

**Review Form 1.7**

Journal Name:	<b>Physical Science International Journal</b>
Manuscript Number:	<b>Ms_PSIJ_111134</b>
Title of the Manuscript:	<b>GEOMAGNETIC STORM VARIATION OF VERTICAL TOTAL ELECTRON CONTENT (VTEC) OVER SOME EURO-AFRICAN STATIONS</b>
Type of the Article	

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**PART 1: Review Comments**

	<b>Reviewer's comment</b>	<b>Author's comment</b> (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p><b>Compulsory</b> REVISION comments</p> <ol style="list-style-type: none"> <li><b>Is the manuscript important for scientific community?</b> (Please write few sentences on this manuscript)</li> <li><b>Is the title of the article suitable?</b> (If not please suggest an alternative title)</li> <li><b>Is the abstract of the article comprehensive?</b></li> <li><b>Are subsections and structure of the manuscript appropriate?</b></li> <li><b>Do you think the manuscript is scientifically correct?</b></li> <li><b>Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</b></li> </ol> <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<p>The paper demonstrate the variations of vTEC during the two geomagnetic storms. The paper is written well. Moreover, it can be selected for publications after some suggestions. Few of them are mentioned below to enhance the paper quality.</p> <p><b>In Abstract section:</b></p> <ol style="list-style-type: none"> <li>In this line. 'define the state and dynamics of the atmosphere with important implications on atmospheric applications' It is better to use dynamics of ionosphere as atmosphere consist of multiple layers. Further change atmospheric applications to GNSS applications as GNSS signals are highly affected by the ionosphere variations.</li> <li>In the line 'This study is done over two geomagnetic storms that took place in the solstice period of 2004' it is better to mention the solar minima or solar maxima rather than solstice period.</li> <li>Change analysed to analyzed. And remove the presented word as it's not necessary here.</li> <li>In line enhancements and depressions discussed remove the discussed word.</li> <li>Rewrite the following line 'Understanding the behaviour of the ionosphere during geomagnetic storms is important and necessary to enable a lot of applications obtainable' in scientific words or focus on GNSS applications.</li> </ol> <p><b>In Introduction section:</b></p> <ol style="list-style-type: none"> <li>This line is wrong 'which starts from the ground and extends through the ionosphere' TEC is only present in ionosphere it does not start from ground. Also mention ionosphere height as the spread of TEC.</li> <li>Reference missing in first 3 lines of intro at least add 2-3 reference supporting your statement.</li> <li>In 2<sup>nd</sup> paragraph " Some scholars" connect this line with GNSS as mostly these scientist utilized the GNSS receivers to study these variations.</li> <li>In line 'Reference [8] studied the variation' write the name of scientist rather than reference if more than one author write first author et al then numbered reference [8]. Do this everywhere if you are starting your sentence with reference.</li> <li>Same with [9] as above.</li> <li>Add some 2-3 lines in 2<sup>nd</sup> paragraph about geomagnetic storms affect with reference.</li> </ol> <p><b>In Material and Methods:</b></p> <ol style="list-style-type: none"> <li>In the line 'The list of international quietest day's' mention the website from where you retrieved the data.</li> <li>Provide the reference for 2.2 equation.</li> </ol>	

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	<p>3. Also equation 2.5 is missing reference.</p> <p>4. In line 'ring current forming around the earth during a geomagnetic storm' mention the reference at the end.</p> <p>5. Remove the vertical dashed lines from Fig 1 and use these lines to represents the different storm phases.</p> <p>6. And shift the Figure 1 along with its paragraph in result and discussion section.</p> <p><b>In Results and Discussion Section:</b></p> <p>1. Remove the dashed line representing the change of day in Figure 2 and show different storm phases in it with these lines. Also add numbering or a,b and c etc for subplots. Furthermore add legends of both orange and dashed blue line in each subplot. And unify the x axis. There's no need to label x-axis in each subplot. Only the last one is fine. Also update the figure caption accordingly.</p> <p>2. Do the same for figure 3 as mentioned above. Also change the change in vTEC to <math>\Delta</math>TEC in all the figures.</p> <p>3. Do the same for figure 4 and 5 as mentioned above.</p> <p>4. In Dis and PPEF paragraph connect your results with previous studies by mentioning figure number along with subplot number as well.</p>	
<p><b>Minor</b> REVISION comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p>		
<p><b>Optional/General</b> comments</p>		

**PART 2:**

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p>Are there ethical issues in this manuscript?</p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

**Reviewer Details:**

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