CoCoRaHS Puerto Rico
June 2023 | Newsletter Vol. 1

69 ACTIVE STATIONS

CoCoRaHS Puerto Rico

WFO San Juan

Meet Our Observers

Rain Gauge

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Long-term Stations

Photo Contest

Page 2

With over 1,000 CoCoRaHS Observations

Best CoCoRaHS PR Photo Contest

Page 6

AND MORE...!

FRIENDLY REMINDERS

HOW TO REGISTER, INSTALL, AND MORE!

Step by Step Guide

YouTube Video
Recognizing our Long-term Stations

With over 1,000 CoCoRaHS Observations

<table>
<thead>
<tr>
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A giant round of applause!! 👏
A history of the rain gauge

When you look at a rain gauge, do you really appreciate the thought that it has been used in meteorology for over 160 years to measure precipitation? The rain gauge has been an essential tool for understanding weather patterns and climate change over the years.

Originally invented in the 17th century, the rain gauge was used to measure rainfall in agricultural contexts. It was called a “tippling bucket” and consisted of a bucket with a downward slope, which collected rainwater when it rained. The bucket would then release the water into a container below, allowing for measurement.

In the 19th century, rain gauges became more standardized, with improvements made to increase accuracy and reliability. Today, rain gauges are still used in meteorology, and their design has evolved to include features for monitoring specific types of precipitation, such as snowfall.

CoCoRaHS celebrates 25 years during 2023

CoCoRaHS officially began on June 17, 1998. With a few observers along Colorado’s Front Range, we had no idea that the network would become what it is today, with over 25,000 active observers in the United States, Canada, Puerto Rico, the U.S. Virgin Islands, Guam and the Bahamas.

Did You Know?

Select image to read about the history of the rain gauge.

THE HISTORY OF RAIN MEASUREMENT

The idea of using a device to measure rainfall was first proposed in the 18th century, although the first recorded use of a rain gauge dates back to 1628. The basic design of the rain gauge has remained largely unchanged since then.

In the late 18th century, James Bowie developed a more accurate rain gauge, which consisted of a metal bowl with a outlet to collect rainfall. This design was refined further by other scientists, resulting in the modern rain gauge that we use today.

In 1855, a German meteorologist named Ferdinand Braun developed a rain gauge that used a rotating drum to collect rainfall. This design was later improved upon by others, and today, rain gauges are widely used in meteorology to measure precipitation.

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**Drought Monitor & NWS Climatology**

**Caribbean**

Map released: Thurs. June 15, 2023  
Data valid: June 13, 2023 at 8 a.m. EDT  
Intensity:
- None  
- DO (Drought of Dryness)  
- D1: Moderate Drought  
- D2: Severe Drought  
- D3: Extreme Drought  
- D4: Exceptional Drought  
- No Data

Authors:
United States and Puerto Rico Authors:
- Adam Warren, NOAA/NWS/NCEP/CPC  
- Pacific Islands and Virgin Islands Authors:
  - Richard Hand, NOAA/NWS/NEP/CPC

**Monthly Climate Report**

**HOW?**  
The importance of your data & how it is used.

Puerto Rico needs more observers in the central region and the island of Culebra.  
If you have any family or friends in these areas talk to them about CoCoRaHS.

**Help us Recruit!**

**WHO?**  
Our Superheroes  
As of 06/20/2023  
Puerto Rico has 69 active observers.

**MEET & SEE**

Stations and Observers
During May 2023, we received a visit from Henry Reges, the CoCoRaHS U.S. National Coordinator who was able to experience our island for the first time. He spent his time enthusiastically helping to recruit and retain observers. Henry visited various towns including San Juan, Carolina, Luquillo, Mayagüez, and Jayuya. Among his visits he had the opportunity to go to the EcoExploratorio to provide additional information to the museum and public in general. You can see the Facebook Live here.

Henry and the WFO San Juan staff was able to discuss various aspects about our initiative to recruit and retain volunteers. The knowledge and ideas he shared will be a great advantage for CoCoRaHS Puerto Rico.
Best CoCoRaHS PR Photo Contest

Precipitation

THE TOP 3 CONTESTANTS

Surface Irrigation
PR-BY-1

The Future of Observers
PR-SJ-17

Storm Watcher
PR-JD-2

Congratulations & Thank you for sharing!
Top 3 contestants will be receiving a token of our appreciation.
Greetings from CoCoRaHS headquarters located at Colorado State University in Fort Collins, Colorado. We are so happy to have you as part of our rainfall observing team. Your observations make a difference not only to the National Weather Service, but to so many other users of your data. Recently, I visited Puerto Rico and was amazed by its beauty as well as the friendliness of the people there. So many were very kind and extremely helpful. I can see why you live where you do. One thing I also noticed was the amazing variability of precipitation from passing showers, where it would be wet on one side of the road and dry on the other. Isn’t that the way in the tropics! And that’s why we need and appreciate you so much to capture that variability and help fill in the precipitation observing gaps over the commonwealth. The more observers we have on the island the better the picture of what fell where and how much fell from the sky above (feel free to recruit a family member or friend). The longer you participate and observe the better handle we have on the spacial variation of precipitation there.

There are two other requests I have to ask you. 1) if you see unusually heavy rainfall falling, please file a “significant weather report” (https://cocorahs.org/Admin/MyDataEntry/IntensePrecipReport.aspx) in real-time. These go directly to the National Weather Service and provide life-saving information that could lead to the issuance of “flash flood warnings” to those in danger; 2) if once a week you might find five minutes file a “condition report” (https://cocorahs.org/Admin/MyDataEntry/ConditionMonitoringReport.aspx), most likely on the weekend, letting us know what the condition of your surroundings look like . . . are they severely dry, near normal, moderately wet? Let us know if you can. It will help in accessing oncoming drought. https://cocorahs.org/Content.aspx?page=condition

Finally I would like to thank my friends at the National Weather Service (especially Xiomara, Rosalina and Odalys), as well as our new partners at the Puerto Rico Climate Center (Hector Jimenez) at the Univ. of Puerto Rico-Mayaguez for their hospitality shown to me as well as their dedicated service to CoCoRaHS to help make us all better Citizen Scientists.

From Colorado’s Front Range,
Henry
Thanks to each and every one of you for being part of CoCoRaHS Puerto Rico.
Hi CoCoRaHS Observers, I am Ernesto Rodriguez the new Meteorologist-In-Charge of the National Weather Service Weather Forecast Office San Juan. I have seen the importance of rainfall observations since 2008 when my career began in San Juan. Puerto Rico exhibits a range of microclimates due to its geographic location in the northeast Caribbean and topography. As a result, it is important to have a good network of rain gauges to monitor drought, flooding, changes in precipitation patterns as well as long-term trends. Water management is also crucial for the people in Puerto Rico, as it affects agriculture, irrigation, and drinking water consumption. All in all, the information that COCORAHRS observers collect will help in many areas of planning, monitoring, and long-term climate change studies. Therefore, we all recognize the value of your effort as citizen scientists to provide the critical data needed for the sustainability and resiliency of our islands in the northeast Caribbean region. Thank you!