



Transition from commissioning to exploitation phase

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1st ESA-JAXA EarthCARE In-Orbit Validation Workshop

14 – 17 January 2025 | VIRTUAL EVENT

2. Transition to nominal operation phase of CPR



- In December 2024, JAXA confirmed that CPR could be moved to nominal operation phase by completion of the initial check-out and initial calibration & validation.
 - GS Operations such as CPR planning, monitoring, data processing were also verified.
- Then JAXA have started to operation of CPR as the nominal operation phase since 2025.
 - The basic organizational structure is maintained, which is constructed from CPR project team, SAOC and EORC.
- The exploitation phase, that is, the exploration phase for all users has just started !!
 - JAXA/NICT's CPR L1b product is released on January 14, 2025

3. Data Access



- EarthCARE product is available from both ESA and JAXA.
- You can access data from top page of JAXA/EORC EarthCARE;
➤ <https://www.eorc.jaxa.jp/EARTH CARE/index.html>

Data > Data Acquisition/Operation Status > Data Sources of EarthCARE

There are two options;

- 1) G-Portal REPO
- 2) EORC SFTP Server

The screenshot shows the EarthCARE website interface. The navigation menu includes 'Top', 'About', 'Data', 'Document', 'Event', 'Museum', and 'Others'. The 'Data' menu is expanded, showing options like 'Product Overview', 'Product List', 'Data Acquisition / Operation Status', and 'Data Sources of EarthCARE'. The 'Data Sources of EarthCARE' option is highlighted. Below the menu, there is a table with two columns: 'EarthCARE Products/Data' and 'Source'. The table lists three types of products: Standard products, Research products, and QuickLook. The 'Source' column provides details on where to access the data, such as 'JAXA > G-Portal' or 'FTP server provided by Earth Observation Research Center, JAXA'. Two yellow arrows labeled '1)' and '2)' point to the source information for the Standard products row.

EarthCARE Products/Data	Source
Standard products They are the products processed by mature algorithms with accuracy assurance by JAXA.	JAXA > G-Portal sftp.gportal.jaxa.jp or FTP server provided by Earth Observation Research Center, JAXA
Research products They are the products processed by algorithms on a research base. They are not accuracy-guaranteed but provided as they are useful for scientific purposes.	Available from Earth Observation Research Center, JAXA (TBD)
QuickLook Web-based visualization tool for EarthCARE products	The website will be available after the public data release.

3. Data Access 1)G-Portal



- JAXA data distribution site for standard products is “G-Portal”.
 - From G-Portal, EarthCARE data is available together with GPM/DPR, GCOM-C/SGLI etc.

<https://gportal.jaxa.jp/gpr/>

Currently, original G-Portal is under maintenance until around March 2025.

The alternative method “G-Portal REPO(<https://repo.gportal.jaxa.jp/>)” can be used for data download via https, though the data refining-search by physical parameter or area cannot be used.

Service Changes for JAXA Earth Observation Satellite Data Providing System "G-Portal"

G-Portal, which is JAXA Earth Observation Satellite Data Providing System, changed it's service upto 2025/3/31 (planned).

Service Change

- Search and download functions on the website ⇒ out of service until 2025/03/31 (planned)
- Download functions via FTP/sFTP ⇒ switched to alternative services until 2025/03/31 (planned)
- Search CSW (Catalogue Services for the Web) ⇒ out of service until 2025/03/31 (planned)
- Provide Web contents (including documents and tools) ⇒ switched to alternative services until 2025/03/31 (planned)

Alternative Services

G-Portal Repo (<https://repo.gportal.jaxa.jp/>)

Data Delivery with HTTPS.

Almost all data ((Standard Product: standard) and (Near Real Time Product: nrt)) can be downloadable.

