

Ionospheric Total Electron Content and Scintillation measured with GPS over Brazil

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Ionospheric Total Electron Content (TEC) is the main source of error on GPS positioning. Due to this fact, began a revival on ionospheric measurements. One important application is airplane navigation using GPS positioning. Ionosphere is not very predictable and regular global measurements of TEC are needed. Medium latitude ionosphere is relatively calm, but near the equator the ionosphere is not so quiet and scintillation can destroy the GPS signal, making position impossible. So, study of equatorial GPS and scintillation data in Brazil is actually important for airplane navigation.