



Contribution ID: 182

Type: Oral Presentation

Multi-instrument observations of atmospheric gravity waves over South Africa.

Thursday, 11 July 2019 12:00 (20 minutes)

Atmospheric gravity waves (AGWs) were observed over South Africa during the recovery phases of coronal mass ejection (CME) and corotating interaction region (CIR) driven storms on 3 Aug 2016 and 31 Jan 2017 respectively. The characteristics of the AGWs are determined from observations of intensity of the 630 nm airglow images, global positioning systems (GPS) total electron content (TEC) and SWARM electron density. The AGWs were found to be propagating in the westerly directions with velocity of 95-162 m/s. Ionosonde ionograms indicate presence of spread F with observations of AGWs which indicate Perkins instability played a role in the occurrence of spread F with AGWs as the source of the instability.

Apply to be considered for a student award (Yes / No)?

No

Level for award (Hons, MSc, PhD, N/A)?

N/A

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Session Classification: Space Science

Track Classification: Track D2 - Space Science