

Synoptic Measurements of GPS Performance in the Equatorial Region during the Sunspot Maximum of 1998-2002.

R.M.Thomas¹ & M.A.Cervera²

¹DSTO, PO Box 1500, Edinburgh SA 5111, AUSTRALIA; dick.thomas@dsto.defence.gov.au

²As (1) above, but manuel.cervera@dsto.defence.gov.au

Abstract

We describe synoptic measurements of the effects of ionospheric scintillation on GPS performance in the equatorial region during the recent solar maximum, paying particular attention to positional accuracy and the number of links affected at different threshold levels of amplitude scintillation. The daily occurrence of loss-of-lock events is also examined. Data from Ionospheric Scintillation Monitors located at selected receiving stations in the South East Asia and Oceania regions are employed in the analysis.