User Guide

Each Satellite Alternative Services

Please select a satellite or a product. ▾

Product information and operation

Please select a satellite or a product. ▾

Tools and Documents

Index of /standard

Name Last modified

Parent Directory	
ADEOS-2/	2018-07-17 07:04
ADEOS/	2019-02-14 05:15
AQUA/	2018-04-06 01:56
CIRC/	2018-03-30 09:03
EarthCARE/	2025-01-14 01:04
GCOM-C/	2018-12-19 05:01
GCOM-W/	2017-07-18 00:04
GPM/	2018-03-30 09:03
GPMConstellation/	2018-03-30 09:03
GSMaP/	2018-03-30 09:03
JERS-1/	2018-06-25 08:05
MOS-1/	2018-03-30 09:03
MOS-1b/	2018-03-30 09:03
SLATS/	2020-03-18 03:13
TRMM/	2018-03-30 09:03

Index of /standard/EarthCARE/CPR/1B.CPR_NOM/vCa/2025/01/14

Name Last modified Size Description

Parent Directory			
ECA_J_CPR_NOM_1BS_20250114T0005_20250114T0017_03579F_vCa.hs	2025-01-14 01:30	61M	
ECA_J_CPR_NOM_1BS_20250114T0017_20250114T0028_03579G_vCa.hs	2025-01-14 01:31	51M	
ECA_J_CPR_NOM_1BS_20250114T0028_20250114T0040_03579H_vCa.hs	2025-01-14 01:31	61M	
ECA_J_CPR_NOM_1BS_20250114T0040_20250114T0051_03580A_vCa.hs	2025-01-14 01:32	61M	
ECA_J_CPR_NOM_1BS_20250114T0051_20250114T0103_03580B_vCa.hs	2025-01-14 01:31	60M	

3. Data Access 2) EORC SFTP Server



- The other alternative method is also available, i.e. EORC SFTP server below.

➤ After registration, you can get FTP account automatically.

https://www.eorc.jaxa.jp/EARTHCARE/research_product/registration.html

User Registration →

SFTP data directory image ↓

`/SensorName(e.g. CPR)/Level(e.g.1B)/ProductID(e.g.CPR_NOM)/Version(e.g.vCa) /yyyy/mm/dd`

名前	サイズ	更新日時
ECA_J_CPR_NOM_1BS_20241023T0149_20241023T0200_02289C_vAf.h5	51,652 KB	2024/10/23 17:23:14
ECA_J_CPR_NOM_1BS_20241023T0200_20241023T0212_02289D_vAf.h5	60,737 KB	2024/10/23 18:00:59
ECA_J_CPR_NOM_1BS_20241023T0212_20241023T0223_02289E_vAf.h5	61,172 KB	2024/10/23 18:03:46
ECA_J_CPR_NOM_1BS_20241023T0223_20241023T0235_02289F_vAf.h5	61,337 KB	2024/10/23 17:59:36
ECA_J_CPR_NOM_1BS_20241023T0235_20241023T0246_02289G_vAf.h5	51,975 KB	2024/10/23 18:01:24
ECA_J_CPR_NOM_1BS_20241023T0246_20241023T0258_02289H_vAf.h5	61,366 KB	2024/10/23 17:53:56
ECA_J_CPR_NOM_1BS_20241023T0258_20241023T0310_02290A_vAf.h5	61,287 KB	2024/10/23 17:52:34
ECA_J_CPR_NOM_1BS_20241023T0310_20241023T0321_02290B_vAf.h5	61,336 KB	2024/10/23 18:00:56
ECA_J_CPR_NOM_1BS_20241023T0321_20241023T0332_02290C_vAf.h5	51,653 KB	2024/10/23 17:53:04
ECA_J_CPR_NOM_1BS_20241023T0332_20241023T0344_02290D_vAf.h5	60,966 KB	2024/10/23 18:02:02

User Registration

After contents confirmation, user ID and a password are transmitted to e-mail address registered by the person in charge.

