Release of

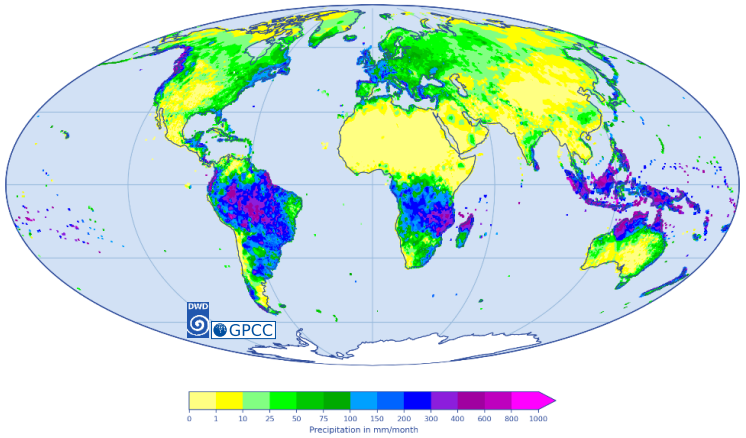
GPCC Precipitation Analysis Monthly Version 2025

Link to download gate:
https://opendata.dwd.de/climate_environment/GPCC/html/download_gate.html

New GPCC Precipitation Analysis Monthly Version 2025

- in a nutshell -

- **Gridded Monthly** precipitation totals for the Earth's land surface
- **1891** up to the month before last (with a latency of two months)
- Based on:
  - data provided by the national hydrological and/or meteorological services (NHMS) **> 190 countries**
  - global and regional data collections
  - SYNOP and CLIMAT reports
- Spatial resolutions of **0.25°**, **0.5°**, **1°** and **2.5°**
- **Anomaly** interpolation with modified SPHEREMAP
- Open access



The graphic shows precipitation totals for
January 1989 - GPCC 's founding date

Source: GPCC Precipitation Analysis Monthly Version 2025

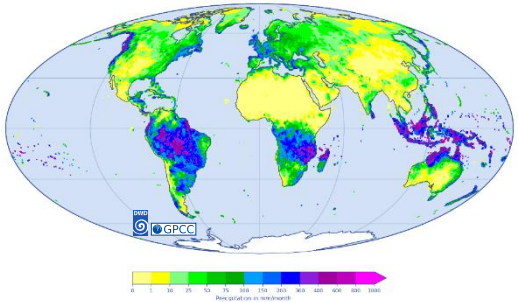
→ https://opendata.dwd.de/climate_environment/GPCC/html/gpcc_precipitation_analysis_monthly_v2025_doi_download.html

New GPCC Precipitation Analysis Monthly Version 2025

- in a nutshell -

➔ **Variable overview of the new GPCC Monthly product:**

Variable	Description	Unit
Precip	Precipitation	mm / month
gauge	Number of gauges	number of gauges per grid cell
err	Interpolation error (YAMAMOTO)	mm / month
sys_err	GPCC undercatchment gauge error correction factor	Multiplier
gauge_int	Number of gauges used by interpolation	Number gauges used for interpolation
dist_int	Mean distance of gauges used by interpolation	Mean distance in kilometer
liquid	Proportion of liquid precipitation	% / month
solid	Proportion of solid precipitation	% / month
precip_infill	Precipitation with climatological station values infilling	mm / month



The graphic shows precipitation totals for
January 1989 - GPCC ‘s founding date

What‘s new?

