MEET DIZZY THE DISDROMETER:

Creating a Character and Telling His Story Using ESRI Story Maps to Increase Use of Global Precipitation Measurement Ground Validation Precipitation Data

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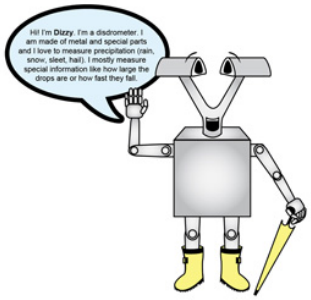
WHO IS DIZZY?

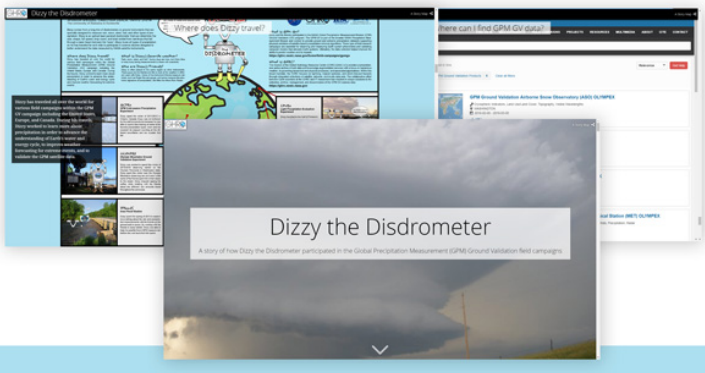
Dizzy comes from a long line of disdrometers that are specially designed to measure precipitation, such as rain, snow, sleet, and hail, at the Earth's surface. Dizzy is an optical laser particle size and velocity (parsivel) disdrometer that can determine the size, shape, fall speed, drop count, and total rainfall from raindrops that fall through a laser beam between his "eyes". Dizzy loves all types of precipitation so he has traveled far and wide to participate in numerous scientific studies designed to better understand the data measured by NASA satellite instruments.



Dizzy often works alongside many other instruments that each collect different information about precipitation falling over the same area. These combined measurements from Dizzy and his many instrument friends over the same location help scientists validate NASA satellite instrument data and determine if the sensors and algorithms are providing correct precipitation values.

WHAT IS A STORY MAP?

A story map is an easy way to harness the power of maps to tell a story by combining authoritative maps with images, multimedia content, and narrative text. This story map is a fun and interactive way to learn about the disdrometer instrument, the GPM Ground Validation project, GHRC, the different field campaigns performed during the project, and where the reader can find these data.



Dizzy the Disdrometer Story Map
http://bit.ly/2GD8MOM

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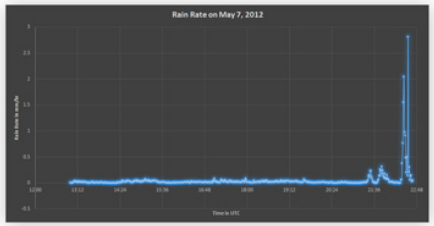
WHAT IS GPM GV?

Dizzy and his instrument friends participated in the NASA GPM Ground Validation (GV) program. GPM GV is part of the GPM mission and both work within the broader umbrella of NASA's Precipitation Measurement Mission (PMM). GPM GV worked to provide ground and airborne precipitation datasets supporting physical validation of satellite-based precipitation retrieval algorithms. Data from field campaigns help improve the ability to predict weather and its impacts. A field campaign is an observational study planned for a specific location at a defined time period during which measurements are conducted from airborne platforms and/or ground sites to study physical or chemical processes in the atmosphere. These field campaigns are essential for observing and measuring Earth system phenomena and validating computer models that simulate Earth systems.

WHERE CAN I FIND GPM GV DATA?

These GPM GV data can be found at the NASA Global Hydrology Resource Center (GHRC) Distributed Active Archive Center (DAAC). The NASA GHRC DAAC archives all of this information to ensure scientists around the world can discover and use these data. GHRC also provides a comprehensive active archive of both data and knowledge augmentation services with a focus on hazardous weather, its governing dynamical and physical processes, and associated applications with a focus on lightning, tropical cyclones, and storm-induced hazards.

You can find GPM GV data by going to the NASA GHRC's HyDRO 2.0. HyDRO 2.0 is a data search tool that can help you locate and obtain GHRC data. It was made to be user friendly, concise, and easy to use. This graph is an example of what the plotted ASCII disdrometer data will look like.
https://ghrc.nsstc.nasa.gov/hydro/



WHERE HAS DIZZY TRAVELED?

Dizzy has traveled all over the world for various field campaigns within the GPM GV campaign including the United States, Europe, and Canada. During his travels, Dizzy worked to learn more about precipitation in order to advance the understanding of Earth's water and energy cycle, to improve weather forecasting for extreme events, and to validate the GPM satellite data.