GOSAT Data Archive Service Operation Manual

https://data2.gosat.nies.go.jp/

August, 2021

(Version 1.5)
## Change History

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• The list of Gallery images is modified.  
• L4 Animation is deleted from Gallery images. |
| Ver.1.1 | 2017.8.28| 60   | 6.13 Global Gas Concentration Animations Screen is modified.  
• The screen of Gallery images is modified. |
| Ver.1.1 | 2018.3.19| 29   | 6.2 Monthly Global Map of L2 CO2 Column-Averaged Volume Mixing Ratios Screen is modified.  
• Scroll function is added. |
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• Scroll function is added. |
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<td>· FTS estimated geolocation data is deleted.</td>
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<td>· L2 H2O column amount (TIR) is added.</td>
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1 GOSAT Data Archive Service (GDAS) Overview

1.1 GDAS Overview
GDAS is a service that archives and provides GOSAT products in packs of providable units. The functions provided with this service are listed below.

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<tr>
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<th>Description</th>
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<tr>
<td>GOSAT Information Browsing</td>
<td>Enables documents related to GOSAT products, contact numbers for GOSAT products and other such information to be browsed and downloaded.</td>
</tr>
<tr>
<td>GOSAT Image Browsing Function</td>
<td>Enables images generated by GOSAT products to be browsed.</td>
</tr>
<tr>
<td>Product Downloading Function</td>
<td>Enables GOSAT products to be downloaded.</td>
</tr>
<tr>
<td>Account Registration Function</td>
<td>Enables accounts for downloading GOSAT products to be registered.</td>
</tr>
<tr>
<td>User Information Editing Function</td>
<td>Enables user information to be updated and passwords to be reset.</td>
</tr>
</tbody>
</table>

This manual explains how to operate GDAS.

1.2 Concerns
If the clock of your machine is proceeded or delayed more than 5 minutes, there is possibility that the products cannot be downloaded, sucessfully. Please adjust the clock of your machine to the correct time.
1.3 Using the Manual

The manual uses the following formats for screen descriptions.

The procedure for moving between screens is explained first of all, and the screen descriptions are provided afterward.

(1) Moving Between Screens

Contains details on the operations required for moving between screens

Click on [Documents & Information] on the [GDAS Top] screen (see section 4.1) to move to the [Documents & Information] screen.

Displays the image prior to moving between screens

(2) Screen Name

Contains details on the operations available within the screen

Displays the documents and technical information related to GOSAT. Click on any of the documents to move to the relevant document screen.

Displays the screen images

- Documents (Product Descriptions) (1)
- Technical Information (2)
- Path Calendar (3)
- The GOSAT standard mesh point (GPP) (4)
- GOSAT Data Policy (English [ ], Japanese [ ]) (5)
### Contains details on the contents provided within the screen

<p>| | | | | |</p>
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<tr>
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<td>1</td>
<td>Documents (Product Descriptions) Link</td>
<td>: The link to the [Documents (Product Descriptions)] screen from which product information can be downloaded.</td>
<td></td>
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</tr>
<tr>
<td>2</td>
<td>Technical Information Link</td>
<td>: The link to the [Technical Information] screen from which technical sensor information can be downloaded.</td>
<td></td>
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</tr>
<tr>
<td>3</td>
<td>Path Calendar Link</td>
<td>: The link to the [Path Calendar] screen from which path calendars can be downloaded.</td>
<td></td>
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</tr>
<tr>
<td>4</td>
<td>The GOSAT standard mesh point (SMP) Link</td>
<td>: The link to the [GOSAT Standard Mesh Point] screen from which GOSAT standard mesh point information can be downloaded.</td>
<td></td>
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</tr>
<tr>
<td>5</td>
<td>GOSAT Data Policy</td>
<td>: The link to the GOSAT Data Policy.</td>
<td></td>
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</tbody>
</table>

### Contains details on important points, supplementary information, and precautions in accordance with necessity

- **Important:** Lists important details.

- **Information:** Lists supplementary information.

- **Note:** Lists points to note.
2 Using GDAS

The following users are assumed as GDAS users.

- **Guest users**, who browse GOSAT product images and information without logging in
- **Registered users**, who register accounts and downloading GOSAT products after logging in

2.1 Flowchart for GDAS Usage

A summary of procedures for using GDAS is provided below.

(1) Browsing GOSAT product images and information without logging in

A summary of the procedure to browse GOSAT product images and information as a guest user is shown below.

Open the GDAS top screen

When browsing GOSAT product information

Browse the documents and technical information

→ To 5 Procedures for Browsing Information Related to GOSAT Products (P.15)

When browsing GOSAT product images

Browse the gallery

→ To 6 Procedures for Browsing GOSAT Product Images (P.25)
(2) Registering an account
A summary of the procedure required to register an account in order to download GOSAT products is shown below.

Open the GDAS top screen

When downloading GOSAT products from GDAS for the first time

Register an account

→ To 7 User Registration Procedure (P.76)

Important: Users who have registered an account with GUIG do not need to register an account with GDAS. Contact gosat-support@nies.go.jp if your registration status is unknown.
(3) Registering an account and downloading GOSAT products after logging in

A summary of the procedure required for registered users to download GOSAT products is shown below.

- Open the GDAS top screen

  When downloading GOSAT products

  Log in to the site for which a user account has been registered

  → To 8.1 Login (P.91)

  When downloading individual products

    Display the product download screen

    → To 9.1 Downloading Products with the Use of the Website (P.103)

  When downloading products in bulk

    Display the product download screen

    → To 9.2 Downloading Products with the WGET Command (P.135)

  When downloading GOSAT product information

    Display the document and technical information screen

    → To 10 Procedure for Downloading Information Related to GOSAT Products (P.166)

  Ending the procedure

    Log out of the site for which a user account has been registered

    → To 8.2 Logout (P.95)
2.2 GDAS Usage Conditions
The conditions for using GDAS are listed below.

2.2.1 Recommended Browsers
The browsers recommended for using GDAS are listed below.

✓ Internet Explorer 11 (Windows10 and later are recommended.)
✓ Mozilla Firefox 49.0
✓ Safari 10
✓ Chrome 53.0
✓ Edge 25

* It is necessary to enable JavaScript on the browser settings.
A sample of the method of setting the required parameters on Internet Explorer is explained below.

(1) Right-click on the [Tool] icon displayed on the web browser menu, and then click on [Internet Options]. (The screen will move to the Internet Option screen.)

(2) Then click on the [Security] tab shown on the [Internet Options] screen.
(3) Click on [Custom level] displayed on the security tab. (The screen will move to the Security Settings · Internet Zone screen.)

(4) Set the [Active Scripting] parameter on the Security Settings · Internet Zone screen to [Enable]. Click on the [OK] button after changing the parameter to display a pop-up [Warning].
(5) Click [Yes] on the warning to close the pop-up screen.

![Warning Pop-up Screen]

(6) Click on [OK] on the Internet Option screen to close it.

![Internet Option Screen]

(7) Click on the [Refresh] icon on the web browser menu to reload the web page. This will enable JavaScript.

![Web Browser Menu]

2.2.2 Required Software

Products are archived and provided on GDAS in the tar format and tar.gz format. It is therefore necessary to be in possession of a tool capable of compressing and decompressing the tar and tar.gz formats.

When downloading Products with the WGET Command, use wget version 1.6.1 or later. See [12.4 Tools Screen] for details on the software required to check products.
3 Screen Configuration

3.1 Screen Configuration

The screens displayed on GDAS are configured in the following way.

(1) Menu : The area displaying links to each screen (account registration, login, etc.). Login information will also be displayed after login.

(2) Side menu : The area displaying links to GOSAT product information (inquiries, tools, etc.) and to web screens related to GOSAT. Links to products other than those displayed in the main screen will also be displayed on the download screen after login.

(3) Main Screens : The areas that display various types of information targeting GDAS users.
Information: Documents, technical information and the user information editing screen will not be displayed on the side menu after login.

Information: If [PDF], [Zip], [Excel], etc., are displayed on the right-hand side of the links, the links provide files saved in the listed formats.

Example: Clicking on the Operating Environment link shown above in (2) will download the file in the PDF format.
4 Procedures for Browsing the GDAS Top Screen

This section explains the procedures for browsing the GDAS top screen.

4.1 GDAS Top Screen

(1) Moving to the [GDAS Top] screen

Start up the browser and access [https://data2.gosat.nies.go.jp] to display the [GDAS Top] screen.
(2) [GDAS Top] screen
Displays the most up-to-date information pertaining to the GDAS site. Click on the relevant links to move between the various screens available on the GDAS site.

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<tbody>
<tr>
<td>(1)</td>
<td>Documents &amp; Information Link : The link to the [Documents &amp; Information] screen that displays a list of available documents and technical information, etc.</td>
</tr>
<tr>
<td>(2)</td>
<td>Gallery Link : The link to the [Gallery] screen that displays a list of galleries by GOSAT products.</td>
</tr>
<tr>
<td>(3)</td>
<td>User Registration Link : The link to the [User Registration] screen on which new accounts are registered.</td>
</tr>
<tr>
<td>(4)</td>
<td>Login Link : The link to the [Login] screen on which registered users log into GDAS.</td>
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<td>Japanese Link</td>
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<td>News &amp; Topics</td>
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5 Procedures for Browsing Information Related to GOSAT Products

This section explains the procedures for browsing and downloading information related to GOSAT products.

5.1 Documents & Information Screen

(1) Moving to the [Documents & Information] screen
Click on [Documents & Information] on the [GDAS Top] screen (see section 4.1) to move to the [Documents & Information] screen.
(2) [Documents & Information] screen
Displays the documents and technical information related to GOSAT. Click on any of the documents to move to the relevant document screen.

(1) Documents (Product Descriptions) Link : The link to the [Documents (Product Descriptions)] screen from which product information can be downloaded.

(2) Technical Information Link : The link to the [Technical Information] screen from which technical sensor information can be downloaded.

(3) Path Calendar Link : The link to the [Path Calendar] screen from which path calendars can be downloaded.

(4) The GOSAT standard mesh point (SMP) Link : The link to the [GOSAT Standard Mesh Point] screen from which GOSAT standard mesh point information can be downloaded.

(5) GOSAT Data Policy : The link to the GOSAT Data Policy.
5.2 Documents (Product Descriptions) Screen

(1) Moving to the [Documents (Product Description)] Screen
Click on [Documents] on the [Documents & Information] screen (see section 5.1) to move to the [Documents] screen (new screen).

(2) [Documents (Product Description)] Screen
Displays information related to GOSAT (ATBD, Product Format Description, Important Note at Releasing) (1) below. Click on any of the links to download the relevant file.
(1) Documents (Product Descriptions) : Displays a list of products from which documents can be downloaded.
(2) Product Name (FTS L1B data, etc.) : Displays a list of documents for each product.
(3) [Close] Link : The link for closing the [Document] screen.

**Important:** The following will be displayed when the product name is clicked.

<table>
<thead>
<tr>
<th>Version</th>
<th>OBS Periods (YYYY/MM/DD)</th>
<th>ATBD</th>
<th>Product Format Descriptions</th>
<th>Important Notes at Relicensing</th>
</tr>
</thead>
<tbody>
<tr>
<td>V201.302</td>
<td>2016/03/26-present</td>
<td>N/A</td>
<td>V201.302 (English)</td>
<td>V201.302 (Kawase Notes for Product) (English), (Japanese)</td>
</tr>
<tr>
<td>V161.161</td>
<td>2015/02/01-present</td>
<td>N/A</td>
<td>V161.161 (English)</td>
<td>V161.161 (Kawase Notes for Product) (English), (Japanese)</td>
</tr>
<tr>
<td>V161.160</td>
<td>2009/04/23-2014/12/14</td>
<td>N/A</td>
<td>V161.160 (English)</td>
<td>V161.160 (Kawase Notes for Product) (English), (Japanese)</td>
</tr>
</tbody>
</table>

**Information:** It is also possible to display the [Technical Information], [Path Calendar] and [GOSAT Standard Mesh Point] displayed in the list of [Documents & Technical Information] from this screen.
5.3 Technical Information Screen

(1) Moving to the [Technical Information] Screen
Click on [Technical Information] on the [Documents & Information] screen (see section 5.1) to move to the [Technical Information] screen (new screen).

(2) [Technical Information] screen
Displays information related to the GOSAT FTS sensors and CAI sensors ((1) below). Click on any of the links to download the relevant file.

<table>
<thead>
<tr>
<th>(1) Technical Information</th>
<th>Displays a list of technical information for each sensor.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2) Technical Information</td>
<td>Displays individual technical information for the sensors.</td>
</tr>
<tr>
<td>(3) [Close] Link</td>
<td>The link for closing the [Technical Information] screen.</td>
</tr>
</tbody>
</table>
Important: The following details will be displayed when the title of the technical information is clicked.

**Spectral response function**

**Definitions:**
- WL = Wavelength [μm]
- SRF = Normalized spectral response function [a.u.]

**SRF File Format ex. SRF(01):**
- WL(01), SRF(01)

**Covariates:**
- April 23, 2009 [Algorithm Version 0.06, Parameter Version 0.06, Data: 090423]
- (1) SRF is evaluated by multiplying of fiber optics transmittance and detector response.
- (2) SI CCDs are used for B1, B2 and B3, while InGaAs for B4.

[For SRF File download] [Click here](#)

Information: It is also possible to display the [Technical Information], [Path Calendar] and [GOSAT Standard Mesh Point] displayed in the list of [Documents & Technical Information] from this screen.
5.4 Path Calendar Screen

(1) Moving to the [Path Calendar] Screen
Click on [Path Calendar] on the [Documents & Information] screen (see section 5.1) to move to the [Path Calendar] screen (new screen).
(2) [Path Calendar] Screen
Displays the observation paths for GOSAT products ((1) below). Click on any of the links to download the GOSAT path calendar.

(1) GOSAT Path calendar: The link to the GOSAT path calendars (PDF files).
(2) [Close] Link: The link for closing the [Path Calendar] screen.

Information: It is also possible to display the [Technical Information], [Path Calendar] and [GOSAT Standard Mesh Point] displayed in the list of [Documents & Technical Information] from this screen.
5.5 GOSAT Standard Mesh Point Information Screen

(1) Moving to the [GOSAT Standard Mesh Point Information] Screen
Click on [The GOSAT standard mesh point (SMP)] on the [Documents & Information] screen (see section 5.1) to move to the [GOSAT Standard Mesh Point Information] screen (new screen).
(2) [GOSAT Standard Mesh Point Information] Screen
Displays information related to the GOSAT standard mesh points ((1) below). Click on any of the links to download the relevant file.

