

NIES-GOSAT2-SYS-20251215-029-00

Release Note

GOSAT-2 L4B Global CH₄ Distribution Product

Product version 01.01

December 2025

National Institute for Environmental Studies
GOSAT-2 Project

Revision History

| Version | Revised | Page | Description |
|---------|-----------|------|-------------|
| 00 | Dec. 2025 | - | - |

1 Introduction

The purpose of this document is to provide considerations for the Greenhouse gases Observing SATellite-2 (hereinafter referred to as "GOSAT-2") products generated by the National Institute for Environmental Studies, Japan.

The product and its version described in this document are listed in Table 1-1.

Table 1-1 Product and version

| Product name | Product version |
|---|-----------------|
| GOSAT-2 L4B Global CH ₄ Distribution Product | 01.01 |

2 Difference from previous version

There is no description in this chapter since the product described in this document is the first release.

3 Important information

The important information for this version is shown as follows:

- (1) The L4 product version corresponding to this version is shown below.
 - GOSAT-2 L4A Global CH₄ Flux Product: 01.01
- (2) The atmospheric tracer transport model used in this version is shown below.
 - NICAM-TM (Non-hydrostatic Icosahedral Atmospheric Model-based Transport Model) 4D-Var (four-dimensional variational method) (newly named "NISMON")
- (3) The period covered in this version is shown below.
 - 42 months from May 2019 to October 2022
- (4) The variables to be released in this version are shown below.
 - Instantaneous values of the atmospheric CH₄ concentrations (mmol mol⁻¹) every 6 hours (00, 06, 12, and 18 (UTC)) at 17 atmospheric pressure levels (975, 925, 900, 850, 700, 600, 500, 400, 300, 250, 200, 150, 100, 70, 50, 30, and 10 hPa) and near the surface for 2.5 degree horizontal resolution, as well as surface pressure (hPa)

4 Version upgrade history

The version upgrade history of the product described in this document is shown in Table 4-1.

Table 4-1 Version upgrade history

| Product version | Date | Remarks |
|-----------------|-----------|---------------------------|
| 01.01 | Dec. 2025 | Released to General users |