

LARGE NIGHTTIME IONOSPHERIC F-REGION TRACE CONSTITUENT
CONCENTRATIONS AS OBSERVED THROUGH INCOHERENT SCATTER
TECHNIQUE AT THE ARECIBO OBSERVATORY, DURING THE 1986
LOW SOLAR CYCLE EPOCH

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Unusually large ionospheric F-region light-ion (H^+) concentrations have been detected during a set of five nights of experiments that were carried out at the Arecibo Observatory (Puerto Rico), utilizing radar incoherent scatter measurement technique. Concentrations of the order of tens of times larger than those predicted by ionospheric models have been observed. Such phenomenon may be associated with the low solar activity epoch during which the measurements here concerned were made. This work contains a detailed discussion on the observations cited above.