(1) GOSAT Standard Mesh Point : Displays GOSAT standard mesh point information.
(2) [Close] Link : The link for closing the [GOSAT Standard Mesh Point] screen.

Information: It is also possible to display the [Technical Information], [Path Calendar] and [GOSAT Standard Mesh Point] displayed in the list of [Documents & Technical Information] from this screen.
6 Procedures for Browsing GOSAT Product Images

This section explains the procedure for browsing GOSAT product image data.

6.1 Gallery Screen

(1) Moving to the [Gallery] Screen
Click on [Gallery] on the [GDAS Top] screen (see section 4.1) to move to the [Gallery] screen.

(2) [Gallery] Screen
Displays a list of the GOSAT product gallery. Click on any of the products to move to the relevant gallery screen.
(1) Monthly Global Map of the CO2 column-averaged volume mixing ratios Link

(2) Monthly Global Map of the CH4 column-averaged volume mixing ratios Link

(3) Monthly Global Map of the H2O column-averaged volume mixing ratios Link

(4) FTS SWIR L3 XCO2 Link

(5) FTS SWIR L3 XCH4 Link

(6) Global Gas Flux Maps Link

(7) Global Gas Flux Maps (View Format) Link

(8) Gas Flux Time Series Link
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Global Gas Concentration Maps (View Format) Link</td>
<td>The link to the [Global Gas Concentration Maps (View Format)] screen.</td>
</tr>
<tr>
<td>13</td>
<td>CAI L1B+ Browse Image Link</td>
<td>The link to the [CAI L1B+ Browse Image Calendar] screen.</td>
</tr>
<tr>
<td>14</td>
<td>Images of the Earth captured by &quot;IBUKI&quot; Link</td>
<td>The link to the [Images of the Earth captured by &quot;IBUKI&quot;] screen.</td>
</tr>
<tr>
<td>15</td>
<td>Global NDVI Map Link</td>
<td>The link to the [Global NDVI Map] screen.</td>
</tr>
<tr>
<td>16</td>
<td>Browse images of the global radiance distribution Link</td>
<td>The link to the [Browse images of the global radiance distribution] screen.</td>
</tr>
</tbody>
</table>
6.2 Monthly Global Map of L2 CO2 Column-Averaged Volume Mixing Ratios Screen

(1) Moving to the [Monthly Global Map of the CO2 column-averaged volume mixing ratios] screen

(2) [Monthly Global Map of the CO2 column-averaged volume mixing ratios] screen
Displays a list of thumbnail images for monthly global maps of L2 CO2 column-averaged volume mixing ratios ((1) below). Click on each individual image ((2) below) to display them on an enlarged [Monthly Global Map of L2 CO2 Column-Averaged Volume Mixing Ratio] screen (new screen).
(1) List of Average Monthly Volume Mixing Ratios
   : Displays a list of average monthly volume mixing ratios.

(2) Thumbnail Images

(3) [Close] Link

(4) [<<] Button
   : Button for scrolling to previous year's list.

(5) [>>] Button
   : Button for scrolling to subsequent year's list.
Displays an enlarged image of the monthly global map of L2 CO2 column-averaged volume mixing ratios. Click on [Backward] (2) below or [Forward] (3) below to display the previous or subsequent image.

(1) [LastYear] Button : Button for displaying the previous year's image.
(2) [Backward] Button : Button for displaying the previous month's image.
(3) [Forward] Button : Button for displaying the subsequent month's image.
(4) [NextYear] Button : Button for displaying the subsequent year's image.
6.3 Monthly Global Map of L2 CH4 Column-Averaged Volume Mixing Ratios Screen

(1) Moving to the [Monthly Global Map of the CH4 column-averaged volume mixing ratios] screen

(2) [Monthly Global Map of the CH4 column-averaged volume mixing ratios] screen
Displays a list of thumbnail images for monthly global maps of L2 CH4 column-averaged volume mixing ratios ((1) below). Click on each individual image ((2) below) to display them on an enlarged [Monthly Global Map of L2 CH4 Column-Averaged Volume Mixing Ratio] screen (new screen).
(1) List of Average Monthly Volume Mixing Ratios: Displays a list of average monthly volume mixing ratios.

(2) Thumbnail Images: Link to the enlarged [Monthly Global Map of L2 CH4 Column-Averaged Volume Mixing Ratio] screen for the relevant year/month.

(3) [Close] Link: The link for closing the [Monthly Global Map of the CH4 column-averaged volume mixing ratios] screen.

(4) [<<] Button: Button for scrolling to previous year's list.

(5) [>>] Button: Button for scrolling to subsequent year's list.
(3) Enlarged [Monthly Global Map of L2 CH4 Column-Averaged Volume Mixing Ratio] screen
Displays an enlarged image of the monthly global map of L2 CH4 column-averaged volume mixing ratios. Click on [Backward] ((2) below) or [Forward] ((3) below) to display the previous or subsequent image.

(1) [LastYear] Button : Button for displaying the previous year's image.
(2) [Backward] Button : Button for displaying the previous month's image.
(3) [Forward] Button : Button for displaying the subsequent month's image.
(4) [NextYear] Button : Button for displaying the subsequent year's image.
6.4 Monthly Global Map of L2 H2O Column-Averaged Volume Mixing Ratios Screen

(1) Moving to the [Monthly Global Map of the H2O column-averaged volume mixing ratios] screen

(2) [Monthly Global Map of the H2O column-averaged volume mixing ratios] screen
Displays a list of thumbnail images for monthly global maps of L2 H2O column-averaged volume mixing ratios (1) below. Click on each individual image (2) below to display them on an enlarged [Monthly Global Map of L2 H2O Column-Averaged Volume Mixing Ratio] screen (new screen).
(1) List of Average Monthly Volume Mixing Ratios: Displays a list of average monthly volume mixing ratios.


(4) [<<] Button: Button for scrolling to previous year's list.

(5) [>>] Button: Button for scrolling to subsequent year's list.
Displays an enlarged image of the monthly global map of L2 H2O column-averaged volume mixing ratios. Click on [Backward] ((2) below) or [Forward] ((3) below) to display the previous or subsequent image.

(1) [LastYear] Button : Button for displaying the previous year's image.
(2) [Backward] Button : Button for displaying the previous month's image.
(3) [Forward] Button : Button for displaying the subsequent month's image.
(4) [NextYear] Button : Button for displaying the subsequent year's image.
6.5 FTS SWIR L3 XCO2 Screen

(1) Moving to the [FTS SWIR L3 XCO2] screen
Click on [FTS SWIR L3 XCO2] on the [Gallery] screen (see section 6.1) to move to the [FTS SWIR L3 XCO2] screen (new screen).

(2) [FTS SWIR L3 XCO2] screen
Displays a list of thumbnail images for global maps of FTS SWIR L3 CO2 column-averaged volume mixing ratios ((1) below). Click on each individual image ((2) below) to display them on an enlarged [FTS SWIR L3 XCO2] screen (new screen).
(1) List of Global Column-Averaged Volume Mixing Ratios: Displays a list of global column-averaged volume mixing ratios.

(2) Thumbnail Images: Link to the enlarged [FTS SWIR L3 XCO2] screen for the relevant year/month.

(3) [Close] Link: The link for closing the [FTS SWIR L3 XCO2] screen.

(4) [<<<] Button: Button for scrolling to previous year's list.

(5) [>>] Button: Button for scrolling to subsequent year's list.

_information: Dates highlighted in blue indicate that data for a full month is not available._
(3) Enlarged [FTS SWIR L3 XCO2] screen
Displays an enlarged image of FTS SWIR L3 XCO2. Click on [Backward] ((2) below) or [Forward] ((3) below) to display the previous or subsequent image.

(1) [LastYear] Button : Button for displaying the previous year's image.
(2) [Backward] Button : Button for displaying the previous month's image.
(3) [Forward] Button : Button for displaying the subsequent month's image.
(4) [NextYear] Button : Button for displaying the subsequent year's image.
(5) [Close] Link : The link for closing the Enlarged [FTS SWIR L3 XCO2] screen.
6.6 FTS SWIR L3 XCH4 Screen

(1) Moving to the [FTS SWIR L3 XCH4] screen
Click on [FTS SWIR L3 XCH4] on the [Gallery] screen (see section 6.1) to move to the [FTS SWIR L3 XCH4] screen (new screen).

(2) [FTS SWIR L3 XCH4] screen
Displays a list of thumbnail images for global maps of FTS SWIR L3 CH4 column-averaged volume mixing ratios ((1) below). Click on each individual image ((2) below) to display them on an enlarged [FTS SWIR L3 XCH4] screen (new screen).
(1) List of Global Column Averaged Volume Mixing Ratio: Displays a list of global column-averaged volume mixing ratios.

(2) Thumbnail Images: Link to the enlarged [FTS SWIR L3 XCH4] screen for the relevant year/month.

(3) [Close] Link: The link for closing the [FTS SWIR L3 XCH4] screen.

(4) [<<] Button: Button for scrolling to previous year's list.

(5) [>>] Button: Button for scrolling to subsequent year's list.

Information: Dates highlighted in blue indicate that data for a full month is not available.
(3) Enlarged [FTS SWIR L3 XCH4] screen
Displays an enlarged image of FTS SWIR L3 XCH4. Click on [Backward] ((2) below) or [Forward] ((3) below) to display the previous or subsequent image.

(1) [LastYear] Button : Button for displaying the previous year's image.
(2) [Backward] Button : Button for displaying the previous month's image.
(3) [Forward] Button : Button for displaying the subsequent month's image.
(4) [NextYear] Button : Button for displaying the subsequent year's image.
6.7 Global Gas Flux Maps Screen

(1) Moving to the [Global Gas Flux Maps (L4A)] screen
Click on [Global Gas Flux Maps (L4A)] on the [Gallery] screen (see section 6.1) to move to the [Global Gas Flux Maps (L4A)] screen (new screen).

(2) [Global Gas Flux Maps (L4A)] screen
Select the required values from the [Gas], [Version], [Time Step], [Date], [Horizontal Distribution] and [Central Longitude] pull-down menus ((1) to (6) below) to display a global gas flux map created in accordance with the selected conditions. Click on [Backward] ((8) below) or [Forward] ((9) below) to display the previous or subsequent image.
1. [Gas] Pull-down Menu: Pull-down menu for selecting the [Gas].

2. [Version] Pull-down Menu: Pull-down menu for selecting the [Version].

3. [Time step] Pull-down Menu: Pull-down menu for selecting the [Time Step]. (Fixed at [monthly])

4. [Date] Pull-down Menu: Pull-down menu for selecting the year/month.

5. [Horizontal distribution] Pull-down Menu: Pull-down menu for selecting the [Horizontal Distribution]. (Fixed at [region])

6. [Central longitude] Pull-down Menu: Pull-down menu for selecting the [Central longitude].

7. Main Screen: Displays the images selected with conditions 1 through 6. Click on the images to display them on enlarged screens (*).


* Examples of enlarged images
6.8 Global Gas Flux Maps (View Format) Screen

(1) Moving to the [Global Gas Flux Maps (View Format) (L4A)] screen
Click on [Global Gas Flux Maps (View Format) (L4A)] on the [Gallery] screen (see section 6.1) to move to the [Global Gas Flux Maps (View Format) (L4A)] screen (new screen).
(2) [Global Gas Flux Maps (View Format) (L4A)] screen
Select the required values from the [Gas], [Version], [Time Step], [Horizontal Distribution] and [Central Longitude] pull-down menus ((1) to (5) below) to display a list of global gas flux maps created in accordance with the selected conditions. Click on each individual image ((6) below) to display them on an enlarged [Global Gas Flux Map] screen (new screen).

(1) [Gas] Pull-down Menu : Pull-down menu for selecting the [Gas].
(2) [Version] Pull-down Menu : Pull-down menu for selecting the [Version].
(3) [Time step] Pull-down Menu : Pull-down menu for selecting the [Time Step]. (Fixed at [monthly])
(4) [Horizontal distribution] Pull-down Menu : Pull-down menu for selecting the [Horizontal Distribution]. (Fixed at [region])
(5) [Central longitude] : Pull-down menu for selecting the [Central
Pull-down Menu

(6) List of Images : Displays the images selected with conditions (1) through (5). Click on the images to display them on enlarged screens (*).

(7) [Close] Link : The link for closing the [Global Gas Flux Maps (View Format) (L4A)] screen.

* Examples of enlarged images

![Example Images]
6.9 Gas Flux Time Series Screen

(1) Moving to the [Gas Flux Time Series (L4A)] screen
Click on [Gas Flux Time Series (L4A)] on the [Gallery] screen (see section 6.1) to move to the [Gas Flux Time Series (L4A)] screen (new screen).
(2) [Gas Flux Time Series (L4A)] screen
Select the required values from the [Gas], [Version], [Area] and [Region] pull-down menus ((1) to (4) below) to display a gas flux time series plot created in accordance with the selected conditions ((5) below).

(1) [Gas] Pull-down Menu : Pull-down menu for selecting the [Gas].
(2) [Version] Pull-down Menu : Pull-down menu for selecting the [Version].
(3) [Area] Pull-down Menu : Pull-down menu for selecting the [Area]. (Fixed at [region]).
(4) [Region] Pull-down Menu : The pull-down menu for selecting the [Region].
(5) Main Screen : Displays the images selected with conditions (1) through (4).
(6) [Close] Link : The link for closing the [Gas Flux Time Series (L4A)] screen.

Information: Consists of 64 carbon dioxide regions and 43 methane gas regions.
6.10 Global Gas Concentration Maps Screen

(1) Moving to the [Global Gas Concentration Maps (L4B)] screen
Click on [Global Gas Concentration Maps (L4B)] on the [Gallery] screen (see section 6.1) to move to the [Global Gas Concentration Maps (L4B)] screen (new screen).

![Image of the Gallery screen with the Global Gas Concentration Maps (L4B) selected]
(2) [Global Gas Concentration Maps (L4B)] screen

Select the required values from the [Gas], [Version], [Time Step], [Date-time], [Central Longitude] and [Vertical level] pull-down menus ((1) to (6) below) to display a global gas concentration map created in accordance with the selected conditions. Click on [Backward] ((8) below) or [Forward] ((9) below) to display the previous or subsequent image. Click on an image to display it on an enlarged [Global Gas Concentration Map] screen (new screen).

