicken wire, formed the 96 antennae, each mounted on a 8 m high light metal structure. Dr Wild’s British sense of humour did not invite us to step on to one of his antennae to try their strength!

The mounting of the aerials is such that they can follow the Sun automatically during the four hours before and after noon, the best time for observation. In the drought-stricken landscape, this circle of the 96 dishes having a diameter of over 3.2 km, looks somewhat like a futuristic Stonehenge, destined for a religious ceremony by extra-terrestrial beings. The signals received from the Sun are fed into a computer and thus for the first time, changes in the Sun’s corona and solar flares can be seen and continuously recorded on-line. One complete picture is received each second and Dr Wild proudly said: “It is thus the most complex radioastronomy equipment anywhere”.

Each solar flare arises from a gigantic explosion on the Sun’s surface and is equivalent to millions of man-made hydrogen bombs. The resulting shock waves reach our planet one and a half days after they have occurred and cause communication black-outs, magnetic storms and aurorae on Earth, as well as cosmic rays. Dr Wild explained that a forecast of these events will greatly help to safeguard astronauts and serve a useful practical purpose as well as increasing our theoretical knowledge of the Sun. The total cost of the radioheliograph was £ 200 000, the price of each antenna being £ 1000. A grant from the Ford Foundation had made this expenditure possible, as well as that for a novel optical telescope to complete the Culgoora Radiophysics Solar Observatory. It is an integral part of CSIRO’s Division of Radiophysics.

Dr Paul Wild later joined the Editorial Board of *Interdisciplinary Science Reviews* and while I was Editor, I greatly valued his wide knowledge and experience. He became very interested in the campaign to build a high-speed rail link between Sydney, Canberra and Melbourne. He guided the difficult financial and technical negotiations for many years and always envisaged a high technology solution. Now that the German magnetic levitation system, Maglev, is not going ahead and not being built between Berlin and Hamburg, the chances for the Australian high speed link have for the moment greatly diminished. One day perhaps, this highly desirable high-speed rail-link may derive much benefit from Chinese or Japanese technical support.