

dustalliance.org

dustalliance.na@gmail.com

# A DUST ALLIANCE for NORTH AMERICA (DANA)



Presented by Tom Gill, UTEP  
on behalf of the Organizing Committee  
William Sprigg♦- Daniel Tong  
Karin Ardon♦Dryer – Ling Ren  
Scott Van Pelt♦ Junran Li  
Jenny Hand

# What is DANA?

The *Dust Alliance for North America (DANA)* is a new organization formed as a partnership of scientists and practitioners with the purpose to accelerate the transition of dust-related research into service.



(Logo Design: Ashley Gillette)

With a focus on North America, *DANA's mission is to inspire, support, and promote global science and service collaboration to uncover and adapt knowledge of airborne dust particulates to mitigate health, safety, and quality of life risks.*



(Logo Design: Ashley Gillette)

The Dust Alliance of North America is now growing, and will hold critical collaborations together while promoting new ones; improve access to tools and information resources; and help transfer research results into public service more efficiently.

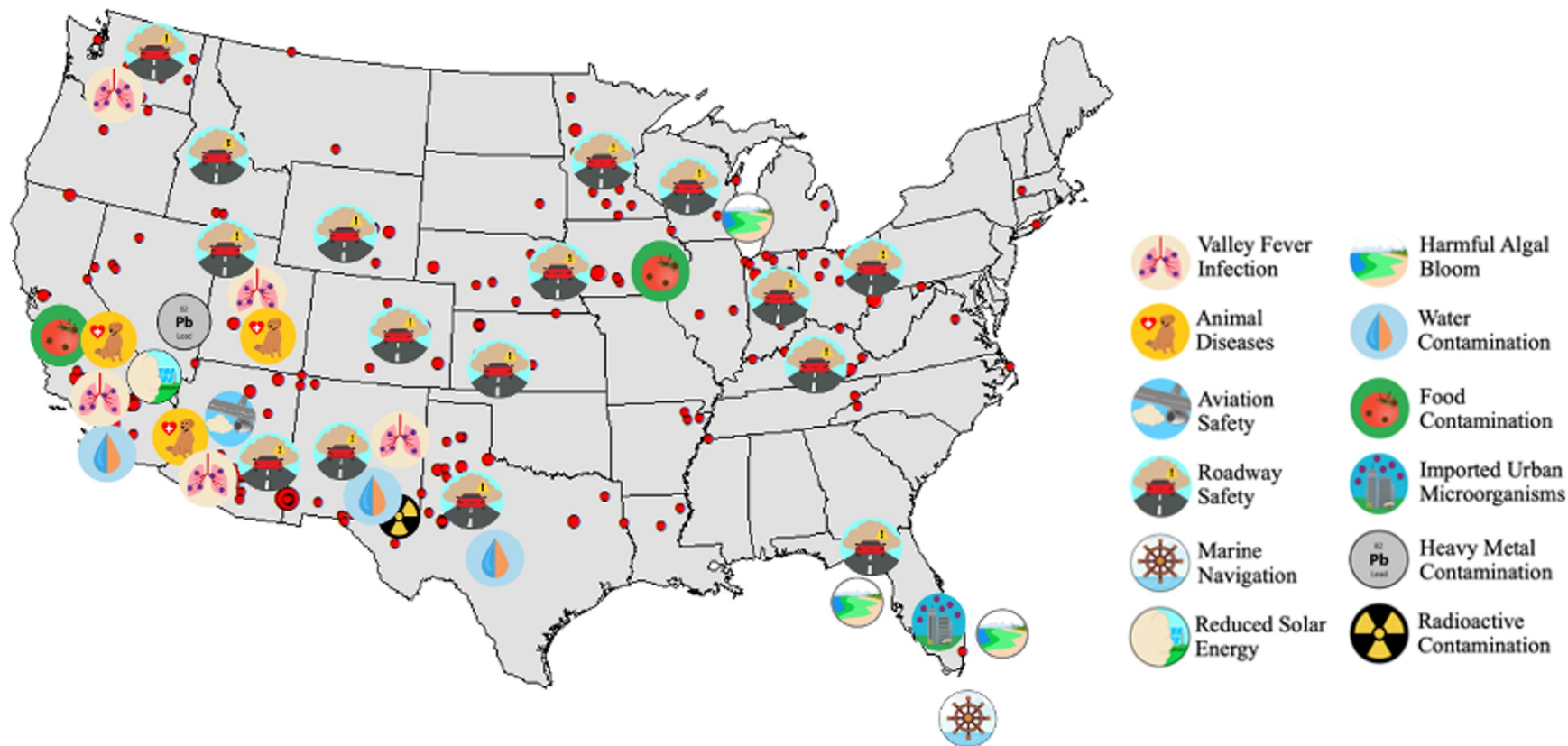


(Logo Design: Ashley Gillette)