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>[Gas] Pull-down Menu</td>
<td>: Pull-down menu for selecting the [Gas].</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2)</td>
<td>[Version] Pull-down Menu</td>
<td>: Pull-down menu for selecting the [Version].</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3)</td>
<td>[Time step] Pull-down Menu</td>
<td>: Pull-down menu for selecting the [Time Step].</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4)</td>
<td>[Date-time] Pull-down Menu</td>
<td>: Pull-down menu for selecting the [Date-time].</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(5)</td>
<td>[Central longitude] Pull-down Menu</td>
<td>: Pull-down menu for selecting the [Central longitude].</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(6)</td>
<td>[Vertical level] Pull-down Menu</td>
<td>: Pull-down menu for selecting the [Vertical level].</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(7)</td>
<td>Main Screen</td>
<td>: Displays the images selected with conditions (1) through (6). Click on the images to display them</td>
<td></td>
<td></td>
<td></td>
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<tr>
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<td></td>
</tr>
<tr>
<td><strong>on enlarged screens (※).</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>(8) [Backward] Button</strong></td>
<td>Button for displaying the previous month’s image.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>(9) [Forward] Button</strong></td>
<td>Button for displaying the subsequent month’s image.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>(10) [Start] Button</strong></td>
<td>Button for starting automatic playback of the image.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>(11) [Stop] Button</strong></td>
<td>Button for halting automatic playback of the image.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>(12) [Close] Link</strong></td>
<td>The link for closing the [Global Gas Concentration Maps (L4B)] screen.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Information:** Consists of three types of time step (6-hours/Daily Average/Monthly Average).

* Example of an enlarged image
6.11 Global Gas Concentration Maps (View Format) Screen

(1) Moving to the [Global Gas Concentration Maps (View Format) (L4B)] Screen
Click on [Global Gas Concentration Maps (View Format) (L4B)] on the [Gallery] screen (see section 6.1) to move to the [Global Gas Concentration Maps (View Format) (L4B)] screen (new screen).
(2) [Global Gas Concentration Maps (View Format) (L4B)] Screen
Select the required values from the [Gas], [Version], [Time Step], [Vertical Level] and [Central Longitude] pull-down menus ((1) to (5) below) to display a list of global gas concentration maps created in accordance with the selected conditions. Click on each individual image ((6) below) to display them on an enlarged [Global Gas Concentration Map] screen (new screen).

(1) [Gas] Pull-down Menu : Pull-down menu for selecting the [Gas].
(2) [Version] Pull-down Menu : Pull-down menu for selecting the [Version].
(3) [Time step] Pull-down Menu : Pull-down menu for selecting the [Time Step].
(4) [Vertical level] Pull-down Menu : Pull-down menu for selecting the [Vertical level].
(5) [Central longitude] Pull-down Menu : Pull-down menu for selecting the [Central longitude].

(6) Images

(7) Close
### List of Images

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(6)</strong> List of Images</td>
<td>Displays the images selected with conditions (1) through (5). Click on the images to display them on enlarged screens (*).</td>
</tr>
<tr>
<td><strong>(7)</strong> [Close] Link</td>
<td>The link for closing the [Global Gas Concentration Maps (View Format) (L4B)] screen.</td>
</tr>
</tbody>
</table>

**Information:** Consists of three types of time step (6-hours/Daily Average/Monthly Average).

* Example of an enlarged image

![GOSAT L4B V02.03 CO₂ (2012/10) Column Average](image-url)
6.12 Gas Concentration Time Series Screen

(1) Moving to the [Gas Concentration Time Series (L4B)] screen
Click on [Gas Concentration Time Series (L4B)] on the [Gallery] screen (see section 6.1) to move to the [Gas Concentration Time Series (L4B)] screen (new screen).
(2) [Gas Concentration Time Series (L4B)] screen
Select the required values from the [Gas], [Version], [Area], [Latitude (N)], [Longitude (E)], and [Vertical level] pull-down menus ((1) to (6) below) to display a gas concentration time series plot created in accordance with the selected conditions ((7) below).

![Gas Concentration Time Series](image)

| (1) | [Gas] Pull-down Menu | Pull-down menu for selecting the [Gas]. |
| (2) | [Version] Pull-down Menu | Pull-down menu for selecting the [Version]. |
| (3) | [Area] Pull-down Menu | Pull-down menu for selecting the [Area]. |
| (4) | [Latitude] Pull-down Menu | Pull-down menu for selecting the [Latitude (N)] (per 2.5 degrees). |
| (5) | [Longitude] Pull-down Menu | Pull-down menu for selecting the [Longitude (E)] (per 2.5 degrees). |
| (6) | [Vertical level] Pull-down Menu | Pull-down menu for selecting the [Vertical level]. |
| (7) | Main Screen | Displays the images selected with conditions (1) |
through (6).

(8) [Close] Link  : The link for closing the [Gas Concentration Time Series (L4B)] screen.

**Information**: Consist of two locations (lattice point/global average). The [North Latitude] and [East Latitude] cannot be selected if global average has been selected.
6.13 Global Gas Concentration Animations Screen

(1) Moving to the [Global Gas Concentration Animations (L4B)] screen
Click on [Global Gas Concentration Animations (L4B)] on the [Gallery] screen (see section 6.1) to move to the [Global Gas Concentration Animations (L4B)] screen (new screen).

(2) [Global Gas Concentration Animations (L4B)] screen
Select the value for [Gas], [Version], [Year], [Time Step], [Projection], [Center Location], and [Vertical level] ((1) to (7) below) from the pull-down menu and then click on [View] to display the global gas concentration animation created in accordance with the selected conditions ((8) below).
(1) [Gas] Pull-down Menu : Pull-down menu for selecting the [Gas].
(2) [Version] Pull-down Menu : Pull-down menu for selecting the [Version].
(3) [Year] Pull-down Menu : Pull-down menu for selecting the [Year].
(4) [Time step] Pull-down Menu : Pull-down menu for selecting the [Time Step].
(5) [Projection] Pull-down Menu : Pull-down menu for selecting the [Projection].
(6) [Center Location] Pull-down Menu : Pull-down menu for selecting the [Center Location].
(7) [Vertical level] Pull-down Menu : Pull-down menu for selecting the [Vertical level].
(8) [View] Button : Displays the animation selected with conditions (1) through (7).
(9) [Close] Link : The link for closing the [Global Gas Concentration Animations (L4B)] screen.
**Information:** The projection method consists of three types (Mollweide/Equatorial/Polar).

**Equatorial**

**Polar**


**Information:** Consists of two types of time step (6-hours/Daily Average).
6.14 CAI L1B+ Browse Image Screen

(1) Moving to the [CAI L1B+ Browse Image Calendar] screen
Click on [CAI L1B+ Browse Image] on the [Gallery] screen (see section 6.1) to move to the [CAI L1B+ Browse Image Calendar] screen (new screen).
(2) [CAI L1B+ Browse Image Calendar] screen

Select the [Observational Year] ((1) below) from the pull-down menu on the [CAI L1B+ Browse Image Calendar] screen, and then click on the [Date] ((2) below) to display the [CAI L1B+ Browse Image] screen for the selected observational date.

(1) Observational Year : Selects the observation year to be displayed (most recent year displayed as the default).

(2) Date : The link to the [CAI L1B+ Browse Image] screen for each observational date.

(3) [Close] Link : The link for closing the [CAI L1B+ Browse Image Calendar] screen.

Information: The background colors on the calendar are color-coded into three groups of path numbers in alignment with the three-day rotation cycle of GOSAT observations.
(3) [CAI L1B+ Browse Image] screen
Displays a list of the CAI L1B+ browse images in units of observational date paths. Click on the [Detail] button (2) below to move to the Enlarged [CAI L1B+ Browse Image] screen (new screen) if necessary.
(1) **Path**: The path number for displaying a list of thumbnail images. (The first path number for the observational date will be displayed as the default.)

(2) **[Detail] Button**: Displays the relevant frame on an enlarged screen.

(3) **[Back to ‘Select Calendar’] Link**: Link for returning to the [CAI L1B+ Browse Image] screen.

(4) **CAI Observation Range**: A chart indicating the maximum CAI observational range for the path displayed.

(5) **[Close] Link**: The link for closing the [CAI L1B+ Browse Image] screen.

(4) **Enlarged [CAI L1B+ Browse Image] screen**

Displays the CAI L1B+ browse image as an enlarged image.
6.15 Images of the Earth Captured by “IBUKI” Screen

(1) Moving to the [Images of the Earth Captured by “IBUKI”] screen
Click on [Images of the Earth captured by "IBUKI"] on the [Gallery] screen (see section 6.1) to move to the [Images of the Earth Captured by “IBUKI”] screen (new screen).

(2) [Images of the Earth Captured by “IBUKI”] screen
Displays the most recent images of the earth captured by the “IBUKI” as thumbnail images (1) below. Click on [Images of the Earth captured in YYYY] (YYYY represents the year) (2) below to move to the [Images of the Earth captured in YYYY] screen (new screen).
(1) Images of the Earth Captured by “IBUKI” : Displays the most recent 10 images of the earth captured by the “IBUKI.” Click on the image to move the enlarged image (*).

(2) Images of the Earth captured in YYYY Link : The link to the [Images of the Earth captured in YYYY] screen (YYYY represents the year).

(3) [Close] Link : The link for closing the [Images of the Earth Captured by “IBUKI”] screen.
* Examples of enlarged images

(3) Images of the Earth Captured by “IBUKI” Screen for the relevant observational year
Click on the observational year to display a list of [Images of the Earth Captured by “IBUKI”] thumbnail images. Click on each individual image ((1) below) to display them on an enlarged screen.
(1) “IBUKI” Image : Displays images of the earth captured by “IBUKI” for the relevant observational year. Click on the image to move the enlarged image.

(2) [Close] Link : The link for closing the [Images of the Earth captured in YYYY] screen.
6.16 Global NDVI Map Screen

(1) Moving to the [Global NDVI Map] screen
Click on [Global NDVI Map] on the [Gallery] screen (see section 6.1) to move to the [Global NDVI Map] screen (new screen).

(2) [Global NDVI Map] screen
Displays a list of thumbnail images for global NDVI maps ((1) below). Click on each individual image ((2) below) to display them on an enlarged [Global NDVI Map] screen (new screen).
(1) List of Global NDVI Maps : Displays a list of global NDVI maps.
(2) Thumbnail Images : Link to the enlarged [Global NDVI Map] screen for the relevant year/month.
(3) [Close] Link : The link for closing the [Global NDVI Map] screen.
(4) [<<] Button : Button for scrolling to previous year's list.
(5) [>>] Button : Button for scrolling to subsequent year's list.
(3) Enlarged [Global NDVI Map] screen
Displays an enlarged image of the Global NDVI Map. Click on [Backward] ((2) below) or [Forward] ((3) below) to display the previous or subsequent image.

(1) [LastYear] Button : Button for displaying the previous year's image.
(2) [Backward] Button : Button for displaying the previous month's image.
(3) [Forward] Button : Button for displaying the subsequent month's image.
(4) [NextYear] Button : Button for displaying the subsequent year's image.
(5) [Close] Link : The link for closing the Enlarged [Global NDVI Map] screen.
6.17 Browse Images of the Global Radiance Distribution Screen

(1) Moving to the [Browse images of the global radiance distribution] screen
Click on [Browse images of the global radiance distribution] on the [Gallery] screen (see section 6.1) to move to the [Browse images of the global radiance distribution] screen (new screen).
(2) [Browse images of the global radiance distribution] screen
Select the [Observational Year] (1) below from the pull-down menu on the [Global Radiance Browse Image] screen, and then click on the [Date] (2) below to display the [Global Radiance Browse Image Display] screen for the selected observational date.

(1) Observational year : Selects the observation year to be displayed (most recent year displayed as the default).

(2) Date : The link to the [Global Radiance Browse Image Display] screen for each observational date.

(3) [Close] Link : The link for closing the [Browse images of the global radiance distribution] screen.
(3) [Global Radiance Browse Image Display] screen
Displays the global radiance browse image on an enlarged screen. Click on [Backward] ((1) below) or [Forward] ((2) below) to display the previous or subsequent image.

Information: The background colors on the calendar are color-coded into three groups of path numbers in alignment with the three-day rotation cycle of GOSAT observations.

(1) [Backward] Link : Link for displaying the previous month's image.
(2) [Forward] Link  : Link for displaying the subsequent month's image.
(3) [Close] Link   : The link for closing the [Global Radiance Browse Image Display] screen.
7 User Registration Procedure

It is necessary to register a user account in order to download GOSAT products. This section explains the procedure for registering user accounts.

7.1 User Registration Types

There are two types of user registration: registrations for general user accounts and authorized user accounts.

The term “authorized user” as used herein is defined as researchers publicly recruited to carry out GOSAT research, and users who belong to research bodies, scientific teams and collaborative institutes. The term “general user” as used herein is defined as general data users, with the exception of authorized users and those using the system within NIES. See [13.1 User Categories] for details on user categories. Also, users who are registered with GUIG accounts do not need to register for a user account.

7.2 Procedure Through to the Completion of Registering General User Accounts

This section explains the procedure for registering general user accounts.

(1) Moving to the [User Registration] screen

Click on [User Registration] on the GDAS top screen (see section 4.1) to move to the [User Registration] screen (new screen).
(2) [User Registration] screen
Displays the method of registering general user accounts. Click on the [Go term of service] button for general users ((1) below) to move to the [Terms of Service] screen for general users.

(1) [Go term of service] Button : The button for moving to the [Terms of Service] screen for general users.
(2) [Close] Button : The button for closing the [User Registration] screen.
(3) [Terms of Service] screen for general users
Displays the [Terms of Service] screen for general users ((1) below). Click on [Privacy policy] ((4) below) to move to the [Privacy Policy] screen to check the ways in which the GOSAT project handles personal information (proceed to procedure (4)).
Then click on the [Agree] button ((2) below) to move to the [General User Registration] screen (proceed to procedure (6)).

(1) Terms of Service : Displays the GDAS Terms of Service.
(2) [Agree] Button : The button indicating agreement with the GDAS Terms of Service.
(3) [Disagree] Button : The button indicating disagreement with the GDAS Terms of Service.
(4) [Privacy Policy] Link : Link to the [Privacy Policy] screen.
(4) [Privacy Policy] screen
Displays the ways in which the GOSAT project handles personal information ((1) below). Click on [Privacy Policy of National Institute for Environmental Studies] ((3) below) to move to the [Privacy Policy of National Institute for Environmental Studies] screen (new screen) (proceed to procedure (5)).

(1) Privacy Policy : Displays the ways in which the GOSAT project handles personal information.

