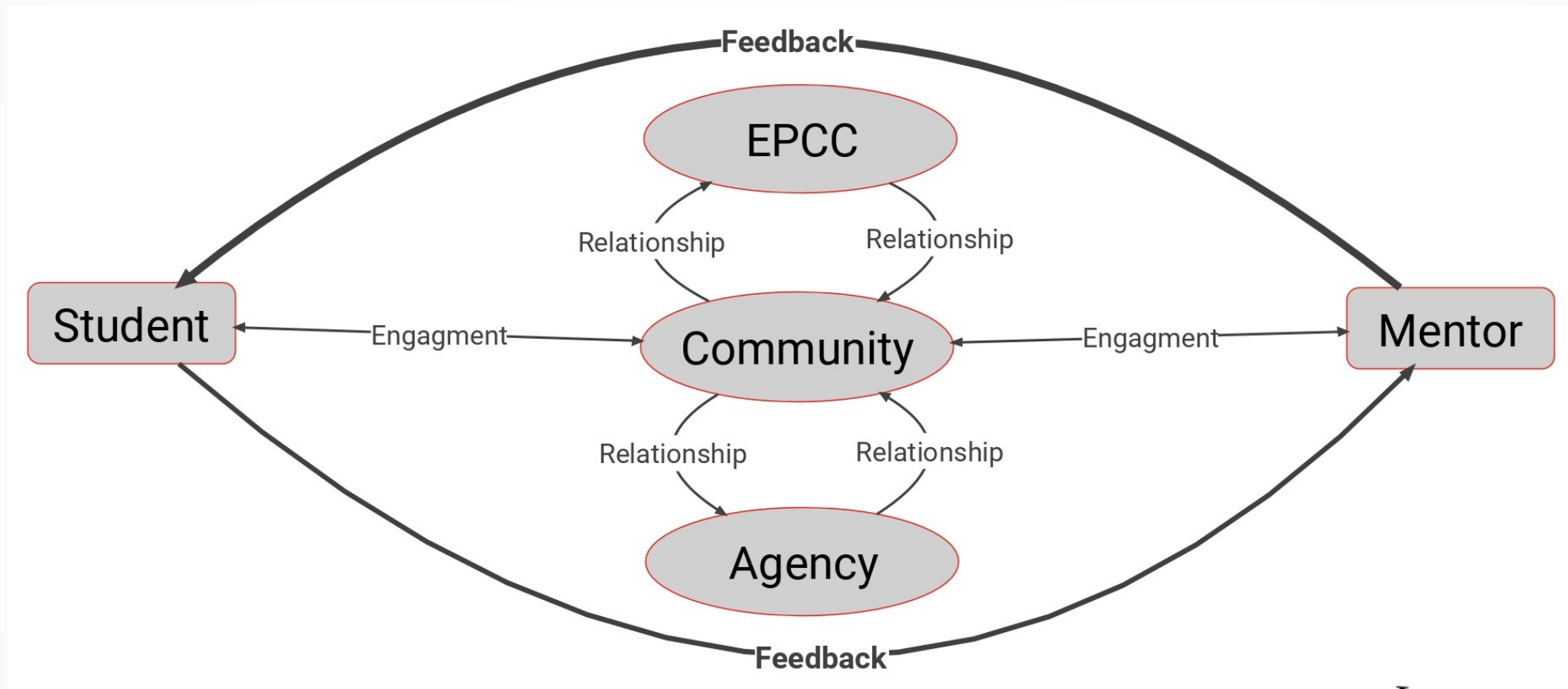


Service learning and dust storm data collection through the GLOBE Observer app

In collaboration with



(EPCC) Service Learning Program



The Service Learning Program at El Paso Community College encourages civic responsibility among students through community service.



Works and Collaborations



ED32A-06 - EXPLORING STEAM THROUGH SERVICE LEARNING AND CITIZEN SCIENCE ACTIVITIES: ENHANCING EDUCATION/PUBLIC OUTREACH IN THE INTERNATIONAL COMMUNITY AT EL PASO COMMUNITY COLLEGE AND THE UNIVERSITY OF TEXAS AT EL PASO

