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15. ABSTRACT (A 200-word or less factual summary of most significant information. If document includes a significant bibliography or literature survey, mention it here.) Information on refractivity gradients and rainfall rates is provided for application to the planning and engineering of microwave line-of-sight radio systems. The 100-m refractivity gradients calculated from radiosonde observations at 15 U.S. and 49 foreign stations are presented in the form of graphs of the cumulative probability distribution. As an indication of the diurnal variability of the gradients, separate distributions are shown for each of two daily observations at 29 stations, and for four daily observations at 4 stations. Point rainfall rate distributions, based on recording rain gage statistics, are given for 29 stations in various climatic areas of the world, including 8 locations in the U.S.			
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