

INSTITUTES OF THE BEVOLLMAECHTIGTER FUER HOCHFREQUENZ-FORSCHUNG

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COMBINED INTELLIGENCE OBJECTIVES
SUB-COMMITTEE

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Some tunable cavity resonators stated to be for magnetrons were seen, it is possible that these were connected with the work of Dr. Kluge referred to in Part II.

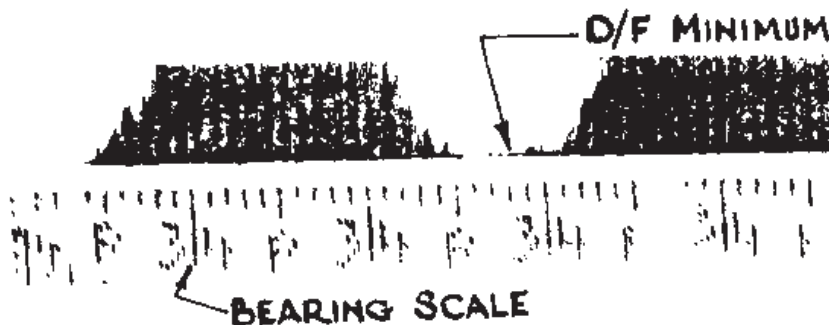
The "Puok" (FS35A) test oscillator for 9 cm. equipment was also examined. It was stated that the length of the radiator determined the frequency, and other dimensions were not critical.

A complete "Bernardine" equipment was inspected; this is the receiving apparatus for use in conjunction with the "Bernard" beacon system. No "Bernard" equipment was available at Pullach but a dummy test transmitter was provided for experimental purposes.

Briefly, this system appears to use a rotating Beacon so arranged that, whilst it transmits on one R.F. channel, the amplitudes of two tones, or sub-carriers, vary in differing manners with azimuth. The two tones can be separated by filters in the receiver. One tone has one sharp zero and several subsidiary minima, whilst the other is roughly a cardioid, but with a small back lobe. The recording arrangements were made on the "Hellschreiber", and two systems are arranged in tandem on one shaft. The one is energised through filters by the cardioid diagram and this prints by Hellschreiber a part of the bearing side at the transmitter. The other prints a line, the length of which depends on signal intensity, below a certain level (saturation takes place above this). Thus a record of the signal minimum is correlated with the bearing scale at the beacon. Sample records were obtained and one is attached. The work of this establishment did not, repeat not, include the development of the system (this was actually developed by Lorenz) but an investigation into its liability to jamming was to be undertaken by Dr. Pfister.

It is considered that details of the apparatus should be investigated further.

Many documents relating to the work of this institution had been handed over previously by Prof. von Handel, but a few believed to be of interest were discovered, and removed by W/Cdr. Edwards.



SAMPLE OF BERNADINE TAPE