Wednesday, 11 December 2019

11:10 - 11:20

Moscone South - 215, L2

Swirl Topics

Ethics, Diversity and Inclusion Field Guide - Track

Science & Society - SWIRL



Link to abstract



GLOBE At EPCC

Global Learning & Observations to Benefit the Environment (GLOBE) Program

El Paso Community College (EPCC) –
Official GLOBE Partner since April 2019



Sponsored by



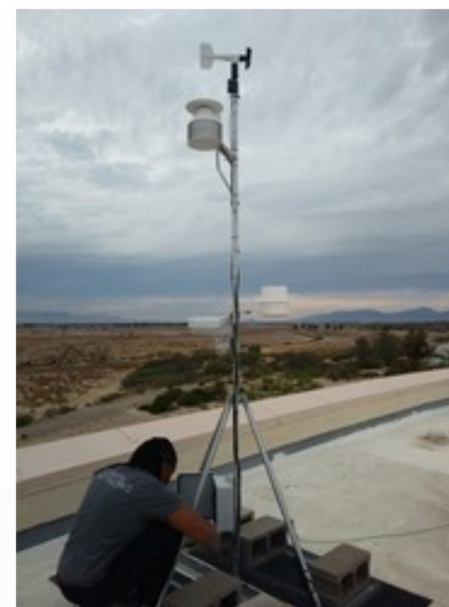
Supported by:



Implemented by

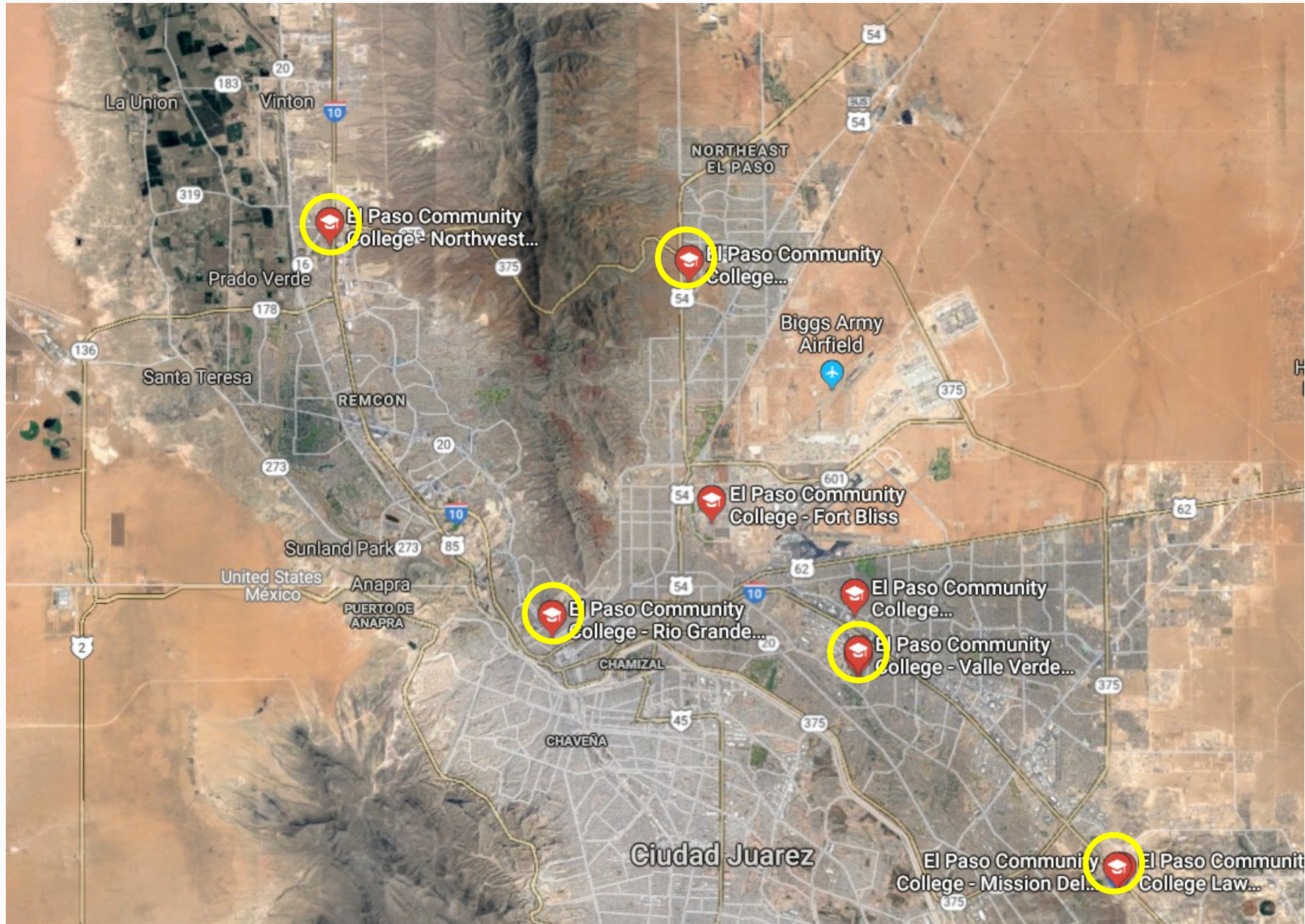


Cloud observations
November 2019



GLOBE Program –
Weather Station
Network (Spring 2020)

