Gridded Analysis Products provided by the Global Precipitation Climatology Centre (GPCC), and new Products getting operational 2013

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Since its start in 1989 the Global Precipitation Climatology Centre (GPCC) performs global analyses of monthly precipitation for the earth's land-surface on the basis of in-situ measurements. Meanwhile, the data set has continuously grown both in temporal coverage (original start of the evaluation period was 1986), as well as extent and quality of the underlying data base. The high spatio-temporal variability of precipitation requires a high density of measurement data.

Data collected from national meteorological and hydrological services are the core of the GPCC data base, and are extended by global and regional data collections. Also the GPCC receives SYNOP and CLIMAT reports via WMO-GTS, which are mainly applied for near-real-time products. For quality control a high effort is undertaken to remove miscoded and temporal or spatial dislocated data before interpolation

The product suite of the GPCC contains near-real-time as well as non-real-time products. Near-real-time products are the 'First Guess' and 'Monitoring Product'. These products are based on WMO-GTS data, e.g., SYNOP and CLIMAT reports and monthly totals calculated at CPC. Non-real-time products are the 'Full Data Reanalysis', 'Climatology' and 'VASClimO'. Mainly data from national meteorological and hydrological services as well as regional and global data collections are used to calculate these products. Also WMO-GTS data are used if no other data are available. 'VASClimO' is the current homogenized product, which will be replaced by 'HOMPRA'.

An overview to the above mentioned GPCC products and data base will be given with a comparison of the products.

An analysis of daily precipitation ('First Guess Daily') will be made operational in 2013. Results from pre-operational runs will be shown and the applied methodology will be described. Also a drought index (GPCC–Drought Index, GPCC-DI) will be calculated operationally. The GPCC-DI is a combination of SPI-DWD and SPEI. Parameters for calculating the drought index are derived from the 'Full Data Reanalysis'. Precipitation totals for the current month are taken from the 'First Guess', whereas monthly mean temperatures from the 'CPC Monthly Global Surface Air Temperature Data Set' are used.