



Satellite traces, Range Spread F occurrence, and Atmospheric Gravity Waves propagation at the southern anomaly crest: is there any relationship?

M. A. Cabrera (1,2), M. Pezzopane (3), E. Zuccheretti (3), R. G. Ezquer (1,2,4)

(1) CIASUR, Facultad Regional Tucumán, Universidad Tecnológica Nacional, Tucumán, Argentina, (2) Laboratorio de Ionósfera, Instituto de Física, Universidad Nacional de Tucumán, Argentina, (3) Istituto Nazionale di Geofisica e Vulcanologia, Upper Atmosphere Physics Department, Rome, Italy (pezzopane@ingv.it), (4) Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET), Buenos Aires, Argentina

Range Spread F (RSF) phenomenon is studied for Tucumán ionospheric station, Argentina (geographical coordinates: 26.9S, 294.6E; magnetic coordinates: 15.5S, 3.8E), particularly interesting for its location, near the southern peak of the ionospheric equatorial anomaly.

Ionograms from September 2007 with a sounding repetition rate of 5 minutes are considered.

Satellite traces, due to corrugation in the isodensity surfaces, are found to be necessary precursors to the appearance of RSF trace on the ionograms.

This work is focused on studying whether there is or not a relationship between these corrugations and Atmospheric Gravity Waves propagation.