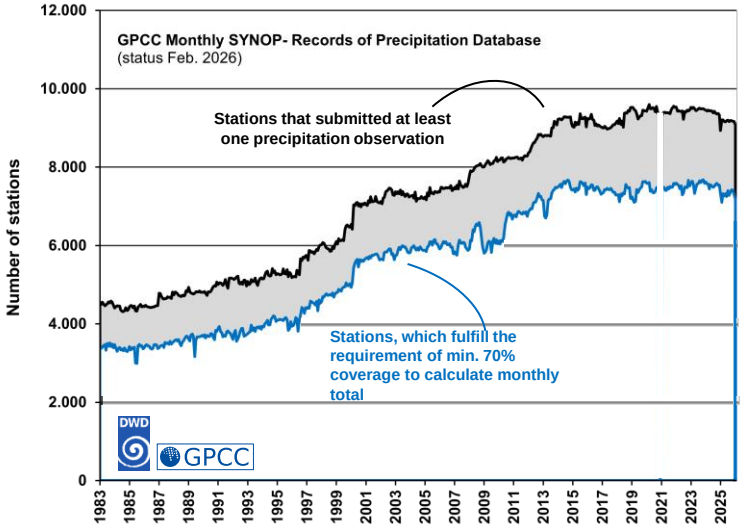
1. **Full Data Monthly + Monitoring Product**
   =
   GPCC Precipitation Analysis Monthly Version 2025

   - ➔ **Merging** of “Full Data Monthly” and “Monitoring Product”
   - ➔ We recalculated the whole time period from **1891 – 10/2025** and we append each month another month (with a latency of two months).

➔ **Historic** and **near real-time** monthly analyses in **one** product from now on

What‘s new?

2. **More data sources** used to calculate the Monthly appended updates (ex-Monitoring)
   - ➔ WIS/GTS (SYNOP-reports, CLIMATS)
   - ➔ **NEW:** available **national data** from APIs
   - ➔ **Improvement of Analysis Quality, due to more stations included**



The graphic shows the number of precipitation reporting stations per month via GTS/WIS, that were received at the GPCC (black) and the number of stations per month (min. 70% coverage of the month to compute monthly total) that were used for GPCC‘s products. Until the last version, these data, together with SYNOP records from CPC and CLIMAT reports, were used to calculate the Monitoring Product. In the new version 2025, we start adding also available national data from APIs.

What‘s new?

3. **2 new variables:**
   - ➔ **dist_int** (mean distance of stations, that were used by interpolating the grid cell)
   - ➔ **gauge_int** (number of gauges, that were used by interpolating the grid cell)

4. **Climatological infilling**, can be used to improve the quality in regions with scarce station coverage by using the variable **precip_infill**.

What else?

- **Version cycle**: every **3-5** years reprocessing from 1891 to “now”
- **Termination of Monitoring Product:**
  - Version **2020** planned until analysis **12/2026** (provided in 02/2027)
  - Version **2022** planned until analysis **12/2026** (provided in 02/2027)
- Interpolation method: modified SPHEREMAP Anomaly Interpolation
  - Anomaly calculated against the new **GPCC Precipitation Analysis Climatology Version 2025** (1951-2000)
- Spatial Resolution: **0.25°, 0.5°, 1.0°, 2.5°**

