

S002-13

A 会場 : 11/26 AM1 (9:00-10:15)

9:00~9:15

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Space weather impact on meteorological satellites and their operations during May 10-13, 2024 severe geomagnetic storm

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The Coordination Group for Meteorological Satellites (CGMS) is the group that globally coordinates meteorological satellite systems including space weather matter. This includes protection of in orbit assets, contingency planning, improvement of quality of data, support to users, facilitation of shared data access and development of the use of satellite products in key application areas.

CGMS's coordination is pursued from an end-to-end perspective between meteorological satellite operators and user communities such as WMO. Members are meteorological and space agencies that are current and prospective developers and operators of meteorological satellites and R&D satellites contributing to WMO programs, and WMO. The scope of its activities to include space weather was expanded in 2018.

Space weather matters are coordinated by SWCG. There are three active task groups on spacecraft anomaly database, improving data access to space-based space weather observations operated by CGMS agencies, and ionospheric RO optimization. SWCG also working together with GSICS space weather subgroup which handles inter-calibration of space weather sensor, and with a task group on space environment sustainability under WG I which handles space traffic control. CGMS recommends reporting spacecraft anomalies caused by space weather in Plenary meeting once in a year.

Geomagnetic storm occurred during May 10-13, 2024 is the largest storm in the last 19 years since August 2005. Since the magnitude of the storm was comparable to the 2003's Halloween event, which initiated large numbers of spacecraft anomalies, there were concerns about the space weather impact on meteorological satellites and their operations.

After the storm event, we have asked CGMS member agencies to give some information about the following questions. 1) Please let us know if severe space weather disturbances over the past few days have had an impact on your satellite operations or the satellite itself. 2) Please let us know if you have implemented any measures for the satellite or satellite operations due to severe space weather disturbances over the past few days. We have received feedback from the members.

The summaries of feedback from CGMS agencies about space weather impact on spacecraft anomalies and operations, and its relationship with the conditions of space environment observed by meteorological satellite will be discussed in our presentation.