

Concept of OPUS and Measurement of Ozone Column Amount with Air-borne OPUS

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Rapid development of industrial activity in East Asia probably cause the increase of emission of atmospheric pollutants to influence the atmospheric environment. High-resolution remote sensing of ozone, aerosol and their precursors from a geostationary satellite is considered to be quite useful for monitoring distribution and variation of polluted air, especially ozone and aerosol. GOAL has been proposed for this purpose, and Ozone and pollution measuring ultraviolet spectrometer (OPUS) is one of significant sensors in GOAL. OPUS is a ultraviolet spectrometer to measure column amount of ozone, nitrogen dioxide and some other species. Concept of OPUS is introduced. Air-borne OPUS was developed for remote sensing of ozone, sulfur dioxide, and nitrogen dioxide from an aircraft to demonstrate the performance of OPUS. Preliminary results of retrieval of ozone column amount from Air-borne OPUS data would be shown.