When the 10,000th observation was submitted to Mountain Rain or Snow on the morning of March 15th, wet snow was falling on much of the Sierra Nevada. The National Weather Service was predicting slick mountain passes and possible delays due to rain for commuters in the city, but Mountain Rain or Snow observers were eager to share real-time updates of precipitation. What is falling from the sky right now? This season (since November 2021), nearly 1,800 weather spotters have signed up to help answer this question. Their dedication and curiosity has resulted in 10,000 observations of rain, snow, and mixed precipitation in just four and a half months.

Mountain Rain or Snow is a NASA-supported citizen science project that aims to improve estimates of the rain-snow transition. We rely on accurate estimates of precipitation across the winter season for snowpack water storage, avalanche forecasting, flood predictions, and more.

But an inch of snow differs a lot from an inch of rain, and correctly identifying a precipitation phase (is it snowing, raining, or mixed?) isn't as easy as adding a 32°F threshold to weather models and radar algorithms. The best way to improve estimates of the rain-snow transition is to ground-truth these observations across diverse hydroclimatic regions throughout the winter season.

Our team at Mountain Rain or Snow would like to share a monumental THANK YOU to all of the citizen scientists who have helped us reach our 10,000th observation. To join the project, find the keyword for the region nearest you, and text it to 855-909-0798: Northeast: NorEaster Colorado: CORainSnow California/Nevada: WINTER Oregon: OregonRainorSnow. To participate without text alerts, simply navigate to rainorsnow.app in your phone’s browser.

More information: rainorsnow.org/home

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