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Session on Ionospheric Effects on GNSS Augmentation Systems.

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This session will address ionospheric effects on global navigation satellite augmentation systems. Dual-frequency signals transmitted by navigation satellite systems offer an excellent means to monitor and study ionospheric total electron content (TEC) and ionospheric irregularities. Those ionospheric characteristics are of great importance not only for satellite navigation, but also for ionospheric and space weather monitoring and research. Currently, hundreds of global navigation satellite systems (GNSS) receivers around the globe are able to obtain information about ionospheric conditions at any time. That information complements and integrates substantially the amount of ionospheric data available from other sources. A good understanding of the challenges posed by the ionosphere could provide important insights into the development of GNSS augmentation systems. These systems may include regional augmentation systems such as Satellite-Based Augmentation Systems (SBAS) and Ground-Based Augmentation Systems (GBAS). Several SBAS are deployed and provide currently operational signals to their users: the Wide Area Augmentation System (WAAS) of the United States, the European Geostationary Navigation Overlay Service (EGNOS), the System for Differential Corrections and Monitoring (SDCM) of the Russian Federation, the Global Positioning System (GPS) Aided Geo Augmented Navigation (GAGAN) of India, and the Multi-functional Satellite Augmentation System (MSAS) of Japan. Therefore, SBAS providing service to low-latitude regions will be more affected than those at other latitudes. This session invites abstracts related to performance assessments of systems affected by ionospheric effects, mitigation techniques, effects on users and program status of navigation satellite systems.