(2) [Close] Link : Having checked the way in which the GOSAT project handles personal information, click on this button to close the screen.

(3) [Privacy policy of National Institute for Environmental Studies] Link : Link to the [Privacy Policy of National Institute for Environmental Studies] screen.
(5) [Privacy Policy of National Institute for Environmental Studies] screen
Displays the ways in which the National Institute for Environmental Studies handles personal information. Click on the web browser’s [Close] button to close the screen after viewing.

Button for Closing the Web Browser: Having checked the way in which the National Institute for Environmental Studies handles personal information, click on this button to close the screen.
(6) [General User Registration] screen
The screen for entering the registration information in the user information form for new
general users. Click on the [Register] button ((2) below) after filling in the form to move
to the [New General User Registration Confirmation] screen.

(1) User Information Form: Form for the entry of all information required
for the registration of general users.
(2) [Register] Button: The button for registering the user information.
(3) [Back to “User Registration”] Button: The button for returning to the [User
Registration] screen.
(4) Error Message: The area for displaying details of errors in the
information entered.

Important: All fields must be entered when newly registering a general
user.
(7) [New General User Registration Confirmation] screen
Displays the details entered in the user information form for new general users. Check the information, and then click on the [Register] button ((2) below) to move to the [General User Registration Complete] screen.

(1) Your Subscription : Displays the user registration details.
(2) [Register] Button : The button for registering the user account.
(3) [Back] Button : The button for returning to the [User Registration] screen.

**Information**: If an error is discovered in the information entered, return to the [User Registration] screen by pressing the [Back] button shown in (3) above and correct the details.
(8) [General User Registration Complete] screen
Indicates that the general user registration procedure has been completed and that an e-mail notifying the applicant of a temporary password will be sent.

(1) Completion of Registration: Indicates that the user registration procedure has been completed.

(2) [Close] Button: The button for closing the [General User Registration Complete] screen.

**Important**: The following e-mail containing a temporary password will be sent after user registration has been completed.

```
Thank you for your registration as a general user to the GOSAT Data Archive Service (GDAS).

Shown below are your user ID and a temporary password to access GDAS.

Through the link listed, please change your password within the next seven days.

Please note that the password below is temporary and will expire if your initial entry to GDAS was not made during the seven-day period.

Login Page : 
User ID : 
Temporal Password :

This e-mail was generated automatically. Please do not reply to this address.

Should you have any questions or require further assistance in using GDAS, please e-mail us at

GOSAT Support
```

Having received the temporary password, access the [Initial Password Change] screen to change the password (proceed to procedure (9)).
(9) [Login] screen
Enter the user ID and the temporary password written in the e-mail on the [User Authentication] form (1) below. Click on the [Login] button after entering the details to move to the [Initial Password Change] screen.

(1) User Authentication Form: The form for entering the user ID and the temporary password of registered account users.

(2) [Login] Button: The button for logging in.

Information: If the wrong ID or password is entered, the error will be displayed in red.
(10) [Initial Password Change] screen

Enter a new password in the password registration form. Click on the [Update] button after filling in the form to move to the screen in 9.1 Downloading Products with the Use of the Website.

---

Important: The password needs to include more than two kinds of characters written below.

(1) Capital letter (A to Z)
(2) Lower case letter (a to z)
(3) Numeral (0 to 9)
(4) Special character (,!"#$%&'()*+,-./:;<=>?@[\]^_`{|}~)

*Space is not allowed.
7.3 Procedure Through to Applying for Authorized User Applications
This section explains the procedure for applying for authorized user accounts.

(1) Moving to the [User Registration] screen
Click on [User Registration] on the GDAS top screen (see section 4.1) to move to the [User Registration] screen (new screen).

(2) [User Registration] screen
Displays the method of registering authorized user accounts. Click on the [Go term of service] button (2) below) for authorized users to move to the [Terms of Service] screen for authorized users.

(1) [Go term of service] : The button for moving to the [Terms of Service] screen for authorized users.
(2) [Close] Button : The button for closing the [User Registration] screen.
(3) [Terms of Service] screen for authorized users
Displays the [Terms of Service] screen for authorized users ((1) below). Click on [Privacy policy] ((4) below) to move to the [Privacy Policy] screen to check the ways in which the GOSAT project handles personal information (proceed to procedure (4)). Then click on the [Agree] button ((2) below) to move to the [Authorized User Application] screen (proceed to procedure (6)).

(1) Terms of Service : Displays the GDAS Terms of Service.
(2) [Agree] Button : The button for moving to the [Authorized User Application] screen.
(3) [Disagree] Button : The button indicating disagreement with the GDAS Terms of Service.
(4) [Privacy Policy] Link : Link to the [Privacy Policy] screen.
(4) [Privacy Policy] screen
Displays the ways in which the GOSAT project handles personal information (1) below. Click on [Privacy Policy of National Institute for Environmental Studies] (3) below to move to the [Privacy Policy of National Institute for Environmental Studies] screen (new screen) (proceed to procedure (5)).

(1) Privacy Policy : Displays the ways in which the GOSAT project handles personal information.

(2) [Close] Link : Having checked the way in which the GOSAT project handles personal information, click on this button to close the screen.

(3) [Privacy policy of National Institute for Environmental Studies] Link : Link to the [Privacy Policy of National Institute for Environmental Studies] screen.
(5) [Privacy Policy of National Institute for Environmental Studies] screen
Displays the ways in which the National Institute for Environmental Studies handles personal information. Click on the web browser’s [Close] button to close the screen after viewing.

Button for Closing the Web Browser: Having checked the way in which the National Institute for Environmental Studies handles personal information, click on this button to close the screen.
(6) [Authorized User Application] screen
Displays the method of applying as an authorized user. Click on [Download Authorized User Application Form] (2) below to download the authorized user application form.

(1) Explanation of the Application Method: Explains the method of application.
(2) [Download Authorized User Application Form] Button: The button for downloading the [Authorized User Application Form].
(3) [Back to “User Registration”] Button: The button for returning to the [User Registration] screen.

Fill in all required details in the downloaded [Authorized User Application Form], and then send the application form to [gosat-apply@nies.go.jp] by e-mail.

Eligibility for becoming a GOSAT project authorized user will be checked, and you will be notified of the result.
8 Procedures for Login and Logout

This section explains the procedure for logging into the GDAS website for registered users, the procedure for logging out of the GDAS website for registered users, and the procedure for resetting the GDAS login password.

8.1 Login

This section explains the procedure for logging into the GDAS website for registered users.

(1) Moving to the [Login] Screen
Click on [Login] on the GDAS top screen menu (see section 4.1) to move to the [Login] screen (new screen).
(2) [Login] screen

Enter the login details on the [User Authentication] form ((1) below). Click on the [Login] button after entering the details to move to the [Download] screen.

(1) User Authentication Form:
The form for entering the user ID and password of registered account users.

(2) [Login] Button:
The button for logging in.

(3) [here] Link:
The link to the [Reset Password] screen.

(4) [Close] Button:
The button for closing the [Login] screen.

Information: If the wrong ID or password is entered, the error will be displayed in red.
(3) [Download] Screen
A list of downloadable products will be displayed for users who have logged in ((4) below). Click on any of the products to move to the download screen (see section 9.1 for further details).

(1) [Documents & Information] Link: Link to the [Document and Information] screen on which a list of documents and technical information, etc., will be displayed in alignment with the category of the logged-in user.

(2) [User Information] Link: Link to the [User Information] screen on which information for logged-in users can be changed.

(3) [Logout] Link: Link to a pop-up screen from which it is possible to logout.

(4) Main Screen: Displays a list of downloadable products in alignment with the category of the logged-in user.
**Important:** The downloadable products will differ in alignment with the category of the logged-in user. See [13.2 Product Provision Formats] for further details.

**Information:** The Unit field displays the unit in which products are provided.
8.2 Logout
This section explains the procedure for logging out of the GDAS website for registered users.

(1) [Logout] Operations
Click on [Logout] on the [Download] screen menu (see section 8.1 (3)) to display a popup screen.

Click on the [OK] button (1) below to log out (the screen will move to the [Logout] screen once the button has been clicked).

(1) [OK] Button : The button for logging out.
(2) [Cancel] Button : The button for cancelling logout.
(2) [Logout] screen
The following screen will be displayed after logging out.

(1) [Go to login page] Link : The link for moving to the [Login] screen.
(2) [Close] Link : The link for closing the [Logout] screen.
8.3 Procedure for Resetting Passwords
This section explains the procedure for resetting the GDAS login password when the original password has been forgotten, etc.

(1) Moving to the [Reset Password] Screen
Click on [here] on the [Login] screen (see section 8.1 (2)) to move to the [Reset Password] screen.
(2) [Reset Password] screen
Enter your e-mail address in the entry form ((1) below) to reset your password. Click on the [Confirm] button ((2) below) after entering the details to move to the [Password Reset Application] screen.

(1) E-mail address : The field for entering the e-mail address for which the password is to be reset.
(2) [Confirm] Button : The button for moving to the [Password Reset Application] screen.
(3) [Back] Button : The button for returning to the [Login] screen.
(3) [Password Reset Application] screen
Displays the e-mail address entered. Check that it is correct and then click on the [Apply] button ((2) below) to move to the [Password Reset Application Received] screen.

(1) Registration Details : Displays the e-mail address.
(2) [Apply] Button : The button for applying for the password to be reset.
(3) [Back] Button : The button for returning to the [Reset Password] Screen.

Information: If an error is discovered in the e-mail address, return to the [Reset Password] entry screen by pressing the [Back] button shown in (3) above and correct the error.
(4) [Password Reset Application Received] screen
Displays the fact that the application for the password to be reset has been received and that a password reset confirmation e-mail will be sent.

(1) Application Received Message: Displays a message indicating that the application for the password to be reset has been received.
(2) [Close] Button: The button for closing to the [Password Reset Application Received] screen.

Important: A confirmation message will be sent to the entered e-mail address when the application for password reset has been received.

(5) Password Reset Confirmation E-mail
Click on the URL listed in the confirmation message. The following [Password Reset Completed] screen will be displayed.
(6) [Password Reset Completed] screen

A message indicating that the password reset procedure has been completed and that the reset password has been sent to the listed e-mail address will be displayed.
(1) [Close] Button  : The button for closing the [Password Reset Completed] screen.

**Important**: An e-mail listing the reset password will be sent. Access the [Change Password] screen and change the password to the one listed in the e-mail.
9 Procedure for Downloading Products

There are two methods available for downloading GOSAT products, as shown below. Both of these methods are explained in this section.

- Downloading products with the use of the website
- Downloading products with the WGET command

9.1 Downloading Products with the Use of the Website

This section explains the procedure for downloading GOSAT products with the use of the website in the units in which they are provided.

9.1.1 Downloading Products Archived in Path Units

This section explains the procedure for downloading products archived in path units. The procedure for downloading the L2 cloud flag product is used here for explanatory purposes. (Other products archived in path units can be downloaded in the same way.)

(1) Moving to the [Download] Screen

Move to the [Download] screen by logging into the system, as explained in section 8.1. If you are already logged in, click [Download] on the menu to move to the [Download] screen.
(2) [Download] Screen
Displays a list of products that the logged-in user is able to download. Click on the path unit product (L2 cloud flag used here as an example) to move to the [Product Download (Path Unit)] screen.

(1) List of Products
Displays a list of products that the user can download.

**Important:** The downloadable products will differ in alignment with the category of the logged-in user. See [13.2 Product Provision Formats] for further details.

**Information:** The Unit field displays the unit in which products are provided.
(3) [Product Download (Path Unit)] Screen
Displays details of the selected products (file unit, product format, version) ((1) below), a calendar listing the dates of observation ((2) below), and WGET list information ((5) below). Then click on any of the versions displayed in the observation date calendar ((3) below) to move across to the [Product Download Details (Path Unit)] screen.
Information: The background colors on the calendar are color-coded into three groups of path numbers in alignment with the three-day rotation cycle of GOSAT observations.
Information: Displaying products with multiple versions as a different version
[New Version] ((1) below) is shown on the initial screen.
Click on the [Different Version] ((2) below) that needs to be displayed to display that version ((3) below).

[Initial Screen]

**Version:**
Please select the 'Version number' which you would like to download.

- V02.00 (Dec. 01, 2016 - Mar. 08, 2020)
- V01.00 (Apr. 02, 2009 - Nov. 30, 2016)

**Download (for Each Path, V02.00):**

**Download via WGET (for Each Month, V02.00):**

**After clicking on [Different Version]**

**Version:**
Please select the 'Version number' which you would like to download.

- V02.00 (Dec. 01, 2016 - Mar. 08, 2020)
- V01.00 (Apr. 02, 2009 - Nov. 30, 2016) ((3) below)

**Download (for Each Path, V01.00):**

**Download via WGET (for Each Month, V01.00):**
Information: Using the Calendar
There are several methods available for updating the observation dates displayed on the calendar.

1. [Go]: Moves to the year/month entered.
2. [<< Year]: Moves to one year before the month displayed
3. [< Month]: Moves to one month before the month displayed
4. [Month >]: Moves to one month after the month displayed
5. [Year >>]: Moves to one year after the month displayed

Note: The user is notified with pop-up screens if there is no observation data available for the year/month specified.

1. When a period after dates of availability is selected
2. When a period prior to dates of availability is selected
(4) [Product Download Details (Path Units)] Screen
Displays details of the selected products (file unit, product format, version) ((1) below), a list of observation date paths ((2) below), and WGET list information ((5) below). Then click on any of the path No. links ((3) below) to download the products.
(1) Product Information : Displays information on the selected product.
(2) Path List : Displays a list of the observation date paths selected.
(3) [Path No.] Link : The link to the files archived in path units.
(4) List of Products : The link to the [Product Download] screen from which users can download products.
(5) [WGET list] Link : The link to the WGET list file (one day’s worth).
(6) [Back to select date] Link : The link for returning to the [Product Download (Path Unit)] screen.

**Important:** Use a file compression tool to extract and decompress downloaded products.

**Information:** An example of downloading a product file archived in path units (Firefox) is shown below.
Information: Displaying products with multiple versions as a different version

[New Version] ((1) below) is shown on the initial screen. Click on the [Different Version] ((2) below) that needs to be displayed to display that version ((3) below).

[Initial Screen]

[New Version] (1)

Different Version (3)

Download via WGET (for Each Month, V201.202)
**Information:** The list of observation date paths can be amended as shown below:

1. 「Go」: Moves to the date entered.