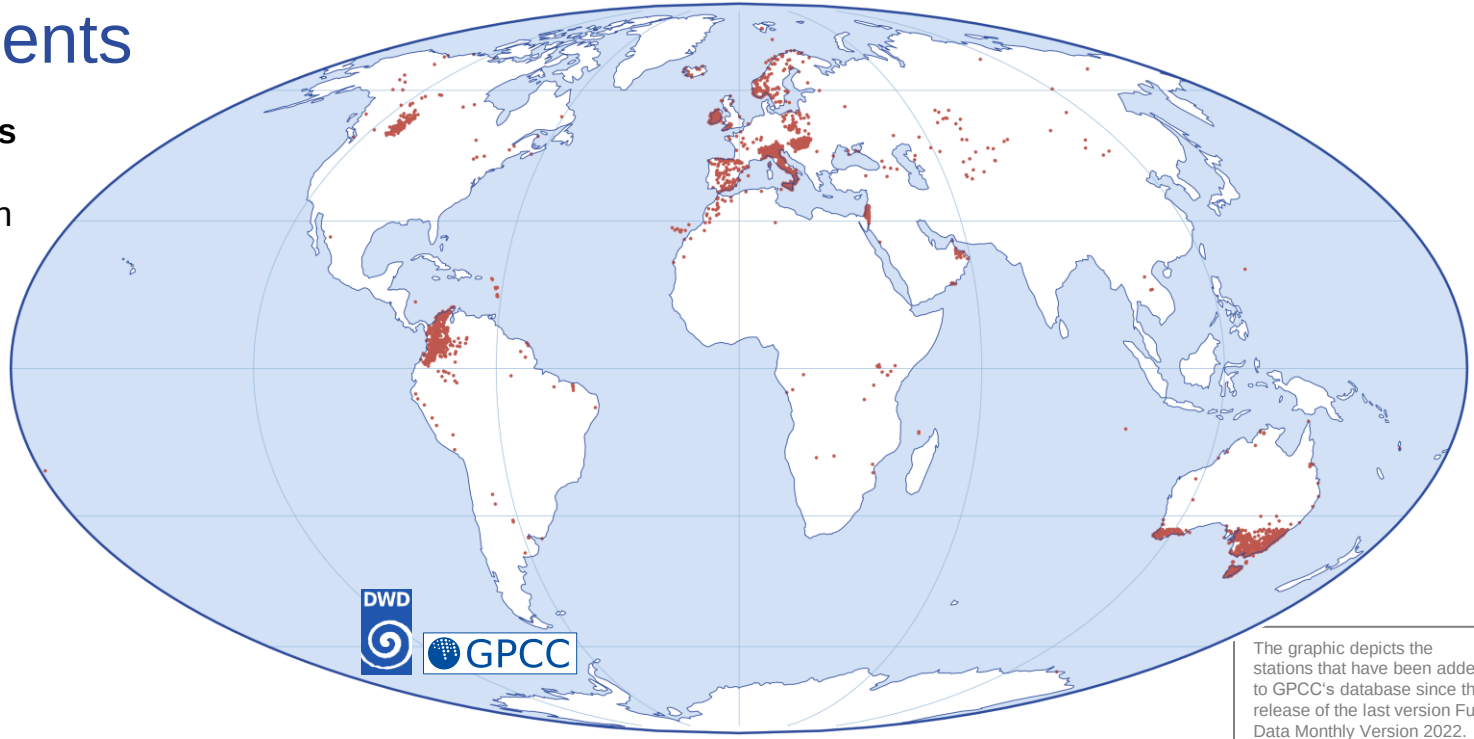
Improvements

- **Improvements since the last version (Full Data Monthly Version 2022)**

  - **More stations**
  - **More data records**
  - **Corrections of data records and meta data**
  - **Interpolated with the new climatology (2025) (Link: GPCC Precipitation Analysis Climatology Version 2025)**

