

PERFORMANCE DEGRADATION OF THE NAVIGATION GPS SYSTEM IN GEOMAGNETICALLY DISTURBED CONDITIONS

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The degradation of navigation GPS system is known to occur in geomagnetically disturbed conditions. The standard error of positioning increases for the operation of three main types of two-frequency GPS receivers: ASHTECH, TRIMBLE, and AOA. As regards ASHTECH receivers (in contrast to AOA and TRIMBLE), an explicit correlation is also observed between the slip density of the one- and two-frequency positioning modes and the level of geomagnetic disturbance.