

## GOSAT and GOSAT-2 Higher Level Products: Current Status and Future Plan

\*Tsuneo Matsunaga<sup>1</sup>, Isamu Morino<sup>1</sup>, Yukio Yoshida<sup>1</sup>, Makoto Saito<sup>1</sup>, Hibiki M Noda<sup>1</sup>, Hirofumi Ohyama<sup>1</sup>, Yosuke Niwa<sup>1</sup>, Akihide Kamei<sup>1</sup>, Fumie Kawazoe<sup>1</sup>, Tazu Saeki<sup>1</sup>, Ryoichi Imasu<sup>2</sup>, Naoko Saitoh<sup>3</sup>, Takashi Nakajima<sup>4</sup>, Teruyuki Nakajima<sup>5</sup>, Makiko Hashimoto<sup>5</sup>

1. National Institute for Environmental Studies, 2. The University of Tokyo, 3. Chiba University, 4. Tokai University, 5. Japan Aerospace Exploration Agency

GOSAT (Greenhouse gases Observing SATellite) and GOSAT-2 are a Japanese Earth observation satellites for greenhouse gas measurements from space and launched in 2009 and 2018, respectively. These satellites were developed and have being operated by Ministry of the Environment, JAXA (Japan Aerospace Exploration Agency), and NIES (National Institute for Environmental Studies).

NIES is responsible for the generation of GOSAT and GOSAT-2 Level 2 and Level 4 standard products such as:

(GOSAT)

- 1) L2 cloud flag
- 2) L2 CO<sub>2</sub> column amount (SWIR)
- 3) L2 CH<sub>4</sub> column amount (SWIR)
- 4) L2 H<sub>2</sub>O column amount (SWIR)
- 5) L2 CO<sub>2</sub> profile (TIR)
- 6) L2 CH<sub>4</sub> profile (TIR)
- 7) L4A global CO<sub>2</sub> flux
- 8) L4A global CH<sub>4</sub> flux
- 9) L4B global CO<sub>2</sub> distribution
- 10) L4B global CH<sub>4</sub> distribution

(GOSAT-2)

- 1) GOSAT-2 TANSO-CAI-2 L2 Cloud Discrimination Product
- 2) GOSAT-2 TANSO-CAI-2 L2 Aerosol Property Product
- 3) GOSAT-2 TANSO-FTS-2 SWIR L2 Chlorophyll Fluorescence and Proxy-method Product
- 4) GOSAT-2 TANSO-FTS-2 SWIR L2 Column-averaged Dry-air Mole Fraction Product
- 5) GOSAT-2 TANSO-FTS-2 TIR L2 Cloud and Aerosol Property Product
- 6) GOSAT-2 TANSO-FTS-2 TIR L2 Temperature and Gas Profile Product
- 7) GOSAT-2 L4A Global CO<sub>2</sub> Flux Product
- 8) GOSAT-2 L4A Global CH<sub>4</sub> Flux Product
- 9) GOSAT-2 L4B Global CO<sub>2</sub> Distribution Product
- 10) GOSAT-2 L4B Global CH<sub>4</sub> Distribution Product

All the GOSAT Level 2 and 4 standard products are freely available to the public. As for GOSAT-2, GOSAT-2 TANSO-FTS-2 SWIR L2 Column-averaged Dry-air Mole Fraction Product is being distributed to PIs of GOSAT Series Research Announcement.

In this presentation, the latest status and the future plans of these higher-level products will be

introduced.

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