Improvements

➔ **Added stations** since Full Data Monthly Version 2022

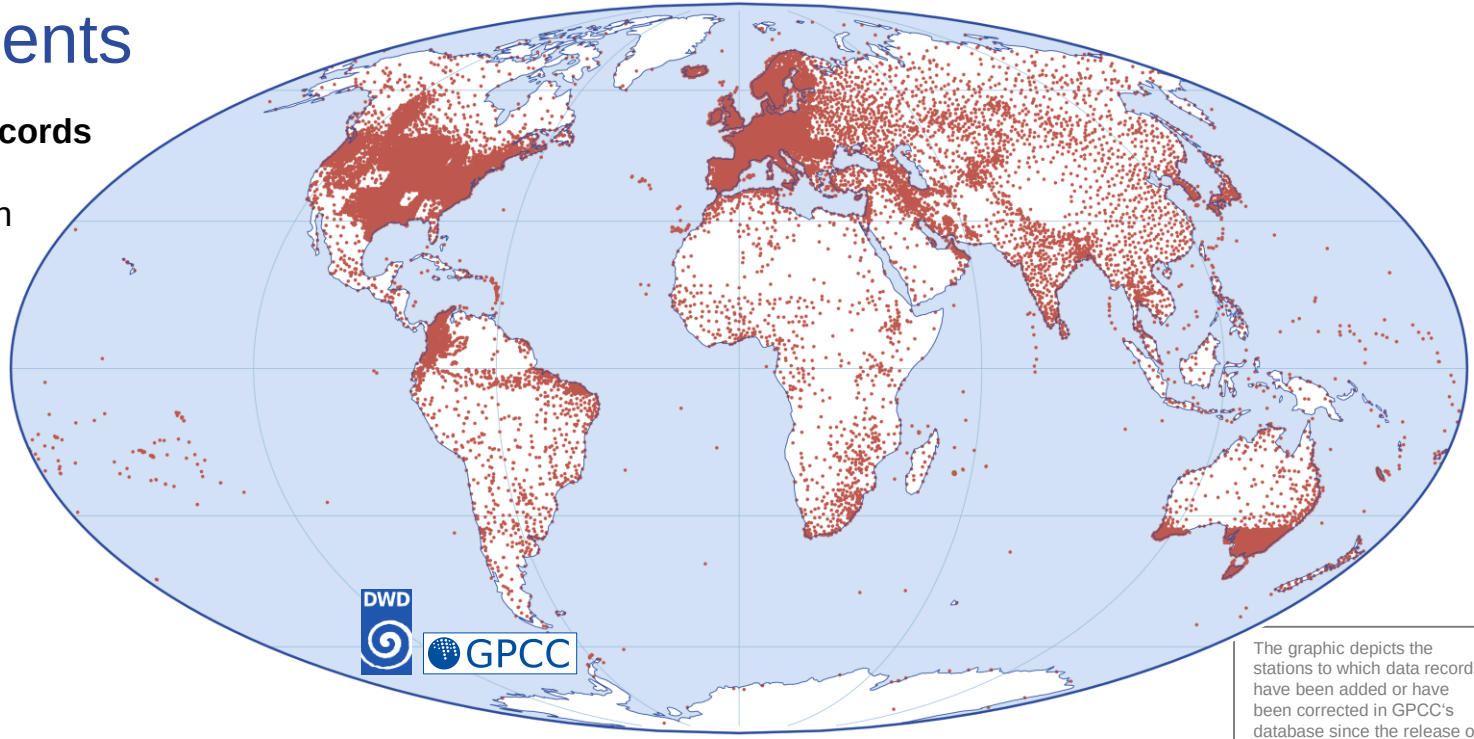


The graphic depicts the stations that have been added to GPCC's database since the release of the last version Full Data Monthly Version 2022.

➔ We added **5430** stations.