**Note:** The user is notified with pop-up screens if there is no observation data available for the date specified.

- (1) When a period after dates of availability is selected
- (2) When a period prior to dates of availability is selected
9.1.2 Downloading Products Archived in Daily Units
This section explains the procedure for downloading products archived in daily units. The procedure for downloading the FTS L1B data product is used here for explanatory purposes. (Other products archived in daily units can be downloaded in the same way.)

(1) Moving to the [Download] Screen
Move to the [Download] screen by logging into the system, as explained in section 8.1. If you are already logged in, click [Download] on the menu to move to the [Download] screen.
(2) [Download] Screen
Displays a list of products that the logged-in user is able to download. Click on the daily unit product (FTS L1B data used here as an example) to move to the [Product Download (Daily Unit)] screen.

(1) List of Products
---
Displays a list of products that the user can download.

**Important**: The downloadable products will differ in alignment with the category of the logged-in user. See [13.2 Product Provision Formats] for further details.

**Information**: The Unit field displays the unit in which products are provided.
(3) [Product Download (Daily Unit)] Screen
Displays details of the selected products (file unit, product format, version) ((1) below), a calendar listing the dates of observation ((2) below), and WGET list information ((5) below). Then click on any of the versions displayed in the observation date calendar ((3) below) to download products.
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td><strong>Product Information</strong></td>
</tr>
<tr>
<td>(2)</td>
<td><strong>Observation Date</strong></td>
</tr>
<tr>
<td>(3)</td>
<td><strong>[Version No.] Link</strong></td>
</tr>
<tr>
<td>(4)</td>
<td><strong>List of Products</strong></td>
</tr>
<tr>
<td>(5)</td>
<td><strong>[WGET list] Link</strong></td>
</tr>
<tr>
<td>(6)</td>
<td><strong>[Back to select Product]</strong></td>
</tr>
</tbody>
</table>

---

### Download via WGET (for Each Month):

You can download multiple files at a time using the following WGET list.

**WGET list**

Command line: `wget -l [PATH_TO_FILE_LIST] --user=[userid] --password=[password]`

Note: WGET list will be expired one week after its issue. After the expiration date successful download is not guaranteed. If an error occurs after the expiration date, please obtain a new wget list.

Note: Please use wget version 1.8.1 or later.

---

### Download via WGET (for Each Month, V210.210):

You can download multiple files at a time using the following WGET list.

**WGET list (V210.210) (List of one-day data archived with tar command)**

**WGET list (V210.210) (List of one-path data archived with tar command)**
Important: Use a file compression tool to extract and decompress downloaded products.
Important: For FTS L1B data product, the following dialog box will be displayed when (3) [Version No.] Link is clicked. Select a radio button, All (one-day data) or the other (one-path data), and click [Download] button then downloading will be started.

Select a path or All daily paths: Mar. 11, 2019
(About 7 GiB/file for daily data)
(About 450 MiB/file for path data)

The specified path data may not be downloadable for reasons such as data-missing and/or across-date path.

The specified path data may not be downloadable for reasons such as data-missing and/or across-date path.
**Information:** Displaying products with multiple versions as a different version

[New Version] (1) is shown on the initial screen. Click on the [Different Version] (2) that needs to be displayed to display that version (3).

**Initial Screen**

**Version:**
Please select the 'Version number' which you would like to download.

- **V02.00 (Dec. 01, 2016 - Mar. 08, 2016)** (1) — New Version
- **V01.00 (Apr. 02, 2009 - Nov. 30, 2016)** (2)

**Download (for Each Path, V02.00):**

**Download via WGET (for Each Month, V02.00):**

**After clicking on [Different Version]**

**Version:**
Please select the 'Version number' which you would like to download.

- **V02.00 (Dec. 01, 2016 - Mar. 08, 2020)** — Different Version
- **V01.00 (Apr. 02, 2009 - Nov. 30, 2016)** (3)

**Download (for Each Path, V01.00):**

**Download via WGET (for Each Month, V01.00):**
**Information**: The background colors on the calendar are color-coded into three groups of path numbers in alignment with the three-day rotation cycle of GOSAT observations.

**Information**: An example of downloading a product file archived in daily units (Firefox) is shown below.

![Example of downloading a product file](image)

**Information**: Using the Calendar
There are several methods available for updating the observation dates displayed on the calendar.
(1) [Go] : Moves to the year/month entered.
(2) [<< Year] : Moves to one year before the month displayed
(3) [< Month] : Moves to one month before the month displayed
(4) [Month >] : Moves to one month after the month displayed
(5) [Year >>] : Moves to one year after the month displayed
**Note:** The user is notified with pop-up screens if there is no observation data available for the year/month specified.

(1) When a period after dates of availability is selected  
(2) When a period prior to dates of availability is selected
9.1.3 Downloading Products Archived in Monthly Units
This section explains the procedure for downloading products archived in monthly units. The procedure for downloading the L2 CO2 column amount (SWIR) product is used here for explanatory purposes (Other products archived in monthly units can be downloaded in the same way).

(1) Moving to the [Download] Screen
Move to the [Download] screen by logging into the system, as explained in section 8.1. If you are already logged in, click [Download] on the menu to move to the [Download] screen.
(2) [Download] Screen
Displays a list of products that the logged-in user is able to download. Click on the monthly unit product (L2 CO2 column amount (SWIR) used here as an example) to move to the [Product Download (Monthly Unit)] screen.

(1) List of Products : Displays a list of products that the user can download.

**Important**: The downloadable products will differ in alignment with the category of the logged-in user. See [13.2 Product Provision Formats] for further details.

**Information**: The Unit field displays the unit in which products are provided.
(3) [Download Product (Monthly Unit)] Screen
Displays details of the selected products (file unit, product format, version) (1) below, the table of products (2) below, and WGET list information (4) below. Click on the product list [Version] to display a list of products.

---

(1) L2 CO2 column amount (SWIR) Download Page
File unit: Monthly (The one month's data are archived with tar command.)
Product format: HDF
Product unit: Daily

**Version:**
Version relationship between "bias uncorrected" and "bias corrected" products is as follows.

<table>
<thead>
<tr>
<th>Observation period</th>
<th>Input FTS L1B</th>
<th>Bias uncorrected FTS SWIR L2 CO2</th>
<th>Bias corrected FTS SWIR L2 CO2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apr. 23, 2009 - Feb. 29, 2020</td>
<td>V210.210</td>
<td>V02.81</td>
<td>-</td>
</tr>
<tr>
<td>Apr. 23, 2009 - Aug. 31, 2019</td>
<td>V210.210</td>
<td>V02.81</td>
<td>-</td>
</tr>
<tr>
<td>Apr. 23, 2000 - Nov. 24, 2018</td>
<td>V201.202</td>
<td>V02.72</td>
<td>V02.75</td>
</tr>
</tbody>
</table>

Please select the product type "V02.xx (Bias uncorrected)" or "V02.xx (Bias corrected)" which you would like to download.

Note: Product type shown in shade is selected as your download target.

V02.xx (Bias uncorrected) (Apr. 23, 2009 - Feb. 29, 2020)

V02.xx (Bias corrected) (Apr. 23, 2009 - Nov. 24, 2018)

(2) Download (for Each Month, V02.xx (Bias uncorrected)):
Available products depend on the user group. Please click on the following title with the intended user group, and then a list of monthly data is displayed in a calendar style.
Please click on the 'Year', and then a list of monthly data is displayed in a calendar style.

**product (About 15 MiB/file)**

(4) Download via WGET (for All Data, V02.xx (Bias uncorrected)):
You can download multiple files at a time using the following WGET list.

**WGET list (V02.81)**

**WGET list (V02.80)**

**WGET list (V02.72)**

Note: WGET list will be expired one week after its issue. After the expiration date successful downloaded is not guaranteed. If an error occurs after the expiration date, please obtain a new wget file list.
Note: Please use wget version 1.6.1 or later.
(1) **Product Information**
Displays information on the selected product.

(2) **[Product] Link**
Displays a list of files archived in monthly units.

(3) **List of Products**
The link to the [Product Download] screen from which users can download products.

(4) **[WGET list] Link**
The link to the WGET list file (all periods).

(5) **[Back to select Product] Link**
The link for returning to the [Download] screen.

(4) **[Download Product (Monthly Unit)] Screen (Product List Display)**
Click on the product list [Version] ((3) below) to download the product.
(1) **Product Information**: Displays information on the selected product.

(2) **[Product] Link**: Displays a list of files archived in monthly units.

(3) **[Version] Link**: Link to files archived in monthly units.

(4) **List of Products**: The link to the [Product Download] screen from which users can download products.

(5) **[WGET list] Link**: The link to the WGET list file (whole period).

(6) **[Back to select Product] Link**: The link for returning to the [Download] screen.
**Important:** Use a file compression tool to extract and decompress downloaded products.

**Information:** An example of downloading a product file archived in monthly units (Firefox) is shown below.

![Opening SWIRL2CO2_201602_V02.60.tar](image)

You have chosen to open:

- **SWIRL2CO2_201602_V02.60.tar**
  - which is: TAR file (16.6 MB)
  - from: https://data2.gosat.nilg.go.jp

What should Firefox do with this file?

- **Open with 7-Zip GUI (default)**
- **Save File**
- **Do this automatically for files like this from now on.**
**Information:** Displaying products with multiple versions as a different version

[New Version] (1) is shown on the initial screen. Click on the [Different Version] (2) that needs to be displayed to display that version (3).

**[Initial Screen]**

<table>
<thead>
<tr>
<th>Version:</th>
<th>New Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>V02.00 (Dec. 01, 2016 - Mar. 08, 2016)</td>
<td>[1]</td>
</tr>
<tr>
<td>V01.00 (Apr. 02, 2009 - Nov. 30, 2016)</td>
<td>[2]</td>
</tr>
</tbody>
</table>

**Download (for Each Path):**

V02.00:

**Download via WGET (for Each Month):**

V02.00:

**[After clicking on [Different Version]]**

<table>
<thead>
<tr>
<th>Version:</th>
<th>Different Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>V02.00 (Dec. 01, 2016 - Mar. 08, 2020)</td>
<td></td>
</tr>
</tbody>
</table>

| V01.00 (Apr. 02, 2009 - Nov. 30, 2016) | [3]                           |

**Download (for Each Path):**

V01.00:

**Download via WGET (for Each Month):**

V01.00:
9.1.4 Downloading Products Archived in Annual Units
This section explains the procedure for downloading products archived in annual units. The procedure for downloading the L4A global CO2 flux product is used here for explanatory purposes (Other products archived in annual units can be downloaded in the same way.).

(1) Moving to the [Download] Screen
Move to the [Download] screen by logging into the system, as explained in section 8.1. If you are already logged in, click [Download] on the menu to move to the [Download] screen.
(2) [Download] Screen
Displays a list of products that the logged-in user is able to download. Click on the annual unit product (L4A global CO2 flux used here as an example) to move to the [Product Download (Annual Unit)] screen.

(1) List of Products: Displays a list of products that the user can download.

**Important:** The downloadable products will differ in alignment with the category of the logged-in user. See [13.2 Product Provision Formats] for further details.

**Information:** The Unit field displays the unit in which products are provided.
(3) [Download Product (Annual Unit)] Screen
Displays details of the selected products (file unit, product format, version) ((1) below), the table of products ((2) below), and WGET list information ((5) below). Then click on the product's [Observation Year] ((3) below) to download the product.
(1) Product Information : Displays information on the selected product.
(2) [Product] Link : Displays a list of files archived in annual units.
(3) [Observation Year] Link : Link to files archived in annual units.
(4) List of Products : The link to the [Product Download] screen from which users can download products.
(5) [WGET list] Link : The link to the WGET list file (whole period).
(6) [Back to select Product] Link : The link for returning to the [Download] screen.

**Important: Use a file compression tool to extract and decompress downloaded products.**

**Information: An example of downloading a product file archived in annual units (Firefox) is shown below.**
**Information: Switching Between Product Formats**

[netCDF] ((1) below) is displayed on the initial screen. Click on the [Text] ((2) below) link to display the product in the text format.

**[Initial Screen]**

L4A global CO2 flux Download Page

- File unit: Annual (The one year's data are archived with tar command.)
- Product format: NetCDF / Text
- Product unit: Annual

**After [Text] has been clicked**

L4A global CO2 flux Download Page

- File unit: Annual (The one year's data are archived with tar command.)
- Product format: NetCDF / Text
- Product unit: Annual
**Information: Displaying products with multiple versions as a different version**

[New Version] ((1) below) is shown on the initial screen. Click on the [Different Version] ((2) below) that needs to be displayed to display that version ((3) below).

**Initial Screen**

**Version:**
Please select the 'Version number' which you would like to download.

- V02.00 (Dec. 01, 2016 - Mar. 08, 2020)
- V01.00 (Apr. 02, 2009 - Nov. 30, 2016)

**Download (for Each Path):** V02.00

**Download via WGET (for Each Month):** V02.00

**After clicking on [Different Version]**

**Version:**
Please select the 'Version number' which you would like to download.

- V02.00 (Dec. 01, 2016 - Mar. 08, 2020)
- V01.00 (Apr. 02, 2009 - Nov. 30, 2016)

**Download (for Each Path):** V01.00

**Download via WGET (for Each Month):** V01.00
9.2 Downloading Products with the WGET Command
This section explains the procedure for downloading GOSAT products with the use of the WGET command in the units in which they are provided.

9.2.1 Downloading Products Archived in Path Units
This section explains the procedure for downloading products archived in path units with the use of the WGET command. The procedure for downloading the L2 cloud flag product is used here for explanatory purposes. (Other products archived in path units can be downloaded in the same way.)

(1) Moving to the [Download] Screen
Move to the [Download] screen by logging into the system, as explained in section 8.1. If you are already logged in, click [Download] on the menu to move to the [Download] screen.

![Download Screen](image)
(2) [Download] Screen
Displays a list of products that the logged-in user is able to download. Click on the path unit product (L2 cloud flag used here as an example) to move to the [Product Download (Path Unit)] screen.

![GOSAT Data Download Page]

(1) **List of Products**: Displays a list of products that the user can download.

