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ABSTRACT ONLY

TERRESTRIAL INFLUENCE OF SOLAR ACTIVITY: THE SEPTEMBER 1941 SOLAR STORM AND ITS RELATIONSHIP WITH UNEXPLAINED TERRESTRIAL EVENTS

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Solar activity refers to the various phenomena that occur on the Sun, including sunspots, solar flares, and coronal mass ejections (CMEs), mainly driven by the highly dynamic and complex Sun's magnetic field. The influence of the Sun on our planet is a fascinating and relevant topic, as solar activity can have significant effects on our environment and many technologies of our contemporary society. In this research work, we explore the relationship between solar activity and various events that occurred on Earth, focusing on the solar storm that took place in 1941. This research focus on preliminary findings and discuss the implications and prospects for future investigations in this field. Our research delves into the intriguing possibility that the intense solar storm of September 1941 may have played a pivotal role in triggering unexplained terrestrial events, including some mysterious explosions. By exploring this hypothesis, we aim to uncover new insights into the complex interplay between solar activity and its terrestrial impacts, particularly in the context of historical events that have remained enigmatic for decades. Central to our hypothesis is the concept of Faraday induction, whereby changes in the local magnetic flux during the geomagnetic storm could have induced currents in the wires connected to dynamite blasting caps. The exact magnitudes of magnetic flux changes capable of potentially triggering the detonation of the explosives during the geomagnetic storm are not definitively established. While our preliminary investigations suggest a potential connection between the solar storm and the unexplained terrestrial events, further in-depth research is needed to solidify the precise link.

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