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Abstract of Published Article

Performance evaluation of GPS receiver unc

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Abstract:

Equatorial scintillation is a phenomenon that occurs at sunset and affects radio signals that propagate through the ionosphere. This paper presents a temporal and spatial situation, equatorial scintillation can affect the accuracy and precision of the Global Positioning System (GPS). This paper analyzes the impact of equatorial scintillation on the performance of the GPS. A statistical model of equatorial scintillation is briefly presented. An overview of the main theoretical principles and analytical models that describe the effects of scintillation is presented. The results achieved by simulation agreed quite well with the results achieved by simulation. The only exception is for links with extreme levels of scintillation received.

Keywords:

Component tracking performance, GPS receiver, Ionosphere, system simulation.



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