

Toward a better understanding of the earth 's climate and environment

NAKAJIMA, Teruyuki^{1*}

¹Atmosphere and Ocean Research Institute, University of Tokyo

World research communities are making effort for contribution to the global scale problems of earth's climate change and environmental change. Space agencies are also taking leadership of making use of earth observation data as by the ESA's Climate Change Initiative (CCI) and others. In this talk, I like to discuss data use of several satellite programs of ALOS-2, GCOM-W, GPM, GOSAT, Himawari-8 and future GCOM-C and EarthCARE. Important subjects for application of are 1) Observation of signatures of human activities and study of its climate and environment effects; 2) Observation of the earth's water cycle and study of its application for society; 3) Observation of biosphere and study of its vulnerability due to climate change; 4) Observation of fine structure of the earth's surface and study of its application for society. It is important to establish the maximum use of climate and environment models for providing constraints of remote sensing and for assimilation and inverse data analysis.

Keywords: Earth Observation, Climate, Environment