Step 1. Input (Active) | Step 2. Input Check | Step 3. E-mail Check | Step 4. Complete

1. Name: Firstname: MiddleName: Lastname:

2. E-Mail:

3. Type of affiliation:

4. Organization/Affiliation (without abbreviation):

5. Country:

6. Category of data usage: Research Education Personal Commercial/Business Other

7. Field of interests: (Mark all that apply)

<input type="checkbox"/> Meteorology	<input type="checkbox"/> Climatology	<input type="checkbox"/> Oceanology
<input type="checkbox"/> Hydrology	<input type="checkbox"/> Floods	<input type="checkbox"/> Droughts
<input type="checkbox"/> Other disasters	<input type="checkbox"/> Ecosystem	<input type="checkbox"/> Agriculture
<input type="checkbox"/> Health	<input type="checkbox"/> Numerical model	<input type="checkbox"/> Validation
<input type="checkbox"/> Algorithm development	<input type="checkbox"/> Education	<input type="checkbox"/> Others

4. Data Utilization Guide



- Data user can get following information regarding EarthCARE data use from EORC/EarthCARE Website;

➤ <https://www.eorc.jaxa.jp/EARTHCARE/index.html>

- + Product Overview
 - Product Overview
 - Overview of Ground Systems and Data Flow
 - Product Release Schedule
 - File naming convention
 - Frame definition

- + Product List
 - L1 Product List
 - JAXA L2 Standard Product List
 - JAXA Research Product List
 - ESA L2 Product List
 - L2 Processing Chain

- + Data Acquisition / Operation Status
 - Data Sources of EarthCARE
 - Notes on Data Use
 - Operational Status of EarthCARE/ CPR sensors
- + Analysis tools
 - Product Analysis Tools
 - Earth Observation Swath and Orbit Visualisation Tool (ESOV)
- + Calibration & Validation
 - CPR Calibration
 - Product Validation

Data Missing List due to CPR operation

ATBD, Data format specification (PDD),
Release Note(caveats/disclaimer),DOI etc.

4. Data Utilization Guide



● Product list includes the following information;

- ATBD
- Data format specification (PDD)
- Release Note(caveats/disclaimer)
- DOI

The screenshot shows a website navigation bar with tabs: Top, About, Data, Document, Event, Museum, Others. A dropdown menu is open under 'Data', listing options: Product Overview, Product List (circled in red), L1 Product List, JAXA L2 Standard Product List, JAXA Research Product List, ESA L2 Product List, L2 Processing Chain, Data Acquisition / Operation Status, Analysis tools, and Calibration & Validation. The main content area shows 'Level1 (L1) Product' information and a 'Get Data' button.

Sensor	Processing Level*1	Product Name [Product ID]	Primary Parameter	Unit	Grid spacing		Algorithm Version	Developer	ATBD	PDD	Release Note	DOI*2
					Horizontality	Vertical						
CPR	L1b	CPR One-sensor Received Echo Power and Doppler Product [CPR_NOM]	Received Echo Power	W	0.5 km	0.1 km	vCa	JAXA NICT	Ver: D Update: 2023/05/31	Ver: H Update: 2025/01	Ver: vCa Update: 2025/01/14	https://doi.org/10.5774/6/EO.01jdvcydwjf63vpd bjp0vz6v64
			Radar Reflectivity Factor	dBZ		0.1 km						
			Surface Radar Cross Section	dB	-							
			Doppler velocity	m/s	0.1 km							
			Pulse Pair Covariance	-	0.5 km	0.1 km						
			Spectrum Width	um								

5. Terms of Use



- EarthCARE data policy is open and free.
- Terms of Use are also shown in EORC/Website;
“Data > Data Acquisition/Operation Status > Notes on Data Use”
 - CPR L1b credit is “JAXA/NICT”, the other L1 credit is “ESA”.
 - CPR L1b DOI is below;
<https://doi.org/10.57746/EO.01jdvcydwjf63vpdbjp0vz6v64>

Usage Note

EarthCARE/CPR products and images provided on JAXA/ESA website are subject to the JAXA EarthCARE Data Policy.

The credits for EarthCARE standard products are as follows:

Standard products	Credit
L1 (JAXA)	JAXA/NICT
L1 (ESA)	ESA
L2 (JAXA)	JAXA/ESA
L2 (ESA)	ESA/JAXA

JAXA EarthCARE Data Policy (Excerpt)

Rights to EarthCARE Data ^{*1}

(1) JAXA/NICT and ESA share rights listed below to accomplish



Let's enjoy exploration of EarthCARE Data!

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