<table>
<thead>
<tr>
<th>Sensor</th>
<th>Level</th>
<th>Product Name</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTS</td>
<td>L1B</td>
<td>FTS L1B data</td>
<td>Daily Path</td>
</tr>
<tr>
<td>FTS</td>
<td>L1B support</td>
<td>FTS FOV image</td>
<td>Daily</td>
</tr>
<tr>
<td>FTS</td>
<td>L2</td>
<td>L2 CO2 column amount (SWIR)</td>
<td>Monthly</td>
</tr>
<tr>
<td>FTS</td>
<td>L2</td>
<td>L2 CH4 column amount (SWIR)</td>
<td>Monthly</td>
</tr>
<tr>
<td>FTS</td>
<td>L2</td>
<td>L2 CH4 profile (TIR)</td>
<td>Monthly</td>
</tr>
<tr>
<td>FTS</td>
<td>L3</td>
<td>L3 CO2 profile (TIR)</td>
<td>Monthly</td>
</tr>
<tr>
<td>FTS</td>
<td>L3</td>
<td>L3 global CO2 distribution (SWIR)</td>
<td>Monthly</td>
</tr>
</tbody>
</table>

(1) **Important**: The downloadable products will differ in alignment with the category of the logged-in user. See [13.2 Product Provision Formats] for further details.

(1) **Information**: The Unit field displays the unit in which products are provided.
(3) [Product Download (Path Unit)] Screen
Displays details of the selected products (file unit, product format, version) (1) below, a calendar listing the dates of observation, and WGET list information (7) below. Click on the link to the WGET list (7) below in order to download the WGET list in monthly units. Change the observation year/month displayed on the calendar to download the WGET list for the subsequent month or year. To download WGET lists in daily units, click on the version name displayed on the observation date calendar (3) below to move to the [Product Download Details (Path Unit)] screen.
(1) Product Information  : Displays information on the selected product.
(2) Observation Date Calendar  : Displays product observation dates in a calendar format.
(3) [Version No.] Link  : The link to the [Product Download Details (Path Unit)] screen.
(4) List of Products  : The link to the [Product Download] screen from which users can download products.
(5) WGET Download Method  : Displays how to download products that use the WGET list file.
(6) [Back to select Product] Link  : The link for returning to the [Download] screen.
(7) [WGET list] Link  : The link to the WGET list file (one month’s worth).

Information: The background colors on the calendar are color-coded into three groups of path numbers in alignment with the three-day rotation cycle of GOSAT observations.
**Information:** Displaying products with multiple versions as a different version

[New Version] ((1) below) is shown on the initial screen. Click on the [Different Version] ((2) below) that needs to be displayed to display that version ((3) below).

**[Initial Screen]**

<table>
<thead>
<tr>
<th>Version:</th>
<th>Please select the 'Version number' which you would like to download.</th>
</tr>
</thead>
<tbody>
<tr>
<td>V02.00 (Dec. 01, 2016 - Mar. 08, 2020)</td>
<td>New Version</td>
</tr>
<tr>
<td>V01.00 (Apr. 02, 2009 - Nov. 30, 2016)</td>
<td>(2)</td>
</tr>
</tbody>
</table>

Download (for Each Path): **V02.00**:  

Download via WGET (for Each Month): **V02.00**:  

**After clicking on [Different Version]**

<table>
<thead>
<tr>
<th>Version:</th>
<th>Please select the 'Version number' which you would like to download.</th>
</tr>
</thead>
<tbody>
<tr>
<td>V02.00 (Dec. 01, 2016 - Mar. 08, 2020)</td>
<td>Different Version</td>
</tr>
<tr>
<td>V01.00 (Apr. 02, 2009 - Nov. 30, 2016)</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Download (for Each Path): **V01.00**:  

Download via WGET (for Each Month): **V01.00**:  

---

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Information: An example of downloading a WGET list file (Firefox) is shown below.

Information: Using the Calendar
There are several methods available for updating the observation dates displayed on the calendar.
(1) [Go] : Moves to the year/month entered.
(2) [<< Year] : Moves to one year before the month displayed
(3) [< Month] : Moves to one month before the month displayed
(4) [Month >] : Moves to one month after the month displayed
(5) [Year >>] : Moves to one year after the month displayed
Note: The user is notified with pop-up screens if there is no observation data available for the year/month specified.

(1) When a period after dates of availability is selected

(2) When a period prior to dates of availability is selected
(4) [Product Download Details (Path Units)] Screen
Displays details of the selected products (file unit, product format, version) ((1) below), a list of observation date paths, and WGET list information ((4) below). Then click on the link to the WGET list ((6) below) in order to download the WGET list.
(1) Product Information : Displays information on the selected product.
(2) Path List : Displays a list of the observation date paths selected.
(3) List of Products : The link to the [Product Download] screen from which users can download products.
(4) WGET Download Method : Displays how to download products that use the WGET list file.
(5) [Back to select date] Link : The link for returning to the [Product Download (Path Unit)] screen.
(6) [WGET list] Link : The link to the WGET list file (one day’s worth).

Information: An example of downloading a WGET list file (Firefox) is shown below.
Information: Displaying products with multiple versions as a different version

[New Version] ((1) below) is shown on the initial screen. Click on the [Different Version] ((2) below) that needs to be displayed to display that version ((3) below).

[Initial Screen]

<table>
<thead>
<tr>
<th>Version:</th>
<th>Download (for Each Path), Download via WGET (for Each Month)</th>
</tr>
</thead>
<tbody>
<tr>
<td>V02.00 (Dec. 01, 2016 - Mar. 08, 2020)</td>
<td>V02.00:</td>
</tr>
<tr>
<td>V01.00 (Apr. 02, 2009 - Nov. 30, 2016)</td>
<td>V01.00:</td>
</tr>
</tbody>
</table>

After clicking on [Different Version]

<table>
<thead>
<tr>
<th>Version:</th>
<th>Download (for Each Path), Download via WGET (for Each Month)</th>
</tr>
</thead>
<tbody>
<tr>
<td>V02.00 (Dec. 01, 2016 - Mar. 08, 2020)</td>
<td>V02.00:</td>
</tr>
<tr>
<td>V01.00 (Apr. 02, 2009 - Nov. 30, 2016)</td>
<td>V01.00:</td>
</tr>
</tbody>
</table>
**Information:** The list of observation date paths can be amended as shown below:

(1) 「Go」: Moves to the year/month entered.

Note: The user is notified with pop-up screens if there is no observation data available for the year/month specified.

(1) When a period after dates of availability is selected

(2) When a period prior to dates of availability is selected

---

(5) Decompressing WGET List Files
Decompress the WGET list file (Zip format) downloaded in procedures (3) and (4).

**Important:** Use a file compression tool to extract and decompress downloaded products.

(6) Executing the WGET Command
Execute the following WGET command to download multiple files in bulk.

```
$wget -i [wget list file decompressed in procedure (5)]
   "http\:user=[email address used to log in]"
   "http\:passwd=[password used to log in]"
```

(7) Decompressing Compressed Files
Decompress the product archive files (tar or tar.gz format) downloaded in procedure (6).
9.2.2 Downloading Products Archived in Daily Units
This section explains the procedure for downloading products archived in daily units. The procedure for downloading the FTS L1B data product is used here for explanatory purposes. (Other products archived in daily units can be downloaded in the same way.)

(1) Moving to the [Download] Screen
Move to the [Download] screen by logging into the system, as explained in section 8.1. If you are already logged in, click [Download] on the menu to move to the [Download] screen.
(2) [Download] Screen
Displays a list of products that the logged-in user is able to download. Click on the daily unit product (FTS L1B data used here as an example) to move to the [Product Download (Daily Unit)] screen.

![GOSAT Data Download Page]

(1) List of Products
Displays a list of products that the user can download.

**Important:** The downloadable products will differ in alignment with the category of the logged-in user. See [13.2 Product Provision Formats] for further details.

**Information:** The Unit field displays the unit in which products are provided.
(3) [Product Download (Daily Unit)] Screen
Displays details of the selected products (file unit, product format, version) ((1) below), a
calendar listing the dates of observation, and WGET list information ((4) below). Then
click on the link to the WGET list ((6) below) in order to download the WGET list. Change
the observation year/month displayed on the calendar to download the WGET list for the
subsequent month or year.
(1) **Product Information**: Displays information on the selected product.

(2) **Observation Date Calendar**: Displays product observation dates in a calendar format.

(3) **List of Products**: The link to the [Product Download] screen from which users can download products.

(4) **WGET Download Method**: Displays how to download products that use the WGET list file.

(5) **[Back to select Product] Link**: The link for returning to the [Download] screen.

(6) **[WGET list] Link**: The link to the WGET list file (one month’s worth).

**Information**: The background colors on the calendar are color-coded into three groups of path numbers in alignment with the three-day rotation cycle of GOSAT observations.
Information: Displaying products with multiple versions as a different version

[New Version] ((1) below) is shown on the initial screen. Click on the [Different Version] ((2) below) that needs to be displayed to display that version ((3) below).

[Initial Screen]

**Version:**
Please select the 'Version number' which you would like to download.

- [V02.00 (Dec. 01, 2016 – Mar. 08, 2016)](1)
- [V01.00 (Apr. 02, 2009 – Nov. 30, 2016)](2)

Download (for Each Path) **V02.00:**

Download via WGET (for Each Month) **V02.00:**

After clicking on [Different Version]

**Version:**
Please select the 'Version number' which you would like to download.

- [V02.00 (Dec. 01, 2016 – Mar. 08, 2020)]
- [V01.00 (Apr. 02, 2009 – Nov. 30, 2016)](3)

Download (for Each Path) **V01.00:**

Download via WGET (for Each Month) **V01.00:**
Information: Using the Calendar

There are several methods available for updating the observation dates displayed on the calendar.

1. [Go]: Moves to the year/month entered.
2. [<< Year]: Moves to one year before the month displayed
3. [< Month]: Moves to one month before the month displayed
4. [Month >]: Moves to one month after the month displayed
5. [Year >>]: Moves to one year after the month displayed

<table>
<thead>
<tr>
<th>&lt;&lt; Year</th>
<th>&lt; Month</th>
<th>2014/02</th>
<th>Go</th>
<th>Month &gt;</th>
<th>Year &gt;&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(YYYY/MM)</td>
</tr>
</tbody>
</table>
Decompressing WGET List Files
Decompress the WGET list file (Zip format) downloaded in procedures (3).

**Important:** Use a file compression tool to extract and decompress downloaded products.

(5) Executing the WGET Command
Execute the following WGET command to download multiple files in bulk.

```
$wget -i [wget list file decompressed in procedure (4)]
   --http-user=[e-mail address used to log in]
   --http-passwd=[password used to log in]
```

(6) Decompressing Compressed Files
Decompress the product archive files (tar or tar.gz format) downloaded in procedure (5).

**Note:** The user is notified with pop-up screens if there is no observation data available for the year/month specified.

(1) When a period after dates of availability is selected
(2) When a period prior to dates of availability is selected
9.2.3 Downloading Products Archived in Monthly Units

This section explains the procedure for downloading products archived in monthly units. The procedure for downloading the L2 CO2 column amount (SWIR) product is used here for explanatory purposes (Other products archived in monthly units can be downloaded in the same way).

(1) Moving to the [Download] Screen

Move to the [Download] screen by logging into the system, as explained in section 8.1. If you are already logged in, click [Download] on the menu to move to the [Download] screen.
(2) [Download] Screen
Displays a list of products that the logged-in user is able to download. Click on the monthly unit product (L2 CO2 column amount (SWIR) used here as an example) to move to the [Product Download (Monthly Unit)] screen.

(1) List of Products : Displays a list of products that the user can download.

**Important**: The downloadable products will differ in alignment with the category of the logged-in user. See [13.2 Product Provision Formats] for further details.

**Information**: The Unit field displays the unit in which products are provided.
(3) [Download Product (Monthly Unit)] Screen
Displays details of the selected products (file unit, product format, version) ((1) below),
the table of products ((2) below), and WGET list information ((4) below). Then click on
the link to the WGET list ((6) below) in order to download the WGET list.
(1) Product Information : Displays information on the selected product.
(2) [Product] Link : Displays a list of files archived in monthly units.
(3) List of Products : The link to the [Product Download] screen from which users can download products.
(4) WGET Download Method : Displays how to download products that use the WGET list file.
(5) [Back to select Product] Link : The link for returning to the [Download] screen.
(6) [WGET list] Link : The link to the WGET list file (all periods).

**Information:** An example of downloading a WGET list file (Firefox) is shown below.

![Example of downloading a WGET list file (Firefox)](image-url)
**Information:** Displaying products with multiple versions as a different version

[New Version] ((1) below) is shown on the initial screen. Click on the [Different Version] ((2) below) that needs to be displayed to display that version ((3) below).

**Initial Screen**

Version:
Please select the 'version number' which you would like to download.

- **V02.00** (Dec. 01, 2016 - Mar. 08, 2020) (1)
- **V01.00** (Apr. 02, 2009 - Nov. 30, 2016) (2)

Download (for Each Path) **V02.00**:

Download via WGET (for Each Month) **V02.00**: [New Version]

**After clicking on [Different Version]**

Version:
Please select the 'version number' which you would like to download.

- **V02.00** (Dec. 01, 2016 - Mar. 08, 2020)
- **V01.00** (Apr. 02, 2009 - Nov. 30, 2016) (3)

Download (for Each Path) **V01.00**:

Download via WGET (for Each Month) **V01.00**: [Different Version]
(4) Decompressing WGET List Files
Decompress the WGET list file (Zip format) downloaded in procedures (3).

**Important:** Use a file compression tool to extract and decompress downloaded products.

(5) Executing the WGET Command
Execute the following WGET command to download multiple files in bulk.

```
$ wget -i [wget list file decompressed in procedure (4)]
   --http-user=[e-mail address used to log in]
   --http-passwd=[password used to log in]
```

(6) Decompressing Compressed Files
Decompress the product archive files (tar or tar.gz format) downloaded in procedure (5).
9.2.4 Downloading Products Archived in Annual Units

This section explains the procedure for downloading products archived in annual units. The procedure for downloading the L4A global CO2 flux product is used here for explanatory purposes (Other products archived in annual units can be downloaded in the same way.).

(1) Moving to the [Download] Screen
Move to the [Download] screen by logging into the system, as explained in section 8.1. If you are already logged in, click [Download] on the menu to move to the [Download] screen.
(2) [Download] Screen
Displays a list of products that the logged-in user is able to download. Click on the annual unit product (L4A global CO2 flux used here as an example) to move to the [Product Download (Annual Unit)] screen.

(1) List of Products
Displays a list of products that the user can download.

**Important**: The downloadable products will differ in alignment with the category of the logged-in user. See [13.2 Product Provision Formats] for further details.