# Dust Effects on Health and Safety in the US

A Joint Review by NASA Dust Team and WMO SDS-WAS Pan-American Center



# Why DANA?

Over the years through workshops like this one we have learned how important dust's impacts are, especially in Western North America, for

- Air quality management;
- Public health;
- Transportation;
- Renewable energy;
- Agricultural and food security;
- Real estate;
- Hydrology/snowpack/water supply and quality;
- Ecosystems;
- Visibility;
- And more...



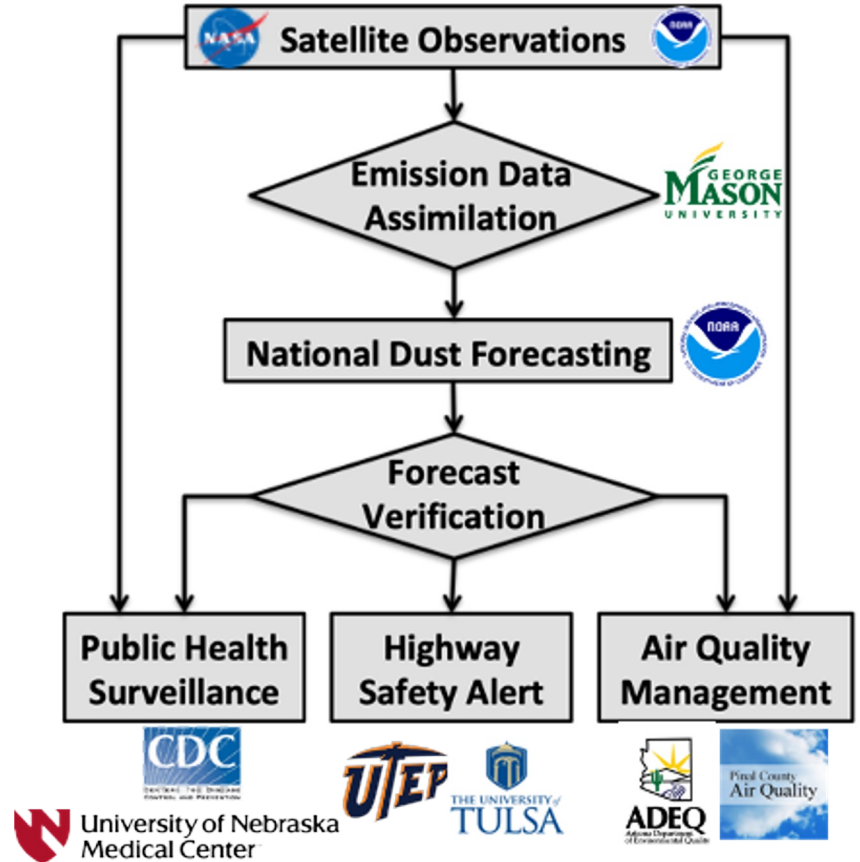
## Windblown Dust

*Dust in the air, or particulate matter, is a type of air pollution that can be created when winds are at high speeds.*



The U.S. Environmental Protection Agency sets standards for particulate pollution, and the New Mexico Environment Department is responsible for monitoring and enforcing those standards. When winds are sufficiently high and dust storms exist, dust in the air can become a serious health concern and safety issue. From the links below, you can learn about sources of windblown dust, health and safety concerns from dust, solutions to keep dust down, and some special cases in New Mexico where dust concentrations have been exceptionally high.

