

Auroral hiss on Spitsbergen and "polar" substorms

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The paper presents the results of the analysis of ground-based observations of electromagnetic emissions such as auroral hiss at the Barentsburg station ($\Phi=75.21^\circ$, $\Lambda=126.06^\circ$, CGM). We consider the auroral hiss bursts that occur during "polar" substorms, which are observed at latitudes above 70 MLAT in the absence of magnetic substorms at lower latitudes. Based on the estimation of the polarization of the magnetic field and the azimuth angle of the Poynting vector of the analyzed waves, the position of the region on the Earth's surface illuminated by bursts of this type is estimated. The dynamics of the position of this region is compared with the dynamics of the substorm and the position of the field-aligned currents recorded by the satellites of the AMPERE project. Based on the conducted analysis, we have suggested a possible connection between the dynamics of auroral hisses and substorm.

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