Over 6 years observation of GCOM-C/SGLI sensor

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Global Change Observation Mission (GCOM) consists of two type of satellite (GCOM-W with microwave radiometer and GCOM-C with multispectral optical radiometer) using the identical satellite bus system design [1]. The mission instrument of GCOM-C is Second Generation Global Imager (SGLI) which observes the earth using 19 channel wavelengths from 380nm to 12 micron via wide swath coverage, over 1000km with high 250m or 1km resolution. GCOM-C was launched on H-IIA rocket on Dec. 23, 2017 [2]. Since the first image on January 1, 2018, continuous observations have been continued.

One of the unique capabilities of SGLI is polarization observation. Using two telescopes of 673.5 nm and 868.5 nm which is tilted for +45 deg forward looking (in northern hemisphere) and -45 deg backward looking (in southern hemisphere) for optimal scattering angle conditions. Three stokes parameters (I, Q, U) with 1km resolution data are obtained.

In this talk we summarize these general observation scheme and status of GCOM-C/SGLI for 6 years observation and the recent observation results including the on-orbit calibration method and results using solar-diffuser scheme and lunar calibration [3, 4].

References

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Preferred mode of presentation: Invited