# NASA Health and Air Quality Science Team Dust research project



# 2021 Southern New Mexico and Western U.S.

## Dust Symposium

189 Registered Participants



### SOUTHERN NM & WESTERN U.S. DUST SYMPOSIUM

October 25 – 27, 2021  
Las Cruces, NM

The purpose of this symposium is to ultimately answer one question: “Are opportunities to apply dust research being missed?” Federal, state, and local agencies create policies for clean and healthy air, which benefit from both national and international research. However, difficulties arise in translating research results into policy. This symposium will attempt to bridge the gap between research and applications into policy-making that results in tangible public benefits. Topics on the agenda include dust and PM<sub>10</sub> mitigation issues in Southern New Mexico and beyond; dust impacts on environmental quality, transportation safety, and public health; and the state-of-the-science in airborne dust research. This symposium focuses on windblown dust in the southwestern U.S. and North America, but with a global context.

#### THEMES

- Dust research
- Air Quality
- Transportation
- Health

REGISTER TO  
ATTEND OR  
SUBMIT AN  
ABSTRACT:

<https://tinyurl.com/dustworkshop>

DEADLINE:  
OCT 1, 2021

HOSTED VIA  
ZOOM

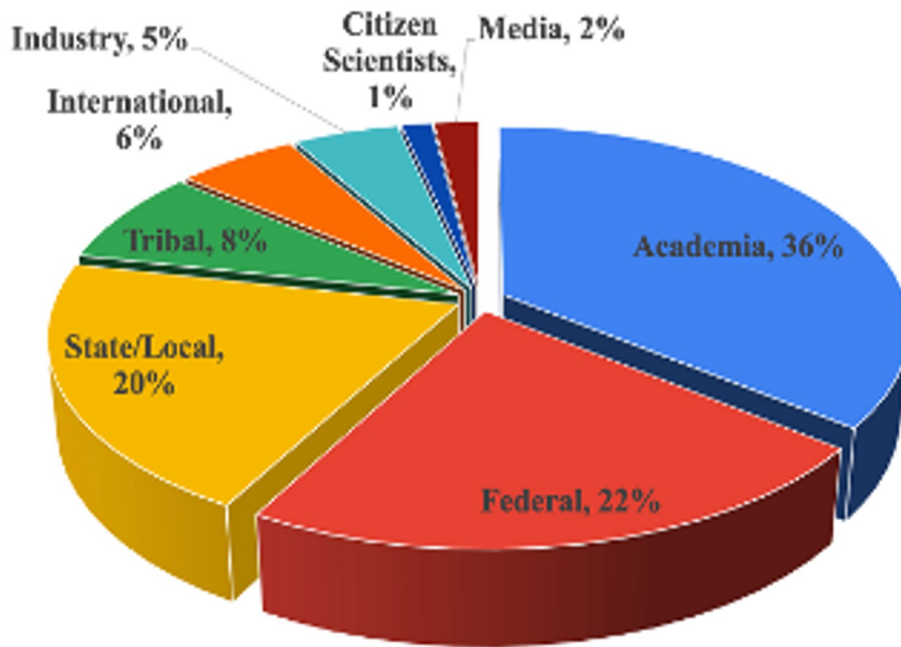
#### CONTACT INFO:

Armando Paz

[armando.paz@state.nm.us](mailto:armando.paz@state.nm.us)

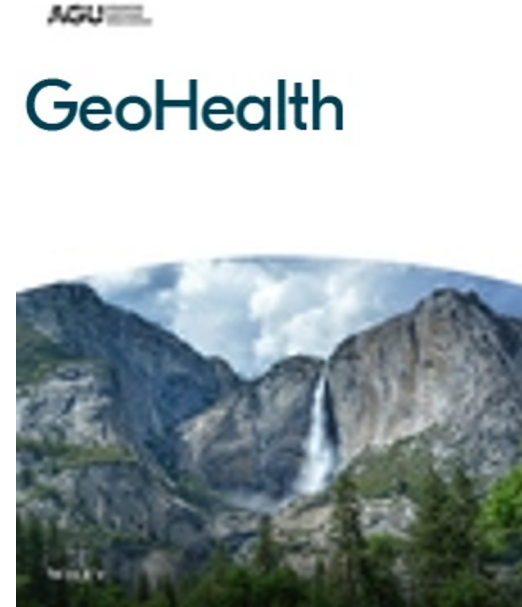
William Sprigg

[wsprigg@msn.com](mailto:wsprigg@msn.com)

