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STANDARD FREQUENCY TRANSMISSIONS IN KENYA

Paper submitted by the Government of Kenya

STANDARD FREQUENCY TRANSMISSIONS IN KENYA

(prepared by H.S. Williams, Head, Department of Land Surveying,
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To help in the establishment of a world-wide navigation aid the Royal College, Nairobi is setting up a V.L.F. monitoring station in collaboration with the Royal Aircraft Establishment, Farnborough, England. This will be one of six similar stations of the system being operated in different parts of the world; the other five being located in Ottawa, Rome, Idris, Singapore and Farnborough itself.

The main purpose of the Nairobi station will be to monitor V.L.F. transmissions from G.B.R. Rugby, W.A.A. Cutler and N.P.H. Hawaii. Propagation times of transmissions from these sources will be measured by monitoring phase changes.

As a secondary aim the R.C.N. are planning to transmit a system of standard time signals in Kenya for a trial period of about three years, approximately, from the latter part of 1963. It is not yet decided whether these time signals will be transmitted continuously throughout every twenty-four hours or for limited periods only during the early morning, day, afternoon and evening. The final decision in this regard will depend largely on the usefulness of the signals to geodesists and scientists in Africa and elsewhere, within the range of the transmitters which are to be used.

Signals will be controlled by frequency standards provided by the R.A.E. These are a SULZER quartz crystal oscillator which is accurate

to a few parts in 10^9 per week and/or a Varian Rubidium frequency standard accurate to about a few parts in 10^{10} per week. The R.C.N. would be prepared to publish time corrections for its transmissions based on propagation information recorded from transmitted time signals from Rugby.

Delegates interested in standard frequency transmissions from Kenya are invited to contact the author of this report.