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What if a year's worth of rainfall fell in a single day?

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I made an oops once. When working on our global model hydrological model eWaterCycle I accidentally aggregated the files that contained information on rainfall per day into totals of rainfall per year. Our system didn't budge and calculated the hydrological response as if a year's worth of rain had fallen on January first. Oops.

For this "what if" research we will revisit my mistake in a more controlled way and do the calculation properly. We study (and visualize on what-if.ewatercycle.org) what would happen if every place on earth would receive a year's worth of rain on a single day, every year, on the same day. What if every place on earth suddenly had a 1-day rainy season and a 355-day dry season?