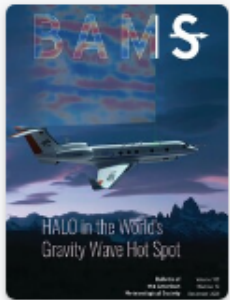




# Call for Scientific Papers



Interested? Email us at [dustalliance.na@gmail.com](mailto:dustalliance.na@gmail.com)



**Bulletin of the American  
Meteorological Society**

Early Online Release

[tinyurl.com/dustpaper](https://tinyurl.com/dustpaper)

## Are Opportunities to Apply Airborne Dust Research Being Missed?

William A. Sprigg<sup>1</sup>, Thomas E. Gill<sup>2</sup>, Daniel Q. Tong<sup>3</sup>, Junran Li<sup>4</sup>, Ling Ren<sup>3</sup>,  
and Robert Scott Van Pelt<sup>5</sup>









<sup>1</sup> Science Policy Consultants and University of Arizona, Tucson, AZ USA | <sup>2</sup> Department of Earth, Environmental and Resource Sciences, University of Texas at El Paso, TX 79968 USA | <sup>3</sup> Department of Atmospheric, Oceanic and Earth Sciences, George Mason University, Fairfax, VA 22030 USA | <sup>4</sup> Department of Geosciences, The University of Tulsa, Tulsa, OK 74104 USA | <sup>5</sup> USDA-ARS Wind Erosion and Water Conservation, Big Spring, TX 79720 USA

Published-online: 16 Mar 2022

DOI: <https://doi.org/10.1175/BAMS-D-22-0034.1>

# DANA Organizing Committee

- Karin Ardon-Dryer, TTU
- Thomas Gill, UT-El Paso
- Jenny Hand, Colorado State
- Jimmy Li, University of Tulsa
- Ling Ren, GMU
- William Sprigg, Univ. Arizona
- Daniel Tong, GMU
- Scott Van Pelt, USDA-ARS
- .....

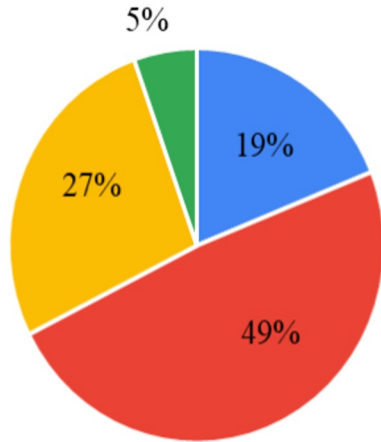
<p>Scott Van Pelt Soil Scientist, USDA-ARS</p>  <p><a href="#">Details</a></p>	<p>Ling Ren Research Assistant Professor, George Mason University</p>  <p><a href="#">Details</a></p>	<p>William A. Sprigg Professor Emeritus, University of Arizona</p>  <p><a href="#">Details</a></p>
<p>Jimmy Li Associate Professor, University of Tulsa</p>  <p><a href="#">Details</a></p>	<p>Daniel Tong Associate Professor, George Mason University</p>  <p><a href="#">Details</a></p>	<p>Jenny Hand Senior Research Scientist, Colorado State University</p>  <p><a href="#">Details</a></p>
<p>Tom Gill Professor, University of Texas, El Paso</p>  <p><a href="#">Details</a></p>	<p>Karin Ardon-Dryer Assistant Professor, Texas Tech University</p>  <p><a href="#">Details</a></p>	

# What Will DANA Do?

1. Website; [dustalliance.org](http://dustalliance.org)
2. Dust workshops;
3. Monthly Webinars;
4. Media/Outreach and social media;
5. Awards and Fellow Selection;
6. Early career support;
7. Training and capability building;
8. Networking
9. Support Other Dust-Related Activities
10. Disseminate Dust-Related News and Event Info