**Information**: The Unit field displays the unit in which products are provided.
(3) [Download Product (Annual Unit)] Screen
Displays details of the selected products (file unit, product format, version) ((1) below), the table of products, and WGET list information ((4) below). Then click on the link to the WGET list ((6) below) in order to download the WGET list.
(1) Product Information : Displays information on the selected product.
(2) [Product] Link : Displays a list of files archived in annual units.
(3) List of Products : The link to the [Product Download] screen from which users can download products.
(4) WGET Download Method : Displays how to download products that use the WGET list file.
(5) [Back to select Product] Link : The link for returning to the [Download] screen.
(6) [WGET list] Link : The link to the WGET list file (whole period).

Information: An example of downloading a WGET list file (Firefox) is shown below.

Opening L4ACO2_GU_V02.03.zip

You have chosen to open:

L4ACO2_GU_V02.03.zip

which is: Compressed (zipped) Folder (275 bytes)
from: https://data2.gosat.nies.go.jp

What should Firefox do with this file?

- Open with [7-Zip GUI]
- Save File
- Do this automatically for files like this from now on.

[OK] [Cancel]
Information: Switching Between Product Formats

[netCDF] ((1) below) is displayed on the initial screen. Click on the [Text] ((2) below) link to display the product in the text format.

[Initial Screen]

L4A global CO2 flux Download Page

File unit: Annual (The one year’s data are archived with tar command.)
Product format: NetCDF / Text
Product unit: Annual

After [Text] has been clicked

L4A global CO2 flux Download Page

File unit: Annual (The one year’s data are archived with tar command.)
Product format: NetCDF / Text
Product unit: Annual
Information: Displaying products with multiple versions as a different version

[New Version] ((1) below) is shown on the initial screen.
Click on the [Different Version] ((2) below) that needs to be displayed to display that version ((3) below).

[Initial Screen]

Version:
Please select the 'Version number' which you would like to download.

- **V02.00 (Dec. 01, 2016 - Mar. 08, 2016)** (1)
- **V01.00 (Apr. 02, 2009 - Nov. 30, 2016)** (2)

Download (for Each Path): **V02.00**

Download via WGET (for Each Month): **V02.00**

After clicking on [Different Version]

Version:
Please select the 'Version number' which you would like to download.

- **V02.00 (Dec. 01, 2016 - Mar. 08, 2020)** (1)
- **V01.00 (Apr. 02, 2009 - Nov. 30, 2016)** (3)

Download (for Each Path): **V01.00**

Download via WGET (for Each Month): **V01.00**
(4) Decompressing WGET List Files
Decompress the WGET list file (Zip format) downloaded in procedure (3).

**Important:** Use a file compression tool to extract and decompress downloaded products.

(5) Executing the WGET Command
Execute the following WGET command to download multiple files in bulk.

```
$wget -i [wget list file decompressed in procedure (4)]
   --http-user=[e-mail address used to log in]
   --http-passwd=[password used to log in]
```

(6) Decompressing Compressed Files
Decompress the product archive files (tar or tar.gz format) downloaded in procedure (5).
10 Procedure for Downloading Information Related to GOSAT Products

This chapter explains the procedure for downloading information related to GOSAT products. The types of information provided is different for general users and authorized users. This chapter uses information provided to authorized users [authorized users only] for explanatory purposes.

10.1 Documents & Information Screen

(1) Moving to the [Documents & Information] Screen
Click on [Documents & Information] on the [Download] screen menu (see section 8.1(3)) to move to the [Documents & Information] screen.

(2) [Documents & Information] Screen
Displays information related to GOSAT documents and products. Click on any of the available items to display the relevant information.
(1) 【Documents】 : Displays [Product Descriptions].
(2) 【The period when there is no observational data】 : Displays [The period when there is no observational data].
(3) 【Forced processing of unprocessed FTS SWIR L1B data】 : Displays [Forced Processing of Unprocessed FTS SWIR L1B Data] (authorized users only).
(4) 【Technical Information】 : Displays [Technical Information].
(5) 【Observational Schedule】 : Displays [Observational Schedule].
(6) 【Observational Request Submission】 : Displays [Observational Request Submission] (authorized users only).
(7) 【L4A Supplementary Data】 : Displays [L4A Supplementary Data] (authorized users only).
10.2 Documents (Product Descriptions)
Displays a list of products for which documents are provided ((1) below). Click on any product name ((2) below) to display the relevant product information. Or, click on any of the links to the product information ((3) below) to download the relevant files.

(1) Documents (Product Descriptions) : Displays a list of products for which documents can be downloaded.
(2) Product Name (FTS L1B Data, Etc.) : The link for displaying a list of product documents.
(3) Product Information : Displays a list of product documents.
10.3 The period when there is no observational data
Displays the period when there is no observational data. Or, click on the link to download the relevant file.

(1) The period : Displays the period when there is no observational data.

10.4 Technical Information
Displays technical information on sensors ((1) below). Click on the title of any technical information ((2) below) to display the relevant information ((3) below) in detail. Or, click on any of the links to download the relevant files.

(1) Technical Information : Displays a list of technical information for each sensor.
(2) Technical Information (Title) : The link for displaying the technical information on sensors.
(3) Technical Information : Displays the technical information on sensors.
10.5 Observational Schedule
Displays a list of observational operations. Or, click on any of the links to download the relevant files.

(1) Observational Schedule : Displays the observational schedules.

10.6 Submission of Observational Requests (Authorized Users Only)
Displays the method of requesting observations ((1) below). Click on the title for each user category ((2) below) to display the relevant information ((3) below) in detail. Or, click on any of the links to download the relevant files.
<table>
<thead>
<tr>
<th>Submission of Observation Requests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Displays the method of requesting observations.</td>
</tr>
</tbody>
</table>

(1) Submission of Observation Requests:
Displays the method of requesting observations.

(2) Method of the requests for users with each category:
The link for displaying the method of requesting observations for users with each category.

(3) Method of the requests for users with each category:
Displays the method of requesting observations for users with each category.

---

**For NOT experienced RA users**

If you have no experience to submit FTS observation requests via GUI, please send an email to GOSAT support (gosat.support@jma.go.jp) with a template curr file attached. Please follow the instructions below to prepare the template curr file for your observation requests.

1) Title: FTS observation request(s)
2) Please fill out the following information in the template curr file:
   a) Start date of the observation: yyyy/mm/dd
   b) End date of the observation: yyyy/mm/dd
   c) Target longitude in decimal degrees: The value range is [-90.0, 90.0].
   d) Target latitude in decimal degrees: The value range is [-180.0, 180.0].
   e) Path direction (D or A): "D" stands for descending and "A" for ascending; "D" will be set for SWIR and "A" for TIR.
   f) Gains choices (H or M): "H" stands for high (default) and "M" for medium; "H" will be set only for TIR.
   g) Minimum and maximum tolerances for AT angles in integer degrees: Setting these values is optional. If you want to set limits of AT angles to observe your target, please specify these values between -90 and 90. A positive value means forward-lookin and a negative means backward-looking. The range of these values must be bigger than 5.

We will arrange your observation requests and inform you the possible coordinates of target points and time frame via email. If you agree with the arranged observation requests, we will handle them as your requests. We will inform you the observation plan results via email after JAXA issues the operation plan of GOSAT.

**Example of the template curr file**

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2016/1/1</td>
<td>2016/1/31</td>
<td>100 D</td>
<td>100 D</td>
<td>H</td>
<td>15</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>2016/1/1</td>
<td>2016/1/31</td>
<td>100 D</td>
<td>100 D</td>
<td>H</td>
<td>15</td>
<td>20</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
10.7 L4A Supplementary Data (Authorized Users Only)
Displays a list of L4A product supplementary data. Or, click on any of the links to download the relevant files.

(1) L4A Supplementary Data : Displays a list of L4A supplementary data.
11 Procedure for Changing User Information

This chapter explains the procedure for changing user e-mail addresses (user ID), passwords, notification e-mail languages and other user information.

11.1 Changing E-Mail Addresses (User IDs)

This section explains the procedure for changing e-mail addresses (user IDs).

(1) Moving to the [User Information] screen
Click on [User Information] from the menu on the [Download] screen (see section 8.1(3)) to move to the [User Information] screen.

(2) [User Information] screen
Displays the user information items that can be changed. Click on [E-mail address (user ID) change] (1) below to move to the [E-Mail Address Change] screen.

(1) [E-mail Address (user ID) Change] Link: The link for moving to the [E-mail Address (user ID) Change] screen.
(2) [Password Change] Link: The link for moving to the [Password Change] screen.
(3) [E-mail Language Change] Link: The link for moving to the [E-mail Language Change] screen.
(4) [Back] Button: The button for returning to the [Download] Screen.
(3) [E-mail address (user ID) change] Screen
Enter the password and the new e-mail address to the form ((1) below) in order to change the e-mail address. Having entered the details, click on the [Update] button ((2) below) to move to the [E-Mail Address Changed] screen.

(1) E-mail Address Change Form : The form for entering the password and the new e-mail address.
(2) [Update] Button : The button for changing the e-mail address.
(3) [Back] Button : The button for returning to the [User Information] screen.

**Information:** Errors will be highlighted in red.
(4) [E·Mail Address Changed] screen
This completes the procedure for changing the e-mail address, and an e-mail notifying the user of this will be sent to the old and new e-mail addresses ((1) below).

![E-mail Address Changed] screen

(1) E-mail Address Changed : Displays the fact that the e-mail address has been changed.
(2) [Logout] Link : Displays the fact that the e-mail address has been changed.
(3) [Logout] Link : Displays the fact that the e-mail address has been changed.

**Important:** An e-mail notifying the user of the e-mail address being changed will be sent to both the previous e-mail address and the new e-mail address when the change is executed.

**Note:** Logout without fail after changing the e-mail address. There are cases in which errors will occur if the user remains logged in with the original user ID.
11.2 Changing Passwords
This section explains the procedure for changing passwords.

(1) Moving to the [User Information] screen
Click on [User Information] from the menu on the [Download] screen (see section 8.1(3)) to move to the [User Information] screen.

(2) [User Information] screen
Displays the user information items that can be changed. Click on [Password change] ((2) below) to move to the [Password Change] screen.

(1) [E-mail Address (user ID) Change] Link: The link for moving to the [E-mail Address (user ID) Change] screen.
(2) [Password Change] Link: The link for moving to the [Password Change] screen.
(3) [E-mail Language Change] Link: The link for moving to the [E-mail Language Change] screen.
(4) [Back] Button: The button for returning to the [Download] Screen.
(3) [Password Change] Screen
Enter the old password and the new password to the form ((1) below) in order to change the password. Having entered the details, click on the [Update] button ((2) below) to move to the [Password Changed] screen.

(1) Password Change Form : The form for entering the old password and new password.
(2) [Update] Button : The button for changing the password.
(3) [Back] Button : The button for returning to the [User Information] screen.
Information: Errors will be highlighted in red.

Password Change

E-mail address: fd-gosat-test@uemm.go.jp
Current password: [enter current password]
New password: [enter new password]
New password (for confirmation): [enter new password]

Password rules:
1. Upper case letters: A through Z
2. Lower case letters: a through z
3. Numbers: 0 through 9
4. Special characters: !, @, #, $, %, &,

Note: Space characters are not allowed.

Current password is required.
New password is required.
New password (for confirmation) is required.
(4) [Password Changed] screen
This completes the procedure for changing the password ((1) below).

(1) Password Changed : Displays the fact that the password has been changed.
(2) [Back] Button : The button for returning to the [User Information] screen.
11.3 [E-mail Language Change] Screen
This section explains the procedure for changing the e-mail notification language.

(1) Moving to the [User Information] screen
Click on [User Information] from the menu on the [Download] screen (see section 8.1(3)) to move to the [User Information] screen.

(2) [User Information] screen
Displays the user information items that can be changed. Click on [E-mail language change] ((3) below) to move to the [E-mail language change] screen.

(1) [E-mail Address (user ID) Change] Link: The link for moving to the [E-mail Address (user ID) Change] screen.
(2) [Password Change] Link: The link for moving to the [Password Change] screen.
(3) [E-mail Language Change] Link: The link for moving to the [E-mail Language Change] screen.
(4) [Back] Button: The button for returning to the [Download Screen].
(3) [E-mail language change] screen
Displays the e-mail notification language eligible for changing. Check the details and then click on the [Update] button (2) below to move to the [E-mail Language Changed] screen.

(1) E-mail Language Change : Displays the e-mail notification language eligible for changing.
(2) [Update] Button : The button for changing the e-mail notification language.
(3) [Back] Button : The button for returning to the [User Information] screen.

(4) [E-mail Language Changed] screen
This completes the procedure for changing the e-mail notification language (1 below).
(1) E-mail Language Changed: Displays the fact that the e-mail notification language has been changed.

(2) [Back] Button: The button for returning to the [User Information] screen.
12 Procedure for Browsing Other Information

This chapter explains the procedure for browsing other information provided on the GDAS website.

12.1 [How to Use This Website] Screen

(1) Moving to the [How to Use This Website] Screen
Click on [How to Use This Website] from the submenu on the GDAS top screen (see section 4.1) to move across to the [How to Use This Website] screen.

(2) [How to Use This Website] Screen
Click on the link with the PDF file icon to download the operation manual.

(1) [Instruction Manual] : The link to the instruction manual (PDF file).
12.2  [Data Users Handbook] Screen

(1) Moving to the [Data Users Handbook] Screen
Click on [Data Users Handbook] from the submenu on the GDAS top screen (see section 4.1) to move across to the [Data Users Handbook] screen.

(2) [Data Users Handbook] screen
Click on the link with the PDF file icon to download the Data Users Handbook.

(1) [Data Users Handbook] Link
: The link to the Data Users Handbook (PDF file).
12.3 Point of Contact/FAQ Screen

(1) Moving to the [Point of Contact/FAQ] Screen
Click on [Point of Contact/FAQ] from the submenu on the GDAS top screen (see section 4.1) to move across to the [Point of Contact/FAQ] screen.

(2) [Point of Contact/FAQ] Screen
Click on the link with the PDF file icon to download the FAQ file. Points of contact for inquiry purposes will also be displayed on the screen.

(1) [FAQ] Link : Link to the FAQ file.
(2) Point of Contact : Displays point of contact in accordance with the details of the inquiry.
12.4 Tools Screen

(1) Moving to the [Tools] Screen
Click on [Tools] from the submenu on the GDAS top screen (see section 4.1) to move across to the [Tools] screen.

