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| Journal Name: | [Asian Basic and Applied Research Journal](https://jofresearch.com/index.php/ABAARJ) |
| Manuscript Number: | **Ms\_ABAARJ\_1859** |
| Title of the Manuscript: | **STORM TIME VARIATION OF EARTH’S MAGNETIC FIELD ALONG AFRICAN GEOMAGNETIC EQUATOR DURING RECOVERY PHASES OF JULY 2011 AND 2012 GEOMAGNETIC STORMS** |
| Type of the Article | **Research** |

PART 1: Comments

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|  | **Reviewer’s comment**  **Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | **Author’s Feedback** *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.** | This manuscript is significant for the scientific community as it provides a detailed analysis of storm-time variations of Earth's magnetic field along the African geomagnetic equator, a region that remains underrepresented in geomagnetic research. By examining the recovery phases of the July 2011 and 2012 geomagnetic storms, the study offers new insights into the influence of Equatorial Electrojet (EEJ) and Disturbance Dynamo Electric Fields (DDEF) on geomagnetic field fluctuations. The findings contribute to a better understanding of magnetosphere-ionosphere interactions, which are crucial for improving space weather models and forecasting geomagnetic storm impacts in low-latitude regions. Furthermore, the results enhance our knowledge of ionospheric disturbances, aiding in the development of mitigation strategies for communication and  navigation systems affected by space weather events. | We are agreement with the reviewer’s comments. |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | **The current title is a bit long and could be streamlined for clarity.** | The title has been changed to “**GEOMAGNETIC FIELD VARIATIONS ALONG THE AFRICAN GEOMAGNETIC EQUATOR DURING RECOVERY PHASES OF 5TH JULY 2011 AND 16TH JULY 2012 GEOMAGNETIC STORMS”.** |
| **Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.** | **The abstract is repetitive in places, particularly when discussing the EEJ and DDEF effects. There is an inconsistent use of past and present tense.**  **The first sentence is ambiguous** | The abstract has been revised.  The tenses has been aligned in the whole manuscript. |
| **Is the manuscript scientifically, correct? Please write here.** | Need more revision. The idea in this work is not new. Hundreds of researchers have conducted research and  published on this topic. Nothing new has been done either in terms of developing concepts or real applications in everyday life. | The manuscript has been thoroughly revised. |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.** | Need more update with recent papers from credible sources. | New references have been added and the DOI numbers included for all the references. |

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| **Is the language/English quality of the article suitable for scholarly communications?** | No |  |
| **Optional/General** comments | **Introduction:**  The introduction provides a good literature review, but it lacks a clear research gap statement. Consider explicitly stating what previous studies have missed and how your work fills that gap.  Some references are outdated (e.g., Chapman & Bartels, 1940). While foundational references are important, try incorporating more recent studies on storm-time geomagnetic variations.  **Data Acquisition and Methodology:**   * The section is well-detailed, but some tables and figures need better formatting and captions. * Table 1: Contains duplicated headers (Geographic Longitude is repeated). * Equation formatting issues: Ensure that all equations are formatted properly (they should not appear as plain text).   **Results and Discussion:**   * Figures 3 and 4:   + Consider adding descriptive captions explaining the key takeaways.   + The discussion should avoid repetition—the same points about EEJ and DDEF are repeated multiple times. * The discussion does not compare results with other similar studies enough—consider referencing more recent works to support your findings. * There is nothing new in the research that has been around since 2000s.   **Conclusions:**   * The conclusion restates the findings but lacks a discussion on the implications of the results. * Suggestions for future work could be added (e.g., investigating more recent storm events).   **References:**   * Many references are missing DOI links. * The reference formatting is inconsistent (some have full journal names, while others are abbreviated). * Ensure all in-text citations match the reference list. | 1. Literature review has been revised to bring out knowledge gap. 2. The Chapman and Bartels, 1940 is a useful reference that cannot be ignored in this area of study. 3. The tables have been formatted and the Geographic longitude repetition has been corrected. 4. The equations have been formatted properly as recommended. 5. Figures 3 and 4 have been described s recommended. 6. Repetitions on DDEF and EEJ were corrected. 7. More recent references have been included in the manuscript. 8. DOI numbers have been inserted on all the references. 9. A uniform citation format has been included in the manuscript. 10. All in text citations appear and match with the reference list. |

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| **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)* |
| **Are there ethical issues in this manuscript?** | *(If yes, Kindly please write down the ethical issues here in details)* |  |