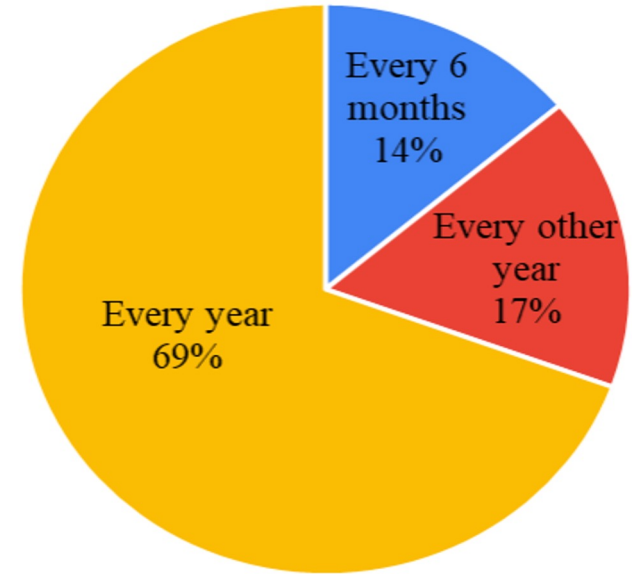
# 2021 Symposium Survey- Preferences for Future Meetings

Would you prefer a virtual, in-person meeting or a mixture for future years?



- In-person
- Mix (1 year virtual, the next year in-person etc.)
- Virtual
- Hybrid (virtual + in-person)

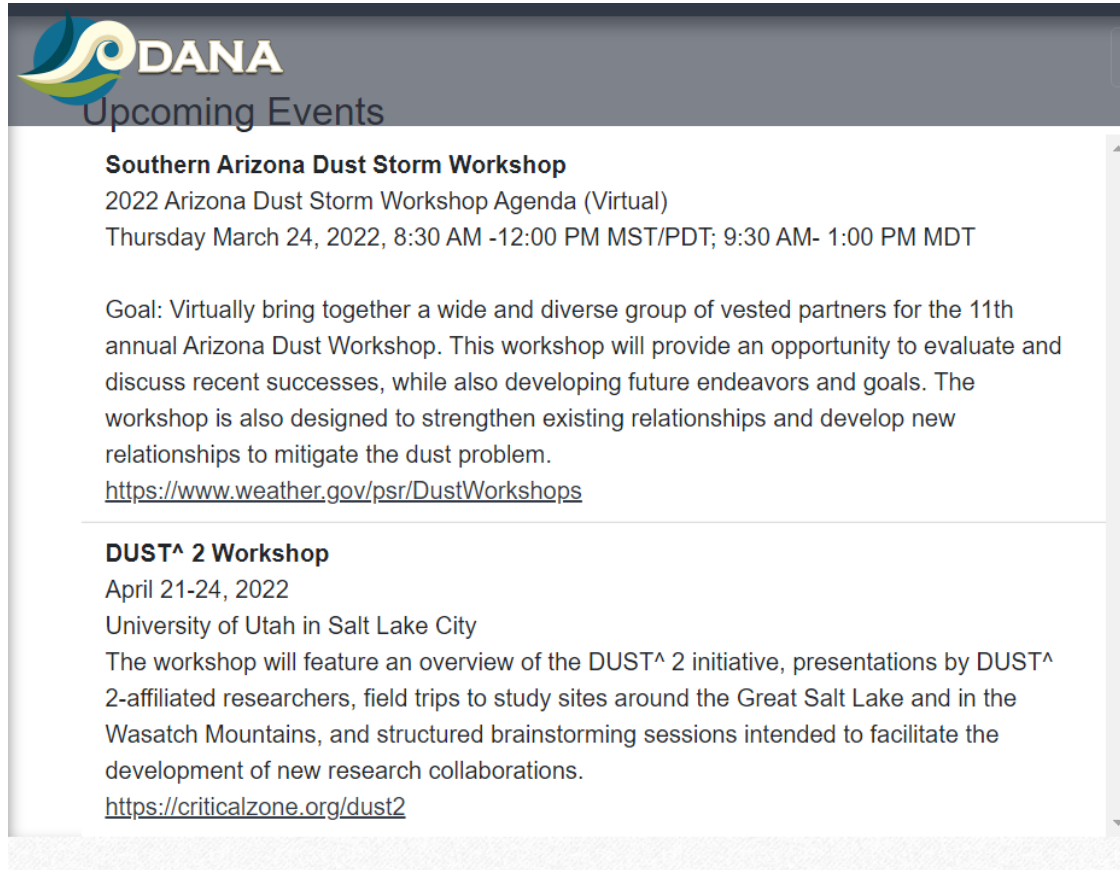
How often do you think such a Symposium should occur?





