

1949 – 1955

TRANSISTORS

Following on from Radiophysics' involvement with valve design and fabrication a group was established in 1949 to grow semi-conductor crystals, provide testing facilities and produce small numbers of devices.

Between then and 1955 a transistor version of the broadcast band radio, geiger counter and the Distance Measuring Equipment were constructed.

Again a committee was established which included representatives of the Post Master General and Amalgamated Wireless Australia. It seems that the committee could see no future use for these devices in communications and that there was concern that further development might jeopardize the £1 million investment in vacuum tube production facilities.

Transistor development at Radiophysics was halted.

CSIR Radiophysics Laboratory, University of Sydney

1948 – 1956

CSIR AUTOMATIC COMPUTER

The expertise gained in pulse techniques and time-delay circuits necessary for radar sets was used by T. Pearcey and M. Beard in the design and production of the electronic computer, CSIRAC, one of the first computers in the world.

CSIRAC became operational in 1952 and was heavily used by Radiophysics. Applications included analysis of radar tracking data, antenna design, astronomical table generation, and rain modelling. It was also used by other groups for chemical structure analysis, dam design, aircraft design and optics calculations.

In 1955 a committee was established to decide whether development of CSIRAC should continue. The committee consisted of Hartree and Comrie of Cambridge University and Myers from the University of Sydney. Apparently they concluded that Australia should concentrate on primary industry and not waste resources attempting to compete with Britain and the US in computers.

CSIRAC was presented to the University of Melbourne in 1956.

