Observations of waves in morning period at Arecibo

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Wide bandwidth, long pulse incoherent scatter spectra obtained using the Arecibo radar during morning hours show the wavy structure of the ionosphere right after the sunrise. The waves have a period of 6 minutes at lower altitudes, which is close to the buoyancy wave period. At higher altitudes the ionosphere appears to have multiple peaks and valleys. This behavior has been observed in the winter experiments on three consecutive mornings. We believe that this is a daily occurrence. Here we present the experimental results and attempt to explain the mechanism behind it.

(Note: File corrected by Conference Officials)