Weather Station Locations



Dust Storm Ground Observations



**SEE A DUST STORM?
SUBMIT YOUR PHOTOS
WITH GLOBE OBSERVER.**

 Download on the
App Store

 GET IT ON
Google Play







Find lessons, activities, and more:
[www.globe.gov/web/s-cool/home/
new-dust-observations](http://www.globe.gov/web/s-cool/home/new-dust-observations)

Dust observations made easy

1 Download the **GLOBE Observer app**. Select Clouds and start a new observation.

2 Select **OBSCURED**. (Clouds or contrails more than 25% hidden from view)

3 Select **DUST**. Tap continue and report ground conditions.

4 Select **ADD PICTURES MANUALLY**.

5 Tap on the camera icon to take photos. Point your camera straight at the horizon.

6 Send your observations when a cellular or WiFi signal is available.

Safety First! Protect yourself from dust. Observe from inside a building or car. Pull over, if needed.

Learn more at observer.globe.gov/dust

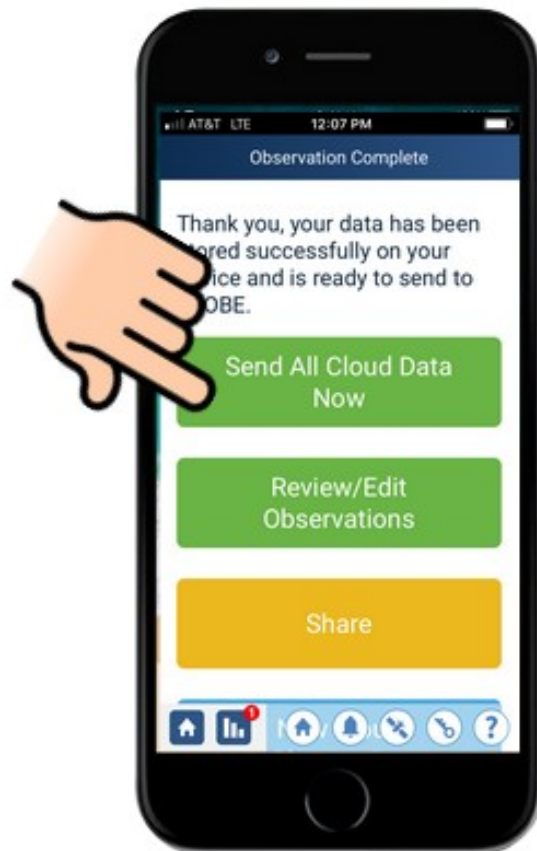


bit.ly/2S2PNnw

Data Processing

What happens to the data?

1. Send

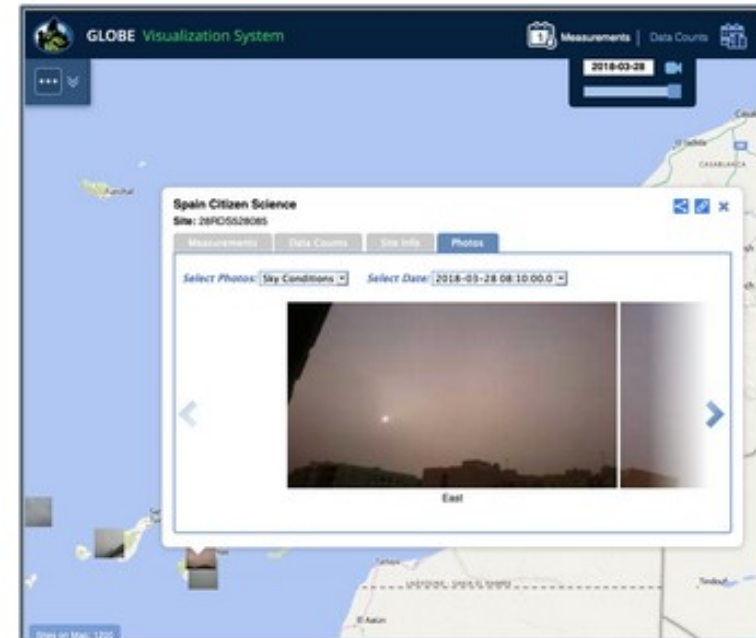


2. Photo Approval



Kristen Weaver, NASA

3. Data goes live



App users reporting dust worldwide



Collaborations and Community Engagement

- Dust Observations
 - GLOBE Observer
 - Additional collaborations:
- Sponsor weather workshops

