
MMM SEMINAR MMM

Observation of Aerosol Properties from Geostationary Imager over East Asia

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GEO-KOMPSAT(Geostationary Korea Multi-Purpose SATellite) is a geostationary program of KARI(Korea Aerospace Research Institute) to observe atmosphere and ocean. GEO-KOMPSAT-1, also known as COMS(Communication, Oceanography and Meteorology Satellite) was launched in June 27, 2010, with conventional 5-channel MI(Meteorological Imager) and 8-channel GOCI(Geostationary Ocean Color Imager). GOCI, in particular is the first multiple visible channel imager in GEO, providing high temporal resolution of 1 hour and the spatial of 500 m. These two instruments have provided information on aerosol distribution successfully in terms of optical depth, size and type classification. The retrieval algorithm is basically lookup table approach, taking into account the nonsphericity of aerosol, aerosol growth, with surface reflectance from clear-sky composite. The results were validated during the Distributed Regional Aerosol Gridded Observation Network(DRAGON)-Asia campaign in spring, 2012.

GEO-KOMPSAT-2 is planned for launch in 2018 as twin satellites: 2A as weather satellite with a 16-channel AMI(Advanced Meteorological Imager), and 2B as atmospheric environment and ocean satellite, with a UV-Visible scanning spectrometer, GEMS(Geostationary Environment Spectrometer), and GOCI-2 (Geostationary Ocean Color Imager-2). Synchronous measurements of air pollutants together with the meteorological variables and ocean color information are expected to our understanding on the distribution and transboundary transportation of aerosols with their precursors, and on interactions between meteorology and air chemistry in the Asia-Pacific region. Furthermore, the constellation of the GeoKOMPSAT with NASA TEMPO/GEOCAPE in America and ESA Sentiniel-4 in Europe in 2018-2020 time frame can provide great synergistic outcomes to better understand the globalization of tropospheric pollution.

*This seminar will be recorded and available via webcast at:
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Thursday, 21 August 2014, 3:30 PM
Refreshments 3:15 PM
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