

Mission on monitoring and elucidating global environmental changes (global radiative forcing and ecosystem changes that affect global warming) (successor to GCOM-C)

*Yoshiaki HONDA¹, Teruo Aoki², Takashi Nakajima³, Mitsuhiro Toratani⁴, Koji Kajiwar¹

1. Center for Environmental Remote Sensing, Chiba University, 2. Research Organization of Information and Systems, National Institute of Polar Research, 3. Tokai University Research & Information Center, 4. okai University Department of Optical and Imaging Science and Technology

The purpose of this proposal is to monitor and clarify global environmental changes (global radiative forcing and ecosystem changes that affect global warming) through long-term and continuous quantitative monitoring. Optical (near-ultraviolet to thermal infrared) imager technology is a fundamental technology that can evolve into new optical sensors in the future and needs to be continued to maintain a global advantage.

By monitoring the optical imager, which is SGLI's genealogy, over a wide range of wavelengths, it is possible to monitor changes in the climate system that change with global warming, including changes not currently expected. In addition, by being able to accurately grasp the progress of climate change that has been predicted, it is possible to evaluate the effects of global warming control policies, formulate adaptation measures for the future, and make diagnostic corrections to the trajectories. By having its own information source as its own sensor, it is possible to have Japan's own judgment material for grasping the situation of climate change, and to transmit it to the world as global standard information, and to implement international strategies on climate change. Can have. Furthermore, by using J-train type satellites for observations (meteorological research note No. 234, "Analysis of world trends related to future vision of earth observation", P16-18 In the next GCOM-C study at JAXA, the J-train concept was also included, and in cooperation with activities within JAXA, coordination and sharing with foreign activities such as MetOP and JPSS were examined. We are discussing how to enhance and prioritize the goals set out at GCOM-C.

Keywords: Global environmental change, GCOM-C, SGLI, J-train