TEC CORRECTION FOR NON-HOMOGENEOUS LOW-LATITUDE IONOSPHERE

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Key words:

Abstract.

Low-latitude ionosphere is normally non-homogeneous, due to phenomena like the Equatorial Ionospheric Anomaly (EIA). The effect of density gradients on TEC measurements is analised. Measurements of VTEC for one station can produce a TEC map that will not correspond to the true TEC if non-homogeneity is present, but these measurements contain information about the Ionosphere non-homogeneity. With this information a method is presented to calculate a more accurate TEC map. The method is tested with simulated and real data.