

Proposal of geostationary observation of atmospheric chemistry and lightning (GOAL) satellite program

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Large-scale air pollution affects human health and crop production. The characteristics of large-scale air pollution require global dense observation (10km and 1 hr). Observations of air pollution and lightning from space have been demonstrated, but they gave once/twice a day observations. Geostationary observation of air pollution and lightning are under development for the operational geostationary satellites by NOAA and EUMETSAT. We propose a geostationary satellite to observe the air pollution and lightning in Asian region, by using UV/visible imaging spectrograph (Geo-OPUS), UV/visible Multi-band imager, CO imager and Lightning sensor. This paper describes proposal of the Geostationary Observation of Atmospheric chemistry and Lightning (GOAL) satellite, and its scientific and technical feasibility for large scale air pollution monitoring.