



GOSAT-2 and its Calibration System

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JAXA, MOE (Ministry of Environment) and NIES (National Institute of Environmental Studies) are now going to start the GOSAT follow on program, i.e. GOSAT-2. The sensors on-board the GOSAT-2 is TANSO-FTS2 and TANSO-CAI2. TANSO-FTS2 has several improvements from GOSAT TANSO-FTS. They are 1) addition of CO channel in SWIR bands, 2) increase of SNR for all channels, 3) intelligent pointing to avoid clouds, 4) optimal wavelength region for fluorescence measurements, etc. TANSO-CAI2 is a push broom imager with 7 to 9 channels. The improvements from GOSAT CAI are 1) addition of UV channel (340nm), 2) tilt operation to avoid sun glitter, etc. Calibration of FTS SWIR bands utilize on-board sun diffuser, deep space, LED for instrument function measurements and lunar calibration. Calibration of FTS TIR utilize on-board black body and deep space. CAI2 utilize lunar calibration and vicarious calibrations. Cross calibrations with OCO₂ are also planned. The planned launch date of GOSAT-2 is fiscal 2017.