NATIONAL BUREAU OF STANDARDS

Technical Note 18-26

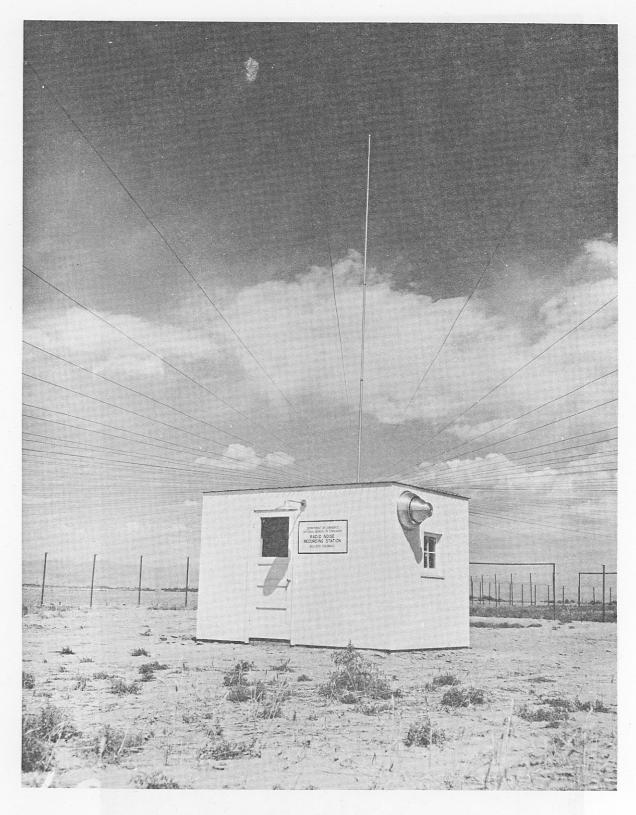
ISSUED May 2, 1966

QUARTERLY RADIO NOISE DATA MARCH, APRIL, MAY 1965

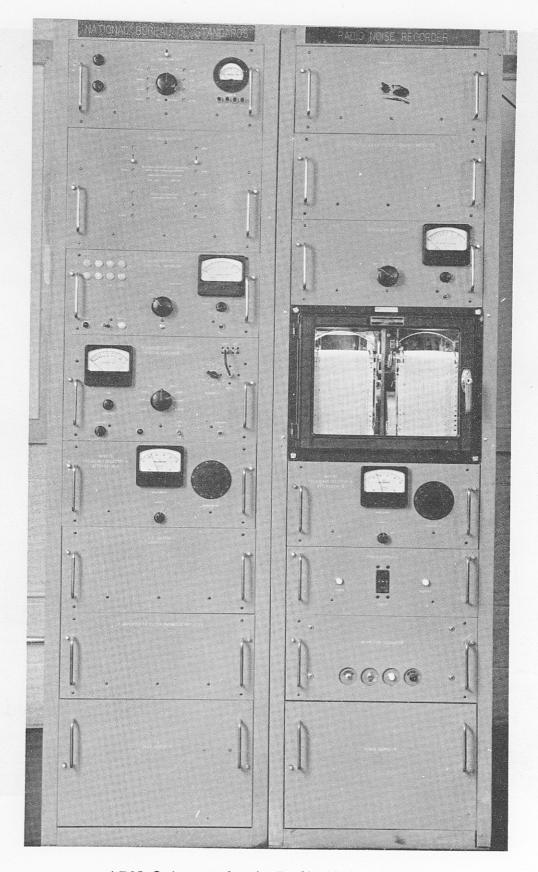
W. Q. Crichlow, R. T. Disney, and M. A. Jenkins Institute for Telecommunication Sciences and Aeronomy * Environmental Science Services Administration Boulder, Colorado

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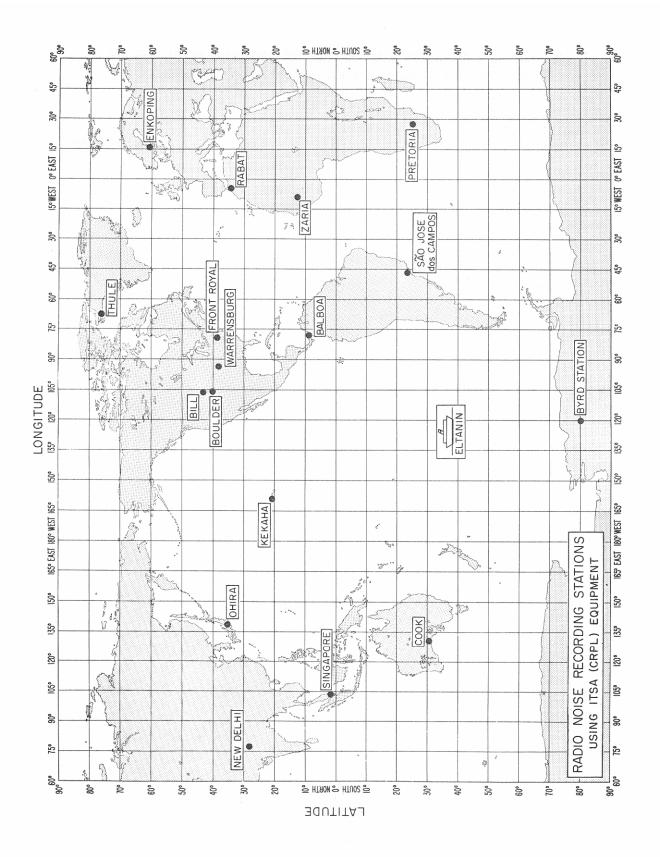
*Formerly the Central Radio Propagation Laboratory of the National Bureau of Standards.



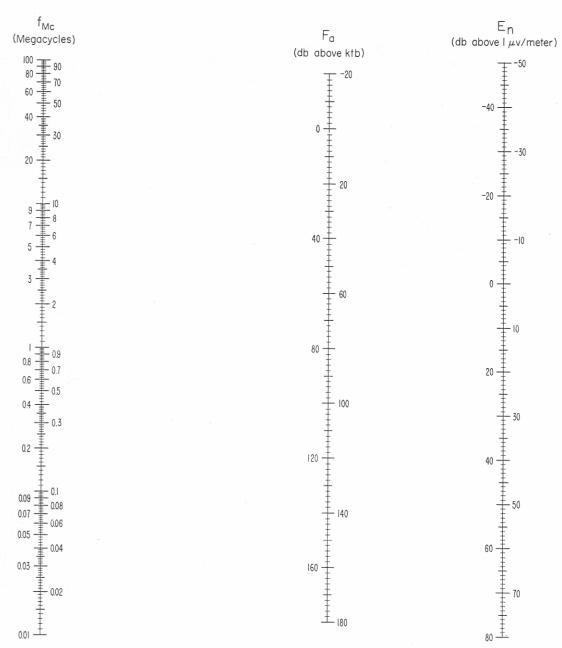
Radio Noise Recording Station



ARN-2 Atmospheric Radio Noise Recorder



NOMOGRAM FOR TRANSFORMING EFFECTIVE ANTENNA NOISE FIGURE TO NOISE FIELD STRENGTH AS A FUNCTION OF FREQUENCY



 $E_n = F_a + 20 \log_{10} f_{Mc} - 65.5$

F_a = Effective Antenna Noise Figure = External Noise Power Available from an Equivalent Short, Lossless, Vertical Antenna in db Above ktb.

 $\rm E_n$ = Equivalent Vertically Polarized Ground Wave R.M.S. Noise Field Strength in db Above I $\mu v/meter$ for a 1kc Bandwidth.

 f_{Mc} = Frequency in Megacycles.