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A GEOMAGNETIC EVENT REVIEW FROM MARCH TO AUGUST, 2015 AT KAKIOKA

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Geomagnetic observation results at Kakioka are reviewed from March to August, 2015. Geomagnetic field activities are reported mainly for the following events;

- (a) March 17-21, 2015 moderate severe geomagnetic storm (St. Patrick's Day 2015 Event): The 15 March halo coronal mass ejection (CME) associated with both a filament eruption and C9.1 flare

A Sudden Storm Commencement (SSC) was observed with the H component amplitude of 43 nT at 0445UTC on 17 March due to effects from the 15 March halo CME. Geomagnetic storm started with initial and main phases around 06UTC on 17 March. The geomagnetic disturbance progressed gradually during the storm period and the storm amplitude resulted in an increase: the H component amplitude of 237 nT is ranked as the 2nd in the solar cycle 24.

- (b) June 21-24, 2015 moderate severe geomagnetic storm (Summer Solstice 2015 Event): A full-halo CME associated with an M2 flare on 21 June

Arrivals of small interplanetary shock waves that preceded the storm were observed at 1643UTC on 21 and at 0544UTC on 22 June, respectively. These shocks were associated with a partial-halo CME caused by a filament eruption on 18 and 19 June. And another shock from the 21 June CME associated with a double peak M2 flare was observed at 1833UTC on 22 June as SSC which the H component amplitude of 104 nT is ranked as the 1st in the solar cycle 24. Geomagnetic storm started with initial and main phases around 19UTC on 22 June. The geomagnetic disturbance progressed rapidly during the storm period and continued until 24 June: the H component amplitude of 279 nT is ranked as the 1st in the solar cycle 24.