

Observation of the Influence of the 15-17 January 2005 Solar Storms to the Magnetic Field and Ionosphere of Indonesia

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The CME associated big flares were erupted from solar surface on 15 - 17 January 2005. This extreme condition is caused by a single sunspot group of active region NOAA 0720. Together with the flares and associated CMEs several proton events occurred.

As the consequences of the solar storms, the ionosphere and the earth's magnetic field were disturbed. We noted some depression in the heighth of critical frequency of ionosphere's F2 layer and significant variations in radio communication in Indonesia. In addition the CMEs led to the geomagnetic storm.

The effect of the storms to the ionosphere will be analyzed using ionosphere data over Kototabang and Biak observatories after the storms. Geomagnetic field was observed from Biak and Pontianak. The variation of geomagnetic field during the magnetic storms was recorded, and the delay between the onset of the solar storm and the magnetic storm could be obtained.