

Project: Global Probable Maximum Precipitation (PMP) Datasets - updated

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Description: The Global PMP Datasets in Geotiff format at the 0.5-hr, 1-hr, 2-hr, 3-hr, 6-hr, 12-hr, 24-hr, 2-day, and 3-day are statistically derived based on World Meteorological Organization (WMO)'s endorsed Hershfield PMP estimation technique using IMERG's 30-min precipitation dataset. The Google Earth Engine's script for assessing and interacting with the datasets is also provided.

Data tool: The adjusted IMERG PMP script hosted on Google Earth Engine cloud platform available at: <https://code.earthengine.google.com/302f0fde7a391891b7123c6827a2e41b>

Web App: The associated web application is available at <https://cartoviews.users.earthengine.app/view/pmp-calculator>

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Organization: All PMP datasets organized by durations as follows:

- “1_PMP30min”: The 30-min or sub-hourly duration PMP data.
- “2_PMP1hr”: The 1-hr or hourly duration PMP data.
- “3_PMP2hr”: The 2-hourly duration PMP data.
- “4_PMP3hr”: The 3-hourly duration PMP data.
- “5_PMP6hr”: The 6-hourly duration PMP data.
- “6_PMP12hr”: The 12-hourly duration PMP data.
- “7_PMP24hr”: The 24-hourly duration PMP data.
- “8_PMP2D”: The 2-Day duration PMP data.
- “9_PMP3D”: The 3-Day duration PMP data.

Methods: The study methods for data development, processing, and validation will presented in a paper to be published in 2023 in *Journal of Water Resource Research (WRR)* hosted by the American Geophysical Union (AGU).

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