# DANA- A Hub of Dust Info

1. Support other activities and events in North America as well as relevant international activities;



The screenshot shows the DANA website's 'Upcoming Events' section. At the top left is the DANA logo, which consists of a stylized wave in blue and green next to the word 'DANA' in white. Below the logo is the heading 'Upcoming Events' in a dark grey bar. The first event listed is the 'Southern Arizona Dust Storm Workshop', which is a virtual event on Thursday, March 24, 2022, from 8:30 AM to 1:00 PM MDT. The goal of this workshop is to bring together a diverse group of partners for the 11th annual Arizona Dust Workshop to discuss successes and future goals. A link to the agenda is provided. The second event is the 'DUST^ 2 Workshop', held from April 21-24, 2022, at the University of Utah in Salt Lake City. This workshop features an overview of the DUST^ 2 initiative, presentations by affiliated researchers, field trips to study sites, and brainstorming sessions. A link to the workshop page is also provided.

**DANA**  
Upcoming Events

**Southern Arizona Dust Storm Workshop**  
2022 Arizona Dust Storm Workshop Agenda (Virtual)  
Thursday March 24, 2022, 8:30 AM -12:00 PM MST/PDT; 9:30 AM- 1:00 PM MDT

Goal: Virtually bring together a wide and diverse group of vested partners for the 11th annual Arizona Dust Workshop. This workshop will provide an opportunity to evaluate and discuss recent successes, while also developing future endeavors and goals. The workshop is also designed to strengthen existing relationships and develop new relationships to mitigate the dust problem.  
<https://www.weather.gov/psr/DustWorkshops>

**DUST^ 2 Workshop**  
April 21-24, 2022  
University of Utah in Salt Lake City

The workshop will feature an overview of the DUST^ 2 initiative, presentations by DUST^ 2-affiliated researchers, field trips to study sites around the Great Salt Lake and in the Wasatch Mountains, and structured brainstorming sessions intended to facilitate the development of new research collaborations.  
<https://criticalzone.org/dust2>

# Local/Regional Dust Workshops

Southern AZ

## Dust Storm Workshop

### Dust Storm Workshops

[Weather.gov](#) > [NWS Phoenix](#) > Dust Storm Workshops

NWS Phoenix

Weather Forecast G

[Current Hazards](#) [Current Conditions](#) [Radar](#) [Forecasts](#) [Rivers and Lakes](#) [Climate and Past Weather](#) [Local Programs](#)

### Southern Arizona Dust Storm Workshop

#### 2022 Arizona Dust Storm Workshop Agenda (Virtual)

Goal: Virtually bring together a wide and diverse group of vested partners for the 11th annual Arizona Dust Workshop. This workshop will provide an opportunity to evaluate and discuss recent successes, while also developing future endeavors and goals. The workshop is also designed to strengthen existing relationships and develop new relationships to mitigate the dust problem.

**Date: Thursday, March 24, 2022 - Virtual Workshop**

**Time: 8:30 AM - 12:00 PM MST/PDT; 9:30 AM - 1:00 PM MDT**

*Location: Virtual Workshop*



Grace Watson

*Social Media: Send social media status updates using #azdust22*

Contact: Glenn Lader  
[glenn.e.lader@noaa.gov](mailto:glenn.e.lader@noaa.gov)

Southern NM

## Dust Symposium

### 2022 Southern NM Spring Dust Symposium



© Paz, Armando, NMENV <Armando.Paz@state.nm....