Improvements

➔ **Added data records** since Full Data Monthly Version 2022

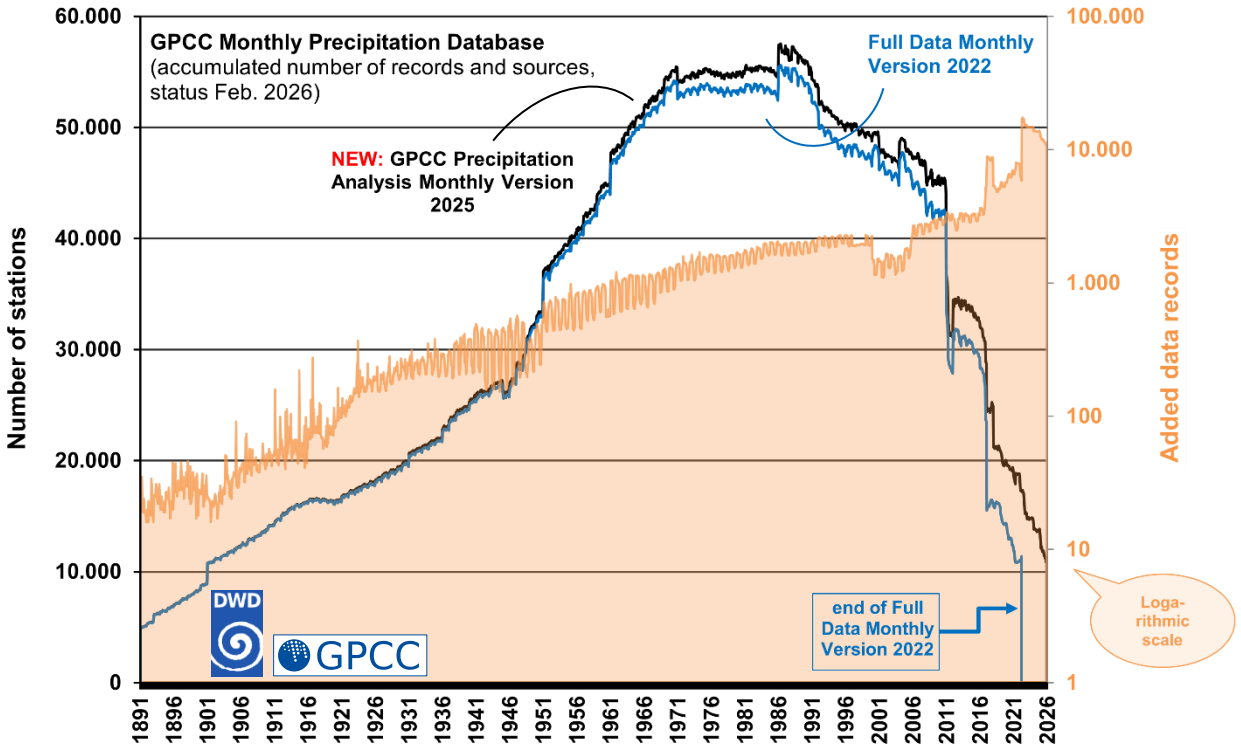


The graphic depicts the stations to which data records have been added or have been corrected in GPCC's database since the release of the last version Full Data Monthly Version 2022.

➔ We added data to ~**46'000 stations**.

Improvements

- **Added data records per month** since Full Data Monthly Version 2022



Access to GPCC‘s Precipitation Analyses

- DWD-OpenData-Server https://opendata.dwd.de/climate_environment/GPCC/
- GPCC Download Gate https://opendata.dwd.de/climate_environment/GPCC/html/download_gate.html
- Visualizer https://kunden.dwd.de/GPCC/Visualizer
- Website https://gpcc.dwd.de
- E-Mail gpcc@dwd.de

Contact

Global Precipitation Climatology Centre

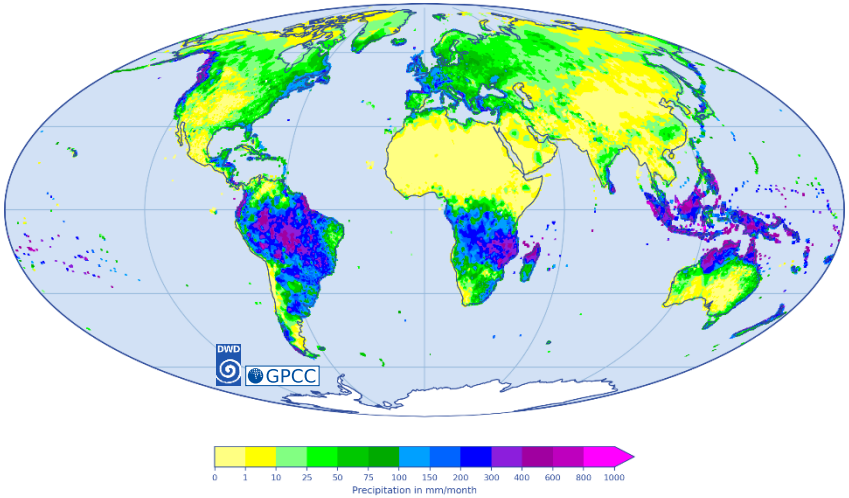
Head Dr. Markus Ziese

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Deutscher Wetterdienst

Frankfurter Straße 135

63067 Offenbach am Main



The graphic shows precipitation totals for
January 1989 - GPCC ‘s founding date

Source: GPCC Precipitation Analysis Monthly Version 2025