

The NICT real-time space environment simulator: Present status and future prospects

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The National Institute of Information and Communications Technology (NICT) has been developing the Real-time Space Environment Simulator, which reproduces the entire geospace in real time. In 2003, a real-time MHD model of the solar wind interaction with the earth's magnetosphere (the Real-time Magnetosphere Simulator) was developed at NICT in collaboration with Kyushu University and the Meteorological College. The model is now operated at the space weather forecast center of NICT. In 2007, we developed the Real-time Ionosphere-Thermosphere Simulator using the ionospheric parameters given by the magnetospheric model. In addition, a preliminary version of the Real-time Solar Wind Simulator was also developed. We will describe the current status and future prospects of the Real-time Space Environment Simulator.