

Overview of radio propagation project

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Dated back to early 2016, the radio propagation subgroup was started in the A01 group (Space Weather Forecast System) of the PSTEP (Project for Solar-Terrestrial Environment Prediction). This subgroup has been working on clarifying of space weather (ionosphere is particular) effect on the radio propagation. Day-to-day variation of the bottom side of ionosphere has great influence on availability and integrity of radio waves in high frequency (HF, 3-30 MHz) band. HF is used as a backbone of communication systems for aviation during en-route phase and for amateur radio during disaster relief operation. We, therefore, focused on the HF band. The radio propagation simulator named HF-START (HF Simulator Targeting for All-users' Regional Telecommunications) has been developed. Availability and integrity of HF band are expected to be provided through HF-START interface after receiving users' input/ request. The HF-START project activity and its future operation plan will be overviewed in this talk.

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