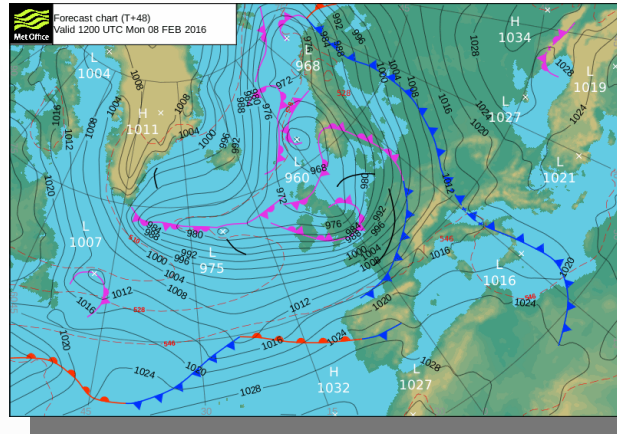


- Engage student participation in STEM/STEAM
- Promote citizen science within the international community
- Advance service learning opportunities
- Curriculum advancement (i.e. physics, geology, chemistry)

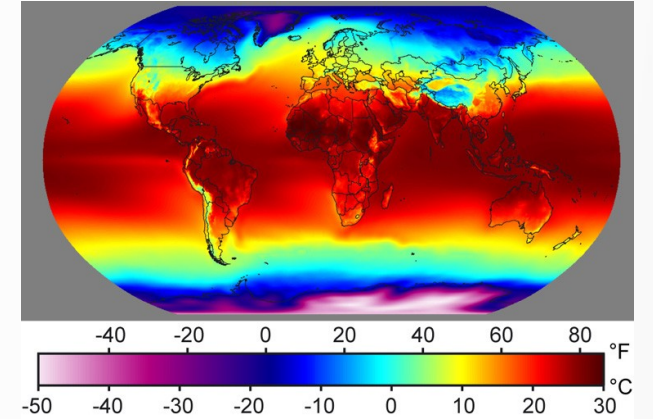
GLOBE Protocols



Clouds

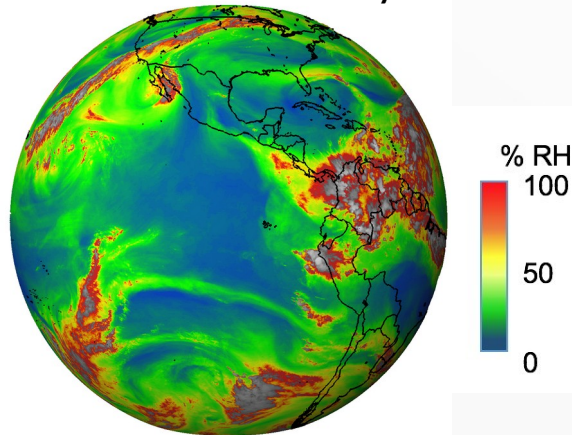


Barometric Pressure



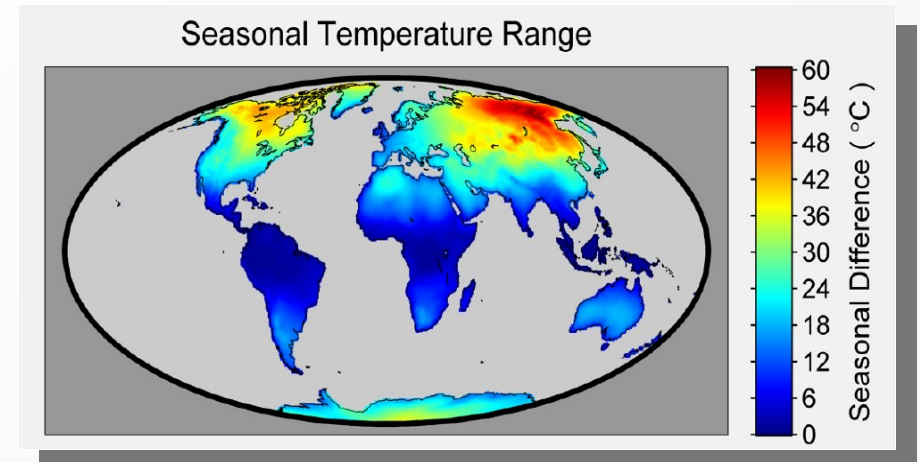
Surface Temperature

Relative Humidity



Relative humidity found in our atmosphere, as observed by satellites of the *GOES project*. The gray and white regions are clouds. *Image: NOAA*

Air Temperature





Thank You
Questions/Comments



Special Thanks to:

Tom Gill (UTEP), Helen Amos (NASA GLOBE), Marilé Colón Robles (NASA GLOBE), Daniel Tong (George Mason U/NOAA), and Kerstin Schepanski (TROPOS)