# Comparison of GPS and Ionosonde TEC measurements over South Africa during the descending phase of solar cycle 23

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In this paper, the University of New Brunswick (UNB) Ionospheric modelling software will be applied to produce midday Total Electron Content (TEC) spanning two different periods during descending phase of solar cycle 23. Global Positioning System (GPS) data from the South African GPS network will be used during the data processing. Solar activity effects on TEC over mid-latitude locations particularly near solar maximum will be investigated and discussed. The results will be compared with the midday Ionosonde TEC measurements and the International Reference Ionosphere (IRI) predictions over South Africa.