





# Continuation of Service Learning with NASA's GLOBE Observer on Dust Monitoring of the Chihuahuan desert

In collaboration with











### GLOBE at EPCC

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

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

Incorporation of GLOBE Observer in the remote/virtual curriculum (Physical Science/Astronomy) and service learning activities



Cloud observations November 2019













Implemented by









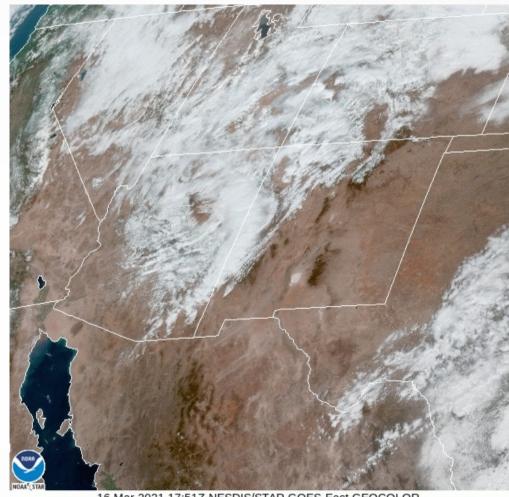
Analysis of Dust Storms - Introduction into curriculum

March 16, 2021 Dust Storm Survey

Used the online New Mexico Department of Transportation Situational Awareness Display to study dust emissions.



Incorporation of online resources and GLOBE Observer app protocol *Clouds* allows students and citizen scientists learn more about dust storms in our area.

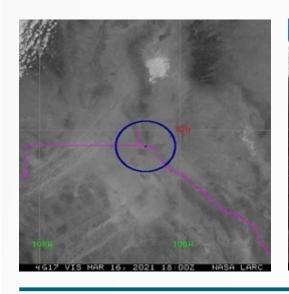


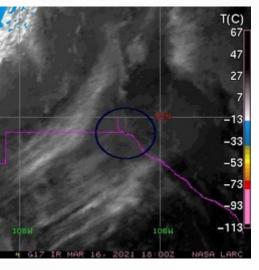
16 Mar 2021 17:51Z NESDIS/STAR GOES-East GEOCOLOR

ArcGIS Dashboard for Dust: snapshot of dust storm on March 16, 2021

### Analysis of March 16<sup>th</sup> Dust Storms

#### 03/16/2021, 12:03 MST

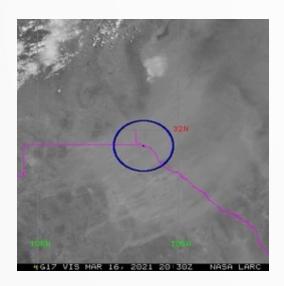








VIR IR North South



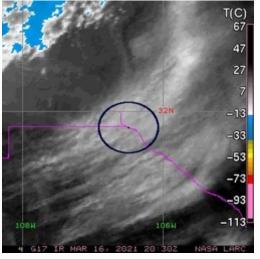


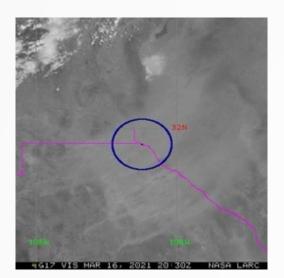


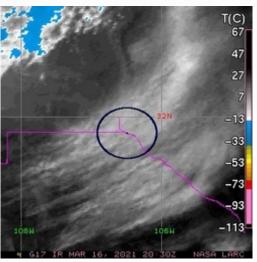


Photo credit: NASA GLOBE

03/16/2021, 14:33MST

#### Physical science applications





Applications in Electromagnetic Radiation





Mars

El Paso (UTEP)

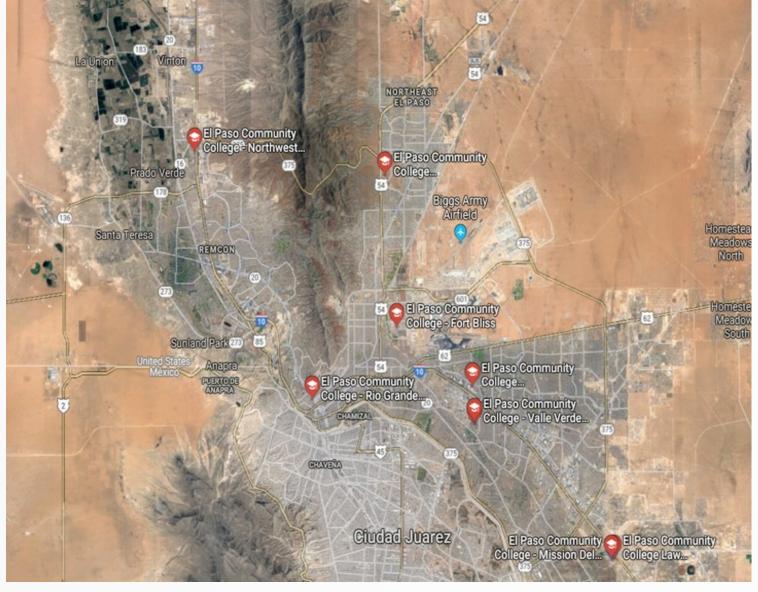
#### **Planetary Science**



**Environmental Science** 

Photo credit: NASA GLOBE

#### GLOBE Program – Weather Station Network





**El Paso Community College - Valle Verde Campus** 

## Future work



### 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



#### **Swirl Topics**

Ethics, Diversity and Inclusion Field Guide - Track Science & Society - SWIRL



Link to abstract





Thank You



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