

Global Precipitation Climatology Centre (GPCC) released new gridded precipitation analyses, that provide long-term means, monthly and daily totals

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Founded in 1989, the Global Precipitation Climatology Centre (GPCC) provides globally gridded precipitation analyses based on in situ rain gauge measurements. During these years the precipitation database has been continuously expanded and includes a high station density and large temporal coverage. Today, the GPCC holds data from more than 129,000 stations, about three quarters of them having long time series.

The core of the analyses is formed by data from the global meteorological and hydrological services, which provided their records to the GPCC, as well as national meteorological and hydrological services from all over the world. In addition, the GPCC receives SYNOP and CLIMAT reports via the WMO-GTS. These form a supplement for the high-quality precipitation analyses and the basis for the near real-time evaluations. Due to the semi-automatic quality control routinely performed on the incoming station data, the GPCC database has a very high quality. Quality control activities include cross-referencing stations from different sources, flagging of data errors, and correcting temporally or spatially offset data. This data then forms the base for the following interpolation and product generations.

Over the last months, new versions of three particular valuable data sets have been developed. The GPCC released a new version of its Climatology called „GPCC Precipitation Analysis Climatology Version 2025“, which includes 89'000 world wide stations (of which 3'000 have been added over the last 3 years). Further, the monthly dataset, starting in 1891, was reprocessed. This opportunity was used to harmonize the 'Full Data Product' with the 'Monitoring Product' and form the new „GPCC Precipitation Analysis Monthly Version 2025“. This ensures a combined product with regular monthly updates. In March 2026, GPCC will release also a new version of the former „Full Data Daily“ Product, now „GPCC Precipitation Analysis Daily Version 2025“. It will cover 1982 – 2025 and will include many new stations in different regions, which improve the quality of the analysis, e.g., in Columbia and Italy.

These new products GPCC 'Monthly', "Daily" and 'Climatology' are freely available in netcdf format on the GPCC website <https://gpcc.dwd.de> and referenced by a digital object identifier (DOI). The web site also provides an overview of all datasets, as well as a detailed description and further references for each dataset.