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During the visit of H.R.H. Prince Philip to Jodrell Bank some of the recent results obtained with the Jodrell Bank telescope will be displayed. Amongst these it is hoped to include a demonstration of the technique by which radar echoes were obtained from the planet Venus at its close approach to the earth in September. The experiment was carried out by a group of scientists headed by Dr. J.V. Evans. The transmitter, part of which was mounted on the telescope and part on the ground, consisted of a klystron working on a radio frequency of 408 Mc/s transmitting pulses of 1/30 second duration every second. This klystron was originally designed by Professor S. Devons, Langworthy Professor of Physics in the University, as part of a linear accelerator for research in nuclear physics. Some of the associated transmitter equipment was provided by the English Electric Co. of Stafford, and part of the expense of the installation was borne by a grant from the Electronics Directorate of the United States Air Force.

On account of the great distance of the planet special arrangements were necessary to integrate the received signals over considerable periods of time. The preparations for this experiment took several years and the planet was already receding from the earth before the first tests were made in mid September. The distance was then 30 million miles, and the radio waves took 5 minutes to travel from Jodrell Bank to Venus and back. The procedure consisted of setting the telescope in automatic motion to follow the planet across the sky; transmission of the radar pulses were then made for 5 minutes, the transmitter was then switched off and the received power integrated for 5 minutes. This process was repeated continuously and altogether about 60 hours observations were made before the planet receded out of useful range at the end of September. The results indicate that the integrated echo occurred at the range suggested by the previous experiments carried out at Millstone Hill in America. The value of the solar parallax derived from this work is 8.8020 $\pm$ 0.0005 seconds of arc and can be regarded as a valuable clarification of the diverse values obtained by optical measurements over the past century. The intensity of the received echo was considerably less than that expected from theoretical calculations, and from that indicated on the basis of the Millstone results. The reason for this may either be connected with some peculiarities in the reflecting properties of the surface of Venus, or with the speed of rotation which is assumed to be about 23 days but cannot be determined by visual means because of the thick cloud cover of the planet. The resolution of these uncertainties will require the use of more powerful transmitting equipment on the telescope and when this becomes available a valuable new field of planetary radar research will evolve.

Since the planet Venus is now out of range the demonstration will consist of the Venus equipment using the Moon as a target.