



TRMM/PR Satellite dataset

1. IDENTIFICATION INFORMATION

| | |
|---------------------|---------------------------|
| Name | TRMM/PR Satellite dataset |
| Metadata Identifier | TRMM_PR20230727082210-en |

2. CONTACT

2.1 CONTACT on DATASET

| | |
|--------------|--|
| Name | Japan Aerospace Exploration Agency G-Portal support desk |
| Organization | Japan Aerospace Exploration Agency |
| E-mail | z-gportal-support@jaxa.jp |

2.2 CONTACT on PROJECT

3. DOCUMENT AUTHOR

| | |
|--------------|--|
| Name | Satoko Miura |
| Organization | JAXA/Mission Operations System Office (MOSS) |

4. DATASET CREATOR

| | |
|------|------|
| Name | JAXA |
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5. DATE OF THIS DOCUMENT

2023-07-27

6. DATE OF DATASET

creation : 2013-04-30

7. DATASET OVERVIEW

7.1 Abstract

The Precipitation Radar (PR) onboard TRMM is the first spaceborne rain radar in the world, and is developed by JAXA in cooperation with

NICT. Major objectives of PR are;(1) to provide 3 dimensional rainfall structure, (2) to achieve quantitative rainfall measurement over land as well as the oceans, and

(3) to improve the accuracy of TRMM Microwave Imager (TMI) measurement by providing the rain structure information.

7.2 Topic Category(ISO19139)

climatologyMeteorologyAtmosphere

7.3 Temporal Extent

| | |
|------------|--------------------|
| Begin Date | 1997-12-12 |
| End Date | Under Continuation |

7.4 Geographic Bounding Box

| | |
|----------------------|------|
| North latitude bound | 90 |
| West longitude bound | -180 |
| Eastbound longitude | 180 |
| South latitude bound | -90 |

7.5 Grid

| Dimension Name | Dimension Size (slice number of the dimension) | Resolution Unit |
|----------------|--|-----------------|
| | | () |
| | | () |
| | | () |

7.6 Geographic Description

7.7 Keywords

7.7.1 Keywords on Dataset

| Keyword Type | Keyword | Keyword thesaurus Name |
|--------------|---|------------------------|
| theme | Atmosphere > Clouds > Cloud Microphysics > Cloud Liquid Water/Ice, Atmosphere > Precipitation > Precipitation Amount, Atmosphere > Precipitation > Rain | GCMD_science |

7.7.2 Keywords on Project

7.8 Online Resource

JAXA/Globe-Portal (G-Portal) : <https://www.gportal.jaxa.jp/gp/top.html>

7.9 Data Environmental Information

7.10 Distribution Information

| name | version | specification |
|----------------|---------|---------------|
| HDF-EOS format | | |

8. DATA PROCESSING

8.1 Data Processing (1)

8.1.1 General Explanation of the data producer's knowledge about the lineage of a dataset

The following products are available;

1. 1B21

Calibrated Received Power

Scene Unit: 1 orbit (16/day)

2. 1C21

Radar Reflectivity

Scene Unit: 1 orbit (16/day)

3. 2A21

Normalized Radar Surface Cross Section (σ_0)

Scene Unit 1 orbit (16/day)

4. 2A23

PR Qualitative

Scene Unit: 1 orbit (16/day)

5. 2A25

Rain Profile

Scene Unit: 1 orbit (16/day)

6. 3A25

Monthly Statistics of Rain Parameter

Scene Unit: Global Map (Monthly) (Grid: 5° x 5° , 0.5° x 0.5°)

7. 3A26

Monthly Rain Rate using a Statistical Method

Scene Unit: Global Map (Monthly) (Grid: 5° x 5°)

8. PR Gridded Latent Heating Profiles

Latent heating, Q1-QR, and Q2 profiles derived from TRMM/PR 2H25. The spatial coverage is one orbit with a single grid cell being 0.5deg x 0.5deg.

9. PR Monthly Latent Heating Profiles

Latent heating, Q1-QR, and Q2 profiles derived from TRMM/PR 2H25. The spatial coverage is global with a single grid cell being 0.5deg x 0.5deg.

8.1.2 Data Source

| Data Source Citation Name | Description of derived parameters and processing techniques used |
|---------------------------|--|
|---------------------------|--|

9. DATA REMARKS

10. DATA POLICY

10.1 Data Policy by the Data Provider

10.2 Data Policy by the Project

11. LICENSE

12. DATA SOURCE ACKNOWLEDGEMENT

12.1 Acknowledge the Data Provider

12.2 Acknowledge the Project

13. REFERENCES