

**Category**

AC Atmosphere, Climate

**Session Number**

AC-4

**Session Title**

The Polar Atmosphere and Geospace

**Session Description**

This session is addressed to the scientific communities who investigate the Antarctic and Arctic atmosphere and geospace by means of ground-based/space-borne observations including radio probes, theories and modeling. Participation is foreseen of scientists studying the neutral and/or the ionized part of the atmosphere, from the lower to further upper regions such as the magnetosphere. In the Arctic region, it becomes known that human lives and social structures are sensitively affected by the change of geospace disturbed by solar activities. Recent studies have indicated that the geospace in the Arctic and the Antarctic regions are not only linked by magnetic field lines but also by atmospheric dynamical processes including circulation and waves, which further affect the global atmosphere. Contributions from researchers and managers of Arctic-Antarctic operations that need to remove, or mitigate, the atmospheric contribution from their measurements (including search and rescue operators) are also encouraged. Possible topics include, but are not limited to, the study of Space, the Sun-Earth relations, and the impact of Space Weather on critical operations. Contributions from international collaborative researches/facilities are highly encouraged. The research based on the observations of the Earth from the space that exploits the radio spectrums (such as SAR imaging, satellite altimetry, weather satellites, etc.) are also welcome.

**Keywords:** Arctic-Antarctic neutral-ionized atmosphere, geospace, Space Weather, EO

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