Friday, February 4, 2022 at 6:03 PM

Good Afternoon,

I hope everyone is doing good as it is about that time again! I am excited to announce that the New Mexico Environment Department, Air Quality Bureau, will be hosting the 2022 Spring Dust Symposium via WebEx teleconference, Monday, April 4, 2022 from 9 AM - 3 PM (MST) to continue to bring stakeholders together to present regulations, research, mitigation projects, or any dust related topics of interest to the group. Let's do our part by keeping this topic fresh in the air as we prepare for this year's dust storms approaching us with our record setting dry 2021 Fall, followed by an abnormally wet monsoon and our currently mild winter as La Niña is in full effect.

Please let me know the topic you would like to discuss and what time would be good for you (9:05-9:35; 9:35-9:55; 9:55-10:25; 10:25-10:55; 10:55-11:25; 11:25-11:55; 1:00-1:30; 1:30-2:00; 2:00-2:30; 2:30-3:00), let's keep the presentations to 30 minutes. If you know someone that may be interested in participating, please feel free to pass this message along to them.

Thank you,

Armando Paz  
Environmental Analyst  
New Mexico Environment Department  
Air Quality Bureau – Control Strategies  
2301 Entrada del Sol  
Las Cruces, NM 88001  
(575) 449-2983  
[armando.paz@state.nm.us](mailto:armando.paz@state.nm.us)  
[www.env.nm.gov/air-quality/](http://www.env.nm.gov/air-quality/)  
Twitter: @NMEnvDep | #IamNMED

Contact: Armando Paz  
[Armando.paz@state.nm.gov](mailto:Armando.paz@state.nm.gov)

# Local/Regional Dust-Related Workshops

## Desert Symposium

**REGISTRATION IS OPEN.**

The Desert Symposium at Copper Mountain College (CMC) and field trip:  
April 1-4, 2022: Symposium April 1-2, field trip April 3-4.

Attendees are strongly encouraged to make lodging reservations as soon as possible for the Desert Symposium because of CMC's proximity to Joshua Tree National Park, a popular tourist destination in spring.

The 2022 Desert Symposium:

Theme: Volcanoes in the Mojave

[Cima volcanic field](#) [Pisgah Crater](#) [Lavic Lake volcanic field](#) [Amboy Crater](#)

Eruptions of basalt lava at Cima as recently as 10,000 years ago highlight the ongoing and widespread young volcanic fields of Quaternary and Pliocene age in the Mojave Desert. We plan to visit Cima volcanic field and several others across the desert. Be ready for lava tubes, cinder cones, and maybe even a lucky find of a xenolith from Earth's mantle!

**DEADLINES:**

Feb 1, 2022	Paper and abstract submission
Feb 15, 2022	Reynolds Award Application and letter of recommendation submission
March 1, 2022	Revised paper submission
March 18, 2022	Registration

We are collecting pictures and stories about Bob Reynolds. Please send your photos and memories of Bob to Bruce Bridenbecker.  
[Email Bruce](#)

<https://www.desertsymposium.org/>

Contact: David Miller,  
[dmiller@usgs.gov](mailto:dmiller@usgs.gov)

## Dust<sup>2</sup> Workshop



**WORKSHOP**  
21-24 APRIL 2022

Apply now to participate in a 3-day workshop at the University of Utah in Salt Lake City. The workshop will feature an overview of the DUST<sup>2</sup> initiative, presentations by DUST<sup>2</sup>-affiliated researchers, field trips to study sites around the Great Salt Lake and in the Wasatch Mountains, and structured brainstorming sessions intended to facilitate the development of new research collaborations.

