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JAXA Earth Observation Overview

Riko Oki

Japan Aerospace Exploration Agency

Japan Aerospace Exploration Agency (JAXA) currently operates six Earth observation missions, GOSAT, GOSAT-2, GCOM-C, GCOM-W, GPM/DPR and ALOS-2, for water cycle and climate studies, disaster mitigation, and various application studies including weather forecasts. Regarding future satellite missions, two ALOS series satellites will be launched in near future, ALOS-3 carrying advanced optical imager and ALOS-4 carrying advanced SAR. GCOM-W follow-on mission (AMSR3) with high-frequency channels (166 & 183 GHz) will be installed on the GOSAT-GW satellite along with the GOSAT-2 follow-on mission. Japan will provide the world's first satellite-based cloud vertical motion information by the Cloud Profiling Radar (CPR) to the EarthCARE, Europe-Japan joint mission. JAXA is currently conducting R&D of the Precipitation Measuring Mission carrying the Ku-band Doppler Precipitation Radar to succeed and expand currently operating GPM/DPR. It is also required to evolve combined use of multi-satellite and numerical models to provide the “best” information to users. To achieve above target, JAXA collaborates with model development community to expand satellite data utilization in various fields. JAXA continues to provide useful satellite-based information to users, especially for utilization in operational agencies in the Asia-Oceania region.