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## The open-ended, high-cadence, Kp-like and fully operational geomagnetic Hpo indices for the ESA Space Weather G-ESC service network

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Global geomagnetic indices are widely used not only to characterize the geomagnetic disturbance level but also for the parameterization of physical and empirical models of the near-Earth space environment and in data (re)analysis. One of the most utilized index families is the three-hourly Kp and the ap, Ap, Cp, C9 indices derived and disseminated by the GFZ German Research Centre for Geosciences.

The new global geomagnetic open-ended, high-cadence, Kp-like Hpo index family (consisting of the half-hourly Hp30, ap30 and hourly Hp60, ap60) was developed within the Space Weather Atmosphere Models and Indices (SWAMI) project of the H2020 EU research activity. These open-ended Hpo indices are based on the data of the same 13 geomagnetic observatory and similar algorithms as the three-hourly Kp index. The open-ended indices are designed such that 15 Hp60 and 32 Hp60 values exceeding 9 (maximum amplitude for the Kp index) have been assigned since 1995.

Near real-time indices and archive indices back to 1995 are available for download under the CC BY 4.0 license and include the linear versions of the Hp30 and Hp60 indices, the ap30 and ap60 indices. Near real-time plots of the Hp30 and Hp60 indices for the current day and the previous six days are also provided. Here, the operational capabilities and examples of these indices will be presented.