

Current and Future Japanese EO Satellite Programs and Related Activities and Issues

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Earth Observation (EO) satellite operators in Japan, i.e. JAXA, Japan Meteorological Agency (JMA) and Ministry of Environment, are in a significantly productive stage with their current missions of GCOM-W (2012) and GCOM-C (2017) for water and climate monitoring, ALOS-2 (2014) for high resolution surface monitoring, GOSAT (2009) and GOSAT-2 (2018) for greenhouse gas monitoring, and Himawari-8/9 (2014 and 2016) as a third generation meteorological geostationary satellite. Various successful products have been and will be generated by agencies and science communities for atmosphere, ocean and land spheres, that will be shown in this presentation. Those missions have to be succeeded by future missions like currently planned missions of EarthCARE for earth radiation budget measurement, GCOM-W F/O, GOSAT-3, ALOS-3/4 etc. Plan for Himawari-10/11 satellites has been recently started by JMA. It is needed, however, to develop plans for other future satellite missions, in the situation that there are no missions beyond 2020 in the governmental plan for the category of "Other remote sensing satellites" under the Space Basic Plan. The Japan Science Council (JSC) and the Task Force of Remote Sensing (TF), an alliance of earth science societies, are now discussing about the plan. TF recommended five important missions for (A) understanding the mechanism of climate change and water circulation on global scale, (B) evaluation of forest biomass, (C) reduction of short-lived climate pollutants (SLCP), (D) understanding the process of cloud and precipitation, and (E) monitoring the radiative forcing and ecology change. My presentation will include introduction of the discussion and other issues to be considered.