Twitter: @DustSquared

For more information  
<https://criticalzone.org/dust2>



**Funding Available**  
Early career researchers  
encouraged to apply!



**Apply Here**

Questions:  
Jeff Munroe  
[jmunroe@middlebury.edu](mailto:jmunroe@middlebury.edu)

Contact: Greg Carling  
[greg.carling@byu.edu](mailto:greg.carling@byu.edu)

# DANA- A Hub of Dust Info

2. Disseminate new information about dust-related research and services.



## **Dry lakebeds become dustpans**

Researchers from Brigham Young University, with funding from the National Science Foundation, predict the amount of dust in Utah's Wasatch Front is only going to increase as water levels decline, turning lakebeds into dustpans. The team feels the amount of dust blown into urban areas could be lowered by preserving lakes through water conservation, allowing more water to flow into the lakes.

[https://www.nsf.gov/news/mmg/mmg\\_disp.jsp?med\\_id=186217](https://www.nsf.gov/news/mmg/mmg_disp.jsp?med_id=186217)

## **Dust clouds are killing people out West—and the dangers could spread**

A team of scientists takes on the big threats posed by tiny particles out West.

<https://www.popsci.com/environment/dust-clouds-dangerous-air-pollution/>

## **'Larger than life' dust-monitoring facility is one of a kind**

The University of Miami's Barbados Atmospheric Chemistry Observatory documents the levels of Saharan dust particles carried across the Atlantic to the Caribbean Basin.

<https://news.miami.edu/stories/2022/03/larger-than-life-dust-monitoring-facility-is-one-of-a-kind.html>



# DANA Dust Webinar- Free- 2<sup>nd</sup> Friday Monthly

Register for  
the webinar



## Dust Alliance for North America (DANA) Spring 2022 Webinar Series

**DANA is an informal partnership of scientists and practitioners  
with the purpose to accelerate the transition of dust-related  
research into service.**



[dustalliance.org](http://dustalliance.org)

**WHEN:** *Every 2nd Friday @ 1 pm ET (12 pm CT, 11 am MT, 10 am PT)*

The DANA webinar series will highlight different dust-related topics, promote communications and collaborations among members, engage community interests, and enhance public awareness on dust-related challenges under climate change.

**February 11**



DANA Executive  
Committee

**March 11**



Richard Reynolds  
USGS; Institute for Rock Magnetism,  
University of Minnesota

**April 8**



Cassandra Gaston  
Department of Atmospheric Sciences,  
RSMAS, University of Miami

**May 13**



John Haynes  
NASA



Natasha Sadoff  
NASA

Contact Us: [dustalliance.na@gmail.com](mailto:dustalliance.na@gmail.com)



# Next DANA Webinar

## Dust Alliance for North America (DANA) Spring 2022 Webinar series

Register



Friday April 8, 2022  
(1 pm ET, 12 pm CT, 11 am MT, 10 am PT)




### **Cassandra Gaston**

Department of Atmospheric Sciences,  
RSMAS, University of Miami

**Playa Dust Mineralogical Effects on  
Atmospheric Halogens: Connecting Water  
Use Practices to Atmospheric Air Quality**

# DANA HOLDS PROMISE



EFFICIENTLY TRANSFER  
DUST RESEARCH/MONITORING  
ADVANCEMENTS INTO  
PUBLIC SERVICE

- Source characteristics
- Forecasts & simulations
- Standardization of dust measurements

HOLD CRITICAL  
COLLABORATIONS TOGETHER

- Centers of excellence, university labs
- State & Federal services & resources
- International institutions & resources

ENSURE ACCESS TO  
SYSTEMS, TOOLS &  
INFORMATION

- PM monitoring networks
- Models/modeling
- Policy, Service & Science Expertise
- Workshops, seminars, publications
- Help users interpret & understand data

# Looking forward

Outreach and Public Education

Community Recognition: Awards and Fellowships

Training and Capability Building

Organize Citizen Dust Spotter Network and Awareness  
(NASA GLOBE, Dust Photo Competition etc. )

Join DANA for free!

[dustalliance.org](http://dustalliance.org)

**Suggestions, Questions for DANA?**

**[dustalliance.na@gmail.com](mailto:dustalliance.na@gmail.com)**



An aerial photograph of a river delta, showing a central river channel that branches out into a complex network of smaller channels and distributaries. The water is a light brown color, and the surrounding land is a mix of green and brown. The text "Thank You!" is overlaid in the center of the image in a large, black, serif font.

**Thank You!**