(2) [Tools] Screen
Displays explanations relation to the tools that are available for using GOSAT products. Click on any of the available items to display the relevant information.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>GOSAT FTS Level 1B Product Support Tool</td>
</tr>
<tr>
<td>(2)</td>
<td>GOSAT/GOSAT-2 Level 1 product reading toolkit</td>
</tr>
<tr>
<td>(3)</td>
<td>GOSAT Tools</td>
</tr>
</tbody>
</table>

This application enables users to display simply or to draw observation data on map for the products of the GOSAT and the GOSAT-2.

GOSAT/GOSAT-2 Level 1 product reading toolkit is a programming library to read GOSAT/GOSAT-2 Level 1 product.

The GOSAT Tools are designed for GOSAT data users to select CAI products and to extract datasets from...
FTS products already downloaded to each user’s computer.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>ENVI</td>
<td>The ENVI software enables the information displayed for GOSAT products to be browsed.</td>
</tr>
<tr>
<td>5</td>
<td>HDFView</td>
<td>Displays the site from which the tools for displaying GOSAT products can be downloaded.</td>
</tr>
<tr>
<td>6</td>
<td>GOSAT FTS SWIR L2 Drawing Tool</td>
<td>GOSAT FTS SWIR L2 Drawing Tool is a tool which draws plots for the GOSAT FTS SWIR L2 products with IDL Virtual Machine.</td>
</tr>
</tbody>
</table>
13 Miscellaneous Precautions

13.1 User Categories
The GDAS user categories are shown in Table 13.1.

<table>
<thead>
<tr>
<th>No.</th>
<th>User Category</th>
<th>User Registration Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PRJ</td>
<td>Authorized User</td>
<td>NIES employees involved with the GOSAT Project</td>
</tr>
<tr>
<td>2</td>
<td>RACal</td>
<td></td>
<td>Registered researchers authorized to download FTS L1B calibration data</td>
</tr>
<tr>
<td>3</td>
<td>RA</td>
<td></td>
<td>Registered researchers, researchers in affiliated organizations</td>
</tr>
<tr>
<td>4</td>
<td>GU</td>
<td>General User</td>
<td>All other general users</td>
</tr>
</tbody>
</table>

The GDAS user categories are interactive with the GUIG user categories. The GDAS user category and GUIG user category interaction levels are shown in Table 13.2.

<table>
<thead>
<tr>
<th>No.</th>
<th>GDAS User Category</th>
<th>GUIG User Category</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PRJ</td>
<td>OPE, PSN</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>RACal</td>
<td>CalData</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>RA</td>
<td>RAMo, RApplus, RApplusCoI, RAstar, RAstarCoI, AO1, AO1star, AO1starCoI, ST, PS</td>
<td>All provision groups except OPE, PSN, CalData, GU.</td>
</tr>
<tr>
<td>4</td>
<td>GU</td>
<td>GU</td>
<td></td>
</tr>
</tbody>
</table>

The highest level of authority (PRJ > RACal > RA > GU) is valid for users with multiple accounts on GUIG.
This means that the latest user category for the final date of update is validated if the highest level of authority for the GDAS user category has acquired multiple GUIG accounts including RA and RA is the highest level of authority for the GDAS user category.
Also, if the GUIG account with the highest level of GDAS user category authority has been frozen, the next user category with the highest level of authority is validated.

13.2 Product Provision Formats

The GOSAT products provided by GDAS differ in accordance with the user category. The archive format and product format also differ for the products provided. The unit, user category, product format and archive format for each product provided are shown in Table 13.3.

<table>
<thead>
<tr>
<th>No.</th>
<th>Product Provided</th>
<th>Unit</th>
<th>User Category</th>
<th>Product Format</th>
<th>Archive Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>FTS L1A data</td>
<td>Daily</td>
<td>PRJ</td>
<td>HDF5 (non-compressed)</td>
<td>tar.gz</td>
</tr>
<tr>
<td>2</td>
<td>FTS L1B data</td>
<td>Daily, Path</td>
<td>All user categories</td>
<td>HDF5 (non-compressed)</td>
<td>tar.gz</td>
</tr>
<tr>
<td>3</td>
<td>FTS L1B calibration data</td>
<td>Daily</td>
<td>PRJ, RACal</td>
<td>HDF5 (non-compressed)</td>
<td>tar.gz</td>
</tr>
<tr>
<td>4</td>
<td>FTS FOV image</td>
<td>Daily</td>
<td>All user categories</td>
<td>png</td>
<td>tar.gz</td>
</tr>
<tr>
<td>5</td>
<td>L2 CO2 column amount (SWIR)</td>
<td>Monthly</td>
<td>All user categories</td>
<td>HDF5 (Compressed)</td>
<td>tar</td>
</tr>
<tr>
<td>6</td>
<td>L2 CH4 column amount (SWIR)</td>
<td>Monthly</td>
<td>All user categories</td>
<td>HDF5 (Compressed)</td>
<td>tar</td>
</tr>
<tr>
<td>7</td>
<td>L2 H2O column amount (SWIR)</td>
<td>Monthly</td>
<td>All user categories</td>
<td>HDF5 (Compressed)</td>
<td>tar</td>
</tr>
<tr>
<td>8</td>
<td>PPDF-S CO2 data</td>
<td>Monthly</td>
<td>PRJ, RACal, RA</td>
<td>HDF5 (Compressed)</td>
<td>tar</td>
</tr>
<tr>
<td>9</td>
<td>PPDF-S CH4 data</td>
<td>Monthly</td>
<td>PRJ, RACal, RA</td>
<td>HDF5 (Compressed)</td>
<td>tar</td>
</tr>
<tr>
<td>10</td>
<td>L2 CO2 profile (TIR)</td>
<td>Monthly</td>
<td>All user categories</td>
<td>HDF5 (Compressed)</td>
<td>tar</td>
</tr>
<tr>
<td>11</td>
<td>L2 CH4 profile (TIR)</td>
<td>Monthly</td>
<td>All user categories</td>
<td>HDF5 (Compressed)</td>
<td>tar</td>
</tr>
<tr>
<td>12</td>
<td>L2 H2O column amount (TIR)</td>
<td>Monthly</td>
<td>PRJ, RACal, RA</td>
<td>HDF5 (Compressed)</td>
<td>tar</td>
</tr>
<tr>
<td>13</td>
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<td>binary</td>
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<td>Product Format</td>
<td>Archive Format</td>
</tr>
<tr>
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</tr>
<tr>
<td>14</td>
<td>L3 global CO2 distribution (SWIR)</td>
<td>Monthly</td>
<td>All user categories</td>
<td>HDF5 (Compressed)</td>
<td>tar</td>
</tr>
<tr>
<td>15</td>
<td>L3 global CH4 distribution (SWIR)</td>
<td>Monthly</td>
<td>All user categories</td>
<td>HDF5 (Compressed)</td>
<td>tar</td>
</tr>
<tr>
<td>16</td>
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<td>PRJ</td>
<td>HDF5 (Non-Compressed)</td>
<td>tar.gz</td>
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<td>17</td>
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<td>All user categories</td>
<td>HDF5 (Compressed)</td>
<td>tar</td>
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<td>Path</td>
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<td>HDF5 (Compressed)</td>
<td>tar</td>
</tr>
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<td>19</td>
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<td>Path</td>
<td>All user categories</td>
<td>HDF5 (Compressed)</td>
<td>tar</td>
</tr>
<tr>
<td>20</td>
<td>CAI L2 cloud property</td>
<td>Path</td>
<td>PRJ, RACal, RA</td>
<td>HDF5 (Compressed)</td>
<td>tar</td>
</tr>
<tr>
<td>21</td>
<td>CAI L2 aerosol property</td>
<td>Path</td>
<td>PRJ, RACal, RA</td>
<td>HDF5 (Compressed)</td>
<td>tar</td>
</tr>
<tr>
<td>22</td>
<td>CAI L3 global radiance distribution</td>
<td>Monthly</td>
<td>All user categories</td>
<td>HDF5 (Compressed)</td>
<td>tar</td>
</tr>
<tr>
<td>23</td>
<td>CAI L3 global reflectance distribution</td>
<td>Monthly</td>
<td>All user categories</td>
<td>HDF5 (Compressed)</td>
<td>tar</td>
</tr>
<tr>
<td>24</td>
<td>CAI L3 NDVI</td>
<td>Monthly</td>
<td>All user categories</td>
<td>HDF5 (Compressed)</td>
<td>tar</td>
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<td>25</td>
<td>CAI L3 global radiance distribution (1 day)</td>
<td>Monthly</td>
<td>PRJ</td>
<td>HDF5 (Compressed)</td>
<td>tar</td>
</tr>
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<td>26</td>
<td>L4A global CO2 flux (netCDF)</td>
<td>Annual</td>
<td>All user categories</td>
<td>netCDF</td>
<td>tar.gz</td>
</tr>
<tr>
<td>27</td>
<td>L4A global CO2 flux (text)</td>
<td>Annual</td>
<td>All user categories</td>
<td>text</td>
<td>tar.gz</td>
</tr>
<tr>
<td>28</td>
<td>L4A global CH4 flux (netCDF)</td>
<td>Annual</td>
<td>All user categories</td>
<td>netCDF</td>
<td>tar.gz</td>
</tr>
<tr>
<td>29</td>
<td>L4A global CH4 flux (text)</td>
<td>Annual</td>
<td>All user categories</td>
<td>text</td>
<td>tar.gz</td>
</tr>
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<td>30</td>
<td>L4B global CO2 distribution</td>
<td>Annual</td>
<td>All user categories</td>
<td>netCDF</td>
<td>tar.gz</td>
</tr>
<tr>
<td>31</td>
<td>L4B global CH4</td>
<td>Annual</td>
<td>All user categories</td>
<td>netCDF</td>
<td>tar.gz</td>
</tr>
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<td>Unit</td>
<td>User Category</td>
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<td>Archive Format</td>
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<tr>
<td></td>
<td>distribution</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*1 The L2 CO2 column-averaged volumes, the L2 CH4 column-averaged volumes and the L2 H2O column-averaged volumes differ for the products that can be downloaded in accordance with the user category. See section 13.3 for details.

13.3 SWIR Product Provision for Each User Category

The SWIR products that can be obtained by each user category are different. The SWIR products that are interactive with user categories are shown in Table 13.4. The [For GU users (with sub-data set)] represents a product for GU users to which additional information has been added.

Table 13.4 SWIR Products that Can Be Obtained by for Each User Category

<table>
<thead>
<tr>
<th>User Category</th>
<th>Product Category</th>
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</thead>
<tbody>
<tr>
<td>PRJ</td>
<td>For PRJ users</td>
</tr>
<tr>
<td></td>
<td>For RA users</td>
</tr>
<tr>
<td></td>
<td>For GU users (with sub-data set)</td>
</tr>
<tr>
<td>RACal, RA</td>
<td>For RA users</td>
</tr>
<tr>
<td></td>
<td>For GU users (with sub-data set)</td>
</tr>
<tr>
<td>GU</td>
<td>For GU users</td>
</tr>
</tbody>
</table>

13.4 Product File Naming Conventions

The product file naming conventions are listed below. The product identification character strings are also listed in table 13.5.

- In the case of the archive format in Table 13.3 being tar.gz
  ✓ Products provided in daily units
    [Product Identification Character Strings]_[Observational Date (YYYMMDD)]_[Version].tar.gz
  ✓ Products provided in annual units
    [Product Identification Character Strings]_[Observational Year (YYYY)]_[Version].tar.gz

- In the case of the archive format in Table 13.3 being tar
  ✓ L2 CO2 column amount (SWIR), L2 CH4 column amount (SWIR), L2 H2O column
amount (SWIR)

[Product Identification Character Strings]_ [Observational Date (YYYYMMDD)]_ [Path Number (NN)]_ [Version]_ [User Category].tar

✓ Products provided in path units

[Product Identification Character Strings]_ [Observational Date (YYYYMMDD)]_ [Path Number (NN)]_ [Version].tar

✓ Products provided in daily units

[Product Identification Character Strings]_ [Observational Date (YYYYMMDD)]_ [Version].tar

✓ Products provided in monthly units (except for the L2 column-averaged volumes (SWIR)).

[Product Identification Character Strings]_ [Observational Month (YYYYMM)]_ [Version].tar

✓ Products provided in annual units

[Product Identification Character Strings]_ [Observational Year (YYYY)]_ [Version].tar

Table 13.5 Product Identification Character Strings

<table>
<thead>
<tr>
<th>No.</th>
<th>Product Provided</th>
<th>Product Identification Character Strings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>FTS L1A data</td>
<td>FTSL1A</td>
</tr>
<tr>
<td>2</td>
<td>FTS L1B data</td>
<td>FTSL1B</td>
</tr>
<tr>
<td>3</td>
<td>FTS L1B calibration data</td>
<td>FTSL1BCAL</td>
</tr>
<tr>
<td>4</td>
<td>FTS FOV image</td>
<td>BROWSE</td>
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<tr>
<td>5</td>
<td>L2 CO2 column amount (SWIR)</td>
<td>SWIRL2CO2</td>
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<tr>
<td>6</td>
<td>L2 CH4 column amount (SWIR)</td>
<td>SWIRL2CH4</td>
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<td>7</td>
<td>L2 H2O column amount (SWIR)</td>
<td>SWIRL2H2O</td>
</tr>
<tr>
<td>8</td>
<td>PPDF-S CO2 data</td>
<td>PPDFSCO2</td>
</tr>
<tr>
<td>9</td>
<td>PPDF-S CH4 data</td>
<td>PPDFSCH4</td>
</tr>
<tr>
<td>10</td>
<td>L2 CO2 profile (TIR)</td>
<td>TIRL2CO2</td>
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<tr>
<td>11</td>
<td>L2 CH4 profile (TIR)</td>
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<tr>
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<td>TIR input dataset</td>
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<td>SWIRL3CO2</td>
</tr>
<tr>
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<td>Product Provided</td>
<td>Product Identification Character Strings</td>
</tr>
<tr>
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<td>------------------------------------------</td>
</tr>
<tr>
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<td>CAI L1B data</td>
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<td>CAI L1B+ data</td>
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<td>19</td>
<td>CAI L2 cloud flag</td>
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<td>CAI L2 aerosol property</td>
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<td>CAI L3 global radiance distribution (1 day)</td>
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<td>L4ACO2</td>
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<td>L4A global CO2 flux (text)</td>
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<td>L4A global CH4 flux (netCDF)</td>
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<td>L4A global CH4 flux (text)</td>
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<tr>
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<td>L4B global CO2 distribution</td>
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<tr>
<td>31</td>
<td>L4B global CH4 distribution</td>
<td>L4BCH4</td>
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</tbody>
</table>